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Revision 2A
Volume 1

UC-630,721

2101-M Pond Closure Plan

Date Published
July 1994

United States
Department of Energy
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SEPA ENVIRONMENTAL CHECKLIST FOR THE 2101-M POND INTERIM STATUS CLOSURE PLAN

A. BACKGROUND

1. Name of proposed project:

   Closure of the 2101-M Pond site.

   Information contained in this checklist pertains only to the 2101-M Pond.

   In the context of this document, "site" refers to the physical structure that is the 2101-M Pond, whereas "Site" refers to the Hanford Site.

2. Name of applicants:

   U.S. Department of Energy-Richland Operations Office (DOE-RL) and Westinghouse Hanford Company (Westinghouse Hanford)

3. Address and phone number of applicant and contact person:

   U.S. Department of Energy
   Richland Operations Office
   P.O. Box 550
   Richland, Washington 99352

   Westinghouse Hanford Company
   P.O. Box 1970
   Richland, Washington 99352

   Contact Persons:

   R. D. Izatt, Director
   Environmental Restoration Division
   (509) 376-7277

   R. E. Lerch, Manager
   Environmental Division
   (509) 376-5556

4. Date checklist prepared:

   February 10, 1989

5. Agency requesting the checklist:

   State of Washington
   Department of Ecology
   Mail Stop PV-11
   Olympia, WA 98504

6. Proposed timing or schedule (including phasing, if applicable):

   Initial closure activities have been completed. The 2101-M Pond was closed to disposal of dangerous wastes in July 1985. The pond soil has been sampled to assess the presence of dangerous waste constituents. Ground-water monitoring is currently being conducted to assess the impact of past waste disposal practices at the 2101-M Pond on the uppermost aquifer. Ground-water samples will be taken quarterly through May 1989. Samples will, thereafter, be collected

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on a semiannual basis until final closure has been certified. Upon approval of the 2101-M Pond Closure Plan, it is anticipated that final closure will be completed within 180 days.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

   The 2101-M Pond will remain open to disposal of nondangerous waste water from the 2101-M Building and the adjacent rainwater run-off ditch.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

   - This SEPA Checklist is being submitted to the State of Washington, Department of Ecology (Ecology) concurrently with revision 1 of the Interim Status Closure Plan for the 2101-M Pond.

   - A revised Part "A" permit application was submitted in August 1987, and again in November 1987 to Ecology, under identification number WA890008967.

   - An environmental evaluation similar to this SEPA Checklist may be prepared for DOE-RL and Westinghouse Hanford internal documentation purposes.

9. Do you know whether applications are pending for government approvals of other proposals directly affecting property covered by your proposal? If yes, explain.

   No other applications to government agencies are pending approval.

10. List any government approvals or permits that will be needed for your proposal, if known.

    Ecology and the U.S. Environmental Protection Agency (EPA) are the only agencies authorized to approve or permit final closure of the facility under requirements authorized by the Resource Conservation and Recovery Act of 1976 (RCRA), the Hazardous and Solid Waste Amendments of 1984 (HSWA), and Chapter 173-303-400 of the Washington Administrative Code. No other permits are known to be required at this time.

11. Give a brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page.

    Closure of the 2101-M Pond as a Resource Conservation and Recovery Act (RCRA) site involves:

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- Pond soil sampling. This activity has been completed. Analysis to date of the samples has demonstrated that concentrations of organic and inorganic constituents (waste residue) present in the pond soil do not represent a threat to human health or the environment.

- Ground-water monitoring. This activity is currently being conducted to assess the impact of past waste disposal practices at the 2101-M Pond on the uppermost aquifer.

  - Ground-water samples will be taken quarterly through May 1989.

  - After May 1989, samples will be collected on a semiannual basis until final closure has been certified.

- Submission of Certification of Closure to Ecology.

  - This certification will be signed by DOE-RL and an independent professional engineer registered in the State of Washington. The certification states that the pond has been closed in accordance with the approved closure plan.

The proposed future uses of the site are described in the answer to question A.7, above.

The size of the project is described in the answers to questions A.12 and B.8.c., below.

12. Give the location of the proposal. Give sufficient information for a person to understand the precise location of the proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

    The 2101-M Pond is located in the NW 1/4 of Section 10, T12N, R26E in the 200 East Area of the Hanford Site, adjacent to the 2101-M Building. The site is bordered by 2nd Street to the south and Ames Ave. to the west. Maps and plans of the site are located in the closure plan submitted with this checklist.

B. ENVIRONMENTAL ELEMENTS

1. <u>Earth</u>

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a. General description of the site (circle one): Flat, rolling, hilly, steep slopes, mountainous, other.

Flat.

b. What is the steepest slope on the site (approximate percent slope)?

The approximate slope of the land around the 2101-M Pond is less than 2%.

c. What general types of soils are found on the site? If you know the classification of agricultural soils, specify them and note any prime farmland.

The general soil types found around the 2101-M Pond consist of eolian silt and fine sands overlying glaciofluvial sands with some silt and gravel. The soil becomes gravelly at approximately 350 feet to basalt bedrock at about 500 feet. No farming is permitted on the Hanford Site.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

No.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate the source of the fill.

No filling or grading is proposed for this site.

f. Could erosion occur as a result of clearing, construction, or use? If so, describe.

There is the possibility of some erosion due to wind. Three strips of land were bladed during pond soil sampling activities. Those strips are approximately 180 x 30 feet, 40 x 60 feet, and 120 x 30 feet. These strips were covered primarily by cheatgrass and tumbleweeds and are, therefore, being allowed to revegetate themselves naturally since the completion of sampling activities. (These are previously disturbed areas. In the years of use since the construction of the pond, sagebrush has given way to cheatgrass and tumbleweed.)

Reducing, to some degree, the erosion impact during the re-vegetation process is a natural wind break of trees and brush protecting the largest bladed strip on both sides of its length. The remaining two bladed areas are surrounded by sagebrush and cheatgrass.

g. Approximately what percentage of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

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None.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if there are any?

None.

2. Air

a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

Minor amounts of exhaust will be generated by vehicles used to gain access to the site for ground-water sampling. (For a detailed description of ground-water sampling activities please see the answer to question B.3.b.1, below.)

b. Are there any off-site sources of emissions or odors that may affect your proposal? If so, generally describe.

No.

c. Proposed measures to reduce or control emissions or other impacts to the air, if any?

Does not apply.

3. Water

a. Surface:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

No.

2) Will the project require any work over, in, or adjacent to (within 200 feet of) the described waters? If yes, please describe and attach available plans.

No.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

None.

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4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

No.

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

No.

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

No.

b. Ground:

1) Will ground-water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities, if known.

During the first year, ground-water will be withdrawn from 4 sampling wells on a quarterly basis, to obtain ground water samples and data necessary to comply with state and federal ground-water monitoring requirements. During the second year, ground water will be withdrawn on a semiannual basis. If monitoring is required after the second year, it will be as proscribed by state and federal requirements.

Ground-water quality data from samples upgradient of the facility are compared to samples downgradient of the facility to determine whether contaminants are present in the ground-water and, if present, their concentration and distribution and whether they originated from disposal of hazardous wastes in the 2101-M Pond.

Prior to sample collection, wells are purged per the sample collection procedure corresponding to the type of pump installed in the well. The purge time is calculated based on the volume of water within the well and the pump discharge rate. A minimum of three borehole volumes of water are removed (purged) from each well to ensure collection of a representative sample of the water in the aquifer. The volume of ground-water withdrawn for purging and sampling depends on the conditions encountered and the needs at each well. However, withdrawals generally do not exceed 850 gallons per monitoring well, per quarter, and will not exceed 5,000 gallons per day.

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Because the 2101-M Pond is an unlined body of water, pond water will migrate to ground-water. Travel time for pond surface water to ground-water has not been determined. It is, therefore, not known how long pond water will take to migrate to ground-water.

2) Describe waste materials that will be discharged into the ground from septic waste tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals...; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

Discharges to the 2101-M Pond are comprised of nondangerous waste water from the heating, ventilation, and air-conditioning (HVAC) system for the 2101-M Building and from certain sinks in the central and south wings of that building, as well as seasonal overflow from the adjacent rainwater run-off ditch servicing the 2101-M Building parking lot.

There is no metering on the discharge lines from the cooling system (primarily "swamp coolers"); hence, no data are available regarding waste water discharged from that system to the 2101-M Pond. There is, however, metering on the steam lines of the heating system. Condensate from those lines is discharged to the 2101-M Pond at an average rate of 1,224,600 gallons per year.

Waste water from sinks in the 2101-M Building is projected to be of an insignificant volume compared to that discharged from the HVAC system. There are 41 drains (sinks, hoods, and eyewash stations) in the building that discharge to the 2101-M Pond. A number of those are to be removed. Additionally, those sinks dedicated to laboratory waste will be subject to physical and administrative controls.

To control corrosion of the piping and ducting through which the steam of the heating system flows, a filming corrosion inhibitor containing straight chain primary amines is added to the steam at a concentration of approximately 14 p/m. The material safety data sheet for the product states that it is not hazardous. To control organic growth in the water supplied to the "swamp coolers," trichloro-s-triazinetrione, a microbicide, EPA Registration No. 4643-47, is added in tablet form. It is administered to the system in keeping with the instructions governing its use such that it is not considered a hazardous waste.

c. Water Run-off (including storm water):

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1) Describe the source of run-off (including storm water) and methods of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Run-off water is not anticipated from the 2101-M Pond. This projection is based on:

- The relationship between the depth of the pond (3 to 9 feet) and the normal standing water level in the pond (less than 1 foot).
- The fact that the Hanford Site is located in a low rainfall area and the sandy soil around the pond allows for rapid percolation of that rainwater.

2) Could waste materials enter ground or surface waters? If so, generally describe.

As stated in the answer to question B.3.c.1, above, no run-off water is anticipated from the 2101-M Pond. However, as stated in the answer to question A.7 above, the 2101-M Pond will remain open to overflow from the adjacent nondangerous rainwater run-off collection ditch. Hence, it may be possible for rainwater run-off to enter groundwater via the 2101-M Pond.

d) Proposed measures to reduce or control surface, ground, and run-off water impacts, if any:

None. (Please see the answer to question B.3.c.1.)

4. Plants

a. Check the types of vegetation found on site:

___ deciduous trees
___ evergreen trees
___ shrubs
___ grass
___ pasture
___ crop or grain
___ wet soil plants
___ water plants

The water of the pond is overgrown with horsetail, cattails, and sedges. Small trees, primarily black cottonwood, peach leaf, sandbar willow, Russian olive, and Rocky Mountain Juniper, dominate the banks.

Information concerning the general Hanford Site environment can be found in the U.S. Department of Energy, 1987, Final Environmental Impact Statement - Disposal of Hanford Defense High-Level, Transuranic and Tank Wastes, DOE/EIS-0113, Richland, Washington and the Energy Research and Development

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Administration, 1975, Final Environmental Impact Statement - Waste Management Operations, Hanford Reservation, ERDA-1538, Washington, D.C.

b. What kind and amount of vegetation will be removed or altered?

None.

c. List threatened or endangered species known to be on or near the site.

No threatened or endangered plant species are know to exist on, or in, the immediate vicinity of the 2101-M Pond. Additional information concerning the Hanford Site environment can be found in the final environmental impact statements referenced in the answer to question B.4.a.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

None.

5. Animals

a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site:

birds: hawk, heron, eagle, songbirds, other
mammals: deer, bear, elk, beaver, other
fish: bass, salmon, trout, herring, shellfish, other

The following birds are known to be in the vicinity of the 2101-M Pond: Western kingbirds, doves, starlings, barn swallows, sage sparrows, nighthawks, owls, and magpies. (The magpies have nests in the trees next to the pond.)

Mammals known to frequent the site are: deer mice, house mice, cottontail rabbits, and coyotes. Additional information concerning the Hanford Site environment can be found in the final environmental impact statements referenced in answer to question B.4.a.

b. List any threatened or endangered species known to be on or near the site.

No threatened or endangered species are known to exist on the 2101-M Pond facility site. Additional information on the Hanford Site environment can be found in the final environmental impact statements referenced in answer to question B.4.a.

c. Is the site part of a migration route? If so, explain.

No. Additional information concerning the Hanford Site environment can be found in the final environmental impact statements referenced in answer to question B.4.a.

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d. Proposed measures to preserve or enhance wildlife, if any:

None. Additional information concerning the Hanford Site environment can be found in the final environmental impact statements referenced in answer to question B.4.a.

6. Energy and Natural Resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Gasoline-powered generators will be required to power ground-water monitoring well pumps during sampling until closure is certified.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

Does not apply.

7. Environmental Health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

No.

1) Describe special emergency services that might be required.

In the event of an unexpected emergency, fire, ambulance, and patrol services are available on the Hanford Site.

2) Proposed measures to reduce or control environmental health hazards, if any:

Does not apply.

b. Noise

1) What type of noise exists in the area which may affect your project (for example: traffic, equipment, operation, other)?

None.

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2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

On a short-term and a long-term basis, the only noise expected to be associated with the project is the operation of generators to power sampling well pumps, and the operation of trucks to transport the generators to the site.

3) Proposed measures to reduce or control noise impacts, if any:

Generators will meet manufacturer's requirements for noise suppression, and in no case will exceed the OSHA maximum permissible 8-hour level of 90 decibels.

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties?

The 2101-M Pond is currently being used for the disposal of nondangerous waste water from the 2101-M Building and the adjacent rainwater run-off ditch. (For additional information, see the answer to question B.3.b.2.)

Property adjacent to the 2101-M Pond is part of the 200 East Area of the Hanford Site. The 200 East Area, as well as the remainder of the Hanford Site, is used for, or designated for the use of, the production of special nuclear materials and the management of the wastes associated with the production of those materials.

b. Has the site been used for agriculture? If so, describe.

No portion of the Hanford Site has been used for agricultural purposes since 1943.

c. Describe any structures on the site.

Four ground-water monitoring wells, one upgradient and three downgradient, surround the site. These wells provide information regarding stratigraphy, ground-water flow direction, and the water quality of the upper portion of the unconfined aquifer.

Each well has been constructed to a total depth of approximately 355 feet and conforms to the requirements of WAC 173-160, "Minimum Standards For Construction of Wells".

d. Will any structures be demolished? If so, what?

No.

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e. What is the current zoning classification of the site?

The Hanford Site is zoned by Benton County as an Unclassified Use (U) district.

f. What is the current comprehensive plan designation of the site?

The 1985 Benton County Comprehensive Land Use Plan designates the Hanford Site as the "Hanford Reservation". Under this designation, land on the Site may be used for "activities nuclear in nature". Non-nuclear activities are authorized "if and when DOE approval for such activities is obtained".

g. If applicable, what is the current shoreline master program designation of the site?

Does not apply.

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

No.

i. Approximately how many people would reside or work in the completed project?

None.

j. Approximately how many people would the completed project displace?

None.

k. Proposed measures to avoid or reduce displacement impacts, if any:

Does not apply.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

Please see the answer to question B.8.f.

9. <u>Housing</u>

a. Approximately how many units would be provided, if any? Indicate whether high-, middle-, or low-income housing.

None.

b. Approximately how many units, if any, would be eliminated? Indicate whether high-, middle-, or low-income housing.

None.

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c. Proposed measures to reduce or control housing impacts, if any:

None.

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

No structures are proposed for the site.

b. What views in the immediate vicinity would be altered or obstructed?

None.

c. Proposed measures to reduce or control aesthetic impacts, if any:

None.

11. Light and Glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

None.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

No.

c. What existing off-site sources of light or glare may affect your proposal?

None.

d. Proposed measures to reduce or control light and glare impacts, if any:

None.

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

None. (Please see the answer to question B.8.a.)

b. Would the proposed project displace any existing recreational uses? If so, describe.

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No.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any?

None. (Please see the answer to question B.12.a.)

13. Historic and Cultural Preservation

a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

No part of the 2101-M Pond site is listed on, or proposed for inclusion on, preservation registers. Additional information concerning the Hanford Site environment can be found in the environmental impact statements referenced in answer to question B.4.a.

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

There are no known archaeological, historical, or native American religious sites in the area of the 2101-M Pond. Additional information concerning the Hanford Site environment can be found in the environmental impact statements referenced in answer to question B.4.a.

c. Proposed measures to reduce or control impacts, if any:

Does not apply.

14. Transportation

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

Does not apply. The public is not allowed unauthorized/unescorted access to the Hanford Site.

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

No. (Please see the answer to question B.14.a.)

c. How many parking spaces would the completed project have? How many would the project eliminate?

None.

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d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

No.

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No.

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

None.

g. Proposed measures to reduce or control transportation impacts, if any:

Does not apply.

15. Public Services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

No.

b. Proposed measures to reduce or control direct impacts on public services, if any:

None.

16. Utilities

a. List utilities currently available at the site (electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other):

None.

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

None.

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C. SIGNATURES

The above answers are true and complete to the best of my knowledge. We understand that the lead agency is relying on them to make its decision.

EABrockhen

R. D. Izatt, Director
Environmental Restoration Division
U.S. Department of Energy
Richland Operations Office

9-22-89
Date

R E Lerch

R. E. Lerch, Manager
Environmental Division
Westinghouse Hanford Company

9-7-89
Date

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2101-M POND CLOSURE PLAN

FOREWORD

The Hanford Site is owned and operated by the U.S. Department of Energy, Richland Operations Office. The Hanford Site manages and produces radioactive, dangerous and mixed waste (containing both radioactive and dangerous components). The radioactive waste and radioactive component of mixed waste is interpreted by the U.S. Department of Energy to be regulated under the *Atomic Energy Act of 1954*; dangerous waste and the nonradioactive dangerous waste components of mixed waste are interpreted to be regulated under the *Resource Conservation and Recovery Act of 1976* and the Washington State Department of Ecology, *Dangerous Waste Regulations*, WAC 173-303.

For the purposes of the *Resource Conservation and Recovery Act of 1976*, the Hanford Site is considered to be a single facility. A single dangerous waste permit identification number issued to the Hanford Site by the U.S. Environmental Protection Agency and the Washington State is Environmental Protection Agency/State Identification Number WA890008967. This identification number encompasses a number of waste management units within the Hanford Facility. Waste management units that are no longer operating will be closed under interim status (using final status standards in WAC 173-303-610).

Since 1987, Westinghouse Hanford Company has been a major contractor to the U.S. Department of Energy, Richland Operations Office and has served as co-operator of the 2101-M Pond, the waste management unit addressed in this closure plan. For the purposes of the *Resource Conservation and Recovery Act of 1976*, Westinghouse Hanford Company is identified as 'co-operator.' Any identification of Westinghouse Hanford Company as an operator elsewhere in this closure plan is not meant to conflict with Westinghouse Hanford Company's designation as co-operator but is rather based on Westinghouse Hanford Company's contractual status (i.e., as a management and operations contractor) for the U.S. Department of Energy.

The 2101-M Pond Closure Plan (Revision 2) consists of a *Resource Conservation and Recovery Act of 1976* Part A Dangerous Waste Permit Application and a *Resource Conservation and Recovery Act of 1976* Closure Plan. An explanation of the Part A submitted with this document is provided in Section I-1. The closure plan consists of 6 chapters and 17 appendices.

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ACRONYMS AND ABBREVIATIONS

ABN	acid-base neutralization
ASTM	American Society for Testing and Materials
ANOVA	analysis of variance
BWIP	Basalt Waste Isolation Project
CABF	Cochran's Approximation to the Behrens-Fisher Student's t-test
CFR	Code of Federal Regulations
DOE	U.S. Department of Energy
DOE-RL	U.S. Department of Energy, Richland Operations Office
DW	dangerous waste
DWS	drinking water standards
EC	equivalent concentration
Ecology	Washington State Department of Ecology
EHW	extremely hazardous waste
EP	extraction procedure
EPA	U.S. Environmental Protection Agency
FFTF	Fast Flux Test Facility
HELP	hydrologic evaluation of landfill performance
HEPA	high-efficiency particulate air
HMS	Hanford Meteorological Station
HPT	health physics technicians
HVAC	heating, ventilation, and air conditioning
HQ	hazard quotient
ICP	inductively coupled plasma
ID	inside diameter
LD50	lethal dose 50% of the population
LOQ	limit of quantitation
MSDS	material safety data sheet
MTCA	*Model Toxics Control Act*
NIOSH	National Institute of Occupational Safety and Health
NWPA	*Nuclear Waste Policy Act of 1982*
NWPAA	*Nuclear Waste Policy Amendments Act of 1987*
PCB	polychlorinated biphenyl
PNL	Pacific Northwest Laboratory
QA	quality assurance
QC	quality control

ACRONYMS AND ABBREVIATIONS (cont)

RCRA	*Resource Conservation and Recovery Act of 1976*
RfD	reference dose
RPD	relative percent difference
RTECS	registry of toxic effects of chemical substances
SCBA	self-contained breathing apparatus
SCP	site characterization plan
SMCL	secondary maximum contaminant level
TCLP	toxic characteristic leach procedure
TI	tolerance interval
TIM	Technical Information Memorandum
TOC	total organic carbon
TOX	total organic halogen
TSD	treatment, storage, and/or disposal unit
U.S. Testing	United States Testing Company, Incorporated
U.S.L.E.	Universal Soil Loss Equation
VOA	volatile organic analysis
VOC	volitile organic compounds
WAC	Washington Administrative Code
WEQ	Wind Erosion Equation
Westinghouse Hanford	Westinghouse Hanford Company
XRF	X-ray fluorescence

I. GENERAL CLOSURE REQUIREMENTS

I-1. INTRODUCTION

This document describes activities for the closure of a surface impoundment (2101-M Pond) at the Hanford Site, operated by the U.S. Department of Energy, Richland Operations Office (DOE-RL) and co-operated by the Westinghouse Hanford Company (Westinghouse Hanford). The 2101-M Pond is located adjacent to the fence encompassing the 2101-M Building in the 200 East Area of the Hanford Site. The 2101-M Pond was initially constructed in 1953 to serve as a drainage collection area for the 2101-M Building. Until the Basalt Waste Isolation Project (BWIP) Laboratory was constructed in the 2101-M Building in 1979-1981, the only source contributing discharge to the pond was condensate water from the 2101-M Building heating, ventilation, and air conditioning (HVAC) system. The drains for the BWIP Laboratory rooms were plumbed into a 4-in., cast-iron, low-pressure drain pipe that carries waste water from the HVAC system to the pond. Since 1986, small amounts of rainwater run-off have been discharged to the pond from a ditch located adjacent to the pond.

The BWIP Laboratory supported the BWIP site characterization studies conducted to evaluate the feasibility of locating the first national geologic repository for radioactive waste at the Hanford Site. Site characterization studies were directed at obtaining information on the geologic, hydrologic, geochemical, climatologic, and geoengineering characteristics of the Hanford Site and surrounding area through exploratory drilling, testing, and analysis of rock and water samples, geophysical surveys, and mapping.

On December 22, 1987, President Reagan signed into law the Nuclear Waste Policy Amendments Act of 1987 (NWPAA), which substantially amended the Nuclear Waste Policy Act of 1982 (NWPA). The passage of the NWPAA terminated the BWIP; however, the laboratory continued to operate on a small scale through April 1988, conducting BWIP closeout activities.

During the active life of the BWIP Laboratory, solutions of dissolved barium in groundwater samples were discharged to the 2101-M Pond via the laboratory drains. Other laboratory chemicals may have been discharged to the pond through the laboratory drains from 1981 through July 1985 (Section B-3). Administrative controls were established in July 1985 to prohibit disposal of any dangerous waste via the laboratory drains.

As a result of the discharges of solutions containing barium to the 2101-M Pond, a Part A permit application was initially submitted to the Washington State Department of Ecology (Ecology) in August 1986. A revised Part A permit application was submitted in August 1987, and again in November 1987 under identification number WA7890008967. A copy of the November 1987 permit application is provided in Appendix A. The Part A permit application designates the 2101-M Pond as a surface impoundment.

An initial closure/postclosure plan for the 2101-M Pond was submitted to Ecology in April 1987, Revision 0 in September 1989, and Revision 1 in April 1991. Site characterization has been conducted at the 2101-M Pond to determine if dangerous waste constituents are present in the pond soil and the groundwater. Soil characterization was conducted in two phases. Based on the Phase I soil sampling results, Phase II was developed to further characterize the top 2 ft of the pond soil and the pond water. The revised closure plan (Revision 2) is being submitted to Ecology to provide the characterization results and the closure strategy for the 2101-M Pond.

The Phase I soil characterization activities and results are described in Section B-5. The Phase II characterization activities and results are described in Appendix D-1 and D-4. Groundwater monitoring activities and results are described in Section B-6.

The closure strategy presented in this plan for the 2101-M Pond is summarized as follows.

- Clean close the 2101-M Pond. Clean close as used in this context means that no waste or waste contaminated soil, structures, or equipment will remain onsite that pose a present or potential threat to human health or the environment. If clean closure is achieved, the DOE-RL and Westinghouse Hanford intend to continue use of the 2101-M Pond for receipt of nondangerous waste water for the present. However, all discharges to the 2101-M Pond will cease by June 1995, per Milestone M-17-43 (Ecology et al. 1992).

- Verify that potential contaminants have not migrated from the 2101-M Pond into the groundwater in concentrations that pose a present or potential threat to human health or the environment.

I-2. LOCATION AND GENERAL DESCRIPTION

The Hanford Site is a 560-mi^2 tract of semiarid land that is owned by the U.S. Government and is set aside for activities of the U.S. Department of Energy (DOE). The Site is located primarily west and south of the section of the Columbia River that is immediately north of the City of Richland, Washington (Figure I-1). In early 1943, the U.S. Army Corps of Engineers selected the Hanford Site as the location for reactor and chemical separation facilities for the production and purification of plutonium. A total of eight graphite-moderated reactors, using Columbia River water for once-through cooling, and a new type of dual-purpose reactor (N Reactor), using a recirculating water coolant and producing both plutonium and steam for electricity, were eventually built along the Columbia River. Companion fuel-fabrication plants, chemical-processing plants, and waste-management facilities were constructed.

Activities at the Hanford Site are centralized in numerically designated areas. The reactor facilities are located along the Columbia River in what are known as the 100 Areas. The reactor fuel processing and waste management

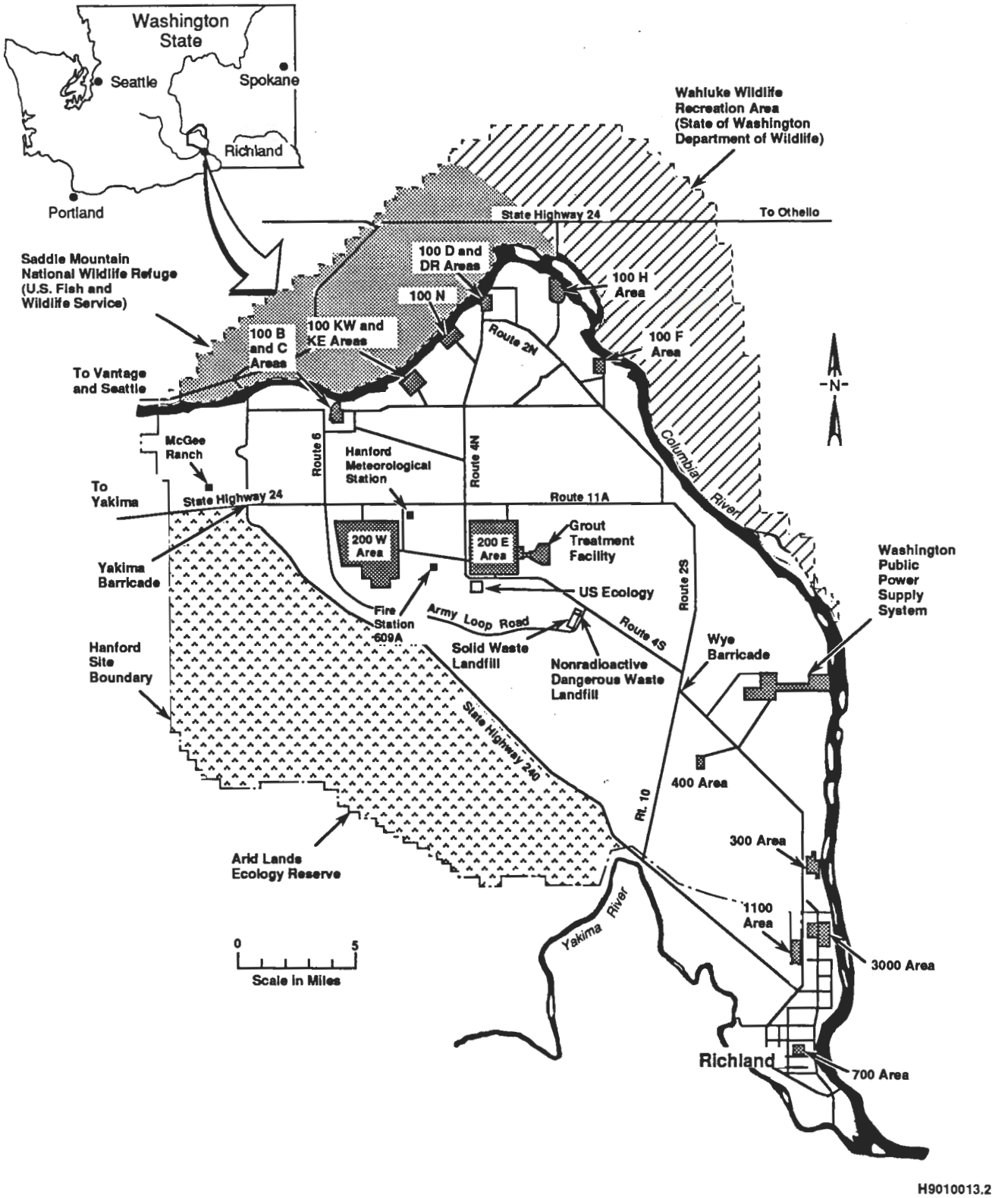

Figure I-1. Hanford Site and Regional Map.

facilities are located in the 200 Areas, situated on a plateau about 7 mi from the river. The 300 Area, located north of Richland, contains the reactor fuel manufacturing facilities and the research and development laboratories. The 400 Area, 5 mi northwest of the 300 Area, contains the Fast Flux Test Facility (FFTF). Administrative buildings and other research and development laboratories are found in the 3000 Area, also located north of Richland. The 1100 Area, north of Richland, contains facilities associated with maintenance and transportation functions for the Hanford Site.

I-3. 2101-M POND LOCATION AND GENERAL DESCRIPTION

The 2101-M Pond is located adjacent to the 2101-M Building in the 200 East Area of the Hanford Site, which is a controlled access area. The location of the pond is shown on the 200 East Area Site Plan in Figure I-2. The location of the pond in relation to the surrounding facilities is shown in Figure I-3.

The 2101-M Pond is a manmade earthen, unlined, uncovered U-shaped surface impoundment. The east arm of the pond is approximately 70 ft in length, the south arm approximately 210 ft in length, and the north arm approximately 205 ft in length. The total area occupied by the pond is less than 1 acre. The pond bottom varies from approximately 10 ft wide and 5 ft below grade in the south arm to approximately 3 ft wide and 9 ft below grade in the north arm. A generalized scale drawing of the pond is shown in Figure I-4.

Discharge from the 2101-M Building enters the pond through a 4-in. cast-iron, low-pressure drain pipe at the southeast corner of the pond. Water entering the pond pools at the outfall and slowly migrates to the three arms of the pond. The water tends to accumulate in the south arm of the pond first, as it is farther below grade and wider than the east arm. The water in the south arm of the pond generally averages only 3 to 6 in. deep over the entire wetted portion, with the exception of the outfall area. The east arm is narrow and the water in this arm is shallow (generally averaging 1 to 2 in. deep). The water must rise to a certain level in the south arm and outfall area before it will flow into the east arm and subsequently into the north arm of the pond. Seasonal variations influence the amount of water entering the pond, and for part of the year, the north arm is dry. Typically, when the north arm is wetted, water occupies an area approximately 2 to 3 ft wide and approximately 1 to 3 in. deep.

The 2101-M Pond is surrounded by expanses of sagebrush, rabbitbrush, Russian thistle, cheatgrass, and Sandburg's bluegrass. The riparian habitat in existence at the pond is typical of the wetland communities created by man in the arid conditions of the shrub-steppe desert. The areas of open water at the pond are extremely limited. Most of the wetted portion of the pond is overgrown with horsetails, cattails, and sedges. Trees, primarily black cottonwood, peach leaf, and sandbar willow, along with scattered individual Russian olive and Rocky Mountain juniper, dominate the banks. Photographs of the pond, taken in October 1988, are shown in Figures I-5, I-6, and I-7. Photographs taken in April 1993 are shown in Figures I-8, I-9, I-10, and I-11.

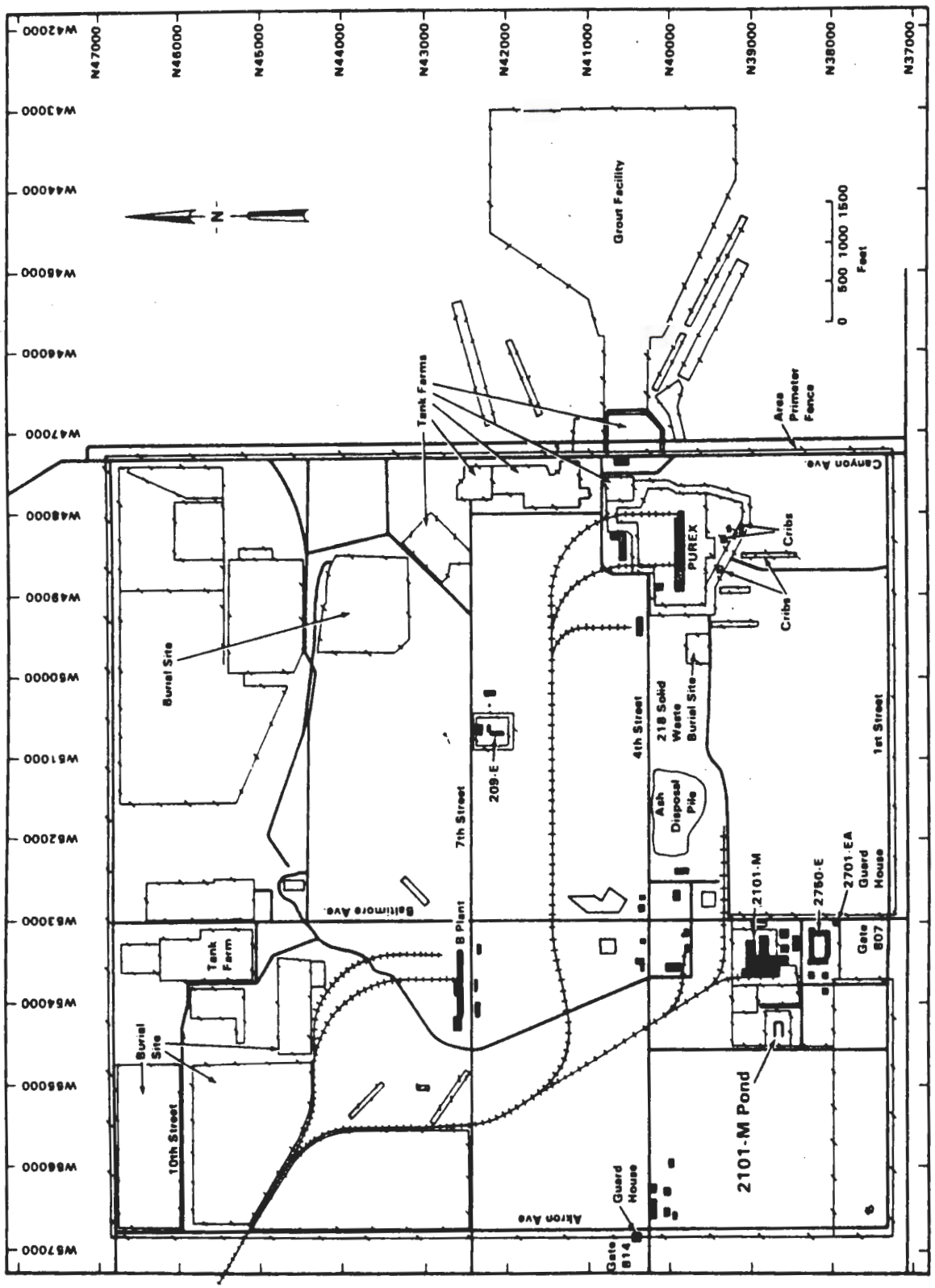

Figure I-2. 200 East Area Site Plan.

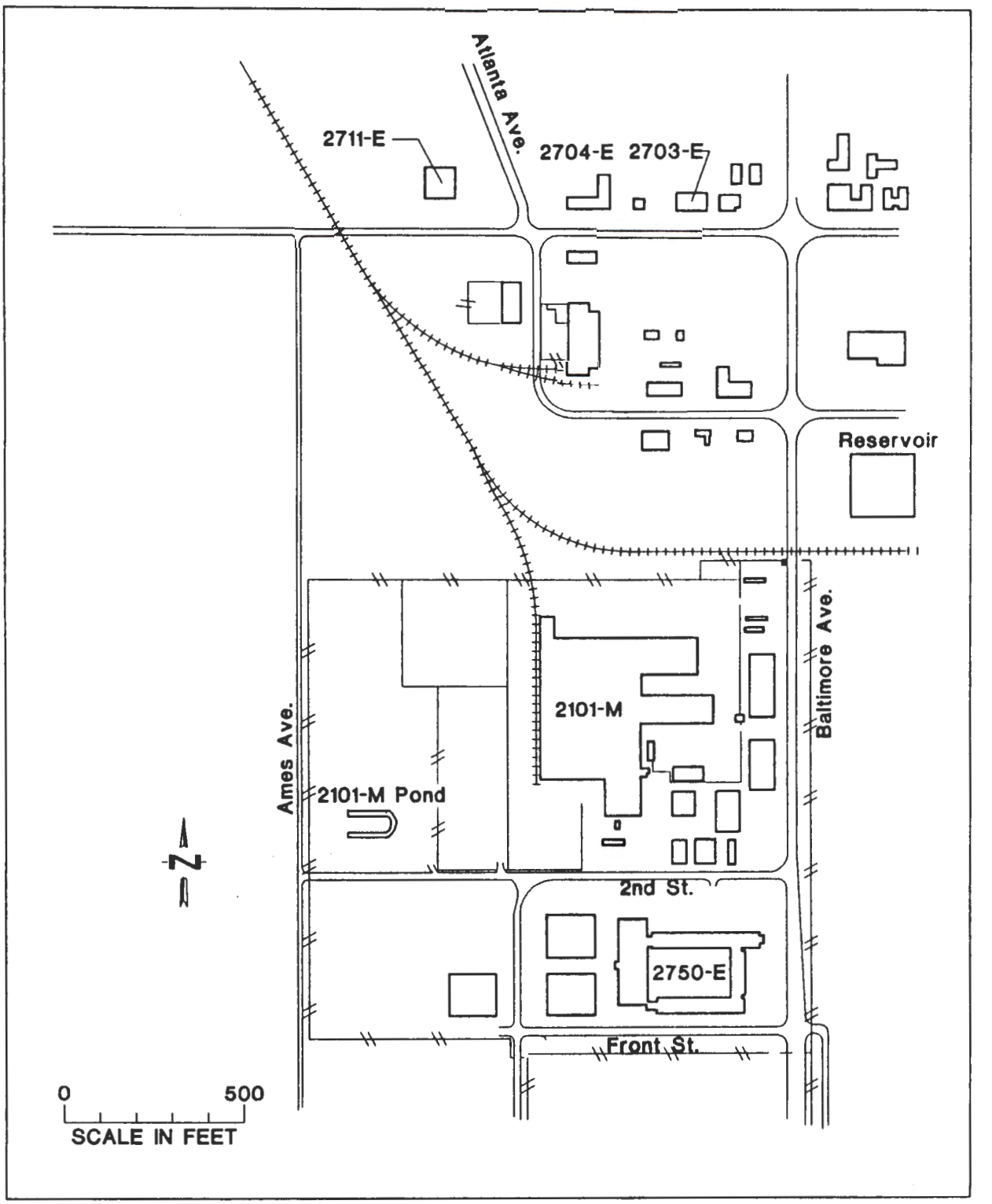

Figure I-3. Location of the 2101-M Pond in Relation to Other Facilities.

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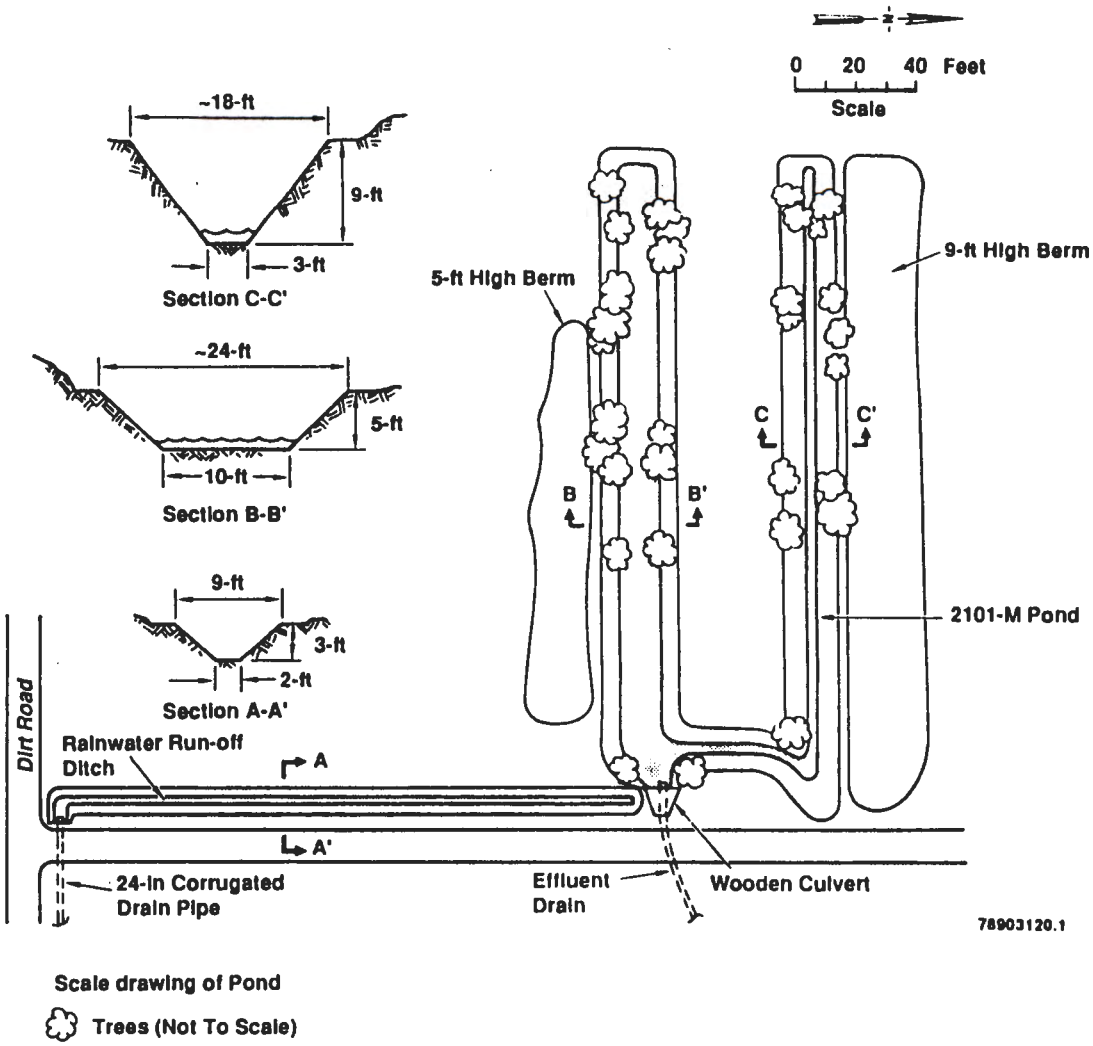

Figure I-4. Generalized Scale Map of the 2101-M Pond.

A drainage ditch adjacent to the 2101-M Pond (Figure I-4) collects rainwater run-off from surrounding streets, storage areas, and parking lots. Run-off is discharged to the ditch through a 24-in. corrugated drain pipe located at the south end of the ditch. This run-off is typically of the type that would be produced from parking lots and streets used by motor vehicles. None of the run-off is from any chemical or dangerous waste storage areas. There is no evidence that the run-off is a dangerous waste.

The rainwater run-off ditch rarely contains standing water or wetted sediments. Conditions of low rainfall and quick percolation into the sandy soil allow for rapid infiltration of run-off. A parking lot and street drainage construction project in 1986 greatly increased the surface area and the amount of run-off that drains to the ditch. A topographical map including the parking lots, street improvements, and subsurface drainage in the area is shown in Figure I-12. As a result of the increased discharge, the water level in the ditch during periods of higher rainfall may rise to a level that allows drainage water to discharge to the 2101-M Pond.

No aquatic or riparian vegetation grows in this ditch or along its banks, and the appearance of the ditch bottom at the outfall shows little organic material present.

The ditch is constructed above the grade of the 2101-M Pond and approximately the last 30 ft slopes slightly away from the pond. The physical design of the ditch and the water level in the pond coupled with an earthen barrier prevent backflow from the pond to the ditch. The water in the pond has never been observed to reach the level of the ditch, even during the months of maximum discharge. Because the ditch is not physically connected to the 2101-M Pond and has not received discharge from the pond, it is not included as part of the waste management unit with the pond.

The lateral movement of water through the soil separating the rainwater run-off ditch and the 2101-M Pond is not considered to be a point of concern. The soil separating the run-off ditch and 2101-M Pond is composed of the sandy material found in the area. The lateral movement of water through a sandy textured soil is limited by the texture, and is predictable. The best way to demonstrate this is to treat the rainwater run-off ditch as if it were a large irrigation furrow.

A irrigation furrow is used to irrigate crops by pulling a small ditch through the area to be irrigated. The spacing of these furrows is highly dependent upon the texture of the soil in which they are used. The loamier or finer grained the soil, the wider the spacing can be because water moves in all directions in a fairly uniform manner. The coarser grained soils do not possess as much surface area as the finer grained soils, and hence, do not have as great a matrix potential force as loamier and finer grained soils. For this reason, the coarser the soil particles become, the smaller the amount of horizontal movement through the soil because of the greater influence of gravitational forces on water movement.

Figure I-5. View of 2101-M Pond Facing West.

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1 Figure I-6. View of 2101-M Pond Facing East.

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Figure I-7. View of 2101-M Pond and Adjacent Rainwater Run-off Ditch Facing Southwest.

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Figure I-8. View of 2101-M Pond Influent Facing South.

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Figure I-9. View of 2101-M Pond Facing Southeast.

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Figure I-10. View of 2101-M Pond North Arm Facing East.

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Figure I-11. View of 2101-M Pond, South Arm Facing East.

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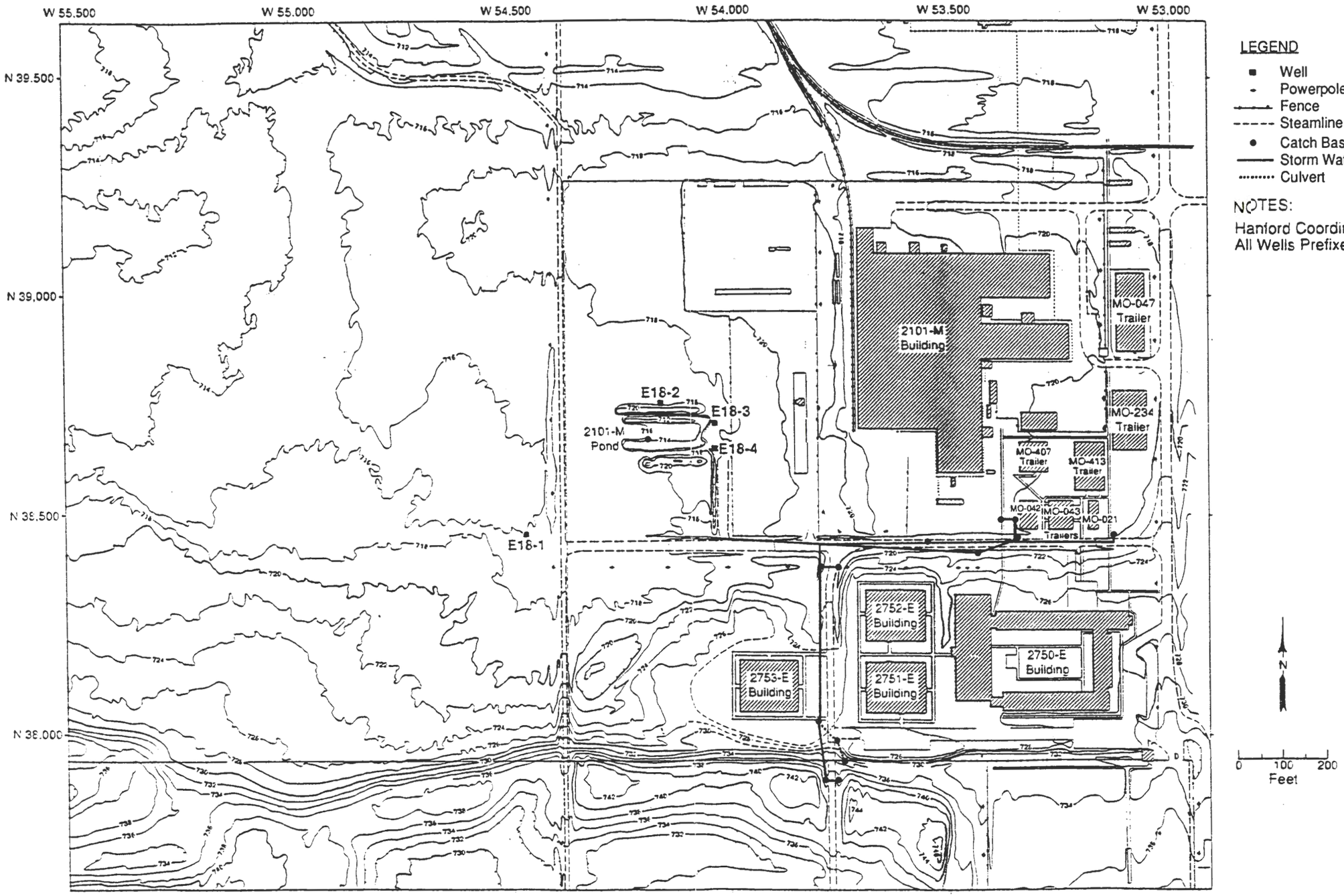

LEGEND

- Well
- Powerpole
- Fence
- Steamline
- Catch Basin
- Storm Water Drain Line
- Culvert

NOTES:

Hanford Coordinate System Used.
All Wells Prefixed by 299-.

Figure I-12. Topographical Map of the 2101-M Site.

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Typical water movement through soils of different texture is demonstrated in Figure I-13. By applying this knowledge to the 2101-M Pond and adjacent rainwater run-off ditch, it is concluded that the lateral movement of water through the soil (between the two) is not expected in unsaturated conditions.

I-4. 2101-M BUILDING GENERAL DESCRIPTION AND PROCESS INFORMATION

The 2101-M Building has hosted a number of facilities since its construction in 1953. However, until the addition of the BWIP Laboratory in 1979-1981, the only discharge to the 2101-M Pond was condensate water from the 2101-M Building's HVAC system. Drains for the laboratory were plumbed into the 4-in. low-pressure drain pipe for the building's HVAC system. In 1985, administrative controls were emplaced to prohibit disposal of chemical waste via the laboratory drains. The BWIP was terminated in December of 1987, although the laboratory continued operating on a small scale conducting closeout activities until 1988.

Figure I-14 depicts all drains still operational as of March 1991 and their final destinations. Investigations of the 2101-M Building plans and subsequent conversations with the facility engineer indicate that the former BWIP Laboratory was the only facility plumbed into the low-pressure drain pipe for the building HVAC system.

The former BWIP Laboratory consisted of several rooms located along the west side of the south wing of the 2101-M Building. Each room was set up to conduct different types of experiments and analyses. One laboratory room was constructed in the central part of the building. This laboratory room was used by BWIP to develop and test concrete and grout. It also was used by BWIP and other organizations to perform sieve analyses on sediment samples and to determine the calcium carbonate content of sediment samples using hydrochloric acid. The BWIP Laboratory contained 41 drains in the form of sinks, hoods, and eyewash stations that contributed liquid waste to the low-pressure drain pipe.

The various BWIP Laboratory activities conducted are summarized below.

- Hydrothermal--An experimental program was set up to test the stability of basalt/bentonite packing material in the hydrothermal environment expected in the geologic repository. Solid material was reacted with synthetic groundwater at temperatures as high as 300 °C for periods of several months. Reaction products were sent to the solids analysis section of the BWIP Laboratory and reacted fluids were sent to the solution chemistry section of the BWIP Laboratory.

- Physical Properties--Physical properties of basalt were determined in a specialized rock mechanics section of the BWIP Laboratory. Properties measured included tensile, compressive, and shear strengths, P- and S-wave velocities, and electrical conductivity. The hydraulic conductivity and swelling pressure of basalt/bentonite

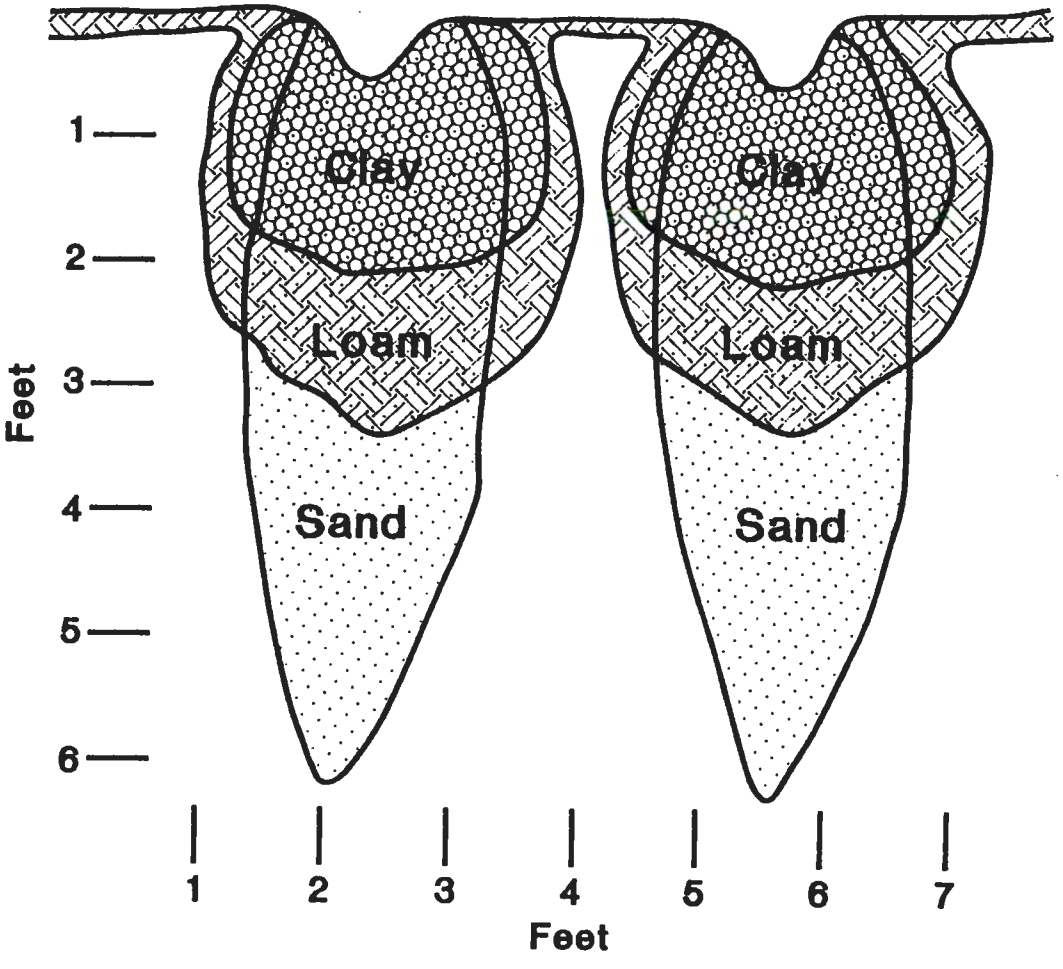

Figure I-13. Typical Patterns of Moisture Penetration for the Same Amount of Water in Different Homogenous Soils (USDA 1983).

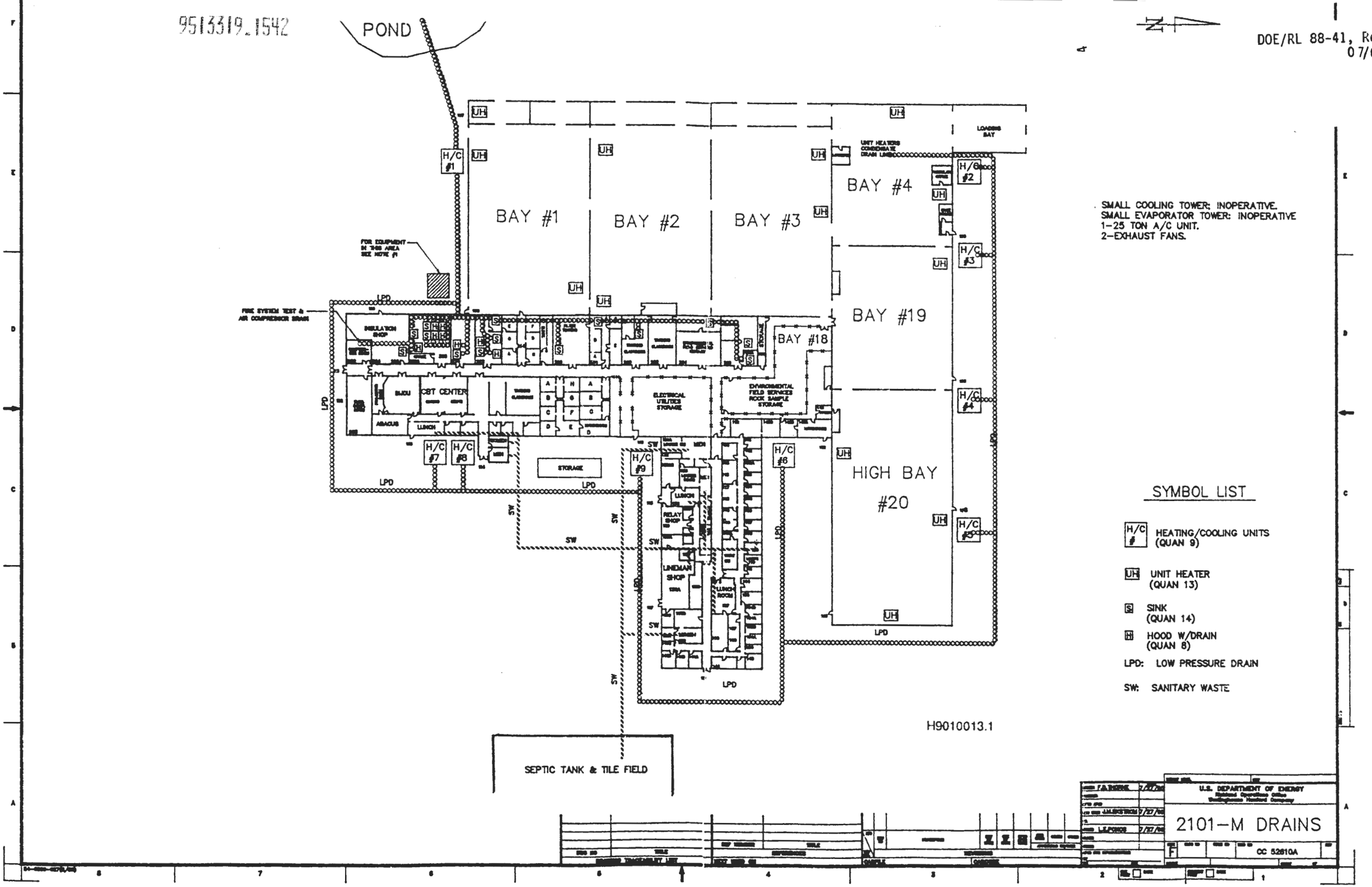

Figure I-14. 2101-M Building Drains.

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packing material were measured in pressure cells. Solid samples were archived or sent to the solids analysis section of the BWIP Laboratory. Groundwater that passed through the packing material was analyzed in the solution chemistry section of the BWIP Laboratory.

- Concrete and Grout--Concrete and grout were important structural elements in the BWIP design for repository excavations and seals. Laboratory experiments were performed to optimize mixtures, determine setting characteristics under repository conditions, and assess long-term stability of the seals. Concrete and grout were mixed, set, and tested in the laboratory. Solid reaction products were archived or sent out for analysis, while the fluids were generally incorporated into the concrete or grout.

- Solids Analysis--Experimental reaction products and geologic materials from the Hanford Site were studied in the solids analysis section of the BWIP Laboratory. Techniques included optical and electron microscopy, electron microprobe analysis, and X-ray diffraction. Standard photographic chemicals were employed in the darkroom, which supported the electron microscopes.

- Solution Chemistry--Experimental reaction fluids and Hanford Site groundwater were analyzed in the solution chemistry section of the BWIP Laboratory. Techniques included inductively coupled plasma (ICP) spectrometry, ion chromatography, atomic absorption spectrometry, ultraviolet/visible spectrometry, and gas chromatography. In addition, samples were prepared for shipment to offsite laboratories for absolute dating and trace-gas analysis.

Currently, the 2101-M Building houses a spare parts storage area, a geologic sample storage area, an insulator shop, a high-efficiency particulate air (HEPA) filter test shop, a substation maintenance shop, an instrument maintenance shop, the Vent and Balance Group (maintains the HVAC for part of the Hanford Site), the Solids Characterization and Barriers Laboratory, classrooms, and offices. Some of the rooms formerly occupied by the BWIP Laboratory have been remodeled for more general purposes, and some of the drains have been removed. Current use of the renovated rooms include the filter test shop, the instrument maintenance shop, offices, training classrooms, and the soil mechanics laboratory.

The substation maintenance shop is not plumbed to the 2101-M Pond. However, polychlorinated biphenyls (PCB) were analyzed during the initial soil sampling (Section B-5). Analyses during the Phase II sampling also included PCBs (Appendix D-1).

The insulation shop was plumbed to the 2101-M Pond. However, the shop did not handle any asbestos products during the time the shop was equipped with a drain that emptied into the pond. The one sink in the insulation shop has been removed and the drain closed.

The Solids Characterization and Barriers Laboratory currently has plans to move from the 2101-M Building by mid-June 1993. At that time, the one remaining sink left in those rooms will be permanently closed. As an interim measure, the laboratory currently collects all liquid waste, including rinse water, in a carboy for designation and disposal.

All other drains have been closed with the exception of the compressor room floor drain. Plans to grout the floor drain closed are in place. Once the two remaining drains are closed, there will be no possibility of further dangerous waste discharge to the pond from the 2101-M Building.

I-5. SECURITY

Because of the continuing 200 Areas activities and the presence of several facilities that handle dangerous and radioactive materials, the Hanford Site maintains an effective site security program in the 200 Areas. Although originally intended for protection of government property, classified information, and special nuclear material, the current security program meets the requirements as outlined in Washington Administrative Code (WAC) 173-303-310 for dangerous waste sites. The security systems on the Hanford Site prevent unknowing entry and minimize the possibility for unauthorized entry of persons or livestock into the 2101-M Pond.

Unauthorized or unintended entry to the facility is prevented by 24-h surveillance systems in the form of staffed barricades at the entries to controlled-access areas, and fences, gates, locks, and warning signs. The Wye and Yakima Barricades (Figure I-1) control access to the Hanford Site. Only personnel who have obtained a proper a security badge or visitors escorted by badged personnel are permitted to enter Hanford Site controlled-access areas. The Hanford Patrol provides routine surveillance patrols of the controlled-access areas.

Hanford Site personnel receive training on security regulations in the form of required security education and on-the-job training. Procedures for ensuring personnel compliance with safety and security requirements, providing security education, and training personnel are developed and maintained on the Hanford Site. Performance of periodic security compliance audits and inspections ensure that these procedures are followed.

II. CONTINGENCY CLOSURE/POSTCLOSURE PLAN

This section discusses the requirements for closing the 2101-M Pond as a landfill (i.e., any contaminants will be left within the soil column and capped with an earthen cover to restrict contaminant migration). This postclosure plan will be implemented if clean closure is not accomplished.

This plan is divided into four sections, they are as follows:

- Summary
- Preliminary cover design
- Postclosure considerations
- Cover system permeability.

II-1. SUMMARY

The primary function of this cover system will be to minimize migration of surface water to the groundwater. This will be accomplished through the use of a cover system consisting of three layers:

- Foundation layer
- Low-permeability layer
- Topsoil layer.

Before the cover is constructed, a foundation layer will be placed. The purpose of the foundation layer is to establish a smooth, level grade upon which to construct the cover. After this foundation layer, a thick, low-permeability soil layer with an estimated hydraulic conductivity (K) of about 3×10^{-7} cm/s will be placed. This soil layer will consist of a compacted silt-to-silt-loam soil. Over the low-permeability layer will be the topsoil layer, which will be of sufficient thickness to help promote a vigorous stand of vegetation and provide storage of water for evapotranspiration. If there is need to build a cover, standard field verification test methods (e.g., sealed double-ring infiltrometer) will be specified as part of the QC for the final cover design. A final cover design will only be done in the event that the landfill contingency is necessary.

To determine the effectiveness of the cover design, the hydrologic evaluation of landfill performance (HELP) computer model (Version 2) was used. The model uses climatological data and daily precipitation data from 10 consecutive years at the Hanford Meteorological Station (HMS) to estimate annual and peak daily run-off, drainage, and percolation through the cover. These 10 yr have an average annual precipitation of approximately 1 in. above the average annual precipitation for the Hanford Site. For this reason, the output of the model is considered to be conservative.

II-2. PRELIMINARY COVER DESIGN

The cover configuration has been developed and evaluated using EPA guidance and design manuals, and other technical references as stated herein. The cover design description explains how the cover will minimize the migration of liquids into the vadose zone. The design and configuration section discusses expectations for cover system permeability and freeze/thaw cycle effects, potentials for erosion and settlement, and describes the necessary maintenance requirements.

The primary objective of this cover system is to confine waste. The primary functions of the cover are to enhance moisture storage while minimizing water infiltration, erosion, and long-term maintenance requirements. Secondary functions are to preserve slope stability and minimize deterioration because of environmental conditions. All of the cover functions are met with this preliminary design.

As stated, this cover design is preliminary in nature. Because the 2101-M Pond closure strategy is clean closure, a definitive design will be completed should a decision be made that clean closure is not feasible.

For this preliminary design, data from McGee Ranch soil is used (DOE 1990). This is the only presently characterized silt deposit on the Hanford Site. Should for any reason a decision be made that McGee Ranch will not be used as a source for cover materials at 2101-M Pond, minimum design standards for the cover components are available from EPA design guidance documents. These documents (EPA 1979, 1982a, 1984a, 1985b, and 1986i) were used as a basis of information for this cover design. A listing of specific laboratory data and a schedule for obtaining such data are provided in Table II-1 and Table II-2, respectively.

II-2a. Cover Materials Description

The use of soils native to the 2101-M Pond site and soils from the McGee Ranch site (Figure II-1) are planned for the cover. All soil components of the cover that require compaction will be compacted in maximum 6-in. lifts, ranging from 90 to 95% (or as high as reasonably achievable) of maximum density as determined by ASTM D 1557-78 [modified proctor (ASTM 1990c)]. Compaction will be accomplished using rubber-tired construction equipment, sheepsfoot rollers, or hand-operated vibratory tampers. The degree of compaction obtained will be measured periodically using ASTM D 2922-81 [nuclear density gage (ASTM 1990a)] or ASTM D 1556-82 [sand cone method (ASTM 1990b)], or their approved equivalent. Material that does not meet specifications will be recompacted and/or removed and replaced as necessary.

1. Foundation soil--In order to provide a flat, homogeneous bottom surface to the pond, the arms of the pond will have to be brought up to level with the center portion of the pond. This will be the function of the foundation soil. This fill will be compacted as described above, to provide a stable level foundation for the

Table II-1. Laboratory Testing Requirements for Cover Materials.

Cover layer	Atterburg limits	Moisture/density (compaction)	Consolidation	Water retention	Permeability	Gradation curves	pH
Foundation	X	X	X	X	X	X	
Low-permeability	X	X	X	X	X	X	
Topsoil				X	X		X

Table II-2. Schedule for Testing of Cover Materials.

Activity	Duration (months)	1	2	3	4	5	6	7	8	9	10	11	12
Identify soil property testing laboratory		XXXXXXXX											
Identify potential material sources		XXXX											
Field sampling (quality and quantity)				XXXXXXXXXXXX									
Obtain laboratory samples						XXXXXXXX							
Perform laboratory test						XXXXXXXXXXXXXXXX							
Modify design based on laboratory tests									XXXXXXXX				

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remainder of the cover. A native sandy or silty sand will be selected for the foundation soil. The most likely source for this material is the berms located along the north and south arms of the pond (Figures II-2 and II-3). This material was originally removed from the site in the development of the pond itself.

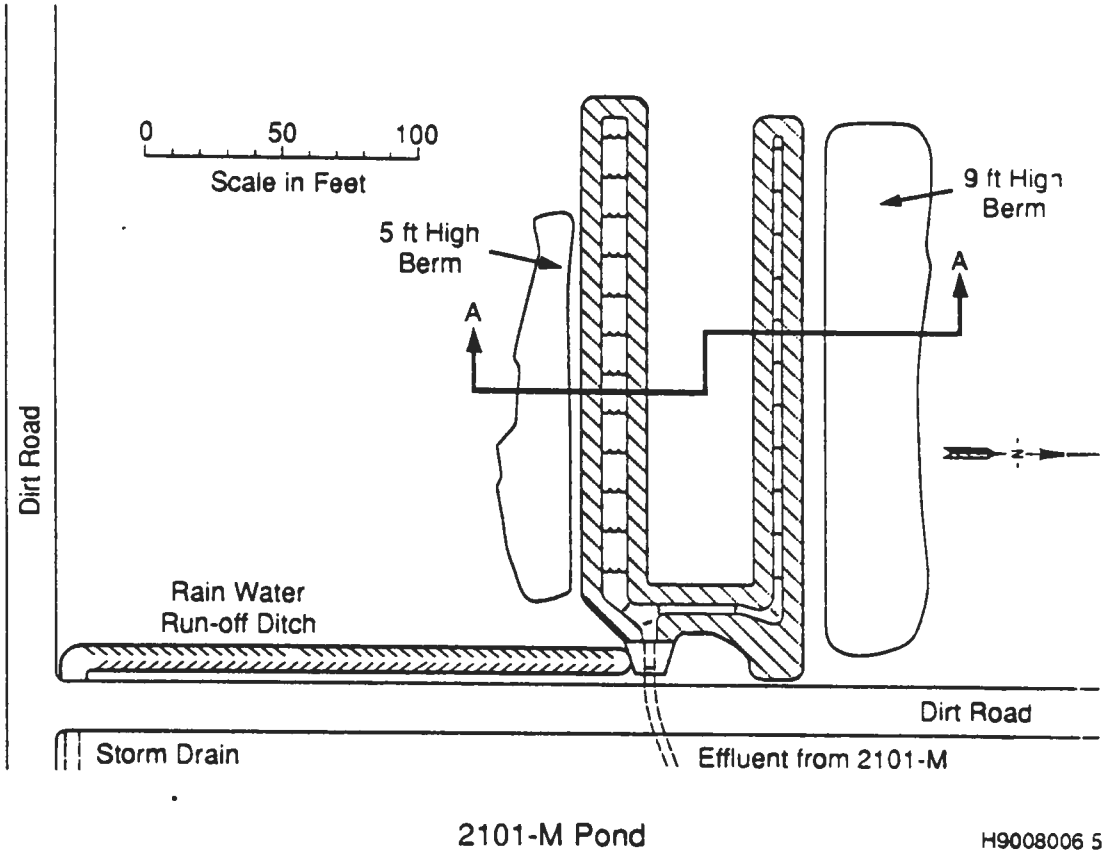
The soil will be classified and moisture/density relationships (compaction curves) will be developed for preparation of construction specifications and field construction procedures. Along with this, the upper 6 to 12 in. of the center section of the pond will be removed, mixed with the soil from the berms, and then used as the final layer(s) of the foundation soil (Figure II-4). Lifts will be placed until an unbroken, flat, smooth, level surface of a minimum 6-in. thickness is obtained. No standard for soil permeability is assigned to this layer, though it is assumed that it will be consistent with, or less than, that of the native soil on the site. It is estimated that it will take a minimum of 10 lifts to bring the entire foundation layer to a level grade. If any excess soil from the berms remains after the foundation layer is complete, it will be placed in an approved spoils area in the vicinity of the 2101-M Pond. The estimated volume of foundation fill required is 1,600 yd^3.

2. Low-permeability soil--The function of the low-permeability soil is to minimize the long-term infiltration of water by acting primarily as a capillary barrier. This barrier is caused by the abrupt transition from the fine-textured silt to the coarser textured sand. The break causes an effect similar in nature to a perched water table because the soil moisture at the lower boundary of the silt layer must reach nearly atmospheric pressure before it will move into the sand (Richards 1950).

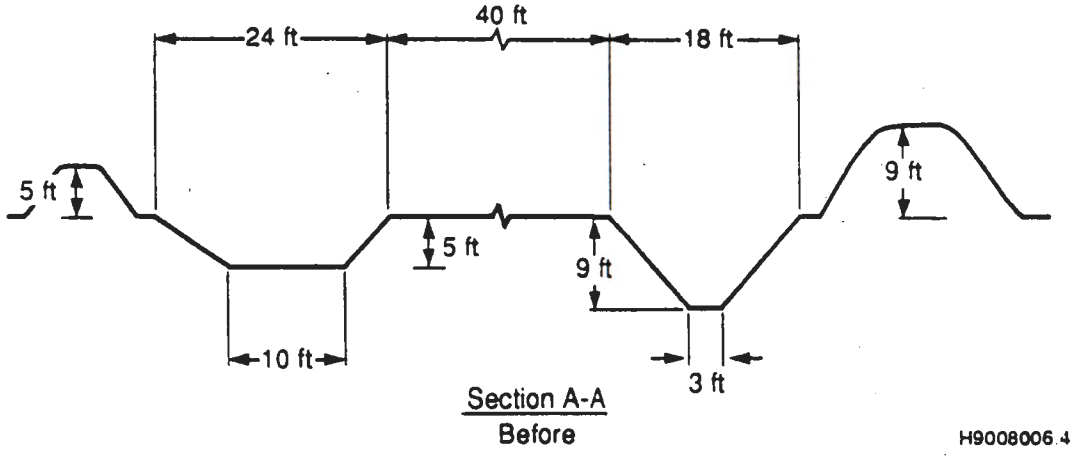
   This layer also will store water for evapotranspiration back to the atmosphere. The low-permeability soil will most likely consist of a silt-to-silt-loam soil.

   This layer will be installed in a maximum of 6-in. lifts and compacted to the density standards and test methods identified above. Enough lifts will be placed so that a level, compacted thickness of at least 12 in. is achieved . This layer will have an estimated hydraulic conductivity of 3×10^{-7} cm/s. The estimated volume of this material is 850 yd^3.

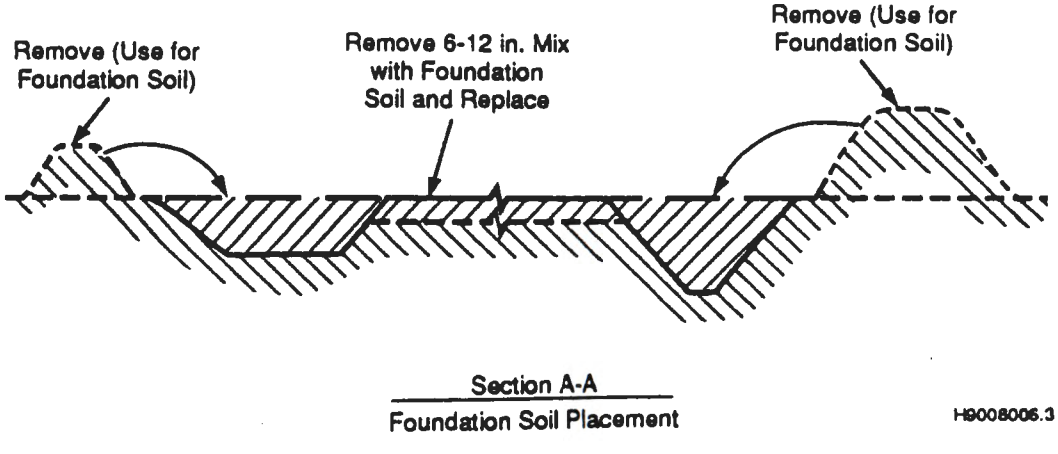
3. Topsoil layer--The topsoil primarily must provide an adequate environment for plant growth. In doing so, it will be effective in retaining precipitation for evaporation and transpiration back to the atmosphere. Secondly, the topsoil must be adequately resistant to water and wind erosion.



1 Figure II-2. Schematic Aerial of 2101-M Pond.



1 Figure II-3. Cross-Section A-A.



2 Figure II-4. Cross-Section A-A, Foundation Soil Placement.

The topsoil borrow area will be most likely the same as the low-permeability layer. Characteristics for McGee Ranch silt have been determined (Table II-3), and used as a basis for input to the HELP model, Version 2. The HELP model results are discussed in Appendix B-5. An estimated 1,700 yd^3 of topsoil are required. Fertilizers and herbicides may need to be applied to the topsoil to help establish the desired vegetative cover. Calculations for water and wind erosion are provided in Appendix B-5. As stated, the topsoil most likely will consist of the same material as the low-permeability layer. The only difference between the two layers will be in the degree of compaction. The topsoil layer will be placed in 6-in. lifts to a minimum depth of 24 in. with minimal compaction to allow for the establishment of the vegetative cover.

4. Vegetative cover--The vegetative cover plays a significant role in the overall cover function and has two primary functions. First, the vegetation acts to transpire water that has been stored in the topsoil back to the atmosphere. Second, the vegetation helps to reduce the erosion caused by wind and water. A thickspike wheatgrass (Agropyron dasytachyum) and a Siberian wheatgrass (Agropyron sibericum), Indian Ricegrass (Oryzhopsis hymenoides), Bottlebrush squireltail (Sitanion hystrix), Sheep fescue (Festuca ovina), arid tolerant bluegrass species (Poa), and perennial Rye species (Secale) will be seeded into the topsoil. The topsoil should be laid with care taken to prevent excessive compaction, but with enough compaction to provide adequate seedbed preparation. Thickspike wheatgrass is a rhizomatous native grass of the Pasco Basin and is well-suited for wind erosion control on deep sandy soils (Brown and Wiesner 1984). Siberian wheatgrass is the most abundant of the perennial grasses seeded on Hanford Site waste burial grounds and may limit cheatgrass competitively where seeded. On blowout areas where other grass species do not germinate or succeed, it will be necessary to reseed with a species hardy to dune sand areas such as Indian Ricegrass (Oryzhopsis hymenoides) or Bottlebrush squirreltail (Sitanion hystrix).

It has been shown that effectively timed herbicide control of Russian thistle (Salsola kali) is crucial to a successful establishment of any perennial grass species on the Hanford Site. All perennial grasses should be planted in the fall with proper seedbed preparation. A pea gravel mulch or veneer, or an alfalfa grass hay mulch, will help increase soil moisture, tilth, and fertility. If, because of scheduling, the cover construction requires a spring planting, an annual cereal grain (such as winter wheat or barley) is recommended to quickly stabilize the cover followed by planting of the perennial wheatgrasses the following fall.

Table II-3. Preliminary Information on Moisture/Density Relations and Hydraulic Conductivity for McGee Ranch Soil[a]. (sheet 1 of 2)

In-Place Density	No. Tests	Range	Mean
Moist density (corresponding unit weight)	3	1.38 - 1.39 g/cm^3 (86.1 - 86.7 lb/ft^3)	1.38 g/cm^3 (86.3 lb/ft^3)
Moisture content	3	6.2 - 7.4%	7.0%
Dry density (corresponding unit weight)	3	1.28 - 1.30 g/cm^3 (79.8 - 81.1 lb/ft^3)	1.29 g/cm^3 (80.7 lb/ft^3)
Porosity	3	0.512 - 0.517	0.514
Compacted Density (25-Blow Proctor Test) ASTM D698-78	**No. Tests**	**Range**	**Mean**
Maximum density (moist) (corresponding unit weight)	3	1.99 - 2.05 g/cm^3 (124.1 - 127.9 lb/ft^3)	2.03 g/cm^3 (126.6 lb/ft^3)
Moisture content at maximum density	3	16.0 - 17.9%	16.9%
Maximum density (dry) (corresponding unit weight)	3	1.74 - 1.77 g/cm^3 (108.5 - 110.4 lb/ft^3)	1.75 g/cm^3 (109.4 lb/ft^3)
Porosity	3	0.340 - 0.355	0.347
Hydraulic conductivity	1	--	3.0 x 10^{-7} cm/s
Compacted Density (15-Blow Proctor Test) Modified ASTM D698-78			
Maximum density (moist) (corresponding unit weight)	3	2.03 - 2.05 g/cm^3 (126.6 - 127.9 lb/ft^3)	2.04 g/cm^3 (127.0 lb/ft^3)
Moisture content at maximum density	3	16.8 - 17.8%	17.3%

Table II-3. Preliminary Information on Moisture/Density Relations and Hydraulic Conductivity for McGee Ranch Soil[a]. (sheet 2 of 2)

Compacted Density (cont) (15-Blow Proctor Test) Modified ASTM D698-78	No. Tests	Range	Mean
Maximum density (dry) (corresponding unit weight)	3	1.73 - 1.74 g/cm^3 (107.9 - 108.5 lb/ft^3)	1.74 g/cm^3 (108.3 lb/ft^3)
Porosity	3	0.346 - 0.349	0.347
Hydraulic conductivity	1	--	1.3×10^{-6} cm/s
Compacted Density (5-Blow Proctor Test) Modified ASTM D698-78	**No. Tests**	**Range**	**Mean**
Maximum density (moist) (corresponding unit weight)	3	2.00 - 2.04 g/cm^3 (124.7 - 127.2 lb/ft^3)	2.01 g/cm^3 (125.6 lb/ft^3)
Moisture content at maximum density	3	18.7 - 19.9%	19.4%
Maximum density (dry) (corresponding unit weight)	3	1.67 - 1.70 g/cm^3 (104.2 - 106.0 lb/ft^3)	1.69 g/cm^3 (105.2 lb/ft^3)
Porosity	3	0.359 - 0.373	0.366
Hydraulic conductivity	1	--	1.6×10^{-6} cm/s

NOTES:
g/cm^3 = grams per cubic centimeters
lb/ft^3 = pounds per cubic foot
cm/s = centimeters per second.
[a]Specific gravity of solids (G_s) for all determinations is 2.66.

With the completion of the placement of these four components, an engineered cover, which will allow for the storage of water to be used for evapotranspiration purposes, will be in place. Figures II-5 and II-6 show a cross section of the final cover and a plan view of the finished cover.

II-2b. Construction Quality Assurance Plan Outline

A construction QA plan will be prepared that will address in sufficient detail activities that pertain to the areas outlined below. This plan will provide verification that the cover will conform to or exceed the design specifications. The construction QA plan cannot be prepared until specific construction materials data are known. This plan will provide documentation that field data, obtained during construction, meets the design specifications. The construction QA plan will incorporate, by reference, those Westinghouse Hanford procedures pertinent to the construction QA plan, and address the following areas as a minimum:

- Responsibility and authority of the organizations and key personnel involved with implementation of the construction QA plan

- Personnel qualifications and documentation of training and experience related to respective responsibilities

- Monitoring activities listed in detail, including observations and tests conducted to ensure the quality of each installed component

- Sampling requirements, including a description of sampling and testing activities to determine the quality of materials installed during construction. These include the following:

  - Types of sampling activities
  - Types of samples
  - Number and location of samples
  - Frequency of testing
  - Data evaluation procedures
  - Acceptance and rejection criteria
  - Corrective action plans
  - Handling of testing errors

- A description of procedures to document construction QA activities. Documentation must include the following items as a minimum:

  - Daily summary reports
  - Monitoring data sheets
  - Change orders
  - Meeting memoranda
  - Photographs

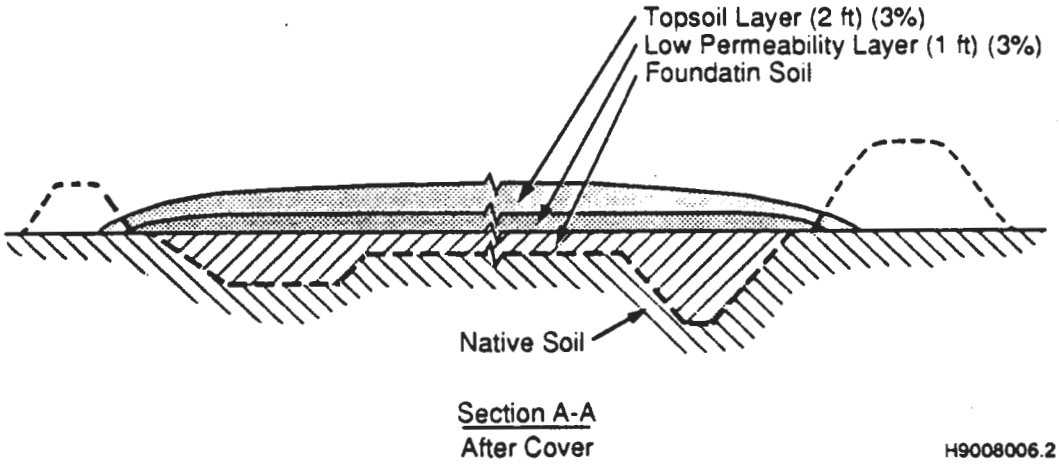


Figure II-5. Cross-Section A-A, Cover.

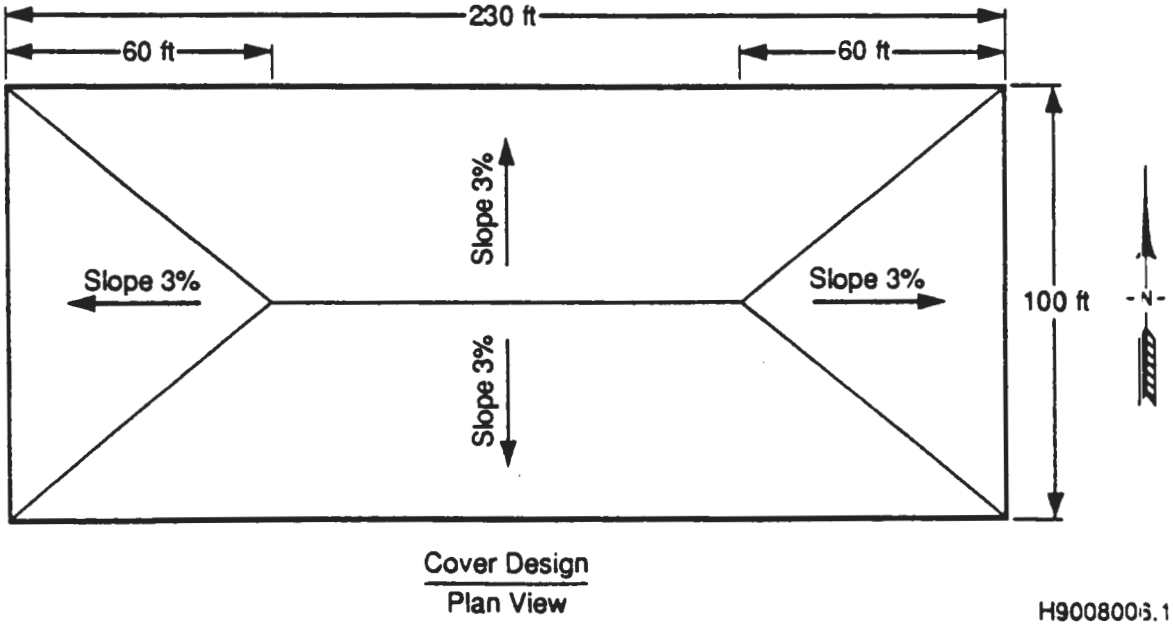


Figure II-6. 2101-M Pond Cover Plan View.

- Problem identification and reports on corrective measures
- Design acceptance reports
- Final documentation including record drawings

- The construction QA plan must address all the following cover components:

  - Foundation soil
  - Low-permeability soil
  - Topsoil
  - Vegetative cover

- Some elements of consideration for the cover components include the following:

  - Method of compaction
  - Storing and handling of materials
  - Adverse weather
  - Improper materials and techniques.

II-3. POSTCLOSURE CONSIDERATIONS

The following sections summarize the postclosure criteria to be considered when designing a cover.

II-3a. Maintenance Needs

As required by WAC-173-303, this section describes how maintenance during the postclosure care period will be minimized by the design and construction of the final cover.

Stabilization projects conducted at the Hanford Site since 1978 have shown that very little site maintenance is required following the successful establishment of a vegetative cover. Of primary concern during the postclosure period will be repair of any damage to the cover because of erosion. In addition, periodic maintenance of the vegetative cover and the groundwater monitoring wells and pumps will be necessary during the postclosure period.

Erosion damage to the cover may occur as a result of precipitation or wind. The potential for sheet erosion will be offset by the use of low slope angles, short slope lengths, and a vegetative cover. The potential for erosion from wind will be offset by mulching practices and the establishment of a perennial grass cover.

Successful establishment of a hearty vegetative cover on the Hanford Site may require from 2 to 5 yr. During this establishment period, a mulch applied for initial stabilization and the natural emergence of cheatgrass (*Bromus tectorum*) combine to protect the soil from erosion by wind. Periodic observations by trained personnel will be made to evaluate seedling progress

and to recommend necessary corrective actions. Spot applications of herbicides may be used in the spring to selectively control annual broadleaf species that compete for available moisture and nutrients. Herbicide applications will end following successful perennial grass establishment. Fertilizer applications after closure may be needed to stimulate plant vigor during the second or third year. Deep-rooting plants such as sagebrush, with root systems extending into the vadose zone, are common to the region. Manual removal of such vegetation starting on the cover will be required during the postclosure period.

Slopes created by the installation of the cover during closure and the channeling of run-off water may lead to localized increases in erosion. Although run-off damage is expected to be minimal, regular inspections of areas that could be subject to erosion will be necessary. Should there be any major erosion damage, repairs will be made using grading equipment and fill soils.

Settlement and displacement are not expected to be problems at the 2101-M Pond. Careful placement and compaction of the soil during construction will greatly reduce settlement. Differential settlement is not expected, and only a very small and insignificant amount of uniform compression and consolidation is expected to occur over time. Refer to Section II-3c(1) for further discussion.

II-3b. Erosion and Abrasion

The 2101-M Pond cover design has been evaluated for erosion because of water and wind. The erosion rates for water and wind erosion are calculated using the Universal Soil Loss Equation (USLE) and the Wind Erosion Equation (WEQ), respectively. Using the conservative erosion estimates, the erosion rate for the 2101-M Pond cover is 1.59 tons/acre/yr. This is the erosion rate that would be expected for the first few years of the cover's life, assuming that poor vegetative conditions exist and mulching practices do not remain effective beyond 1 yr. Detailed calculations for erosion potential are provided in Appendix B-5.

II-3c. Settlement and Displacement

This section addresses technical accommodations for any potential settling or displacement of the facility's engineered cover. Settlement or displacement are not anticipated to be problems at the 2101-M Pond. Accurate characterization of existing subgrade conditions and of both soil and cover engineering properties are necessary to adequately predict settlement.

II-3c(1). Consolidation-Related Settlement. There are two types of consolidation in soils; primary and secondary. Primary consolidation is the expulsion of pore fluids under excessive hydrostatic pore pressure. Secondary consolidation is the long-term deformation of the skeleton of the soil mass

and compression of gases in the voids. Minimal foundation compression is anticipated because the loads that will be imposed by the cover materials or surface activities will be insignificant at 2101-M Pond.

Consolidation of the low-permeability soil layer also is assumed to be insignificant for the same reasons. Laboratory analysis of consolidation potential of the low-permeability soil are expected to verify this assumption. Secondary consolidation takes place slowly over time and is generally insignificant when compared to primary consolidation. Secondary consolidation is not specifically significant for the types of soils underlying the site or for the proposed cover construction materials.

No waste has been buried in containers or by any other method below the 2101-M Pond. Therefore, consolidation and compression cannot occur because of dewatering of waste. Because the Hanford Site is located in an arid-steppe environment, sand dominates the near-surface soil profile. The potential for biological oxidation occurring in this soil cover is insufficient to cause consolidation or compression of the cover.

II-3c(2). Cavity-Related Settlement. Cavities are large voids within a soil or rock mass that cause settlement at the ground surface (EPA 1985b). Cavity-related settlement has been documented as related to mining, natural karstic (solution cavity) areas, and landfills. Mining has not occurred near the 2101-M Pond. A review of the subsurface strata indicates that no water-soluble rock (such as limestone) exists beneath the 2101-M Pond. Cavity-related settlement in landfills is caused by waste consolidation, decomposition of organic waste, and collapse into cavities created by random dumping of waste. These settlement features have been documented to lead to cracks in cover surfaces, collapse of portions of the cover, and ponding of water in depressions in the cap caused by settlement of portions of the cover. The potential for any of these occurrences does not exist at the 2101-M Pond site.

II-3c(3). Embankment-Related Displacement. Embankments generally fail because of inadequate strength of soils of either the embankment materials, the foundation materials, or both. Also, seepage, inadequate drainage, freeze/thaw, and dry and soak phenomena affect slope stability.

II-3c(3.1). Freeze/Thaw Displacement. Freeze/thaw phenomena will not cause stability problems for the cover. Subsurface soil temperatures have been recorded at the HMS since 1952. The lowest temperature recorded at 36-in. below the surface was 32 °F, which occurred once over the monitoring period (Stone et al. 1983). Therefore, the zone of frost penetration does not exceed 3 ft below grade. Therefore, the top 3 ft of the cover design can be assumed to be potentially affected by freeze/thaw and dry and soak cycles.

Freeze/thaw cycling affects on the cover also have been considered in the 2101-M Pond design. The maximum frost penetration depth, as stated previously, is 3 ft below grade. The average number of annual freeze/thaw cycles is 93 with a range of 25 to 168 d (Stone et al. 1983). A freeze/thaw cycle is defined as a day in which the minimum temperature is below freezing and the maximum temperature is above freezing.

The water table is approximately 315 ft below grade. This depth, coupled with the subsurface soils of the Hanford formation, indicates that capillary rise from the water table to the cover will not occur.

A small level of ice lens formation could occur in the silty topsoil component. However, the only water available for such ice lens formation is that stored in the silty soil matrix of the cover. The interface between the native soils and the silty soils acts as a capillary break, thus preventing the upward movement of water. In summary, considerations of freeze/thaw cycling effects on the cover have been evaluated, and have been determined to not be a concern.

II-3c(3.2). Dry and Soak Effects. A dry and soak cycle is not considered to be of concern for this environment. Examination of the HELP model simulation of water movement in the cover design indicates the wetting front will not extend into the subcover soils (Appendix B-5). The arid climate of the region, a relatively cohesionless, high water-holding capacity soil, along with the establishment of a vegetative cover eliminate the need for concern in this area.

II-3c(3.3). Strength, Angle of Internal Friction, and Friction Angles. Because the cover design calls for a maximum slope angle of 3%, the slopes will be very stable. Therefore, the determination of these properties is unnecessary.

II-3c(3.4). Liquefaction. Liquefaction is a term used to identify the shear failure of cohesionless soils, generally caused by minute increases in neutral stress over a period of time, generated by repeated small loadings. However, conditions can occur quickly under no increased load if loose sands are impacted by shock waves. Because only the native soils are sandy, liquefaction of the cover is not considered to be a concern for this design.

II-3d. Additional Data Needs

A schedule is provided in Table II-2 that indicates the specific tasks and time elements required to determine cover material data needs. This includes identification of cover materials in the field and laboratory testing of engineering properties. The subsurface soils at the 2101-M Pond can be tested in the laboratory at the same time that the other cover materials engineering properties are determined.

II-3e. Cover Permeability

In accordance with WAC 173-303-665(6)(a)(v), the cover system must provide hydraulic conductivity less than or equal to that of the natural subsoils.

The intent of WAC-173-303 regulation is to control the rate of infiltration through the cover such that it does not exceed the water-removal capacity of an engineered cover. The purpose of the low-permeability layer of

the preliminary cover design is to allow for the development of a zone that will hold a significant amount of water for long periods of time. This zone, or layer, will hold the water and make it available for use by surface vegetation and evaporation. In this way, water is kept away from any potentially contaminated zones so that leaching to the groundwater does not occur.

The subsurface soils of the 2101-M Pond site were identified during monitoring of the well drilling operations as part of the Hanford formation. To depths of 210 to 230 ft, the soil consists of 90% or greater sand. Below this depth to approximately 310 ft, is a sandy gravel, and below this depth are the water table and unconsolidated, silty-sandy gravels. These soils have permeability ranges from 1.1×10^{-2} to 3.5×10^{-5} cm/s (Chamness et. al. 1990).

The permeability of the cover system is controlled by the topsoil, and low-permeability components of the cover. Both layers consist of a silt-to-silt-loam soil. These design layers retain water for evapotranspiration to the environment. Beneath these, lies the native soil described above. Water retention in the low-permeability layer is a function of the soil texture and structure, or arrangement of the particles. The pressure head at the soil layer interface must exceed the matrix potential of the soil before any movement of water from the smaller, tighter soil can move into the looser, less dense soil beneath it. Therefore, the interface between soil layers acts as the barrier to downward migration of water because the water, which has infiltrated the fine-textured topsoil, cannot penetrate into the coarser, textured sand layer until sufficient pressure builds at the interface. Therefore, before outflow of free water from a soil can occur, the pressure in the soil must exceed atmospheric pressure (Richards 1950).

The cover provides a hydraulic conductivity much lower than the subsurface soils at the 2101-M Pond. Estimates of water percolation through the cover are provided in Appendix B-5. The HELP model data indicates that the estimated average annual drainage through the bottom of the cover is 37 ft^3 or 0.22% of the average annual precipitation. Therefore, the 2101-M Pond cover design provides a cover system hydraulic conductivity that meets the intent of the WAC-173-303 regulations.

II-4. POSTCLOSURE REQUIREMENTS

The sections have been subdivided into the following six postclosure requirements as follows:

- Postclosure Plan
- Personnel Training
- Procedures to prevent hazards
- Postclosure contact

- Amendment of the postclosure plan

- Certification of the postclosure care.

For purposes of postclosure planning, it is assumed that the 2101-M Pond will be closed as a landfill with a final cover.

II-4a. Postclosure Plan

Postclosure care of the 2101-M Pond will continue until Ecology stipulates otherwise; however, for planning purposes, a minimum of 30 yr is envisioned. The 30-yr time frame is used throughout this plan to acknowledge the long-term commitment of the postclosure requirements. This section provides details of the postclosure plan and is subdivided into the following three parts:

- Inspection plan, Section II.2.B

- Groundwater monitoring plan, Section II.2.C

- Maintenance plan, Section II.2.C in accordance with 40 CFR 265.117 through 265.120 and 265.310(b).

II-4a(1). Inspection Plan. In accordance with 40 CFR 265.310(b), the inspection plan provides details concerning the necessary security equipment; the inspection of erosion and other factors that might affect the cover integrity; and the inspection of well condition, and benchmark integrity. A logbook will be kept by the personnel conducting the inspections and maintained for examination by the regulatory agency for the entire 30-yr period of postclosure monitoring. The inspector will record (at a minimum) the date, name of person(s) performing the inspection, basic overall condition of the cover (e.g., condition of vegetation, condition of soil surface), condition of monitoring wells, condition of security control measures, any damage to the cover and/or other maintenance needs, as well as the weather conditions and time of day at the time of inspection. The logbook will then be signed, dated, and witnessed.

Maintenance actions, as noted by the inspector in the logbook, will be started and completed within 90 d so that the next logbook entry can document the correction of the problem. Table II-4 depicts the inspection items and frequencies schedule for the postclosure care period.

II-4a(1.1). Security Control Devices. The 2101-M Pond is located within the 200 East Area of the Hanford Site, which is completely fenced. Roadways are restricted to authorized personnel and, for national security reasons, the general public is excluded.

Table II-4. Minimum Inspection Schedule for the 2101-M Pond.

	Inspection frequency		
	Monthly	Quarterly	Annually
Security control devices		X	
Erosion damage		X	
Cover settlement and displacement		X	
Condition of vegetative cover	X (2 yr)	X	
Well condition and purge water collection system		X	
Benchmark integrity			X

II-4a(1.2). Erosion Damage. The overall erosion control for the 2101-M Pond site will be dictated by the health of the vegetative cover and the slope of the cover. Inspection of the cover will consist of walking over the site to visually check for erosion damage. The inspection is scheduled to observe the site and vegetative cover during different seasonal conditions. Erosion damage will be addressed in two areas: precipitation and wind as follows.

- Precipitation--The Hanford Site climate is mild and dry, best described as semiarid. The Hanford Site receives an average of 6.3 in. of annual precipitation. Because of the semiarid climate, much of the annual precipitation is lost to evapotranspiration. The 2101-M Pond area is relatively flat (less than 10 ft vertical to 1,000 ft horizontal). The combination of low annual precipitation, high evapotranspiration rates, relatively flat topography, low cover slopes angle (3%), and a stable vegetative cover reduces the possible damage from precipitation. However, the integrity of the final cover will be inspected to assess any possible damage. The condition of the cover will be noted in the logbook. Any damage observed will be written into the inspection logbook, along with the name of the inspector, time and date, the type of damage noted, the extent of the damage, and any other important information. An inspection also will be scheduled as shortly as possible after any storm event that exceeds a 10-yr, 24-h return cycle for the HMS. This inspection will constitute one of the regularly scheduled inspections if all other quarterly inspection items have been met, and the inspection falls within 30 d before the next regularly scheduled inspection.

- Wind--The monthly average wind speeds for the Hanford Site range from about 6 mph in the winter to 8 mph in the summer. The prevailing regional winds are from the northwest (Figure II-7). In the spring, early summer, and late fall, the local plant community helps control wind erosion. When the plant communities begin to dry out in late summer, the probability of wind erosion remains low because winds usually tend to decrease during this period. However, the integrity of the final cover will be inspected to assess any possible damage. Any damage observed will be written into the inspection logbook, along with the name of the inspector, time and date, the type of damage noted, the extent of the damage, and any other important information. Also, an inspection will be scheduled as shortly as possible after any unusual wind event (i.e., 24-h time periods where the average wind speed equals or exceeds 15 mph). This inspection will constitute one of the regularly scheduled inspections if all other quarterly inspection items have been met, and the inspection falls within 30 d before the next regularly scheduled inspection.

Erosion damage that results in the accumulated loss of 2 tons/acre/yr (or more) of soil over the surface of the cover will be reported to Ecology within 30 d of observation. After evaluation, maintenance action may include replacement of the fine topsoil layer in the affected area(s), reseeding, and other tasks performed during closure, such as the application of fertilizers to ensure a vigorous vegetative growth. Any maintenance and/or repair activities will be concluded within 90 d of noting the problem in a field logbook.

II-4a(1.3). Cover Settlement and Displacement. The 2101-M Pond cover will be inspected for settlement and displacement by walking over the site. Settlement and displacement are synonymous terms for any surface breach or depressions in the final cover's exterior. Any such breaches or depressions will require an investigation to determine the cause, evaluate the long-term environmental impacts, and provide a corrective solution. The quarterly survey is scheduled to observe the site during different seasonal conditions. The inspection will follow the same logbook procedures as outlined for erosion damage.

Settlement greater than 6-in. in any area will be reported to the regulatory agency within 30 d of observation. Before maintenance activities begin, an investigation into the cause of the problem will take place so that the appropriate maintenance action can be selected. After reestablishment of cover integrity, the vegetative cover will be reestablished as needed.

II-4a(1.4). Vegetative Cover Condition. The 2101-M vegetative cover will be inspected monthly during the growing season until the vegetative cover is established (approximately 2 to 3 yr), noting plant germination success, germination density, winter damage, and plant density during the plant growing cycle. After the vegetative cover is established, a quarterly inspection

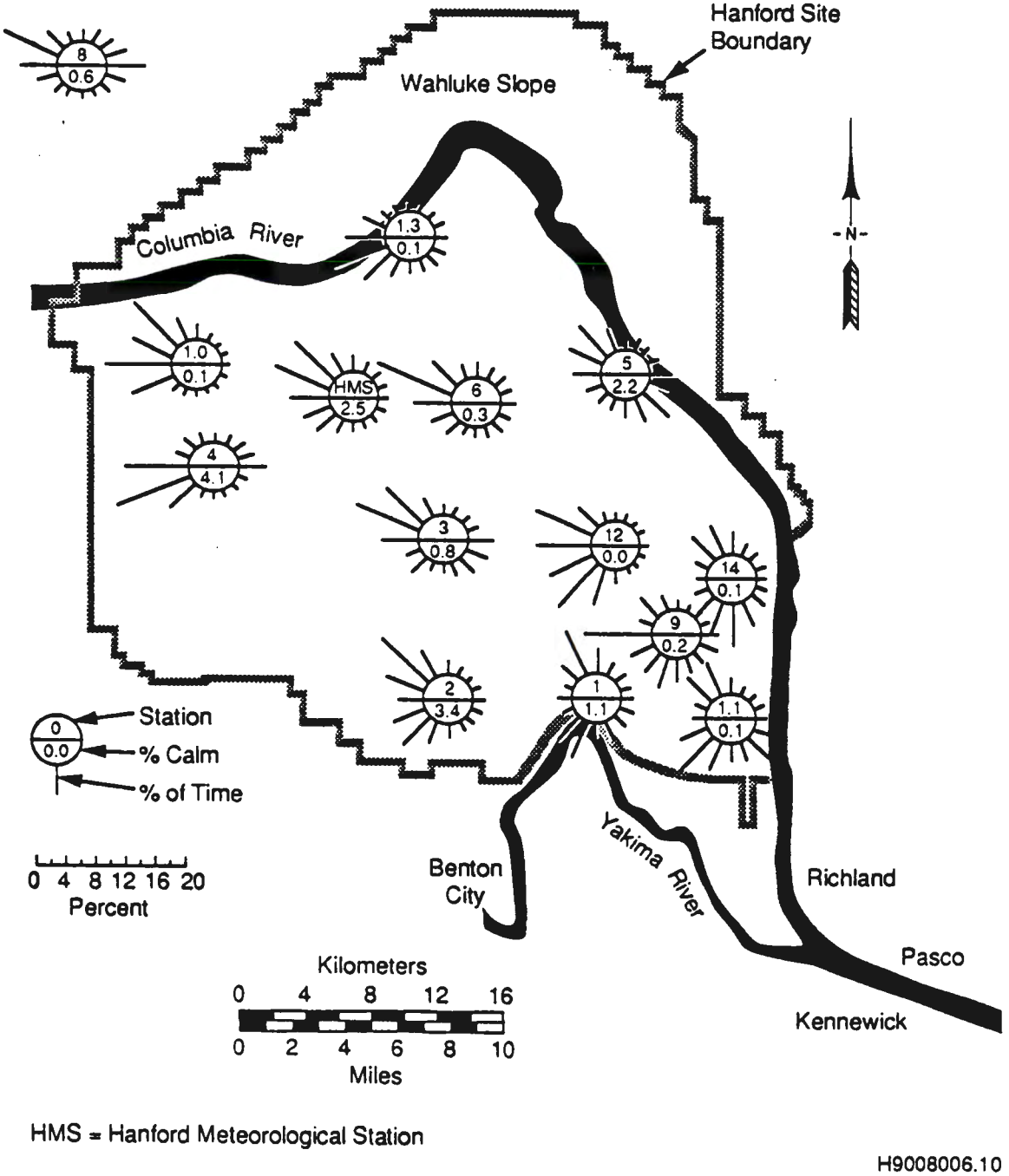


Figure II-7. Wind Rose Telemetry Network.

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during the calendar year will be performed. The condition of the plant cover will be noted in the logbook with additional estimates of percent cover, distribution cover, stand height, stand vigor, as applicable during the calendar year. The vegetative cover is an important factor to the long-term stability of the site.

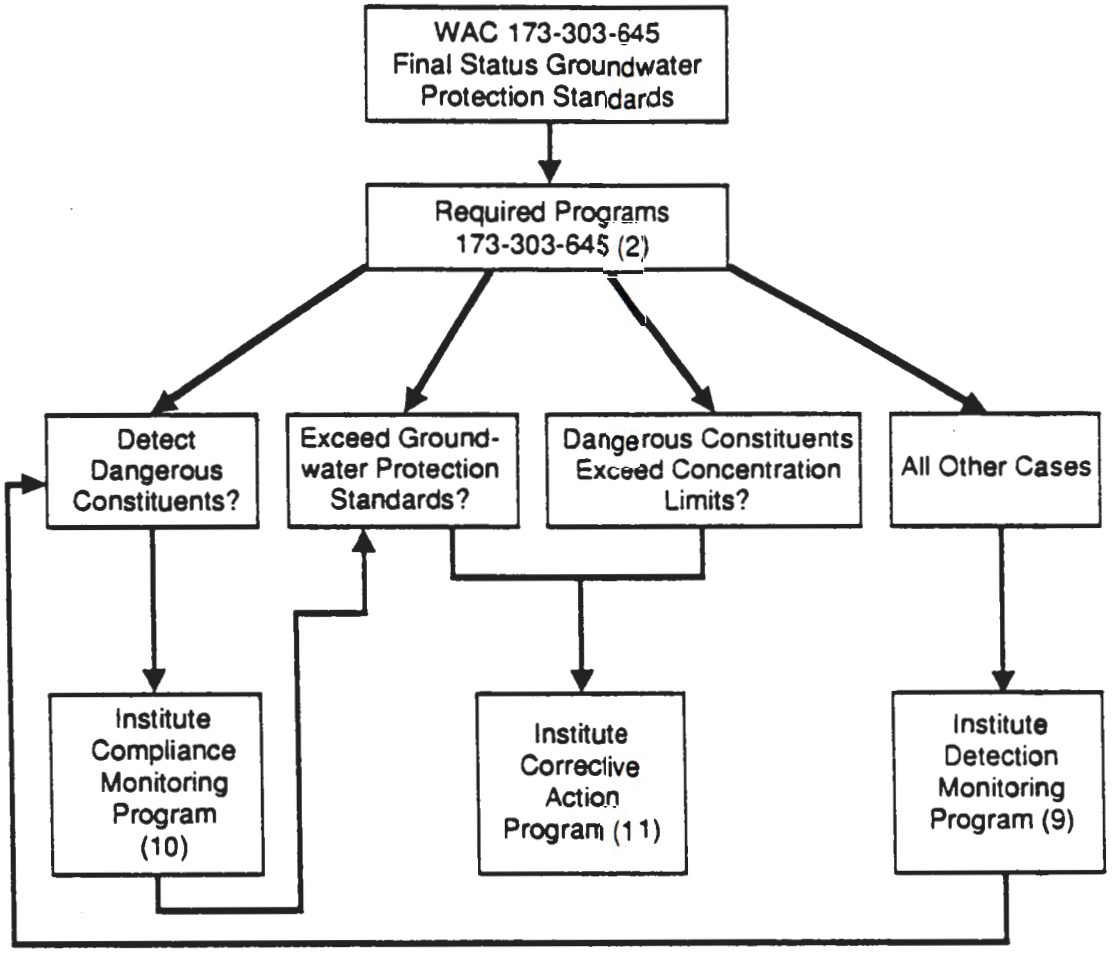
If after two years vegetative cover has observable soil loss, blowouts, and/or empty spots (>1.8 yd^2) devoid of plant material or plant litter, spot treatment with a gravel veneer or surface sealant should be applied until the next planting season when a hardy perennial grass species will be planted (i.e., Indian Ricegrass (Oryzhopsis hymenoides). These blowouts will be treated at planting time in a similar fashion as a field requiring initial seeding. All broadleaf herbicide applications will be applied in a manner consistent with the herbicide labeling requirements. Additional vegetation technologies that come into mainstream practice within the Soil Conservation Service or the mining industry should be encouraged along with additional field trials to determine new perennial grass species.

II-4a(1.5). Benchmark Integrity. Inspection (surveying) of benchmarks will be performed on a yearly basis. When surveyors do any work on the Hanford Site, the standard practice is to use two or more benchmarks to cross-check the integrity of measurements. Benchmarks observed to be damaged or out of alignment will initiate maintenance action. Maintenance action will include replacement of damaged benchmarks and/or resurveying of benchmarks found to be out of alignment.

II-4b. Postclosure Groundwater Monitoring Plan for 2101-M Pond

Three levels of groundwater monitoring are defined in WAC 173-303-645(9)(a) regulations and are summarized in Figure II-8: (1) detection monitoring is used before any signs of contamination are detected; (2) compliance monitoring is used after contamination has been detected, but before quality standards have been violated; and (3) corrective action monitoring is used when groundwater contamination exceeds acceptable limits and while a corrective action program is underway to treat the contamination. Only a final-status detection level monitoring program will be described in this plan.

The 2101-M Pond has been in an interim-status detection level groundwater monitoring program (40 CFR 265 Subpart F) since August 1988. The purpose of the following groundwater monitoring program is to continue the basic elements of the interim status (40 CFR 265 Subpart F) detection level groundwater monitoring program (Chamness et al. 1989) and to incorporate the additional requirements of "Final Status Groundwater Protection Standards" (WAC 173-303-645) in the event the strategy of clean closure cannot be achieved. The objective of the program is to detect the presence of statistically significant levels of dangerous constituents in the groundwater beneath the 2101-M Pond that can be attributed to discharges to 2101-M Pond.



Facility Permit Specifies 173-303-645 (2) (b):

- Specific elements of the monitoring and response program
- Will identify which program will be necessary
  - detection
  - compliance
  - corrective action
- Specific circumstances to implement the above programs

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Figure II-8. Final Status Groundwater Protection Standards.

II-4b(1). Monitoring System. The existing monitoring well network will include the postclosure monitoring network (WAC 173-303-645(9)(b)). The well configuration allows collection of samples that represent the quality of groundwater passing the point of compliance. Wells were constructed to comply with WAC 173-303-160 and to allow collection of representative groundwater samples. This construction will prevent contamination of the samples, the sampled strata, and communication between aquifers and water-bearing strata. The Site Characterization Report (Chamness 1990) summarizes the well construction information.

II-4b(2). Groundwater Monitoring Protection Parameters and Constituents. Constituents and parameters listed in Table II-5 will be monitored on a semiannual basis (WAC 173-303-645(9)(c) and (d)). Exceeding a maximum concentration or background value by a statistically significant difference for any constituent or parameter will trigger a compliance monitoring program.

Table II-5. Constituent and Parameter Monitoring List.

Groundwater quality parameters
Chloride
Iron
Manganese
Sodium
Sulfate
<u>Indicator parameters</u>
pH
Specific conductance
TOX
TOC
<u>Site specific constituents</u>
Barium
Copper

II-4b(3). Flow Rates. The groundwater flow rate and direction will be determined annually from routine water level measurements taken each time the groundwater is sampled (WAC 173-303-645(9)(e)).

II-4b(4). Procedures. The sampling and analytical methods have been established in the <u>40 CFR 265 Interim Status Groundwater Monitoring Plan</u> (Chamness et. al 1989) (GWMP) and will be the same for the purposes of this final-status groundwater monitoring plan. All sampling activities are currently performed under contract by PNL. An analytical laboratory using EPA-approved test methods will perform sample analysis for most constituents.

The following procedures will be used for final-status groundwater monitoring and can be found in Surface Environmental Monitoring Procedures Manual, (PNL 1990) (WAC 173-303-645(9)(f)):

- Decontamination
- Water level measurements
- Sample collection
- Sample preservation
- Sample shipment
- Analytical procedures
- Quality assurance
- Chain-of-custody control.

II-4b(5). Statistical Analysis. The purpose of this section is to determine if there has been a statistically significant increase (or in the case of pH, difference) in the mean or median values over the background populations for each constituent and parameter listed in Table II-5. Analytical data from the upgradient well (299-E18-1) will be evaluated against the downgradient compliance point data (299-E18-2, 299-E18-3, and 299-E18-4) using applicable statistical methods. Alternative methods are provided to handle data that are below the analytical detection limit(s). A flowchart depicting the process of selecting a method of analysis is presented in Figure II-9. Statistical analysis methods include analysis of variance (ANOVA), test of proportions, and other methods deemed appropriate (EPA 1989b). The methods selected are based upon knowledge of present conditions, and may be changed as new information is obtained and/or groundwater flow patterns change.

II-4b(5.1). Analysis of Variance (ANOVA). For each constituent, the data from downgradient compliance point wells and background wells will be sampled semi-annually. One-way ANOVA procedures will be used to test with a 95% level of confidence whether the compliance data are drawn from the same population as the background data. A one-point-in-time comparison between background and compliance wells will be used. The one-point-in-time comparison will help reduce the components of seasonal variation by providing for simultaneous comparisons between background well and compliance well monitoring data.

A parametric ANOVA procedure assumes that the data consist of random samples drawn from normal population(s) with a common variance. If the data are shown to be normally or log-normally distributed with a common variance, and if less than 15% of the samples from each population are below the detection limit, the nondetects will be assigned a value equal to one-half of the detection limit and parametric ANOVA will be used.

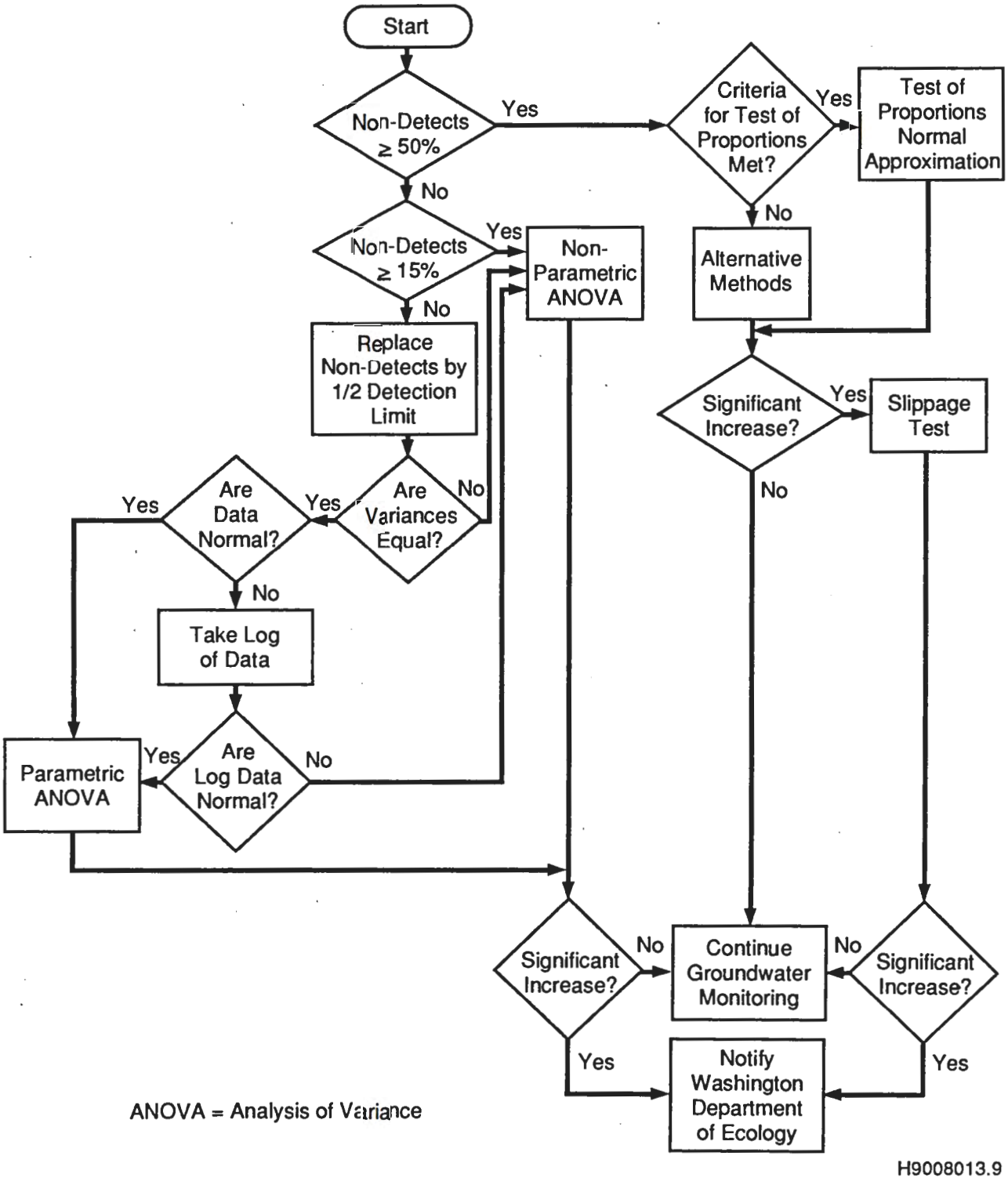

Figure II-9. Flowchart Illustrating Method of Choice of Appropriate Statistical Techniques.

A nonparametric procedure such as Kruskal-Wallis one-way ANOVA may be used if the data do not meet the parametric ANOVA requirements or if the proportions of nondetects from each population are less than 50% but more than 15%.

If parametric or nonparametric ANOVA is significant at 5% level, multiple comparison procedures will be used to evaluate which compliance well may be contaminated (EPA 1989b).

II-4b(5.2). Test of Proportions. This procedure uses the normal distribution approximation to the binomial distribution. This assumes that the sample size is reasonably large. If more than 50% of the data are below detection limit and the conditions for applying the normal approximation to the binomial are satisfied (EPA 1989b), a test of proportions may be used to compare the background well data with the compliance well data.

If very few quantified values are found, an exact test procedure for the equality of two binomial proportions as described by Nelson (1982) may be used. Alternative methods such as tolerance limits or a quantile test (Johnson et al. 1987) or a slippage test (Rosenbaum 1954) also may be considered. These alternatives would be appropriate when the number of detected compounds is quite small relative to the number of compounds analyzed for as might occur in the detection monitoring.

The test of proportions compares the proportions of detects rather than the magnitude of the actual concentrations of the constituents of concern, and could, therefore, indicate a significant difference when the compliance well concentrations were in fact lower than the background concentrations or vice versa. To protect against such possibilities, a significant difference in proportions will not be considered as an indicator of contamination unless the maximum background concentration is exceeded by that allowed by the slippage test (Rosenbaum 1954). For purpose of the statistical analysis, the practical quantitation limit is considered to be the maximum background concentration in the case when all the background samples are nondetects.

If a statistically significant increase is detected during the analysis of the data, the following steps will be taken.

1. Ecology will be notified within 7 d of those parameters or constituents that showed a statistical increase (WAC 173-303-645(9)(g)(i)).

2. The monitoring network will be sampled for 40 CFR 264, Appendix IX constituents and any permit constituents (WAC 173-303-645(9)(g)(ii)), and will continue to be sampled quarterly.

3. Background values for each Appendix IX and permit constituent will be established.

4. Statistical analysis (described above) will be performed on the data.

5. If the significant increase is confirmed, an application for a permit modification to establish a compliance monitoring program per WAC 173-303-645 (10) will be submitted within 90 d. The application will include information required by WAC 173-303-645(9)(g)(iv)(A-D).

6. If, during compliance monitoring, the groundwater concentration limits are exceeded, an application for a permit modification to establish a corrective action program per WAC 173-303-645 (11) will be submitted within 90 d.

II-4b(6). Alternate Source. If a statistically significant increase occurs and if the contaminants can be demonstrated to be coming from another source, a permit modification application will be submitted (WAC 173-303-645(9)(vi)). If it can be successfully shown that a source other than the regulated unit caused the increase, the following will occur.

- The department will be notified within 7 d that a statistically significant increase has been detected.
- A report presenting findings and a permit modification will be submitted within 90 days.
- Detection monitoring will be continuted.

II-4c. Maintenance Plan

In accordance with 40 CFR 265.310(b), this section provides a plan for maintenance of the closed facility area throughout the postclosure period. Elements of this maintenance plan include repair of security devices and erosion damage; correction of settlement and displacement; vegetative cover maintenance; and well replacement. The maintenance plan is based on observations made during the inspection and monitoring phases of the postclosure period.

II-4c(1). Repair of Security Control Devices. The 2101-M Pond is located in the 200 East Area of the Hanford Site and, thus, is inside a fenced area. Any unauthorized access will result in the immediate notification of the Hanford Site security forces. Any necessary repairs will be made upon identification of the problem and notification of the responsible maintenance organization.

Each of the 2101-M Pond groundwater monitoring wells has a locking cap to prevent well tampering. In addition, the wells are surrounded by three steel guardposts to prevent damage from vehicles. The responsible maintenance organization will be notified of any problems to the locks or guardposts and/or other problems noted during inspections and/or well monitoring activities. All necessary repairs will be made before the following inspection period and so noted in the logbook during the inspection.

II-4c(2). Erosion Damage Repair. Erosion damage to the 2101-M Pond cover may occur as a result of precipitation or wind. There is a greater potential for erosion from wind, particularly during the period of vegetation establishment. At the time of seeding, a straw mulch of 2 tons/acre (or its equivalent) will be used to protect the cover surface. A stable vegetative cover will reduce possible damage from wind and water erosion.

Soil permeabilities and rainfall intensities at the Hanford Site are such that water-induced erosion will be very minor on the relatively flat area surrounding the 2101-M Pond. However, slopes created by the installation of the cover during closure may lead to localized increases in erosion.

Because of the low probability of serious damage caused by erosion, preventative measures beyond those already described are considered unnecessary. However, any erosion damage will be properly noted and reported to the responsible maintenance organization. Minor damage will be repaired with hand tools. Major erosion damage repairs will be initiated immediately, using (as appropriate) grading equipment and fill soils. Maintenance action for major and minor erosion damage will be initiated within 90 d of the time of discovery. Repairs will return all areas to predamaged conditions.

II-4c(3). Correction of Settlement and Displacement. Settlement and displacement are caused primarily by the deformation or compression of fill soils and voids. Careful placement and compaction of the cover during construction will greatly reduce the occurrence of settlement. Differential settlement is not expected; however, a very small and insignificant amount of uniform compression and/or consolidation will occur with time.

It is concluded (EPA 1985b) that even under worst-case conditions (i.e., deep fill, deteriorated drum waste containers, and low-stiffness waste layers), the maximum predicted postclosure landfill cover settlement because of compressibility is under 12% of the total height of the fill and cover at the center of the landfill. Conditions leading to such settlement are not expected at the 2101-M Pond. Any settlement and displacement effects revealed by the quarterly inspection will be repaired, as outlined in Section II-4a(1.2).

II-4c(4). Vegetative Cover Maintenance. Immediately after closure, the area of the 2101-M Pond will be fertilized, as necessary, and seeded to initiate growth of a vegetative cover. The area will be covered with a straw mulch (or similar, accepted method) during establishment of the grass cover to prevent erosion damage. The suggested mix for revegetation is a 2:1 perennial wheatgrass mixture consisting of Siberian wheatgrass (Agropyron sibericum) and Thickspike wheatgrass (Agropyron dasytachyum). This mix should be planted in the fall. If the area is to be revegetated in the spring, an annual such as cereal rye (Secale cereale) may be planted. The rye, acting as a standing mulch during the growth season, will protect the landfill cover from erosion damage. A spring planting of cereal rye should be followed by fall seeding with the perennial wheatgrasses and mulching with straw. Newer cultivated varieties proven to be better suited to the local climate may be substituted for the species listed above. Seeding and mulching of the area will be

conducted according to standard field practices and procedures. Reseeding of some areas may be necessary during the 2 to 3 yr vegetative establishment period.

Each spring (generally between March 15 and April 15) for 2 to 3 yr following closure, selective herbicides may need to be applied as a pre-emergence herbicide to the closure area to minimize the establishment of broadleaf annual plants that compete with the grasses for moisture and nutrients. Herbicide application will be performed in accordance with regulations promulgated by the Toxic Substances Control Act of 1976 and the Federal Environmental Pesticide Control Act of 1972. Selective herbicide applications will be discontinued following successful establishment of the perennial grass cover. Deep-rooting plants such as sagebrush and Russian thistle, having root systems that can extend into the waste zones are common to the region. Manual removal of such vegetation may be required periodically during the postclosure period.

II-5. PERSONNEL TRAINING

This section describes the training of personnel required to maintain the 2101-M Pond in a safe and secure manner during postclosure care as required in 40 CFR 265.16 and WAC 173-303-330.

II-5a. Outline of the Training Program

This section outlines the introductory and continuing training programs necessary to conduct the postclosure activities at the 2101-M Pond in a safe manner. This section also includes a brief description on how training will be designed to meet actual job tasks as required in 40 CFR 265.16(a).

Surveillance Personnel--The following outline provides information on classroom and on-the-job training that surveillance personnel will complete before conducting independent site surveillance at the 2101-M Pond.

On-The-Job Training

- Cover inspections (water erosion, wind erosion, settlement and displacement, vegetative cover)
- Security inspections
- Location, integrity, and inspection of benchmarks
- Location, integrity, and inspection of groundwater wells.

II-5a(1). Job Description. This section provides the job description(s) of personnel that will be conducting postclosure activities at the 2101-M Pond as required in 40 CFR 265.16(d)(1) and WAC 173-303-330(2)(a).

Site Surveillance--If the 2101-M Pond is closed as a landfill, personnel with training in the following areas will conduct the inspections:

- Control devices
- Damage
- Settlement and displacement
- Vegetative cover condition
- Benchmark integrity.

II-5a(2). Training Content, Frequency, and Techniques. The training of personnel requires the following job-specific training areas.

- Emergency Preparedness Training--Will include a review of emergency procedures that consists of listening to standard emergency signals, emergency exit routing, and job-specific emergency actions and reporting procedures.
- The RCRA Groundwater Monitoring Scope, Organization, and Quality Assurance Plan--Will include the documentation requirements included in the chain of custody to the laboratory, how to correct mistakes made on field data sheets, and any applicable manifests or shipping orders required for shipping samples to the laboratory.
- Groundwater Field Sampling Procedures--Will include pump description and operation of the three types of pumps (used by the field personnel), operational procedures for the generators and the pumps used to gather groundwater samples, and special requirements for collecting and packaging samples containing volatile organic materials that require acid preservatives or require special filtering. Training also will be given in the areas of field data record preparation and chain of custody to the laboratory.
- Site Cover Inspections--This on-the-job training program is established to ensure that the surveillance personnel know what to inspect after closure of the 2101-M Pond. It will include how to inspect for obvious signs of erosion, proper drainage, settlement, and sedimentation. In addition, personnel will be informed about what constitutes proper vegetation coverage.
- Site Security Inspections--Personnel will be instructed on how to inspect for obvious signs of a security breach. Signs may include cut fencing, unlocked gates, or cut chains.

- Location, Integrity, and Inspection of Benchmarks--Personnel will be shown the location of benchmarks and instructed on how to report any obvious signs of destruction or deterioration.

- Location, Integrity, and Inspection of Groundwater wells--Personnel will be shown the locations of the groundwater wells and instructed on how to inspect the cap and casing of each well to ensure that it is locked.

II-5a(3). Training Director. The training director for the site surveillance personnel holds the title at Westinghouse Hanford as Manager of Safety Training. This position requires a Bachelor of Science degree in science or engineering with 10 yr of experience in the nuclear industry or related areas, and 5 yr of management experience.

The objectives of this position include providing certification, recertification, and continuing training for all Westinghouse Hanford health physics technicians (HPT) and providing general safety training for all Westinghouse Hanford personnel and other selected Hanford Site contractors, DOE-RL, and visiting personnel working on Westinghouse Hanford facilities.

II-5a(4). Training for Emergency Response. This section will demonstrate that facility personnel who will be conducting postclosure activities at the 2101-M Pond have been fully trained to respond effectively to emergencies and are familiar with emergency procedures and equipment. In addition, 40 h of hazardous waste site operation training will be provided, in accordance with 29 CFR 1910.120. Information on emergency-preparedness training also are described in Section II-5a(1) and II-5a(2).

Procedures Regarding Emergency and Monitoring Equipment--The procedures for using, inspecting, repairing, and replacing emergency and monitoring equipment are covered as part of personnel training. The site surveillance personnel will undergo training in these areas. Additional information can be found in Section II-5a(1) and II-5a(2).

As part of the personnel training described in Section II-5a(2), personnel will become familiar with the audible alarms established to warn personnel of immediate emergency situations.

Response to Fires--The 2101-M Pond will have no existing structures and will be covered with a soil cap if it is closed as a landfill. As such, the need for fire equipment at the 2101-M Pond is virtually unnecessary. However, if personnel are at the facility when a brushfire breaks out, they will notify the Hanford Site Fire Department and the 200 East Area emergency control director by radio.

Response to Groundwater Contamination--A groundwater monitoring and assessment program has been in effect at the 2101-M Pond since the summer of 1988. Currently, there is a 4 well monitoring network in place at the site. At this time, groundwater contamination beneath the 2101-M Pond does not

constitute an emergency situation, nor will it become so as a result of closure. Therefore, emergency response training in this regard is not warranted at this time.

II-5b. Implementation of Training Program

Surveillance personnel will undergo the required training programs outlined in Section II-5a as they pertain to monitoring requirements. Surveillance personnel will not be allowed to perform inspections at the 2101-M Pond until the required training programs have been completed.

II-6. PROCEDURES TO PREVENT HAZARDS

As required under 40 CFR 265.14 and WAC 173-303-310, the plan will describe procedures to prevent hazards from occurring at the closed facility. This section describes procedures to be used for ensuring proper security at the site, including surveillance measures, intrusion barrier requirements, warning signs, and waiver declarations.

II-6a. Security

Postclosure security will be maintained by routine surveillance, physical barriers, and warning signs that will remain in effect during the postclosure care period.

II-6a(1). Security Procedures and Equipment. If the 2101-M Pond is closed as a landfill, it will be covered with an engineered earthen cap. This cap will be surrounded by a fence with warning signs, in accordance with 40 CFR 265.14(b)(2)(i).

II-6a(1.1). 24-hour Surveillance System. The 2101-M Pond will not have a 24-h surveillance system. Because the closed facility will have an earthen barrier, a fence, and warning signs, it will not require 24-h surveillance.

II-6a(1.2). Barrier, Means to Control Entry, and Warning Signs. The 2101-M Pond is located within the Hanford Site 200 East Controlled Access Area where roadways are restricted to authorized personnel and cannot be accessed by the general public. In addition to site-wide controlled access, the fence will have warning signs wired to it so as to be seen from any approach. The legend will be written in English and will be legible from a distance of at least 25 ft. The legend on the signs will be:

"UNAUTHORIZED PERSONNEL KEEP OUT."

The signs also will indicate the office and telephone number to contact for site information.

II-7. POSTCLOSURE CONTACT

The following office (or its successor) will be the official contact for the 2101-M Pond during the postclosure care period:

Office of Environmental Assurance,
Permits, and Policy
U.S. Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

II-8. AMENDMENT OF POSTCLOSURE PLAN

This postclosure plan will be amended whenever changes in operating plans or facility design affect the postclosure plan. This plan may be amended any time during the active life of the facility or during the postclosure care period. The approved postclosure plan will be amended by submitting a written request to the appropriate regulatory agency to authorize a change in the approved plan. The written request will include a copy of the amended postclosure plan for approval. The modified plan will be submitted at least 60 d before the proposed change in facility design or operation.

II-9. NOTICE IN DEED

Within 60 d of the certification of closure, the DOE-RL will, in accordance with state regulations, sign, notarize, and file for recording, the following notice. The notice will be sent to the Auditor of Benton County, P.O. Box 470, Prosser, Washington, with instructions to record this notice in the General Index. This document normally is reviewed in property title searches.

TO WHOM IT MAY CONCERN

The United States Department of Energy-Richland, Operations Office, an operations office of the United States Department of Energy, which is a department of the United States government, the undersigned, whose local address is the Federal Building, 825 Jadwin Avenue, Richland, Washington, hereby gives the following notice as required by 40 CFR 264.119(b) and WAC 173-303-610(10) (whichever is applicable):

(a) The United States of America is, and since April 1943, has been in possession in fee simple of the following described lands: (legal description of the 2101-M Pond).

(b) The United States Department of Energy-Richland Operations Office, by operation of the 2101-M Pond, has disposed of hazardous and/or dangerous waste under the terms of regulations promulgated by the United States Environmental Protection Agency and the Washington State Department of Ecology (whichever is applicable) at the above described land.

(c) The future use of the above described land is restricted under terms of 40 CFR 264.117(c) and WAC 173-303-610(7)(d) (whichever is applicable).

(d) Any and all future purchasers of this land should inform themselves of the requirements of the regulations and ascertain the amount and nature of waste disposed of on the above described property.

(e) The United States Department of Energy-Richland Operations Office has filed a survey plat with the Benton County Planning Department and with the United States Environmental Protection Department and with the United States Environmental Protection Agency, Region 10 and the Washington State Department of Ecology (whichever are applicable) showing the location and dimensions of site, and a record of the type, location, and quantity of waste disposed of within the unit.

II-10 CERTIFICATION OF POSTCLOSURE CARE COMPLETION

No later than 60 d after completion of the established postclosure care period, the DOE-RL will submit to the Benton County Auditor and Ecology a certification of postclosure care and a duly certified survey plat. The certification will be signed by both the DOE-RL and an independent professional engineer, stating that postclosure care for the facility was performed in accordance with the approved postclosure plan. The certification will be submitted by registered mail or an equivalent delivery service. Documentation supporting the postclosure certification will be retained and furnished to Ecology upon request. The DOE-RL and the independent professional engineer will certify with a document similar to Figure II-10.

POSTCLOSURE CERTIFICATION
FOR

_____

Hanford Site
U.S. Department of Energy, Richland Operations Office

We, the undersigned, hereby certify that all _____ _____ postclosure activities were performed in accordance with the specifications in the approved postclosure plan.

_____ _____
Owner/Operator Signature DOE-RL Representative Date
(Typed Name)

_____ P.E.#_____ State___ _____
Signature Independent Registered Professional Engineer Date
(Typed Name, Professional Engineer license number, state of issuance, and date of signature)

Figure II-10. Postclosure Certification for the 2101-M Pond.

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A. CLOSURE PERFORMANCE STANDARDS

In accordance with WAC 173-303-610, the 2101-M Pond will be closed in a manner that:

- Minimizes the need for further maintenance
- Controls, minimizes, or eliminates to the extent necessary to protect human health and the environment, postclosure escape of dangerous waste, dangerous waste constituents, leachate, contaminated run-off, or dangerous waste decomposition products to the ground or surface water, or to the atmosphere
- Returns the land to the appearance and use of surrounding land areas to the degree possible given the nature of the previous dangerous waste activity
- Complies with specific closure requirements of WAC 173-303-650.

Each closure performance standard and the rationale for how each standard is satisfied by the clean closure approach proposed for the 2101-M Pond is discussed in the following sections.

A-1. MINIMIZE THE NEED FOR FURTHER MAINTENANCE

The 2101-M Pond will be clean closed, and no maintenance will be required after closure has been certified. However, if clean closure cannot be achieved, 2101-M Pond will be closed as a landfill requiring a 30-yr minimum maintenance schedule as discussed in Section II. During the closure period, the only maintenance required would be associated with the groundwater monitoring wells.

As required by WAC 173-303-645 and 40 Code of Federal Regulations (CFR) Part 264, Subpart F, groundwater samples will be collected quarterly for the first year and semiannually thereafter until closure has been certified. Once closure has been certified, groundwater monitoring will not be required.

The groundwater monitoring wells must be maintained through closure to ensure that representative groundwater samples are collected. The types of activities that might be required to maintain the wells include inspection and repair of the sample pumps and flushing screens to ensure an adequate flow of water into the wells.

A-2. PROTECTION OF HUMAN HEALTH AND THE ENVIRONMENT

The 2101-M Pond soil and soil from a nearby site, for background comparison, have been previously (1988) sampled from 0 to 12 ft on a 2-ft sample interval. These samples were analyzed for a broad spectrum of

constituents. They include drinking water quality, 40 CFR Part 264, Appendix IX, and WAC 173-303-9905 constituents. A complete analytes list is contained in Appendix C-1.

The Phase II Sampling (1991) further characterized the top 2 ft of soil on a 6-in. sample interval. The Phase II Sampling Plan and the results are presented in Appendix D-1 and D-4.

Analytes that have values above detection limits are compared to background concentrations to determine the presence of contamination. Those constituents found to be significantly above background concentrations will then be evaluated by the human health model presented in Section B-5g to determine the significance of the contamination and to establish action levels. Action levels refer to concentration thresholds that the soil constituents should not exceed, or remediation would be required for clean closure of the facility.

The groundwater data collected thus far, and the analytical results suggest that the groundwater beneath the pond has not been contaminated by past disposal practices at the BWIP laboratories (Section B-3).

A-3. LAND RESTORATION

Clean closure is the primary closure strategy proposed for the 2101-M Pond. After Ecology accepts certification of clean closure, the DOE-RL intends to continue to use the pond for disposal of nondangerous condensate water from the 2101-M Building HVAC system. Therefore, no site reclamation actions are planned at this time. All discharges to the 2101-M Pond will cease by June 1995, per Milestone M-17-43 (Ecology et al. 1992).

In the event that the disposal unit cannot be clean closed, the final cover design specifies select cover vegetation for the site (Section II).

A-4. SPECIFIC CLOSURE REQUIREMENTS OF WAC 173-303-650

At closure, the owner or operator must conduct one of the following activities:

(1) Remove or decontaminate all dangerous waste, dangerous waste residues, contaminated containment system components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with dangerous waste and leachate and manage them as dangerous waste; or

(2) Close the impoundment and provide postclosure care for a landfill.

The EPA interpretation of the "remove and decontaminate" language in (1) above has been provided in the March 19, 1987, Federal Register (EPA 1987). The EPA interprets the terms "remove and decontaminate" to mean removal of all

waste and liners and the removal of leachate and materials contaminated with the waste or leachate that pose a present or potential threat to human health or the environment.

The 2101-M Pond is unlined; therefore, no contaminated containment system components exist to be removed. There are no other associated structures or equipment that would be contaminated with waste and leachate that would require removal or decontamination.

The 2101-M Pond will be clean closed; therefore, it is anticipated not to be subjected to the closure or postclosure requirements for a landfill. However, a contingent closure/postclosure plan is included in Section II.

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B. CONTENT OF CLOSURE PLAN

In accordance with WAC 173-303-610, this plan identifies the steps necessary to perform final closure of the 2101-M Pond.

B-1. DESCRIPTION OF FINAL CLOSURE

The pond soil was initially sampled and analyzed in 1988 to assess the presence of dangerous waste and dangerous waste constituents. A total of 23 soil samples were taken in the pond from 0.0 to 12.0 ft (Section B-5a, Figures B-2 and B-5). Soil samples also were taken from four nearby locations for background comparison (Section B-5a, Figures B-3 and B-4). In 1991, a total of 26 soil samples were taken in the pond from 0 to 2 ft. An additional four samples also were taken from the dry background site (Section B-5a, Figure B-3) as a reference for intralaboratory bias. Analytes with all concentration values below detection limits were eliminated from further consideration. Analytes with concentrations above detection limits were compared to background concentrations. Analytes with all concentration values below background concentrations were also eliminated from further consideration. The remaining analytes were then compared to the human health risk model presented in Section B-5g. Complete discussions of the soil sampling activities and results are provided in Section B-5 and Appendix C-1, D-1, and D-4.

The results suggest that the concentration of constituents in the pond soil, attributed to past waste disposal practices at the 2101-M Pond, does not pose a present or potential threat to human health or the environment.

The EPA interpretive regulations (EPA 1987) acknowledge that, at certain sites, limited quantities of dangerous constituents might remain in the subsoil and yet present only insignificant risk to human health and the environment. However, if the levels of dangerous constituents exceed the action levels established by the proposed health risk model in Section B-5g, remediation in the form of soil removal would be required.

To define the potential impact that past 2101-M Pond disposal practices may have on the uppermost aquifer underlying the pond, a groundwater monitoring program was implemented. During the summer of 1988, four groundwater monitoring wells were installed into the upper aquifer below the 2101-M Pond, and quarterly monitoring was initiated. Quarterly groundwater monitoring continued through November 1989. Thereafter, sampling is done semiannually until clean closure is certified, or to the end of the post-closure care period in the event clean closure is not achieved. If contamination or statistically significant changes in the indicator parameters are detected, resampling will be performed. If the presence of dangerous waste constituents is confirmed, an assessment-level program may be invoked.

The assessment-level program would be used to determine if detected contamination is attributed to past disposal practices at the 2101-M Pond. Results from the samples collected thus far indicate that the groundwater

beneath the pond has not been contaminated by past disposal practices at the 2101-M Pond (Section B-6). Groundwater analysis results are contained in Appendix E and are reported to Ecology in quarterly reports for the Hanford Site. A site characterization report (Chamness et al. 1990) was generated by Pacific Northwest Laboratory (PNL) that includes information obtained during this first year of monitoring.

During well drilling, sediment samples were taken by PNL. Some of these samples were submitted for analysis. These samples were analyzed to determine the presence of dangerous waste and dangerous waste constituents. The analytical results suggest that there is no evidence of unusually high concentrations of metals or occurrence of volatile organics in the vadose zone sediment. Section B-5a(3.1) presents a more complete discussion of vadose zone sampling and Appendix C-1 presents analytical results.

An independent professional engineer, registered in the State of Washington, will certify that closure activities were performed in accordance with an approved closure plan for the 2101-M Pond.

In addition to the activities discussed previously, administrative and physical controls will be invoked to ensure that dangerous waste is not discharged to the 2101-M Pond by future occupants of the former BWIP Laboratory. Physical controls constitute the removal of sinks/hoods and capping drains plumbed to the 2101-M Pond. Administrative controls constitute interim measures to be used until the physical controls are completed. These administrative measures include the following:

- Posting all operational sinks with signs reading "Do Not Use For Waste Disposal," or an equivalent legend

- Inspection of all operational drains bimonthly and semiannually; semiannual inspections will be random and unannounced

- Collection of laboratory waste water in a carboy for designation and disposal

- Monitoring of the 2101-M Building effluent semiannually to include, but not limited to, ICP metals, volatile organics, and semi-volatile organics (WHC 1992).

B-2. MAXIMUM EXTENT OF OPERATION

In accordance with WAC 173-303-610(3)(a)(ii), the description of final closure must, "identify the maximum extent of the operation which will be unclosed during the active life of the facility."

The 2101-M Pond was originally constructed in 1953 to receive discharges of nondangerous waste water from the 2101-M Building HVAC system. A physical description of the pond is contained in the introductory portion of Section I. Until the BWIP Laboratory was constructed in 1979-1981, the only discharge to

the pond was water from the 2101-M Building HVAC system. Since 1986, when the parking lot and street drainage were constructed, small amounts of rainwater run off also have been occasionally discharged to the pond from the adjacent rainwater run-off ditch.

From 1981 through July 1985, the only source of dangerous waste would have been the BWIP Laboratory. Closure of the 2101-M Pond to dangerous waste was initiated in July 1985 with the implementation of administrative controls. These controls required dangerous waste to be collected, packaged, and shipped offsite for disposal at a dangerous waste management unit. Estimates of the maximum volume of dangerous waste that may have been discharged to the 2101-M Pond from the BWIP Laboratory drains are presented in Section B-3a.

B-3. REMOVAL AND MANAGEMENT OF DANGEROUS WASTE

In accordance with WAC 173-303-610(3)(a)(iii and iv), the following information is to be included in the closure plan:

> An estimate of the maximum inventory of dangerous wastes ever on-site over the active life of the facility. (Any change in this estimate is a minor modification under WAC 173-303-830(4)); a detailed description of the methods to be used during partial closures and final closure, including, but not limited to, methods for removing, transporting, treating, storing, or disposing of all dangerous wastes, and identification of the type(s) of the off-site dangerous waste management units to be used, if applicable;

An estimate of the maximum inventory of dangerous waste ever onsite over the active life of the facility is provided in Section B-3a. The relevancy of the methods to be used during partial and final closure of the 2101-M Pond and the identification and types of offsite dangerous waste management unit(s) to be used are presented in Sections B-3b and B-3c, respectively.

B-3a. Estimate of the Maximum Inventory of Dangerous Waste

Since 1953, the 2101-M Pond has received waste water from the 2101-M Building. Most of the waste is nondangerous waste water from the 2101-M Building HVAC system. The BWIP Laboratory drains were plumbed into the low-pressure drain pipe that carries waste water from the building HVAC system to the 2101-M Pond. It is from these laboratory drains that dangerous waste would have been discharged to the 2101-M Pond. The BWIP administrative controls were implemented in July 1985 to ensure that dangerous waste was not discharged to the pond. No other facilities at the 2101-M Building are plumbed into the low-pressure drain pipe that carries waste water to the 2101-M Pond.

All available documentation of waste-disposal practices has been collected and evaluated. The inventory estimate presented in Section B-3A(1) relies on the following:

- Documents that exist and can be confirmed as reliable
- Estimates of potential waste volumes
- Information obtained from personnel who worked at the 2101-M Building
- Analyses of the soil in the 2101-M Pond and at background locations near the pond.

Before the time that it was determined that RCRA guidelines applied to nonradioactive dangerous waste operations at DOE facilities, detailed RCRA records documenting the waste generated and the amounts of this waste that may have been discharged to the 2101-M Pond were not maintained. Thus, much of what is discussed in the following sections is based on worst-case assumptions. Some or all of the dangerous waste described below, with the exception of barium, may not have been actually disposed of at the 2101-M Pond. The intent is to identify the potential types of dangerous waste that may have been generated and the maximum amount of dangerous waste that could have been discharged to the 2101-M Pond.

The following sections also include an estimate of the volume of nondangerous waste water discharged to the pond.

B-3a(1). Inventory of Types of Waste That May Have Been Discharged to the 2101-M Pond from the BWIP Laboratory. From 1981 to 1985, BWIP Laboratory operations at the 2101-M Building have sporadically generated small quantities of laboratory chemical waste water. Estimates of waste volumes generated are provided in the following three sections. The BWIP Laboratory was not a production facility that continuously generated large volumes of chemical waste. Operations at the laboratory have been terminated and existing chemical stocks have been removed for offsite disposal or have been transported to other laboratories onsite. An inventory of the chemicals the BWIP Laboratory may have had on hand during its active life is provided in Appendix B-1. The types of chemicals on stock at the laboratory are typical of earth science research analytical laboratories. Records concerning the amount of chemicals on stock over the operational life of the laboratory are not available.

With the exception of barium, sodium hydroxide, and dilute quantities of acids, there is no written evidence that potentially dangerous waste or waste constituents from the BWIP Laboratory were discharged down the drains. According to available records and personnel who worked at the BWIP Laboratory, no unused chemical products have ever been discarded down the laboratory drains. According to laboratory personnel, unused chemicals were transferred to other onsite laboratories for use or transported offsite for disposal. Thus, any chemicals discharged down the laboratory drains to the 2101-M Pond would have been used or spent chemicals.

It is possible that these waste laboratory chemicals, if disposed of, could have been designated dangerous waste as one of the following:

- Listed solvents F002, F003, and F005 under WAC 173-303-082 and -9904
- For the properties of ignitability, corrosivity, reactivity, extraction procedure (EP) toxicity and/or toxic characteristic leach procedure (TCLP), toxicity, persistence, and carcinogenicity under WAC 173-303-090, -101, -102, -103
- Dangerous waste mixtures under WAC 173-303-084.

Chemicals on the BWIP Laboratory inventory may have been discharged to the 2101-M Pond through July 1985. Since 1985, BWIP Laboratory disposal practices have been formalized in written procedures (Appendix B-2) that required packaging and offsite disposal of laboratory chemical waste, used and unused.

The following sections describe the waste and provide estimates of the quantity of waste that were, or may have been, discharged to the 2101-M Pond before implementation of administrative controls.

B-3a(1.1). Barium. From spring 1982 to July 1984, groundwater samples were subjected to inorganic analyses and age dating. Part of this process involved the addition of NaOH and 2.6 oz of $BaCl_2$ to each of two 5-gal groundwater samples to precipitate inorganic carbon as $BaCO_3$ (total of 5.2 oz $BaCl_2$ for each groundwater sampling event). After settling of the precipitant, the supernatant was removed from the samples and discharged to the 2101-M Pond via the laboratory drains.

During the 2 yr that barium discharges occurred, 123 groundwater samples (10 gal each) were handled at the laboratory. Assuming the worst case, that no barium ion was precipitated in the samples, up to 3.5 oz of barium ions could have been discharged for each groundwater sample. For 123 total samples (1,230 gal), this amount would be a maximum of 26.9 lb of barium ions over the 2-yr period.

Assuming that the supernatant discharged to the 2101-M Pond contained enough barium ions to cause it to be designated for EP toxicity and/or TCLP, up to approximately 10,250 lb of dangerous waste water (assuming 1 gal to be approximately 8.34 lb), designated D005, were disposed of in the 2101-M Pond from 1982 to July 1984.

B-3a(1.2). Acids. From 1981 through July 1985, BWIP Laboratory operations generated waste acids, principally nitric and hydrochloric acids. Other waste acids generated at the laboratory included hydrofluoric and sulfuric acid. The laboratory staff indicated that discharges of nitric and hydrochloric acids may have ranged from 2.2 to 22 lb/yr during the 4 to 5 yr that the BWIP Laboratory could have disposed of dangerous waste to the 2101-M Pond. Any waste acids that might have been discharged to the 2101-M Pond may have had a low enough pH at the time of disposal to cause them to be designated for corrosivity (D002).

The amount of other laboratory chemicals that may have been discharged to the 2101-M Pond is described below. The amount of waste acid is included in this total.

B-3a(1.3). Other Waste That May Have Been Discharged to the 2101-M Pond from the BWIP Laboratory. On-site shipping documents generated as a result of administrative controls indicate that for a 1-yr period (September 1985 to September 1986), approximately 1,800 lb of dangerous waste was collected for disposal. The on-site shipping documents record the chemical waste and quantities of the waste collected for disposal at a dangerous waste management unit. Copies of the on-site shipping documents are provided in Appendix B-3. Of the 1,800 lb, approximately 1,050 lb were barium solutions from analysis of groundwater samples as discussed previously. Excluding the barium, approximately 750 lb of dangerous waste was collected for disposal. As can be seen by reviewing the disposal analysis records, also in Appendix B-3, water comprised a large percentage of the 750 lb. Approximately 100 lb of chemical waste was determined to be nondangerous waste or nondangerous with neutralization and was discharged down the laboratory drains. Although actual volumes may have varied from year to year during the BWIP Laboratory operation, the September 1985 to September 1986 disposal records provide the best information available at this time for estimating annual waste generation quantities. However, not all of these chemicals are expected to have been discharged to the 2101-M Pond via the laboratory drains (e.g., toluene, benzene).

Based on the above, it is possible to calculate that during the period of 1981 through 1985, approximately 3,750 lb of dangerous waste, excluding barium, may have been disposed of in the 2101-M Pond [750 lb (1985-1986 annual estimate) times 5 yr of disposal (1981 through 1985)]. Water would have made up a very large percentage of this volume. This 3,750-lb estimate is believed to be a very conservative estimate of the quantities that may have been discharged.

The Part A permit application (Appendix A) states that the 2101 M-Pond receives approximately 18,750 gal/d of waste water. The historic discharge of dangerous waste constitutes approximately 6 percent of the total discharge. Based on the information presented in this section, the estimated amount that may have been discharged is considerably less than that reported in the permit application.

It is important to reemphasize that the conclusions are based on the following conservative assumptions.

- All of the chemicals disposed of by the BWIP Laboratory could be designated dangerous waste.

- Past waste chemical disposal rates were equivalent to the September 1985 to September 1986 disposal amounts.

- Up through 1985, all waste chemicals were discharged down the laboratory drains to the 2101-M Pond, rather than sent offsite for disposal.

B-3a(2). Other Dangerous Waste That May Have Been Discharged to the 2101-M Pond from the 2101-M Building. Previous documents provided to Ecology indicated the possibility that the substation maintenance shop in the 2101-M Building may have released PCB waste to the 2101-M Pond. Subsequent investigation of the plans for the 2101-M Building and interviews with the facility engineer indicate that the substation maintenance shop is not plumbed to the low-pressure pipe draining to the 2101-M Pond. Therefore, it has been concluded that PCB waste was never discharged to the pond and need not be considered for dangerous waste designation purposes. Analyses of the 2101-M Pond soil for PCBs support this conclusion (Appendix C-1). Analysis for PCBs also was done during the Phase II sampling.

B-3a(3). Other Nondangerous Waste Discharged to the 2101-M Pond. A large volume of nondangerous waste water has been, and continues to be, disposed of in the 2101-M Pond from the 2101-M Building HVAC system. A small amount of water is discharged to the 2101-M Pond from the rainwater run-off ditch adjacent to the pond during periods of higher rainfall. The following paragraphs discuss the contribution of waste water from these sources to the 2101-M Pond.

B-3a(3.1). Rainwater Run-off Ditch. The waste water discharged to this ditch is from parking lots and streets used by motor vehicles. None of the run-off is from any chemical or dangerous waste storage areas, and there is no evidence that the run-off is a dangerous waste. Water is discharged from this ditch to the 2101-M Pond only during periods of high rainfall. The volume of water discharged to the pond is very small, and there is no way to accurately estimate the volume. This ditch has not received any waste water from the 2101-M Pond and is not considered as part of the 2101-M Pond waste management unit. For the reasons mentioned above, the contribution of waste water from this ditch will not be considered in the inventory estimate. A physical description of the rainwater run-off ditch is provided in the introductory portion of Section I.

B-3a(3.2). Heating/Cooling Waste Waters. The HVAC system for the 2101-M Building discharges waste water to the 2101-M Pond. Steam piped to the 2101-M Building is used to heat the building. Condensation is discharged from the steam traps to the low-pressure drain pipe that discharges waste water to the 2101-M Pond. Condensate is discharged from the steam traps year round, as steam is piped to the 2101-M Building even when the heating system is not in use. A portion of the water piped to the 2101-M Building is used to run the building air conditioners. Overflow from these air conditioners also is discharged to the low-pressure drain pipe that discharges waste water to the 2101-M Pond. Two of the nine air conditioners were eliminated in January 1992 per the Hanford Federal Facility Agreement and Consent Order Milestone M-17-43A. The water supply for the HVAC system is derived from the Columbia River.

A filming corrosion inhibitor containing straight-chain primary amines is added to the steam at a concentration of approximately 14 parts per million to control corrosion of the piping and ducts. The material safety data sheet (MSDS) for the product states that it is not a dangerous product. The water

is treated with tablets of trichlorostriazinetrione, a microbicide. The EPA-registered number for the chemical as provided on the MSDS is 4643-47. It is administered to the system in keeping with the instructions governing its use such that it is not considered a dangerous waste.

The HVAC waste water does not come in contact with any chemical sources of contamination other than the corrosion inhibitor, trichlorostriazinetrione, and any materials that may be in the piping through which it flows.

The amount of water used by the building air conditioning system or the BWIP Laboratory was not metered. Hence, it is not possible to determine the exact amount of nondangerous waste water discharged from these facilities to the 2101-M Pond.

The steam used to heat the building is generally metered just before entering the 2101-M Building. Incomplete records of monthly steam use for 1982 through 1988 have been located. In any given year, totals for some months were not recorded. For the purposes of estimating the total annual discharge of waste water from the heating system for 1982 through 1988, the monthly average for a particular year was used for months where no values were reported. Table B-1 provides an estimate of the amount of steam piped to the 2101-M Building and then discharged as waste water to the 2101-M Pond. The amount of steam metered at the building has been converted to gallons of condensate water discharged to the pond.

Table B-1. Condensate Water Discharged to the 2101-M Pond from 1982 to 1988.

Year	Gal/yr
1982	979,464
1983[a]	1,391,296
1984	2,437,116
1985	1,560,756
1986	1,220,856
1987	869,892
1988	1,279,592
Total	9,739,072

NOTE: [a]The average of 1982 and 1984 through 1988 was used as the value for the total gallons for 1983.

In a document prepared for the DOE-RL (DOE-RL 1978), the audited steam use of the 2101-M Building HVAC system was reported to be 3,299 MBtu/month (419,162 gal of water per month). This equates to an annual total of 5,029,944 gal of water that would have been discharged to the 2101-M Pond

during 1977. This value is assumed to be a reasonable annual estimate of the amount of water that may have been discharged to the 2101-M Pond from the building heating system since its construction in 1953 through 1979, as this is the only information available at this time.

The 1978 DOE-RL document states that the HVAC system was scheduled to be modified to conserve energy. This would result in a decrease in the annual steam consumption. A comparison of the annual steam use for 1977 with the values for 1982-1988 shows a definite decrease in the steam consumption. For this inventory estimate, the assumption is made that the HVAC system was modified in 1979 and that the average annual discharge from the building heating system to the 2101-M Pond for 1980 through 1981 is similar to the average annual value for 1982 through 1988 (1,391,296 gal), rather than the average value for 1953 through 1979.

Based on the information presented above, the total amount of water that may have been discharged to the 2101-M Pond from the heating system, since the BWIP Laboratory went into operation in 1981, is estimated to be 11,000,000 gal. Given the available information, it is not possible to further refine this estimate.

B-3a(4). Analyses of the 2101-M Building Effluent Discharges to the 2101-M Pond. Samples of effluent being discharged to the 2101-M Pond were obtained on September 17, 1985; May 23, 1986; July 17, 1986; October 30, 1986; and January 26, 1987. The raw analytical data is available in Appendix F-1. The analytical results for these samples are presented in Table B-2. All of these samples were obtained after administrative controls were in place at the BWIP Laboratory (July 1985).

Acetone was detected in one of the five samples at the very low level of 40 parts per billion (ppb). This datum could indicate the possibility that a listed F003 solvent may have been discharged to the 2101-M Pond in October 1986. However, such a discharge is highly unlikely because procedures had been in place since July 1985 to prevent discharging chemicals down the BWIP Laboratory drains. Given the extremely low level of acetone and its proximity to the detection limit (10 ppb), it is more likely that other sources were responsible for the acetone detected in the sample (i.e., contamination introduced by sample bottles or by laboratory equipment used by the company analyzing the samples).

Based on these limited results, waste water discharged to the 2101-M Pond does not exhibit the characteristic of EP toxicity (40 CFR 261, Table I) for EP toxic metals. (Arsenic was not analyzed at the time that these effluent samples were taken because there was no reason to believe that potential levels of arsenic would have exceeded threshold values for EP toxicity.) The results also indicate that the effluent would not have been designated for corrosivity caused by pH. Finally, the results indicate that the effluent is neither ignitable nor reactive. Therefore, the effluent discharge analyses

Table B-2. The 2101-M Building Waste Water Analytical Data[a].

Sampling	1st	2nd	3rd	4th	5th
Sampling date	09/17/85	05/23/86	07/17/86	10/30/86	01/26/87
U.S. Testing number		50051	50089	50167	50232
Stream fraction		1.0000	1.0000	1.0000	1.0000
Constituent	Amount detected (ppb unless otherwise noted)				
Aluminum	<150.0	330.0	200.0	230.0	<150.0
Ammonium	<20.0	<50.0	<50.0	120.0	180.0
Antimony	<100.0	<100.0	<100.0	<100.0	<100.0
Barium	21.0	30.0	30.0	170	10.0
Beryllium	<5.0	<5.0	<5.0	<5.0	<5.0
Cadmium	<2.0	<2.0	<2.0	<2.0	<2.0
Calcium	14,000.0	17,000.0	NIC[b]	11,000.0	5,800.0
Chromium	<10.0	<10.0	<10.0	<10.0	<10.0
Copper	42.0	180.0	89.0	530.0	460.0
Iron	94.0	500.0	280.0	1,300.0	240.0
Lead	<30.0	NR[c]	NR[c]	NIC[b]	<5.0
Magnesium	3,200.0	4,100.0	4,200.0	2,100.0	1,300.0
Manganese	6.0	8.0	6.0	19.0	7.0
Mercury	<0.1	1.5	0.3	<0.1	<0.1
Nickel	<10.0	<10.0	<10.0	<10.0	<10.0
Potassium	880.0	770.0	800.0	660.0	320.0
Silver	<10.0	<10.0	<10.0	<10.0	<10.0
Sodium	2,100.0	2,300.0	NIC[b]	2,800.0	740.0
Strontium	<300.0	<300.0	<300.0	<300.0	<300.0
Uranium	0.34	0.68	0.57	0.75	0.31
Vanadium	<5.0	<5.0	<5.0	<5.0	<5.0
Zinc	81.0	69.0	70.0	140.0	46.0
Chloride	2,300.0	2,700.0	3,500.0	2,900.0	700.0
Cyanide	<10.0	<10.0	NIC[b]	<10.0	<10.0
Fluoride	<500.0	<500.0	<500.0	<500.0	<500.0
Nitrate	<500.0	<500.0	<500.0	<500.0	<500.0
Phosphate	1,500.0	<1,000.0	<1,000.0	<1,000.0	<1,000.0
Sulfide	<1,000.0	HTE[d]	<1,000.0	HTE[d]	HTE[d]
Sulfate	13,000.0	13,000.0	14,000.0	8,600.0	5,000.0
Acetone	NR[c]	<10.0	<10.0	40.0	<10.0

Table B-2. The 2101-M Building Waste Water Analytical Data[a]. (cont)

Sampling	1st	2nd	3rd	4th	5th
Sampling date	09/17/85	05/23/86	07/17/86	10/30/86	01/26/87
U.S. Testing number		50051	50089	50167	50232
Stream fraction		1.0000	1.0000	1.0000	1.0000
Constituent	Amount detected (ppb unless otherwise noted)				
Chloroform	11.0	25.0	32.0	<10.0	<10.0
Amount (L/mo)	380,000.0	380,000.0	380,000.0	380,000.0	380,000.0
pH (dimensionless)	7.51	7.10	6.07	5.10	5.24
Temperature (°C)	22.0	21.9	22.4	NR[c]	31.7
Alpha Activity (pCi/L)	1.3	<4.0	0.12	0.59	<0.057
Conductivity (μS/cm)	130.0	14.0	130.0	92.0	63.0
Total organic carbon	1,200.0	2,300.0	2,000.0	2,200.0	13,000.0
Total organic halogen	<100.0	160.0	HTE[d]	100.0	40.0

NOTE:
[a]Modified from Jungfleisch (1988).
NIC = measurement made by methods that were not in control
NR = data not recorded
HTE = measurements made after holding times were exceeded.

performed to date support a conclusion that, at the time of discharge, waste from the 2101-M Building disposed of in the 2101-M Pond was not designated dangerous waste by the characteristics. As part of the effort at the Hanford Site to characterize effluent streams that discharge to the soil column, the 2101-M laboratory waste water will be further evaluated as described in the *Liquid Effluent Study Plan* (WHC 1989). To support that effort, a *2101-M Wastestream Sampling and Analysis Plan* (WHC 1992) was submitted to EPA and Ecology in January 1992 in accordance with the *Hanford Federal Facility Agreement and Consent Order* (Ecology et al. 1992) Milestone M-17.

B-3a(5). Analyses of Soil in the 2101-M Pond. The purpose of the following discussion is to assess the potential inventory of dangerous waste and dangerous waste constituents that may be in the 2101-M Pond, based on the results of the Phase I soil analyses. The discussion for the Phase II soil analyses are presented in Appendix D-4.

Samples of the soil in the 2101-M Pond and at background locations near the pond were obtained and analyzed for constituents that could be associated with the dangerous waste that may have been disposed of in the pond. The

majority of the reported values for the analytes were below detection limits. Analytes with all values below detection limits were eliminated from further consideration. Analytes with concentrations above detection limits were compared to background concentrations and then to action levels developed using the models presented in Section B-5g. The action levels (i.e., health-based standards) for the constituents discussed in the following are presented in Section B-5g. The sampling and analytical methods used, the constituents tested, and the results of the analyses are presented in Section B-5 and Appendix C-1.

B-3a(5.1). Evaluation of the 2101-M Pond Soil for Waste Designation. Once the soil constituents were identified, procedures for determining whether or not the 2101-M Pond soil is dangerous waste (DW) or extremely hazardous waste (EHW) were followed in accordance with WAC 173-303-70.

According to available records and personnel who worked at the BWIP Laboratory, no unused chemical products have ever been discarded down the laboratory drains, thereby eliminating designation in accordance with WAC 173-303-081.

As discussed previously, under worst-case scenarios, listed waste F002, F003, and F005 could have been discharged to the 2101-M Pond from 1981 to 1985. Some of the constituents associated with this solvent waste have been detected in the 2101-M Pond soil [see Section B-3a(5.2)].

However, the levels detected are very low and, in many cases, are near the limit of detection and occur for only a few of the total number of locations from which samples were collected. The concentrations of the constituents are below health-based standards and are not present in concentrations that would pose a present or potential threat to human health or the environment.

The soil was evaluated for waste designation under equivalent concentration (EC) in accordance with WAC 173-303-084 (5)(b). Samples M159, M164, and M147 were selected to be evaluated in this way. These three samples are all surface samples, and contain the most significant number of contaminant hits from the initial round of sampling. It was not necessary to calculate individual ECs for each cation in each sample because the rest of them have concentrations below those already calculated. The ECs listed in Table B-3 were calculated on the most concentrated cation in the sample consistent with the concentration of available anions and making the most toxic compound. The majority of the cations can be accounted for as oxides from the soil. According to the CRC Handbook of Chemistry and Physics (1985), the average sediment has a makeup of 58% SiO_2, 13.1% Al_2O_3, 5.9% CaO, 2.7% MgO, 2.9% K_2O, 1.1% Na_2O, and about 6.0% FeO and Fe_2O_3, plus trace elements. This is a reasonable approximation of the Basaltic rock common to the Hanford Site.

As demonstrated by the EC values in Table B-3, these samples are well below the minimum value of 1.0 E-03 shown in WAC 173-303-9906.

Table B-3. Waste Evaluation by Equivalent Concentration.

Sample	Cation	Concentration (ppm)	Anion	Concentration (ppm)	Compound	Category	EC percent
M159	Zn	220	SO_4	12.3	$ZnSO_4$	C	8.0 E-06
	Ba	151	CL	13.3	$BaCl_2$	C	3.9 E-06
	Cr	15.7	SO_4	12.3	$Cr_2(SO_4)3$	C	4.6 E-06
	Ni	13	Cl	13.3	$NiCl_2$	B	2.8 E-05
	Cu	1,340	Cl	13.3	$CuCl_2$	A	2.5 E-04
	Pb	35.2	SO_4	12.3	$PbSO_4$	B	1.8 E-05
						Total =	2.6 E-05
M147	Na	1,280	Cl	14.5	NaCl	D	2.4 E-07
	V	71	Cl	14.5	VCl_3	C	4.5 E-06
	Mn	418	Cl	14.5	$MnCl_2$	D	3.1 E-07
	K	1,400	Cl	14.5	KCl_2	D	2.2 E-07
	Mg	6,090	Cl	14.5	$MnCl_2$	C	1.9 E-06
						Total =	6.5 E-09
M164	Sr	40	SO_4	101.0	$SrSO_4$	C	8.2 E-06
	Ca	16,400	Cl	7.2	$CaCl_2$	D	1.0 E-07
	Al	10,200	SO	101.0	$Al_2(SO_4)3$	D	6.2 E-06
	Fe	24,800	SO_4	101.0	$FeSO_4$	C	2.7 E-05
	As	3.5	Cl	7.2	$AsCl_3$	X	8.4 E-04
						Total =	8.4 E-04

EC = equivalent concentration.

The pond soil does not contain more than 0.01% total organic halogens (TOX); therefore, the soil cannot contain more than 0.01% halogenated hydrocarbons [the designation concentration limit established in WAC 173-303-084(6)]. The pond soil contains less than 1.0% total organic carbon (TOC); therefore, the soil cannot contain more than 1.0% polycyclic aromatic hydrocarbons [the designation concentration limit established in WAC 173-303-084(6)], nor can it contain more than 1.0% organic carcinogens [the designation concentration limit established in WAC 173-303-084(7)]. Inorganic carcinogens are not known to be present in the 2101-M Pond soil.

The 2101-M Pond soil has been evaluated for the dangerous waste characteristics as outlined in WAC 173-303-090. The pond soil does not exhibit any of the characteristics of ignitability, corrosivity, reactivity, or EP toxicity, as explained in the following paragraphs.

The pond soil does not exhibit any characteristics of ignitability. The soil is not a liquid (so does not have a flashpoint); does not cause fire through friction, absorption of moisture, or spontaneous chemical changes; is not an ignitable compressed gas; and is not an oxidizer.

Based on analyses of the pond soil, the pH of the soil was never greater than or equal to 12.5 and was never less than or equal to 2.0. The pH of the soil samples ranged from 6.8 to 8.5. Thus, the soil does not exhibit the characteristic of corrosivity.

The pond soil does not exhibit any of the characteristics of reactivity. The soil is not unstable; does not react violently with water; does not form explosive mixtures with water; does not generate toxic gases, vapors, or fumes when mixed with water; does not generate cyanide or sulfide gases, vapors, or fumes at a pH of 2.0 to 12.5; is not capable of detonation or explosion; and is not a forbidden Class A or Class B explosive.

The pond soil has been tested both for total metals and for EP toxicity, and the soil is well below the limits for the characteristic of EP toxicity.

The following section discusses the constituents of concern that may reside in the 2101-M Pond and their significance. Potential health risks are discussed in detail in Section B-5g.

B-3a(5.2). Organic Constituents. Soil analyses indicate that a few specific organic constituents may be present in the 2101-M Pond soils. The following constituents have been detected:

- Acetone
- Methylene chloride (not on BWIP Laboratory inventory, Appendix B-1)
- Toluene
- Butanoic acid (not on BWIP Laboratory inventory, Appendix B-1)
- Ethanol
- Propanol
- Total organic carbon.

Acetone was reported above the detection limit in 5 of 13 samples at a maximum concentration of 0.27 part per million, well below any health-based standards. Acetone may be potentially ignitable at ambient concentrations of greater than 2 parts per million, but this condition does not exist at the 2101-M Pond.

Methylene chloride was reported above the detection limit in 3 of 13 samples. The concentrations were 0.027, 0.022, and 0.010 part per million. It is suspected that the constituent was introduced into the soil sample at the laboratory performing the soil analyses. Further substantiation of this likelihood rests on the fact that methylene chloride has not been identified as part of the BWIP Laboratory inventory. The levels of methylene chloride, if actually present in the soils, are below health-based standards.

Toluene was reported above the detection limit at a concentration of 0.072 part per million in 1 of 13 samples. This concentration is well below any health-based standard.

Acetone, toluene, and methylene chloride are considered to be artifacts introduced by the analytical laboratory, based on the following information.

Under the U.S. EPA Contract Laboratory Program, acceptable laboratory blanks contain less than or equal to five times the contract required quantitation limit of 5 parts per billion for methylene chloride and toluene, and 10 parts per billion for acetone. Because these compounds are routine laboratory contaminants, concentrations of methylene chloride and toluene at ≤25 parts per billion and acetone at ≤50 parts per billion are considered to be indistinguishable from blanks. These provisions have been identified because method interference caused by the routine use of solvents and reagents in glassware cleaning and other sample processing hardware lead to artifacts and/or elevated baselines in gas chromatograms (EPA 1991). Furthermore the EPA, in SW-846 (EPA 1986), has established a practical quantitation limit of 100 parts per billion for acetone in either groundwater or low soil/sediment.

Under these circumstances, validity of apparent, minimal soil contamination, with respect to the only three organic constituents recognized by the EPA to be routine laboratory contaminants, is questionable.

An integral part of this evaluation is a consideration of the time organic contaminants would be expected to persist in the 2101-M Pond water and soils at the concentrations reported. Using the most conservative measurements of the evaporation half-lives of acetone, methylene chloride, and toluene, their persistence was calculated as a function of time. The half-lives are: 1 day dry and 10 day wet for acetone; .017 day for methylene chloride; and .77 day for toluene.

Based on this information methylene chloride would be gone from the pond water and topsoil after about 4 hr; toluene would be gone after 8 hr; and acetone (wet) could last for up to 65 days. It would be essentially impossible for any of these compounds to exist in the 2101-M Pond water or soil at the time of sampling if they had originated from BWIP Laboratory operations.

Butanoic acid was reported in one sample above the detection limit at a concentration of 2.3 parts per million, below even the most stringent health-based concentrations for this chemical. In addition, this chemical has not been identified in the BWIP Laboratory inventory, and therefore, is not directly attributable to this source. Butanoic acid occurs naturally in soil as a vegetation degradation product and could reasonably be expected to be present in the 2101-M Pond soil.

Ethanol and propanol were identified in very low concentrations in two surface samples (0 to 2 ft). These constituents are both present in the same two samples. Propanol was detected at a concentration of 0.005 and 0.006 part per million. Ethanol was detected at 0.005 and 0.027 part per million. Both of these compounds are a very common product of the microbial organic

degradation process and could well be attributed to such mechanisms. The concentrations of these constituents in the pond soil are below health-based standards. A higher TOC value (2.8 times the background threshold), although nearly at the level of background, is most probably attributed to increased vegetation density as a result of perennial pond water.

It has been concluded that the organic constituents present in the 2101-M Pond soil do not pose a present or potential threat to human health or the environment. However, because these organic constituents do appear to be present at very low levels, they will be included in the inventory of constituents to be considered during closure of the 2101-M Pond.

B-3a(5.3). Inorganic Constituents. Soil analyses indicate that a number of specific inorganic constituents are present in the pond soil at concentrations above background levels. The following elements/compounds have been detected:

- Ammonium
- Copper
- Fluoride
- Lead
- Strontium
- Vanadium
- Zinc.

Ammonium is found consistently in background soils in concentrations similar to the pond soil, and the reported values are well below identified health-based standards. Analysis for ammonium indicates a maximum value in the pond soil of 4.3 parts per million, which is higher than the maximum background value of 2.8 parts per million. The slightly higher concentration of ammonium in the pond soil is likely to be due to the presence of decaying plant materials. The concentration of ammonium in the pond soil is well below identified health-based standards.

Analytical data indicate that 5 of the 23 pond samples exhibit copper above background concentrations. Examination of the distribution of copper shows a decrease in copper concentrations with depth. The soil was tested for copper, nickel, and zinc under the EP toxicity procedure as suggested by Ecology's Technical Information Memorandum (TIM) (Ecology 1986). The maximum sum total EP toxicity level for these three metals is 3.52 parts per million, which is below the threshold value of 5.0 parts per million suggested by the TIM. The memorandum states that if the sum total is less than 5.0 parts per million, and there is no other reason to believe the waste would be designated as dangerous, the sample does not need to be tested against the aquatic toxicity criteria (WAC 173-303-101). Therefore, it can be assumed that the copper is being retained in the soil, is not bioavailable, and would not fail an aquatic bioassay. In addition, the copper is not designated as a dangerous waste in accordance with WAC 173-303-084.

It has been determined that the source of the copper would have been primarily from a nonregulated source: the piping in the 2101-M Building HVAC system. The HVAC system has been discharging waste water to the 2101-M Pond since 1953.

Fluoride was reported to occur two times above background. Once at the discharge (4.9 times background) and once in the south arm (1.1 times background). These occurrences are attributed to the potable water being cycled through the 2101-M Building.

Lead, strontium, and vanadium were all detected at 2.8, 1.3 and 1.04 times the background thresholds, respectively. Lead, strontium, and vanadium are found only one time, each in the pond soil and their concentrations are well below health-based standards.

B-3(5.4). Anomalous Constituents. The following is a list of constituents that were produced from the soil analysis where; 1) elevated levels were expected and not found or 2) were unexpected and found in isolated instances:

- Acids
- Barium
- Silver
- Sulfate.

The pH of the 2101-M soil ranged from 6.8 to 8.5, which is within the secondary maximum contaminant level (SMCL) established for groundwater (6.5 to 8.5); therefore, the acidity of the pond soil is within acceptable levels. Thus, if strongly concentrated acids were discharged to the 2101-M Pond, it does not appear that these acids reside any longer in the pond sediments and soils.

The levels of barium found in the 2101-M Pond are not statistically at variance with the levels of barium in the background soil. In fact, barium in the pond appears to have lower mean levels than background soil. Thus, if any barium did reach the 2101-M Pond, it does not appear to have caused a statistically detectable increase over background levels. Barium is not a mobile element and would not be expected to leach from the surface soil into the groundwater. Barium has not been detected above drinking water standards (DWS) in the quarterly groundwater samples.

Silver was reported above the detection limit in one sample at a concentration of 2.20 parts per million. Dissolved silver is normally precipitated from solution, and sorption by manganese dioxide and precipitation with halides serves to reduce the mobility in surface and groundwater. This one isolated silver value is not considered to pose a present or future threat to human health or the environment.

Sulfate was detected in the pond soil at a maximum isolated value of 101 parts per million. The concentration of sulfate in the pond soil is below the secondary DWS for this constituent. This single sulfate value is inconsistent with all other analyses for the pond and background soils, which show comparable values.

None of these inorganic constituents are indicative of DW being present in the pond soil because they occur naturally in the Hanford Site soil. Based on this and the following conclusions, it is unwarranted to consider that the soil in the 2101-M Pond is a DW because inorganic constituents are present.

However, because these chemical constituents have been found in some of the pond soil samples, the chemicals have been included in the inventory of constituents to be considered during closure. Table B-8 in Section B-5 lists all the constituents that were detected in the pond soil.

B-3a(5.5). Conclusions. The purpose of this estimated maximum inventory discussion was to identify and summarize the DW and constituents that should be considered when carrying out closure of the 2101-M Pond. Based on the information presented previously, the following has been determined.

1. Assuming that DW and/or DW constituents did enter the 2101-M Pond, the waste is present in concentrations that do not pose a present or potential threat to human health or the environment.

2. The estimated maximum inventory of DW and DW constituents present in the 2101-M Pond is limited to extremely low concentrations of a few residual organic and inorganic constituents.

B-3b. Detailed Description of the Removal of Dangerous Waste Inventory

The BWIP Laboratory equipment and chemicals have been dispositioned and shipped to other laboratories for use, or shipped offsite for proper disposal.

B-3c. Detailed Identification and Type of Offsite Dangerous Waste Management Units

In the event that soil removal is necessary for clean closure of the 2101-M Pond, the soil would be packaged for shipment offsite. A contractor licensed to receive this type of material will be engaged to dispose of the soil at the permitted disposal unit.

B-4. DESCRIPTION OF DECONTAMINATION AND REMOVAL OF DANGEROUS WASTE RESIDUES

In accordance with WAC 173-303-610(3)(a)(v), the following information must be included in the closure plan:

> A detailed description of the steps needed to remove or decontaminate all dangerous waste residues and contaminated containment system components, equipment, structures, and soils during partial and final closure, including, but not limited to, procedures for cleaning equipment and removing contaminated soils, methods for sampling and testing surrounding soils, and criteria for determining the extent of decontamination required to satisfy the closure performance standards;

The only waste residues that might be present at concentrations high enough to be of significant human health or environmental concern would be located in the 2101-M Pond soil. The shallow pond soil has been sampled and analyzed to assess the presence of DW and DW constituents. The concentrations of constituents found in the soil do not pose a present or potential threat to human health, nor do they pose a threat to the environment. The soils in the pond were resampled to better characterize them and to help determine the extent of any contamination (Appendix D1 through D4). After analyses were performed, the new data were compared with the initial data and then both used as a whole to determine any significant human health or environmental concerns, and the extent of remediation, if any, necessary to satisfy the closure performance standards. Remediation would be in the form of soil removal and packaging for shipment to a permitted disposal unit (see Section B-3c).

B-5. SOIL SAMPLING AND ANALYSIS PLAN FOR THE 2101-M POND

Soil sampling at the 2101-M Pond was implemented to assess the DW characteristics of the shallow soil directly beneath the facility. Soil samples were tested for a multitude of chemicals including a broad spectrum of drinking water quality (WAC 173-303-9905) and 40 CFR Part 264 Appendix IX constituents.

All soil sampling at the 2101-M Pond was performed during calendar years 1988 and 1991. Initial sampling of the pond soil and adjacent rainwater run-off ditch was done as part of a preliminary soil assessment from March 23 through March 25 and May 3 through May 4, 1988. Sampling of an undisturbed area in an equivalent soil horizon was performed June 27 through June 30, 1988. This sampling was done to establish a baseline chemical profile for comparative purposes. The soil contained in and directly beneath the 2101-M Pond was sampled from July 27 through August 3, 1988. The Phase II sampling information is contained in Appendix D-1 through D-4.

After receiving the analytical results, the data were judged for reliability (based on quality assurance/quality control (QA/QC) tables in Appendix C-4), reviewed, and summarized. To make the data more manageable, constituents with all results below the detection limit were eliminated. After statistical testing was applied, certain chemicals were eliminated from further consideration if found to be within background concentrations. Chemicals found to vary significantly from background levels were appraised separately as potential contaminants.

The sampling approach and rationale, sampling methods, data acquisition and evaluation, and final conclusions are included as part of this discussion. Detailed information concerning sampling procedures, documentation of field activities, decontamination protocols, personnel responsibilities and training, field safety, statistical evaluation methods and calculations, and the data package are presented in Appendices C-1 through C-5.

B-5a. Soil Sampling Methods and Materials

Methods and materials presented in this section are based on the Site Characterization Plan for the 2101-M Pond Soils and Sediments (SCP) (Mitchell 1987).

B-5a(1). Phase I Sampling Design. The sampling strategy and design developed for this project were based on the sampling plan information contained in SW-846 (EPA 1982b) and other EPA guidance manuals and technical documents (DeVera et al. 1980; Barth and Mason 1984; EPA 1988a; Ford et al. 1984; Ford and Torina 1985). Based on the configuration of the site and existing environmental conditions, the following sampling strategy was applied to characterize the soil of the upper portion of the unsaturated zone underlying the 2101-M Pond, rainwater run-off ditch, and undisturbed background location.

B-5a(1.1). Sampling Locations. The pond proper was divided into four subsites to facilitate a stratified random-sampling approach. A single sample site was chosen randomly within each subsite (stratum) for characterization. Each of the three arms of the pond was designated as a separate sample stratum. The area near the effluent pipe was included as an individual subsite because chemical constituents discharged from the pipe may have preferentially concentrated in the soil at this location. This configuration, shown in Figure B-1, designates the strata as A, B, C, and D. The stratification enabled the use of a random sampling approach without raising the possibility of clustering the four sample locations in one area of the pond as might occur using a simple random design. Within each sample area, the specific sample location was determined using a random-numbers generator to identify a unique point along the centerline of the pond proper. The random numbers were generated for each of the three arms of the pond in the following manner.

- A point in the random number table was selected by dropping a pencil on the random number table.

- The number, which the pencil landed on or was closest too, determined the column and the row within the table that was used as the starting point (i.e., if 63 was the number that the pencil landed closest to, the 6th column, 3rd row was the starting point).

- The table was evaluated from left to right until a number that met the criterion for that arm of the 2101-M Pond was reached.

An identical process was used in determining the sample points for the rainwater run-off ditch.

Information developed before the site characterization indicated that the rainwater run-off ditch did not appear to be, or to ever have been, directly connected to the 2101-M Pond system. To confirm this assumption, separate soil samples were collected from the ditch in the following manner.

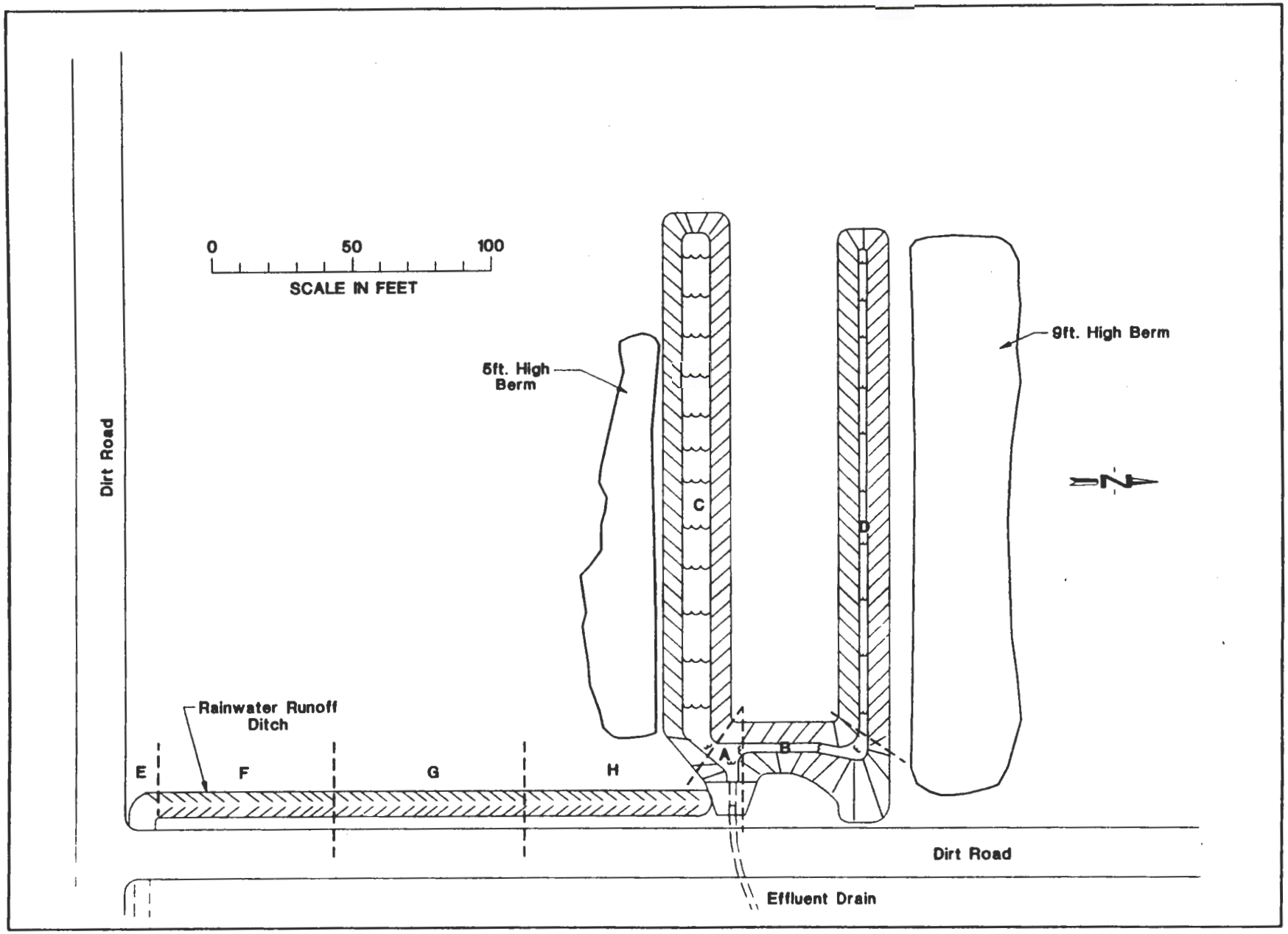

Figure B-1. Schematic of the 2101-M Pond Showing Location of Strata to be Sampled.

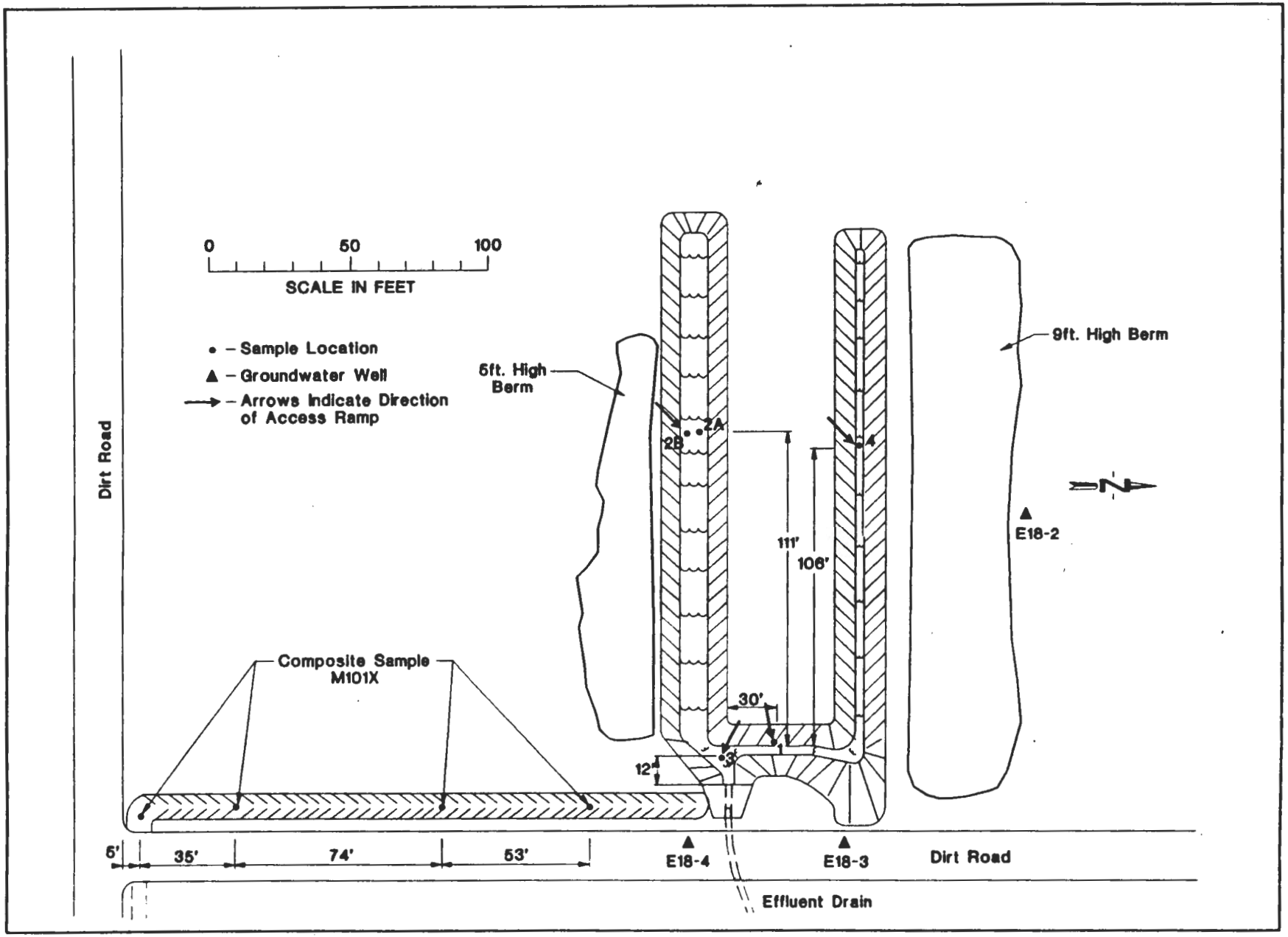

Figure B-2. Sample Sites Location Map.

The ditch was divided into four composite sample subsites: the ditch out-fall, and three sections each 65 ft long, designated E, F, G, and H, respectively, in Figure B-1. A transect was established down the center of the ditch, and a random numbers table was used to select a sample location along the transect within each sample subsite. The specific locations for the composite sample are shown in Figure B-2. After collection, the four individual samples were combined to form a single composite sample (M101X) and submitted for complete laboratory analyses. The analytical results for this sample are included as part of the data package in Appendix C-1.

Background samples were collected to establish baseline values for concentrations of chemical constituents in the pond soil. These samples were collected in accordance with EPA Region 10 policy (EPA 1986a) from a locale near the 2101-M Pond, but sufficiently distant (approximately 1,000 ft) to be unaffected by past operations. Historical photos showing past operational 2101-M Site conditions are included in Appendix C-2. Within this area, two sites were selected for sampling, a 'wet' site associated with drainage from a nearby water tower and dominated by poplar trees and a 'dry' site approximately 100 yd to the west in a sagebrush/cheatgrass community (Figures B-3 and B-4). The two sites were selected to demonstrate differences in concentration of particular chemicals that may have occurred because of the leaching effect of continual additions of water. Background points 2 and 4 (Figure B-4) were sampled at different depths than points 1 and 3, and the pond samples. The sample interval for these two locations were chosen to replicate the sample depths used in the preliminary sampling effort described in Section B-5a(3.2). Analytical results from these background sites showed a generally lower concentration of sodium, calcium, and potassium in samples taken from the 'wet' site. Appendix C-2 contains a graphic representation of the distribution of each chemical, in both pond and background soils, that was found to be above the detection limit.

B-5a(1.2). Site Modifications. To accommodate sampling of the pond in a manner consistent with the site characterization plan (Mitchell 1987), it was necessary to modify the site. An access ramp was excavated to pond level at each of the four sites and fill was added at three (Sites 2, 3, and 4 in Figure B-2) to allow entry of the drill rig to the centerline of the pond at the randomly selected location. The fill material was placed over the sample points as the access ramps were excavated in the banks. The berms alongside the north and south arms of the pond were used as borrow sites for this fill material. Upon completion of sampling, the fill material was returned to its original location.

At Site 1 in the east arm of the pond, the narrow dimensions, flowing conditions of the effluent at the time of sampling, and general configuration of the trench, necessitated that the borehole be situated approximately 12 in. from the "centerline" of the pond. Figure B-2 shows the general configuration of the site that was present during the sampling phase.

B-5a(1.3). Criteria for Soil Sampling Depths. The chemical constituents documented to have been discharged to 2101-M Pond (2.2 to 22 lb/yr of nitric and hydrochloric acid and less than or equal to 26.9 lb of barium ions) were

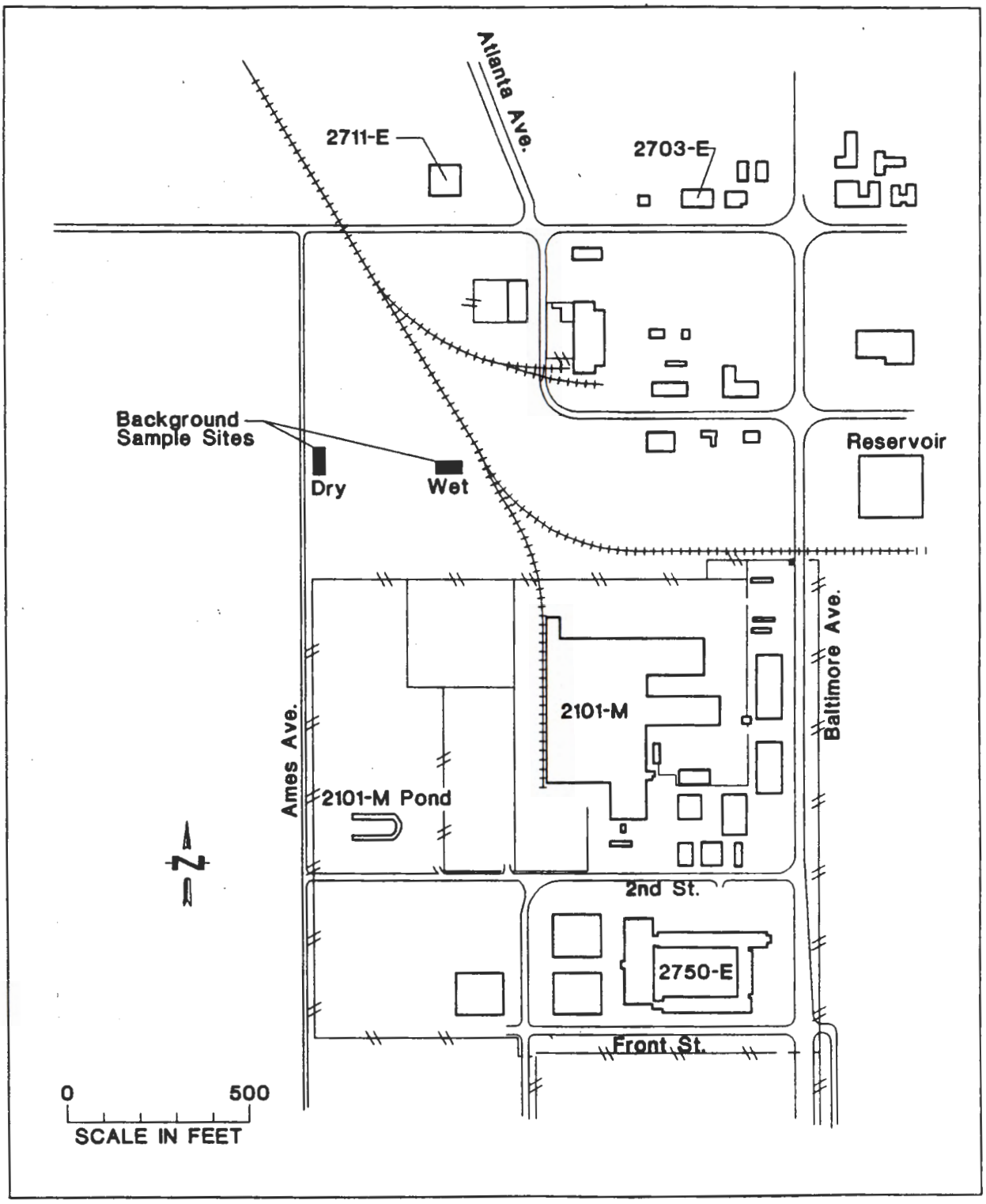

Figure B-3. Location of Background Sample Sites.

930413.1054

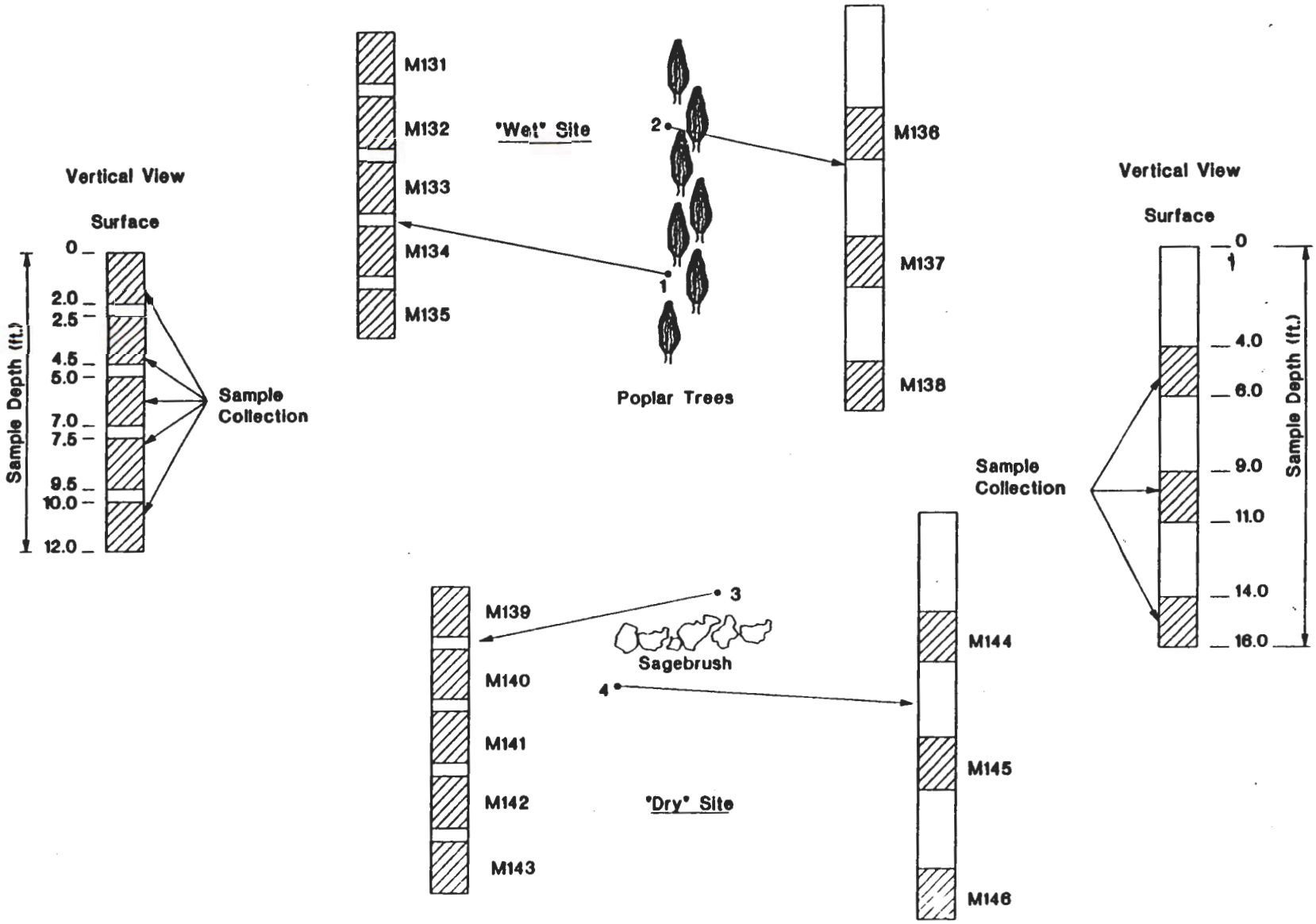

Figure B-4. Location, Depths, and Codes for the 2101-M Pond Background Samples.

generally not expected to have leached or moved to significant depths. Later geochemical and flow/transport modeling has provided additional justification for this assumption. The results of geochemical modeling indicate that any contamination of the 2101-M Pond soil should be highly concentrated in the uppermost part of the soil column. Also, it indicates that the mass of potential inorganic contaminants in the 2101-M Building effluent are generally insufficient to be distinguished from background.

The mass of barium, chromium, and copper required to produce soil concentrations that exceed the background threshold values (Appendix C-5) within a 10-ft radius of the effluent outfall were calculated at depths from 1 in. to 12 ft. It was assumed for the purpose of these calculations that all potential contamination would be included in the soil analysis (i.e., leachable). It also was assumed that any contamination would be homogeneously distributed within the indicated soil volume and that the average density of the soil is 2.5 g/cm^2.

As indicated from the results of these calculations, about 1/4 lb of copper or chromium (metal) and about 2.5 lb of barium must be added to each foot of soil within the 10-ft radius of the outfall to be distinguishable from background values. Two to three times as much would be required if the metals were discarded as reagents. These amounts also correspond to disposal of about 100 L of standard 1,000 parts per million copper or chromium solutions, or 1,140 L of barium standard solution, for each foot of soil. Nearly six times as much of these metals would be required for each foot of soil if the impacted area were extended to the north arm of the 2101-M Pond. Proportionally larger amounts would be required to discernably impact larger soil volumes, either deeper and/or laterally more extensive.

The BWIP Laboratory inventory (Appendix B-1) and inventories from laboratories of the same type and size were used to judge the amount of chemicals typically handled. The results indicate that the BWIP Laboratory did not handle enough constituent reagents to produce contamination below the uppermost part of the 2101-M Pond soil or beyond the discharge, even if the entire inventory was to be discarded.

Mass balances for copper were considered for 10-ft radius around the effluent outfall. To yield average concentrations as high as 500 to 800 parts per million would require 140 to 225 lb of copper metal for each foot of soil. Again, this is far in excess of the amount handled by the BWIP Laboratory. The corrosion of copper alloys such as wires or pipes typically are the most likely sources of copper contamination in topsoil (Kabata-Pendias and Pendias 1984). The source of copper contamination at the 2101-M Pond is most likely from the HVAC piping in the 2101-M Building.

Also, it can be shown that the concentration of constituents (such as copper, barium, and chromium) potentially added to the soil by sorption from a drinking water source can be very large in the upper few millimeters, and decreases rapidly with depth in the soil column (Conway 1982; Freeze and Cherry 1979; Kabata-Pendias and Pendias 1984). Any contamination remaining in the 2101-M Pond soil would be the result of equilibrium reactions and/or

irreversible sorption. In either case, residual contamination would be concentrated in the uppermost part of the soil column, with rapidly decreasing concentrations downward.

The results of this assessment indicate that the effects of sorption in the soil column are strongest, and expected to be distinguishable primarily in the upper few millimeters of the soil column. Therefore, the mass of inorganic constituents (e.g., copper, chromium, and barium) introduced into the 2101-M Pond soil from the discharge of drinking water in volumes comparable to those of the building discharges, would be similar, or greater in magnitude, to those discharged from the laboratory.

This discussion supports the decision to sample to a 12-ft depth. This decision was based on the following.

- A depth of 12 ft would provide the ability to develop an adequate soil profile to detect significant changes in chemical concentrations with depth.

- Samples needed for profiles in the vadose zone, greater than 12 ft deep, could be collected during the drilling of adjacent groundwater monitoring wells (see Figure B-2 for well locations).

- Soluble compounds, if present in elevated concentrations, would likely be detected in the groundwater as part of the quarterly monitoring process.

- The maximum depth of contaminated material that could be exhumed from a cost-effective design engineering perspective is 12 ft.

B-5a(1.3.1). Sample Intervals. Pond soil samples were collected every 2.5 ft, in 2-ft increments, to a depth of 12 ft. Each sample site was represented by samples at depths of 0.0 to 2.0 ft, 2.5 to 4.5 ft, 5.0 to 7.0 ft, 7.5 to 9.5 ft, and 10.0 to 12.0 ft. Figure B-5 is a graphic representation of the location and depth of samples taken at the pond. At Site 2, problems with heaving sand caused the sampling effort to be abandoned after the top two samples were collected (0.0 to 2.0 ft, and 2.5 to 5.0 ft). The rig was moved 9 ft to the south and all the samples were taken (0.0 to 12.0 ft). These are shown as 2A and 2B in Figure B-2. Results of the initial two samples taken at Site 2A (sample codes M152 and M153) are included as part of this evaluation.

Collection of background samples at two sites was conducted in an identical manner and depth as those taken for the pond samples. An additional six samples were collected at two other sites using the same procedure, but at different depths (4.0 to 6.0 ft, 9.0 to 11.0 ft, and 14.0 to 16.0 ft), to provide ancillary data on chemical concentrations with depth. Figure B-4 is a graphic representation of the location and depth of samples taken for background information.

The rainwater run-off ditch was sampled at four locations, using a hand auger, to a depth of approximately 12 in. The four samples were then composited into one sample and submitted for complete laboratory analyses.

B-5a(2). Sample Containers. Containers for soil samples were chosen based on their compatibility with the potential waste, resistance to leaking or breakage, ability to seal tightly, and being of the required volume for an optimum sample. Sample containers used in this sampling effort were purchased from I-Chem Research, Incorporated, in a precleaned condition. Table B-4 shows the type and size of containers used for this sampling effort. Protocols used to clean the sampling containers are included as part of Appendix C-3.

B-5a(3). Sampling Equipment and Sample Collection. A B-34 mobile power auger rig was employed in conjunction with the continuous flight hollow-stem auger sampling method modified from American Society for Testing and Materials (ASTM) standard D 1586-84 (ASTM 1985). A stainless-steel split-barrel sampler (3-in. nominal outside diameter) fitted with a stainless-steel solid inner barrel (2 ft long and 2.25-in. nominal inside diameter) was used to obtain the sample. Retainer springs were made of Teflon* or steel depending on availability. This method provides a representative, continuous sample of the sample point.

The auger drill was situated at, or as near as possible to, the centerline of the pond for sample collection. When drilling through the emplaced fill (thickness at Site 2 = 3 ft, Site 3 = 2.5 ft, and Site 4 = 3 ft), evidence of organic material or a change in the character of the sediment marked the point at which the 0.0 to 2.0-ft sample was taken. Additional samples were then taken to a total depth of 12.0 ft as previously described.

B-5a(3.1). Vadose Zone Soil Sampling. During the drilling of groundwater monitoring wells 299-E18-3 and 299-E18-1, soil samples were taken by PNL for chemical analysis. The samples were preferentially acquired as close to the top of fine grained or wetted sediments as possible to maximize the possibility of detecting any sorbed constituents. The samples were acquired from depths of 45, 62, 84, 97, 194, and 195 ft (duplicate of the 194-ft sample) in downgradient well 299-E18-3, and one sample was collected at a depth of 194 ft from the upgradient well 299-E18-1. These samples followed the same handling and preservation protocols as did the pond soil samples discussed in Section B-5a(4). The samples were analyzed by PNL using the x-ray flourescence (XRF) method for metals and by U.S. Testing Company, Incorporated, Richland, Washington (U.S. Testing), for volatile organic compounds. Although both the ICP and XRF methods test for metals, it is difficult to make a direct comparison of the results from these two analytical techniques on a one-to-one basis. This is because the XRF method measures the quantity of metals in particles of the entire rock, while the ICP method

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*Teflon is a registered trademark of the E.I. du Pont de Nemours & Company.

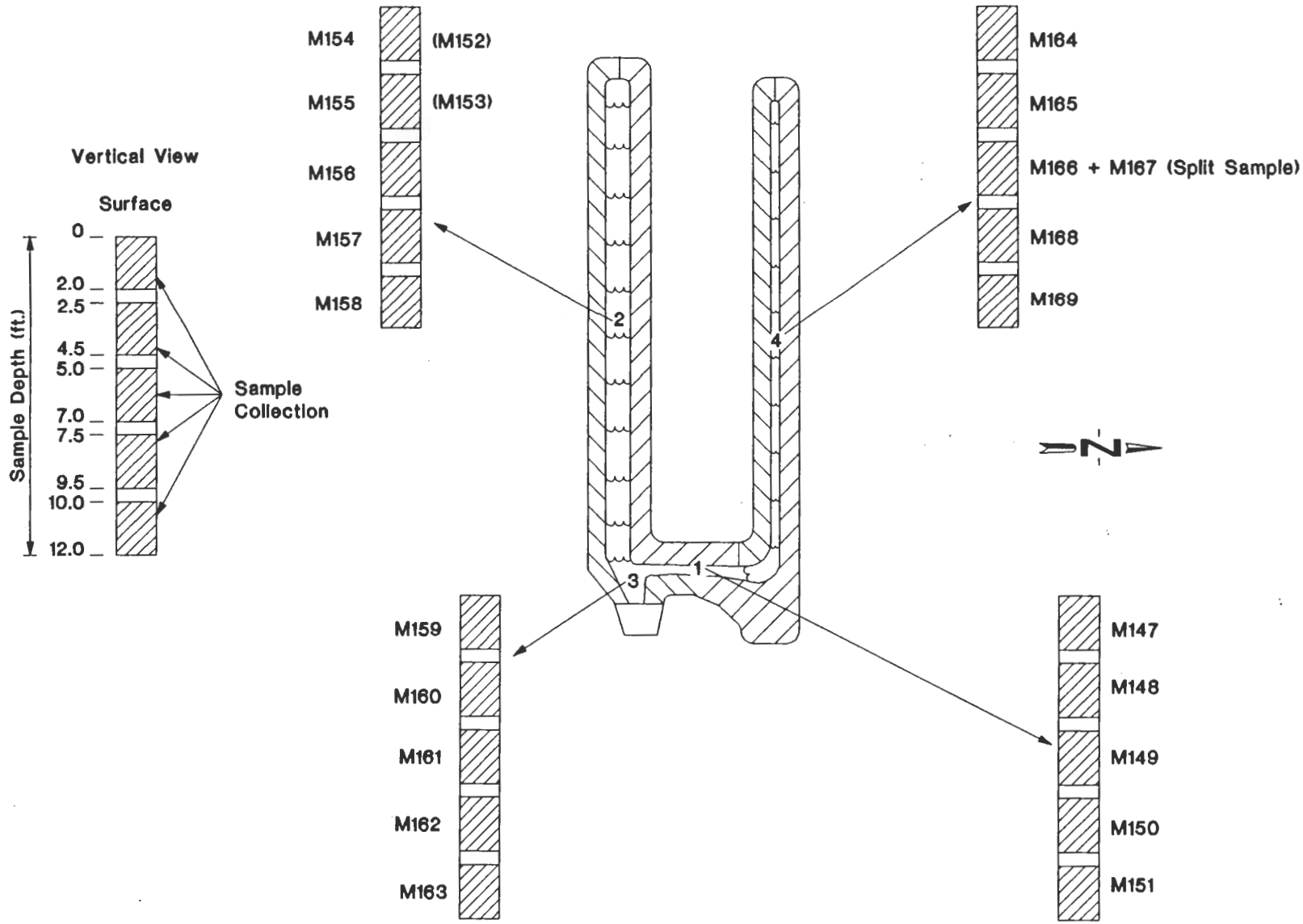

Figure B-5. Location, Depths, and Codes for the 2101-M Pond Samples.

930413.1054

Table B-4. Sample Containers.

Analyte	Container volume	Container/lid
Inductively coupled plasma metals Mercury Arsenic Selenium Thallium Lead Ammonium Anions Cyanide Sulfide conductivity pH Total organic carbon	(1)250 mL	Plastic/Teflon
Total organic halogen	(1) 40 mL	Amber glass/Teflon
Volatile organic analysis	(2) 40 mL	Amber glass/Teflon
Extractable organics Pesticides Herbicides Polychlorinated biphenyls Thiourea Ethylene glycol	(1 each) 125 mL/250 mL	Amber glass/Teflon

requires dissolution of the soil in acid, which usually leaves a residue of the more insoluble minerals. The volatile organic analysis showed one value above detection for methylene chloride (0.029 part per million) in the 194-ft sample from well 299-E18-3. This compound is likely to be a contaminant introduced during the analytical process, because the duplicate sample showed a value less than the detection limit.

To compare the results from the pond soil with the vadose zone soil, several samples taken during the drilling of three wells were analyzed using the ICP method. Three samples were selected each from wells 299-E18-1, 299-E18-2, and 299-E18-4. The samples used in this investigation were originally acquired as geologic samples and had not been preserved at 4 °C, did not have a chain-of-custody record, and were not taken under controlled conditions. Therefore, the results of these analyses are used for informational purposes only.

B-5a(3.2). Precharacterization Soil Sampling. Before implementation of the sample design called out in the site characterization plan (Mitchell 1987), a preliminary reconnaissance sampling effort was performed. A hand auger was used to bore shallow pond sediments (0 to 3.5 ft), and a power auger was used to obtain samples at depth (4 to 12 ft) from two sites adjacent to the pond. Although the samples were delivered to the analytical laboratory the same day that sampling occurred, the time that elapsed between taking the samples and performing sample analyses was as long as 44 days. Therefore, the results were considered of questionable validity and function only as indicators of the chemical parameters present in the soil at the pond. Results also were used by the site safety officer to confirm the level of personal protection equipment and extent of safety training required for site sampling personnel. An anomalous result from this effort, not reported in the characterization sampling, include one positive result for mercury of 0.25 part per million, which is close to the detection limit of 0.20 part per million. The rainwater run-off ditch composite sampling also was performed during the preliminary phase of sampling. Holding times for several of these analyses either exceeded SW-846 recommended holding times, or documentation of meeting the extractable holding time is unavailable. See Table B-5 for a listing of the analysis which did not meet SW-846 sampling protocol.

Table B-5. Rainwater Run-off Ditch Holding Time Exceedances.

Analysis	SW-846 holding time	Actual holding time
731 (VOA)	14 d	36 d
733 (extractable organics)	7 d extract, 40 analysis	15 d extraction 42 d total
737 (chlorinated herbicides)	14 d	45 d
739 (PCBs)	10 d	23 d
C 70 (cyanide)	14 d	33 d
C 78 (sulfide)	7 d	27 d
C 80 (ammonium)	28 d*	30 d

NOTES:
*This holding time is for ammonia, no reference found for ammonium holding times.
VOA = volatile organic analysis
PCB = polychlorinated biphenyl.

B-5a(4). Sample Handling Quality Assurance/Quality Control. Information presented in this section is based on the requirements contained in Mitchell (1987).

B-5a(4.1). Sample Split. One sample from Site 4 in the north arm of the pond was randomly selected and split in the field. The sample was divided into approximately equal parts and placed into separate containers. The containers were labeled with a unique sample number (M167) and identified as a split only in the field logbook.

B-5a(4.2). Identification of Samples. Each sample was identified uniquely at the time of collection. Sample containers were labeled, at a minimum, with the following information:

- Site contractor
- Unique sample number
- Collector's name
- Analysis code(s)
- Date and time collected
- Container size.

Specific sample codes, correlative to the sample location, are shown in Figures B-4 and B-5.

B-5a(4.3). Sample Seal. Evidence tape was used as a sample seal to prevent and/or detect tampering with samples following collection and until the analyses were performed. Seals were applied to the sample container before leaving the location. Each sample seal was attached in a manner that required breaking the seal to open the container.

B-5a(4.4). Sample Preservation and Storage. Sample preservation was initiated immediately upon sample collection to ensure chemical and physical integrity of the sample. After the soil or sediment was containerized, labeled, and sealed, all samples were stored in a refrigerated container or packed on ice to be cooled to less than or equal to 4 °C. Samples remained refrigerated until the analyses were performed. Any remaining sample was re-refrigerated until all sample holding times had expired.

B-5a(4.5). Chain of Custody. To ensure the integrity of the sample from collection through analyses and to final disposition, a chain-of-custody record was used to document the history of persons who had been in possession of samples. The form was completed by the sample collector, the sample custodian, and all others in possession of the samples.

B-5a(4.6). Sample Analysis Request. A sample analysis request form accompanied the samples to the laboratory, designating the analysis to be performed on each sample. The form also provided a check to ensure that all samples had been received and that correlation between sample analysis and sample numbers was accurate and complete.

B-5a(4.7). Laboratory Receipt and Logging of Samples. U.S. Testing, the analytical laboratory, has procedures in place to control receipt of samples; the procedures include inspection for damage and tampering, logging samples in a logbook, assigning laboratory numbers, and protection from loss or damage. It is the responsibility of the laboratory to notify the collector of misrepresented, lost, damaged, or expired samples.

B-5a(4.8). Field Logbook. Personnel conducting the sampling maintained an official logbook to document field activities. Each day's activity or separate sampling episode was recorded and signed by, at a minimum, the field team leader. The logbook was the responsibility of the field team leader and was retained as a permanent record. Further information concerning the specific details contained in the field logbook, as well as personnel training requirements and field safety, is presented in Appendix C-3.

B-5a(4.9). Decontamination of Sampling Equipment. All sampling equipment to come in direct contact with the sample was precleaned under laboratory conditions. The equipment included split tube core barrels and inserts, sample retainer springs, bowls, spoons, and spatulas. All of the sampling equipment, with the exception of the retainer springs, was constructed of stainless steel. Protocols used to clean the sampling equipment and containers are included as part of Appendix C-3.

B-5b. Analytical Parameters and Procedures

The analytical parameters for soil collected at the 2101-M Pond were determined based on the following:

- General lack of information about the effluent discharged to the pond before 1985, which may have contained small amounts of chemicals present in the BWIP Laboratory

- Evidence that barium chloride (less than or equal to 26.9 lb barium ions) and hydrochloric and nitric acid (2.2 to 22 lb/yr) may have been discharged to the pond.

For these reasons, selected samples from the 2101-M Pond area were analyzed for a broad spectrum of constituents. All chemicals listed in the BWIP inventory that appear in 40 CFR 261, Appendix IX were included as part of these analyses. Table B-6 summarizes the analytical parameters.

To facilitate a more cost-effective sampling program without compromising the usefulness of the information gained, the scheme for analyses of pond soil samples was as follows: samples collected at depths of 0.0 to 2.0 ft, 5.0 to 7.0 ft, and 10.0 to 12.0 ft were analyzed for all of the constituents listed in Table B-6 (14 samples total). Soil samples collected at 2.5 to 4.5 ft, and 7.5 to 9.5 ft (9 samples total) were analyzed only for the following:

- Inductively coupled plasma metals

- Conductivity

- Lead
- Total organic halogen
- Arsenic
- Total organic carbon
- pH.

The methodology resulted in improved cost efficiency, while still providing detailed information on the concentration of barium as well as many other potential pollutants.

For comparative purposes, background samples and the rainwater run-off ditch composite sample also were analyzed for the chemicals listed in Table B-6.

The U.S. Testing Company served as the contractor for analyses of environmental samples collected at the 2101-M Pond. All samples collected were shipped to the U.S. Testing facility in Richland, Washington, within 8 h of collection. For comparative purposes, Table B-7 shows a listing of the U.S. Testing analytical method and the equivalent EPA analytical method.

B-5c. Data Evaluation Criteria

For each analytical parameter shown in Table B-6, the following approach was used to evaluate the data.

1. Evaluate the QC of the sample analyses to assess the reliability of the data.

2. Examine the analytical data and eliminate from further consideration constituents that are present below detection levels in the pond soils.

3. Exclude primary constituents in native rocks and soils from statistical evaluation. Constituents eliminated from statistical evaluation are: aluminum, iron, calcium, manganese, magnesium, and potassium.

4. Prepare background summary statistics for constituents.

5. Perform statistical goodness-of-fit test to examine data distributions by the following steps:

   a. Apply the Shapiro-Wilk test for normality procedures to the raw data (e.g., unit of measurement is parts per million).

   b. If raw data are not normally distributed the Shapiro-Wilk test is applied to the logarithms (natural logarithms) of the data

Table B-6. List of Analytical Parameters for Selected Soil Samples from 2101-M Pond.

Zinc*	Ethylene glycol
Mercury	Enhanced thiourea
Calcium*	Total organic carbon
Strontium*	Total organic halogen
Magnesium*	Phosphate pesticides
Potassium*	Chlorinated pesticides
Barium*	Chlorinated herbicides
Cadmium*	Polychlorinated biphenyls
Chromium*	Extractable organics
Lead	Volatile organics
Arsenic	
Silver*	Nitrate
Sodium*	Sulfate
Selenium	Chloride
Nickel*	Cyanide
Thallium	Phosphate
Copper*	Ammonium
Vanadium*	Sulfide
Antimony*	Fluoride
Aluminum*	
Manganese*	Conductivity
Iron*	pH
Beryllium*	

NOTE: *Inductively coupled plasma metals.

Table B-7. Comparison of U.S. Testing Company, Incorporated, and U.S. Environmental Protection Agency Methods.

Analysis	Analyte(s) determined	Analytical method number: U.S. Environmental Protection Agency[a]	Analytical method number: U.S. Testing Company, Inc.
Metals[b]		SW-846[c], No. 6010	726
Mercury	Mercury	SW-846, No. 7470	A21
Arsenic	Arsenic	SW-846, No. 7060	A20
Lead	Lead	SW-846, No. 7421	A51
Selenium	Selenium	SW-846, No. 7740	A22
Thallium	Thallium	SW-846, No 7841	A23
Ammonium	NH_4^+	ASTM 1426-D-79[d]	C80
Anions	Cl^-, F^-, NO_3^-, SO_4^{-2}, PO_4^{-3}	In-hours ion chromatography	735
Cyanide	CN^-	SW-846, No. 9010	C70
Sulfide	S^{-2}	SW-846, No. 9030	C78
Thiourea	7 compounds	SW-846, No. 8330	727
Chlorinated pesticides	18 pesticides	SW-846, No. 8080	729
Phosphorous pesticides	6 pesticides	SW-846, No. 8140	734
Chlorinated herbicides	3 herbicides	SW-846, No. 8150	737
Polychlorinated biphenyls	7 PCBs	SW-846, No. 8080	739
Total organic carbon	Total organic carbon	SW-846, No. 9060	C69
Total organic halogen	Total organic halogen	SW-846, No. 9020	C68
Volatile organics analysis	52 organics	SW-846, No. 8240	731
Extractable organics	141 organics	SW-846, No. 8270	733
pH		SW-846, No. 9045	207
Conductivity		SW-846, No. 9050	088

NOTES:

[a]When EPA methods were not available, techniques from Standard Methods for the Examination of Water and Wastewater (APHA 1981) were used whenever possible.

[b]Aluminum, silver, barium, beryllium, calcium, cadmium, chromium, copper, iron, potassium, magnesium, manganese, sodium, nickel, antimony, strontium, vanadium, and zinc.

[c]EPA (1986).

[d]ASTM (1979).

PCB = polychlorinated biphenyl.

to examine whether the logarithms of the concentrations has a normal distribution. This is equivalent to test the hypothesis that the constituent has a lognormal distribution.

c. If the proportions of less-than-detection-limit values are more than 50%, a goodness-of-fit test is not performed and a nonparametric tolerance interval is calculated, to the extent possible.

6. Use the tolerance interval approach to calculate the background threshold values based on the results obtained in Step 5.

7. Compare 2101-M Pond soil sample individually with the background threshold values and evaluate the significance of exceedance.

8. Make assessment as to whether the levels of various chemical constituents in the pond soil are of a health and/or environmental concern.

B-5d. Analytical Laboratory Quality Assurance/Quality Control

Analytical data received for the 2101-M Pond soil samples were scrutinized against the Hazardous Substance Analysis Quality Control Report - Fiscal Year 1988 (UST 1988) to assess the reliability of the results. Details concerning the laboratory QC assessment are contained in Appendix C-4 and summarized in the following section.

B-5d(1). Inorganic Chemical Analyses. Inorganic chemical analyses laboratory QC assessment is summarized as follows.

- Holding times were acceptable for all metals and ions with the exception of the cyanide analysis. The analysis for cyanide was outside the EPA QC limit of 14 days for samples M131 through M154. No positive results were reported for cyanide in any samples taken for this characterization effort.

- Contractual detection limits were below those required by the EPA.

- Laboratory blanks were within established QC limits.

- Laboratory duplicates were within established QC limits for inorganic analytes with the exception of copper, barium, and manganese. Significant percent differences outside QC limits for these elements occur in samples M132 and M143. (Appendix C-4, Page App C4-3)

- Spike sample percent recoveries are outside QC limits for arsenic, cadmium, lead, selenium, sulfate, phosphate, and fluoride. Results for sulfate, fluoride, and phosphate in samples M136, M143, and M152 (a total of three positive results) are considered of questionable validity because of low percent recoveries in spike samples.

Problems with percent recoveries and percent differences are most likely caused by matrix interference and the heterogeneous nature of the soil.

B-5d(2). Organic Chemical Analyses. Organic chemical analyses laboratory QC assessment is summarized below.

- Holding times were acceptable for all organic analyses [(i.e., TOC, TOX, VOA, extractable organics or acid-base neutralization (ABN), pesticide/PCB)].

- Instrument detection limits, blank recoveries, surrogate recoveries, and spike recoveries were all found to meet EPA QC established limits except for spike recovery for TOX analysis of sample M146. However, sample analysis showed a value below the detection limit.

B-5e. Soil and Sediment Chemical Analyses

Summary tables are provided showing the analytical results of the pond samples (Table B-8) and the background samples (Table B-9). Values for specific soil and sediment analyses at sample depths and locations can be correlated with corresponding sample codes (i.e., M147, M148, etc.) in Figures B-4 and B-5. A graphic representation of the analytical data correlated with sample location is provided in Appendix C-2. Values below detection, representing the majority of the data, were not included in the summary tables. However, a complete data set for all Phase I soil sediment analyses are provided in Appendix C-1. Inclusion of the data packages serves to illustrate the extent of chemical analyses, U.S. Testing data format, and overall results. Detection limit information is provided in Appendix C-4.

B-5f. Statistical Evaluation

With the exception of specific organic compounds that were not identified in background samples, the individual pond sediment samples were compared to the summarized background sample data. The background sample constituents are assumed to be normally distributed. This assumption was then tested for validity. If the normal distribution assumption was proven false, a test was done to determine if the constituent is log-normally (natural logarithm) distributed.

The background threshold values were determined using a tolerance interval (TI) approach to set an upper bound on background values. If the constituent was determined to not be normally or log-normally distributed, then a nonparametric method was used to determine the background threshold TI. Evaluations are presented in Tables C5-4 and C5-5, Appendix C-5.

Table B-8. Summary of Sampling Results Above Detection Limit at the 2101-M Pond. (sheet 1 of 2)

Sample no.	Constituent (ppm)													
	Strontium	Zinc	Calcium	Barium	Chromium	Sodium	Nickel	Copper	Vanadium	Aluminum	Manganese	Potassium	Iron	Magnesium
M147	24.1	104.0	7,710.0	102.0	9.4	1,280.0	8.1	19.0	71.0	9,740.0	418.0	1,400.0	32,900.0	6,090.0
M148	22.7	70.1	5,210.0	104.0	9.1	1,310.0	7.3	---	86.8	9,890.0	481.0	843.0	38,800.0	6,130.0
M149	24.4	37.7	6,860.0	72.2	8.2	1,060.0	7.2	---	50.7	7,690.0	364.0	856.0	23,000.0	4,860.0
M150	29.8	51.0	8,450.0	53.3	9.0	1,180.0	7.2	6.4	40.9	7,020.0	253.0	770.0	19,600.0	4,590.0
M151	25.8	137.0	8,210.0	48.6	11.6	1,210.0	8.7	---	36.9	7,150.0	255.0	886.0	18,000.0	5,100.0
M152	31.8	43.2	4,570.0	93.8	11.3	1,250.0	7.8	---	55.9	8,790.0	333.0	1,290.0	24,700.0	5,050.0
M153	27.9	39.0	7,730.0	80.3	8.0	1,250.0	7.0	---	52.6	7,570.0	338.0	703.0	25,000.0	5,060.0
M154	20.3	60.0	3,990.0	80.9	9.1	287.0	6.6	51.6	77.6	6,970.0	302.0	896.0	26,300.0	4,030.0
M155	23.6	52.2	4,480.0	75.6	10.2	241.0	8.1	42.9	67.6	7,060.0	278.0	946.0	24,100.0	4,200.0
M156	28.3	31.7	5,010.0	71.6	8.3	292.0	7.3	1.6	39.4	7,040.0	235.0	596.0	20,300.0	4,720.0
M157	27.5	31.6	5,540.0	59.1	7.5	154.0	6.1	---	38.1	7,830.0	261.0	958.0	21,400.0	5,610.0
M158	21.5	28.7	8,370.0	53.9	9.5	120.0	8.0	1.2	28.4	7,300.0	226.0	1,280.0	17,900.0	5,770.0
M159	30.7	220.0	5,520.0	151.0	15.7	312.0	13.0	1,340.0	74.1	14,000.0	475.0	1,880.0	39,200.0	7,450.0
M160	22.2	39.3	3,360.0	75.3	9.4	166.0	6.4	9.3	47.6	7,780.0	307.0	937.0	22,800.0	5,040.0
M161	18.8	30.9	5,040.0	69.5	10.1	200.0	7.1	---	42.8	5,660.0	245.0	732.0	18,500.0	4,370.0
M162	28.0	30.0	12,000.0	65.5	7.3	160.0	6.6	---	35.9	7,450.0	271.0	895.0	20,000.0	5,510.0
M163	24.6	28.0	8,890.0	44.4	11.0	168.0	7.7	1.8	25.8	6,010.0	229.0	1,000.0	13,600.0	5,000.0
M164	40.0	83.4	16,400.0	96.7	12.1	309.0	10.4	270.0	49.0	10,200.0	332.0	1,580.0	24,800.0	6,290.0
M165	20.3	30.9	2,830.0	70.0	8.9	163.0	6.9	---	37.4	6,710.0	255.0	806.0	17,500.0	4,330.0
M166	55.3	29.1	5,210.0	81.0	10.5	195.0	8.1	1.7	37.2	7,980.0	270.0	886.0	21,000.0	4,990.0
M167	32.5	31.2	5,000.0	66.3	9.8	240.0	8.2	---	42.4	8,700.0	271.0	859.0	23,100.0	5,320.0
M168	18.7	27.0	14,400.0	49.4	6.4	136.0	5.3	1.6	34.8	7,000.0	230.0	675.0	21,700.0	5,280.0
M169	28.2	32.9	14,900.0	62.4	10.8	143.0	7.2	6.1	32.3	10.300.0	286.0	1,770.0	25,000.0	6,930.0

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Table B-8. Summary of Sampling Results Above Detection Limit at the 2101-M Pond. (sheet 2 of 2)

Sample No.	pH	Conductivity	Constituent (ppm)[a]														
			Sulfate	Chloride	Arsenic	Lead	TOC	TOX	Ammonium	Fluoride	Methylene chloride	Acetone	Toluene	Butanoic acid	Proponal	Ethanol	Unknown organics
M147	7.4	641.0	39.5	14.5	1.8	7.8	112.0	15.60	1.7	---	0.022	---	---	---	---	---	---
M148	7.0	124.0			1.8	5.6	18.4	--	1.6	---	---	---	---	---	---	---	---
M149	7.8	197.0	2.7	---	1.2	4.7	---	2.15	1.6	---	---	---	---	---	---	---	---
M150	8.1	197.0			0.8	4.2	---	---									
M151	8.2	197.0	2.1	---	3.6	4.2	---	4.00	1.6	---	---	0.036	---	---	---	---	---
M152	7.6	141.0	25.5	3.8	1.5	5.3	13.6	---	1.7	---	---	0.120	---	---	---	---	1.7
M153	8.2	146.0			0.7	3.6	---	---									
M154	6.8	265.5	4.1	6.8	---	5.5	116.0	2.30	2.0	3.3	---	0.071	0.072	---	0.005	0.005	---
M155	7.1	354.0			0.5	5.6	98.7	19.30									
M156	8.0	199.0	1.7	1.3	---	3.9	17.8	2.10	2.6	---	---	---	---	---	---	---	---
M157	8.2	190.0			1.0	4.7	---	10.10									
M158	8.5	147.0	---	---	2.5	6.4	---	---	1.7	---	---	---	---	---	---	---	---
M159[b]	6.9	395.0	12.3	13.3	2.7	35.2	318.0	8.50	2.3	15.2	---	0.270	---	2.3	0.006	0.027	1.7[c], 1.4, 1.2, 1.0
M160	7.1	67.7		0.8	5.8	16.8	4.20										
M161	7.7	169.0	1.7	---	0.7	3.0	---	7.50	1.7	---	0.027	0.039	---	---	---	---	2.9, 4.5
M162	8.0	164.0			1.3	4.9	---	21.50									
M163	8.0	187.0	2.8	---	2.7	6.6	---	---	3.8	---	---	---	---	---	---	---	1.4
M164	7.7	623.0	101.0	7.2	3.5	8.8	137.0	---	4.3	2.0	---	---	---	---	---	---	---
M165	8.0	168.0			1.6	4.1	---	5.10									
M166	8.1	172.0	4.0	---	1.0	3.9	---	8.00	3.6	---	---	---	---	---	---	---	---
M167	8.0	171.0	2.0	---	1.6	4.0	---	---	3.2	---	---	---	---	---	---	---	---
M168	8.0	168.0			1.2	4.2	---	---									
M169	8.1	158.0	---	---	2.9	6.9	---	---	2.5	---	---	---	---	---	---	---	---

NOTE: --- = data values are less than detection limits. Blank spaces shown in this table indicate that this chemical analysis was not requested for the corresponding sample.

[a]All values in this table are reported in ppm with the exception of pH and conductivity.

[b]One value not reported in this table is identified in sample M159 for silver (2.20 ppm).

[c]Identified as an aliphatic hydrocarbon.

Table B-9. Summary of Background Sampling Results Above Detection Limits.

Sample No.	Constituent (ppm)													
	Strontium	Zinc	Calcium	Barium	Chromium	Sodium	Nickel	Copper	Vanadium	Aluminum	Manganese	Potassium	Iron	Magnesium
M131[a]	22.7	112.0	3,770.0	61.7	16.6	937.0	9.2	3.3	59.0	10,100.0	164.0	1,620.0	26,900.0	4,700.0
M132	31.6	61.8	4,750.0	88.8	15.5	1,170.0	12.7	5.5	65.2	8,870.0	268.0	1,290.0	23,100.0	5,310.0
M133	22.4	48.4	4,540.0	205.0	8.0	991.0	13.0	---	65.3	5,770.0	2,870.0	643.0	25,400.0	4,030.0
M134	15.0	30.9	2,770.0	63.0	5.9	820.0	5.7	---	35.1	5,060.0	264.0	547.0	16,400.0	3,550.0
M135[b]	18.3	31.4	2,800.0	55.9	8.3	848.0	9.1	11.9	35.0	6,570.0	237.0	723.0	18,600.0	4,680.0
M136	18.9	33.9	3,050.0	77.0	7.5	852.0	6.8	---	38.0	7,210.0	361.0	910.0	19,500.0	4,930.0
M137	17.2	30.4	2,790.0	96.1	6.8	814.0	6.3	---	33.4	5,920.0	383.0	723.0	16,700.0	3,990.0
M138	26.9	28.9	7,040.0	81.5	8.6	838.0	6.6	1.5	24.6	6,290.0	234.0	746.0	15,300.0	4,780.0
M139	20.3	44.7	3,550.0	85.9	8.5	827.0	7.8	---	55.1	8,560.0	380.0	1,810.0	25,500.0	4,660.0
M140	22.7	32.3	8,340.0	46.3	8.3	1,430.0	6.2	---	42.2	6,050.0	252.0	833.0	18,800.0	4,430.0
M141	27.3	44.9	14,000.0	97.3	6.6	1,170.0	6.8	---	69.8	7,230.0	393.0	1,120.0	29,200.0	5,110.0
M142	39.2	33.8	10,600.0	65.6	9.0	1,640.0	7.4	---	42.5	7,740.0	279.0	1,340.0	20,000.0	5,860.0
M143	29.3	39.7	8,440.0	117.0	8.3	1,620.0	7.1	---	53.8	7,260.0	533.0	924.0	23,600.0	4,980.0
M144	36.9	43.4	10,700.0	80.4	8.1	1,710.0	7.2	---	66.3	8,910.0	392.0	916.0	28,300.0	5,980.0
M145	25.6	37.2	5,890.0	57.9	8.6	1,280.0	7.2	---	47.0	7,960.0	272.0	1,250.0	21,800.0	5,420.0
M146	28.7	34.4	9,700.0	46.6	10.1	1,130.0	6.7	---	36.2	8,710.0	243.0	1,670.0	23,200.0	6,910.0

Sample No.	pH	Conductivity	Constituent (ppm except pH and conductivity)							
			Sulfate	Chloride	Arsenic	Lead	TOC	TOX	Ammonium	Fluoride
M131	6.1	688.0	19.1	37.0	1.7	12.7	157.0	---	2.6	3.1
M132	5.8	80.0	7.8	4.1	3.3	8.9	71.9	5.9	0.9	---
M133	6.2	94.0	6.1	---	8.1	3.9	42.3	6.0	1.2	---
M134	6.6	30.0	1.9	---	1.2	3.1	---	---	1.5	---
M135	6.9	38.0	1.7	---	1.4	3.7	---	2.0	1.6	---
M136	6.4	57.0	4.6	2.3	2.6	4.9	19.6	3.8	1.2	---
M137	7.2	46.0	2.3	1.8	1.3	3.8	---	5.8	1.5	---
M138	7.8	222.0	1.3	---	1.6	4.5	---	---	2.0	---
M139	6.1	371.0	---	28.3	1.1	7.1	53.6	---	1.9	---
M140	6.8	258.0	1.2	---	1.9	5.0	48.7	---	1.9	1.2
M141	7.0	376.0	9.6	---	2.1	6.8	58.7	28.5	2.0	1.4
M142	7.1	326.0	5.0	---	1.7	3.9	---	10.1	2.0	1.1
M143	8.2	254.0	1.5	---	1.1	3.6	---	---	2.0	---
M144	7.3	587.0	34.5	7.1	1.6	4.8	39.7	---	1.6	1.4
M145	8.0	290.0	25.5	9.9	3.6	3.3	---	16.8	1.4	---
M146	7.2	674.0	17.3	37.1	1.3	4.2	---	---	2.2	---

NOTE: --- = data values are less than detection limits.

[a]Two values not reported in this table were identified as unknown aliphatic hydrocarbons in sample M131 (1.1 and 2.4).

[b]One value was reported for sulfide in sample M135 (12.0 ppm).

Background Threshold Value Exceedances--Upon comparison of the individual samples with the background threshold values, constituents that demonstrated exceedance of these values were noted for location and depth of occurrence. Appendix C-5, Table C5-6 identifies the constituent and sample(s) that have exceedances. Based on these results, the need to evaluate potential contaminant levels in the top 2 ft and certain locations in the pond is determined to be necessary. This second phase of sampling is discussed in Appendix D-1 through D-4.

Exceedances by Location--There are 17 background threshold exceedances at 2101-M Pond. These exceedances occur in a somewhat identifiable pattern. Nine of the exceedances occur at the effluent discharge point, five in the north arm location, four in the east arm location, and three in the south arm. Of these 17 exceedances, 10 are metals, and of these 10 exceedances, 4 occur at the effluent discharge point and 3 occur in the east arm.

The east arm and the effluent discharge point contain 9 of the 17 exceedances. The rational behind this depositional pattern seems to point to the metals sorbing relatively close to the discharge point.

Exceedances by Depth--Of the 17 background threshold exceedances at the 2101-M Pond, 10 occur in the 0.0 to 2.0 ft range, 2 each in the 2.5 to 4.5 and 5.0 to 7.0 ft range, and 3 in the 10.0 to 12.0 ft range. With this number of exceedances occurring in the upper 2 ft, it will be important to determine the spatial extent and the significance of these exceedances. To do this, the upper 2 ft of the 2101-M Pond soil was resampled based on the statistical information obtained from this sampling effort (Appendix D-1 through D-4).

Copper--Copper exceedances are generally surficial, and occur without regard to location. The differences in these exceedances are in the degree of significance of the exceedance. The statistically determined background threshold level of the 2101-M Pond soils is 11.9 parts per million. Table B-10 details these exceedances by location and significance of exceedance. Only two of the exceedances are more than an order of magnitude higher than the background threshold value.

Ammonium--Ammonium has the next highest number of exceedances with four occurrences. Three of the exceedances occur in the north arm at different depths. This arm contains water only during periods when the discharge volume exceeds the carrying capacity of the south and east arms. The soils in this area are wetted on a variable interval. It is theorized that the presence of ammonium is attributable to organic breakdown and subsequent migration.

Zinc--Zinc has two exceedances above the background threshold value of 112 parts per million. One occurrence is in the east arm and the other is at the discharge point, which would seem to indicate a potential location effect. The exceedances occur in the surface sample and at the 10 to 12 ft range.

Fluoride--Fluoride has two exceedances that occur in the south arm and at the discharge point. These exceedances are most likely because of the potable water cycled through the 2101-M Building.

Table B-10. Background Threshold Exceedances.

Constituent	Background threshold (ppm)	Level of occurrence (ppm)	Location	Significance (times higher)
Copper	11.9	1,340	Discharge (0-2 ft)	112.6
		270	North arm (0-2 ft)	22.7
		51.6	South arm (0-2 ft)	4.3
		42.9	South arm (2.5-4.5 ft)	3.6
		19	East arm (0-2 ft)	1.6
Ammonium	2.8	4.3	North arm (0-2 ft)	1.5
		3.8	Discharge (10-12 ft)	1.4
		3.6	North arm (5-7 ft)	1.3
		3.2	North arm (10-12 ft)	1.1
Zinc	112	220	Discharge (0-2 ft)	2
		137	East arm (10-12 ft)	1.2
Strontium	42.5	55.3	North arm (5-7 ft)	1.3
Vanadium	83.8	86.8	East arm (2.5-4.5 ft)	1.04
Lead	12.7	35.2	Discharge (0-2 ft)	2.8
Fluoride	3.1	15.2	Discharge (0-2 ft)	4.9
		3.3	South arm (0-2 ft)	1.1
TOC	157	318	Discharge (0-2 ft)	2

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Strontium, Vanadium, Lead, TOC--These four constituents all have one background threshold exceedance. Two of the exceedances occur in the surface sediments at the discharge point (TOC being the only nonmetal). The TOC exceedance is most likely attributed to the high natural organic content of the pond sediments. The metals occur at very low concentrations above the background threshold value.

The exceedances, which do not occur at the discharge (strontium and vanadium) occur in the north and east arms. Both exceedances are extremely close to background threshold values.

B-5g. Human Health Considerations

The principal contamination scenario for the 2101-M Pond is contamination of the upper pond soil from liquid waste received from the 2101-M Laboratory. The most probable potential exposure routes of soil contaminants to humans or the ecosystem include the following:

- Direct contact with contaminated surface soils
- Exposure to contaminated groundwater or surface water through drinking, recreation or food
- Inhalation of contaminated dust.

Contact with contaminated surface soils appears to pose the greatest risk to members of the surrounding ecosystem or humans and is the basis for soil ingestion as the exposure model of choice. No groundwater contamination from the Pond is indicated from the groundwater analysis of monitoring wells (Section B-6). Moreover, exposure to groundwater or surface water is remote because neither is used for drinking purposes and there is no evidence of flow into rivers 5 to 6 mi away. Inhalation of contaminated dust that may become airborne because of prevailing winds is minor compared to direct contact with soil. This exposure route also presents an insignificant hazard because of the small surface area of the 2101-M Pond (less than one-tenth acre). The pond soil lies in a depression surrounded by a berm, so this exposure route is of inconsequential risk to the nearest residential areas (10 mi away) downwind of the 2101-M Pond.

B-5g(1). Action Levels

Action levels are concentrations of constituents that prompt an action, such as soil removal and/or treatment or further evaluation. Initial action levels will be the greater of two levels: Site-wide background threshold value or limit of quantitation. The limit of quantitation is the level above which quantitative analyses can be obtained with a specific degree of confidence (generally the mean background signal plus 10 standard deviations). If concentrations exceed initial action levels, those constituents were

assessed against health-based action levels. Table B-11 lists the constituents and maximum concentrations found in the 2101-M Pond soil that were above the background values.

The 2101-M Pond site is in the 200 East Area, which is planned to be used for waste operations in the future. This use is consistent with the criteria in WAC 173-340-745 for determining industrial sites. Therefore, the health-based action levels chosen for this site are the Model Toxics Control Act (MTCA), WAC 173-340-745(4)(a)(iii)(A and B), industrial method C calculated levels (Ecology 1991). However, for comparative purposes only the constituents found in the pond soil were also compared to MTCA, WAC 173-340-740(3)(a)(iii)(A), residential method B calculated levels (Table B-11). For noncarcinogens, the principal variable relating human health to action levels is the oral reference dose (RfD). The reference dose is defined as the level of daily human exposure at or below which no adverse effect is expected to occur during a lifetime. For carcinogens, the cancer slope factor (CSF) is the basis for determining human health effects; it is a measurement of risk per unit dose. The oral reference dose and cancer slope factor are chemical-specific and are obtained from the *Integrated Risk Information System* (IRIS) database (EPA 1991) or other sources as approved under WAC 173-340-708(7). Health-based levels will be based on values that are current at the time of approval of this closure plan. If an analyte does not have an RfD or CSF (e.g. lead) the clean up value was taken from the Method A Tables for soil.

Since there are multiple constituents of concern, individual hazard quotients are also calculated and summed for the total hazard index (Table B-12) as required by WAC 173-340-700(3)(b). A hazard index of ≥ 1 is considered to be an indication of a hazardous condition or effect. The calculation used to determine the hazard quotient (HQ) is as follows:

$$HQ = \frac{dose}{RfD} \qquad dose = \frac{soil\ concentration\ mg/kg \times SIR\ mg/day}{ABW\ kg \times UCF\ mg/kg}$$

Where: SIR = soil ingestion rate in mg soil/day (50)
ABW = average body weight in kg (70)
UCF = units conversion factor in mg/kg (1,000,000)
RfD = oral reference dose in mg analyte/kg body weight in a day
and,
soil concentration is in mg analyte/kg soil
dose is in mg analyte/kg body weight in a day

The carcinogenicity values obtained using WAC 173-340-745(4)(a)(iii)(B) calculations are presented in Table B-13.

B-5g(2). Summary of Results

The results of these assessments indicate that the concentration of constituents found to be present in the pond pose no threat to human health. The noncarcinogenic evaluation (Table B-11 and B-12) shows all analyte concentrations to be below the Method C clean up levels. In addition, the

Table B-11. Noncarcinogenic Soil Cleanup Levels.

Analyte	Maximum concentration	Oral RfD	Industrial method C	Residential method B
Acetone	0.25	0.1[a]	350,000	8,000
Aroclor 1242	0.42	N/A	10[d]	1[d]
Aroclor 1254	1.1	N/A	10[d]	1[d]
Benzo(a)anthracene	1.8	N/A	20[d]	1[d]
Benzo(ghi)perylene	2.1	0.03[a]	105,000	2,400
Benzo(a)pyrene	1.9	N/A	20[d]	1[d]
Bis(2-ethylhexyl)phthalate	16.0	0.02[a]	70,000	1,600
Butanoic Acid	2.2E	N/A		
2-Butanone	21.0	0.05[b]	175,000	4,000
Cadmium	2.7	0.001[a]	3,500	80
Chromium	33.0	III 1.0[a] VI 0.005[a]	3,500,000 17,500	80,000 400
Chrysene	2.1	N/A	20[d]	1[d]
Copper	2500.0	0.04[c]	140,000	3,200
Fluoranthene	1.1	0.04[a]	140,000	3,200
Indeno(1,2,3-cd)pyrene	2.4	N/A	20[d]	1[d]
Lead	160.0	N/A	1,000[d]	250[d]
Manganese	600.0	0.14[a]	490,000	11,200
Pyrene	1.7	0.03[a]	105,000	2,400
Silver	32.0	0.005[a]	17,500	400
Thallium	50.0	0.0009[b]	3,150	72
Toluene	0.0023	0.2[a]	700,000	16,000
Zinc	360.0	0.2[a]	700,000	16,000
2,4-D	0.015	0.01[a]	35,000	800
4,4-DDE	0.0007	N/A		
2,4,5-T	0.003	0.01[a]	35,000	800
2,4,5-TP	0.003	0.008[a]	28,000	640

UNITS: Concentration = mg analyte/kg soil, Oral RfD = mg analyte/kg body weight-day,
Method B and C = mg analyte/kg soil.
N/A = [a]Not Available (at that time).
[b]from IRIS.
[c]from HEAST.
[d]from Superfund Technical Support Center.
Clean up value taken from Method A Tables for soil.

Table B-12. Hazard Index for Multiple Constituents.

Analyte	Daily dose	RfD	Hazard quotient
Acetone	1.78×10^{-7}	0.1	2.00×10^{-6}
Aroclor 1242	3.00×10^{-7}	N/A	
Aroclor 1254	7.86×10^{-7}	N/A	
Benzo(a)anthracene	1.28×10^{-6}	N/A	
Benzo(ghi)perylene	1.50×10^{-6}	0.03	1.00×10^{-4}
Benzo(a)pyrene	1.36×10^{-6}	N/A	
Bis(2-ethylhexyl)phthalate	1.14×10^{-5}	0.02	6.00×10^{-4}
Butanoic Acid	1.57×10^{-6}	N/A	
2-Butanone	1.50×10^{-5}	0.05	3.00×10^{-4}
Cadmium	1.93×10^{-6}	0.001	0.002
Chromium III	2.36×10^{-5}	1.0	2.00×10^{-5}
VI	2.36×10^{-5}	0.005	0.005
Chrysene	1.50×10^{-6}	N/A	
Copper	0.0018	0.04	0.045
Fluoranthene	7.86×10^{-7}	0.04	1.96×10^{-5}
Indeno(1,2,3-cd)pyrene	1.71×10^{-6}	N/A	
Lead	1.00×10^{-4}	N/A	
Manganese	4.00×10^{-4}	0.14	0.003
Pyrene	1.21×10^{-6}	0.03	4.00×10^{-5}
Silver	2.28×10^{-5}	0.005	0.005
Thallium	3.57×10^{-5}	0.0009	0.04
Toluene	1.64×10^{-9}	0.2	8.00×10^{-9}
Zinc	3.00×10^{-4}	0.2	0.001
2,4-D	1.07×10^{-8}	0.01	1.00×10^{-6}
4,4-DDE	5.00×10^{-10}	N/A	
2,4,5-T	2.14×10^{-9}	0.01	2.00×10^{-7}
2,4,5-TP	2.14×10^{-9}	0.008	3.00×10^{-7}
TOTAL HAZARD INDEX			**0.5**

NOTE: Hazard Index assumes using most conservative HQ (copper) where HQs were not calculated, also uses chromium VI HQ
UNITS: Daily Dose = mg analyte/kg soil-day, ORAL RfD = mg analyte/kg body weight-day, HAZARD QUOTIENT = dimentionless

Table B-13. Carcinogenic Soil Cleanup Levels.

Analyte	Maximum concentration	CSF	Industrial method C
Aroclor 1242	0.42	7.7[a]	17.0
Aroclor 1254	1.1	7.7[a]	17.0
Benzo(a)anthracene	1.8	N/A	20.0[b]
Benzo(a)pyrene	1.9	7.3[a]	17.9
Bis(2-ethylhexyl)phthalate	16.0	0.014[a]	9,375.0
Cadmium	2.7	N/A	10.0[b]
Chromium VI	33.0	N/A	500.0[b]
Chrysene	2.1	N/A	20.0[b]
Indeno(1,2,3-cd)pyrene	2.4	N/A	20.0[b]
Lead	160.0	N/A	1,000.0[b]
4,4-DDE	0.0007	0.34[a]	386.0

NOTES: Only EPA Carcinogenic Classifications A, B, and C are included in the Table
UNITS: Concentration = mg analyte/kg soil, CSF = risk (mg analyte/kg body weight-day)$^{-1}$, Method C = mg analyte/kg soil
[a]IRIS.
[b]Cleanup value from Method A Table for Industrial Soils.
N/A = not available.

evaluation shows the analyte concentrations found in the pond soil to be below the Method B clean up levels with the exception of some of the polycyclic aromatic hydrocarbons (PAHs) (benzo(a)anthracene, benzo(a)pyrene, chrysene, and indeno(1,2,3-cd)pyrene). The clean up level for these constituents were taken from the Method A Table (WAC 173-340-740, Table 2) because there are no RfDs available for them. It should be noted that for those PAHs (benzo(ghi)perylene, flouranthene, and pyrene) that did have RfDs, the clean up levels under Method B is well over the maximum concentration found in the soil. The reason for the low clean up level is due to assumed carcinogenicity for these constituents. For that reason these particular analytes are discussed in more detail in the results of the carcinogenic evaluation.

The carcinogenic evaluation (Table B-13) shows all analyte concentrations to be below the Method C clean up levels. There are some analytes that exceed the Method B clean up levels. These are the PAHs (benzo(a)anthracene, benzo(a)pyrene, chrysene, and indeno(1,2,3-cd)pyrene), and the polychlorinated biphenyls (PCBs) (arochlor 1242, and arochlor 1254) listed in Table B-13.

The PAHs are not considered to be a problem due to several reasons. These particular compounds occur at low concentrations (1.8 to 2.4 mg/kg) near the detection limit of the analysis method. The closer a value is to the detection limit there is more probability for error in the reported value. These compounds are all documented to occur naturally in soils, and are a widespread product of fossil fuel combustion. Finally, no PAHs were ever handled at the facility. Due to these facts it is proposed these PAHs not be considered in the closure of the 2101-M Pond.

The PCBs are also not considered to be a problem due to the very low concentrations in the soil. The maximum value for PCBs detected in the soil falls well below the clean up standards of the Toxic Substances Control Act. The soil clean up standard is 10 parts per million by weight. Clean soil is defined as containing less than one part per million by weight PCBs. WAC 173-303-071 contains an exemption for PCBs if the concentration is below 1 or 2 parts per million. For these reasons PCBs do not constitute a problem for clean closure.

Based on the calculations and the facts presented, there is no need for remediation of the 2101-M Pond soil. In fact, the calculations indicate that there is no reason why the pond should not be considered clean closed in its present condition.

The sum of all HQ using the 'maximum' contaminant value measured for each constituent in the soil, is less (0.5) than the threshold value of 1.0.

B-6. GROUNDWATER MONITORING

The Hanford Federal Facility Agreement and Consent Order (Ecology et al. 1992) (referred to as the Tri-Party Agreement) requires all treatment, storage, or disposal (TSD) facilities undergoing clean closure to do so in accordance with WAC 133-303-610, irrespective of permit status, and to demonstrate that the groundwater and soils have not been adversely impacted by the TSD unit, as described in WAC 173-303-645. To demonstrate this a groundwater monitoring system has been established at the 2101-M Pond site. The network consists of four monitoring wells. One well is positioned upgradient and three are positioned downgradient of the pond. These wells were installed with the intent to satisfy interim status facility groundwater monitoring requirements in force at the time of well installation (40 CFR 265, Subpart F) (EPA 1988a). While the monitoring system and monitoring parameters were developed using the interim status regulations the intent of this section is to assess the impact of 2101-M Pond on the groundwater relative to WAC 173-303-645. The groundwater monitoring system and analyses are discussed in the following sections.

B-6a. Groundwater Monitoring Activities

The interim status regulations in force during well installation (40 CFR 265, Subpart F) provided the objectives for the groundwater monitoring system. The objectives were to determine the following.

- Whether the groundwater meets DWS [40 CFR 265.92(b)(1)] (EPA 1988a).
- The quality of the groundwater [40 CFR 265.92(b)(2)] (EPA 1988a).
- Whether indicators of contamination are present in the groundwater [40 CFR 265.92(b)(3)] (EPA 1988a).
- Whether any contaminants or indicators originated from possible discharges of dangerous wastes to the 2101-M Pond.

To accomplish these objectives, four monitoring wells (Figure B-6) have been constructed to measure groundwater levels and to obtain groundwater samples from the uppermost aquifer. The wells were installed according to an interim status groundwater monitoring plan (Chamness et al. 1989). These wells are used to establish the groundwater gradient, evaluate the aquifer parameters, and to determine the groundwater quality. Analyses of groundwater data from wells not affected by the activities at the 2101-M Pond are compared with 2101-M Pond monitoring well results. This comparison is to demonstrate the effects of 2101-M Pond discharges to the groundwater quality. The baseline data will be compared with groundwater quality data from the 2101-M Pond downgradient monitoring wells to determine whether: (1) contaminants are present in the groundwater and, (2) contaminants disposed of to the 2101-M Pond have contributed to the degradation of groundwater quality below acceptable limits. Data from the analysis of pond soil will be compared with the groundwater quality data to determine whether constituents in the soil (considered as the source) have been transported through the vadose zone to groundwater (see Section B-6f).

Five quarters of groundwater samples were collected and analyzed to assess the background groundwater quality beneath 2101-M Pond. Semiannual sampling began in November 1989 and will continue through closure. Results from the quarterly and semiannual sampling events are reported to Ecology in quarterly reports for the Hanford Site. These data are presented also in Appendix E-1.

The results from monitoring well installation hydrogeologic and hydrochemical characterization activities are presented in the following sections.

B-6b. Hydrogeologic Characterization

This section provides information on the geology and hydrology of the Hanford Site and 2101-M Pond.

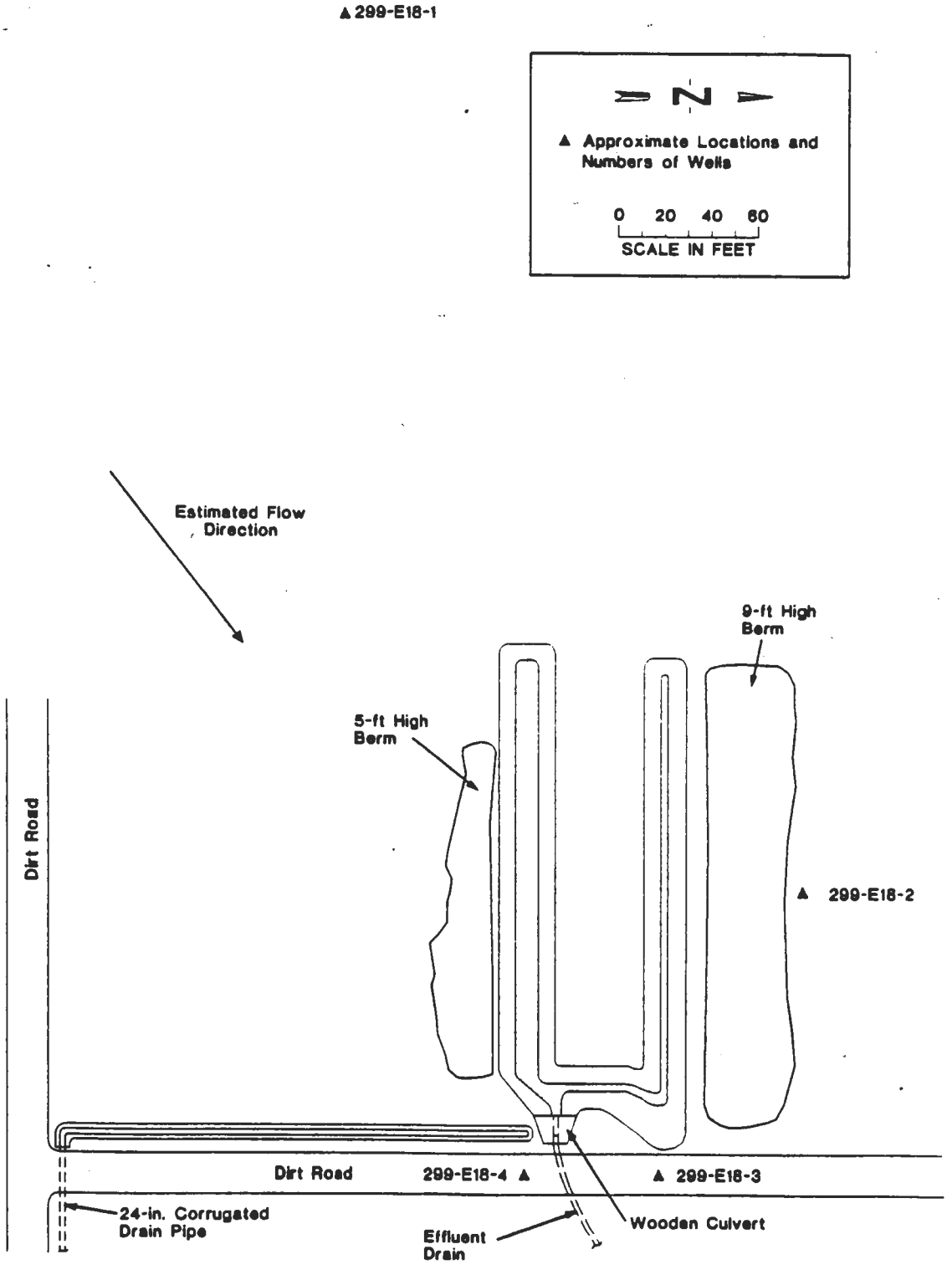


Figure B-6. Location of Groundwater Monitoring Wells for 2101-M Pond.

B-6b(1). Geologic Regional Setting. The Hanford Site is located in the Pasco Basin, a topographic and structural basin in the Columbia Plateau. The Columbia Plateau is underlain by extensive tholeiitic basalt flows of the Columbia River Basalt Group that were erupted between 17 and 6 million years ago from northwest-trending linear vent systems in southeastern Washington, northeastern Oregon, and west central Idaho (Myers et al. 1979). These flows have been deformed into broad structural and topographic basins separated by narrow asymmetrical anticlinal ridges that border the Pasco Basin to the north, west, and southwest. Sediments partially fill the Pasco Basin. In the Pasco Basin, the Columbia River basalt consists of three formations totaling as much as 15,000 ft in thickness. Each flow typically consists of one or more entablature and colonnade units (the dense interior) and a rubbly flow top. If the flow top is sufficiently thick and extensive, it can yield extensive quantities of groundwater. Individual flows range from a few feet to over 300 ft in thickness. The basalt stratigraphic sequence is generally one of aquitards (the dense interior of flows) separated by thinner aquifers (the sedimentary interbeds and primary flow top breccias). Some sedimentary interbeds developed during episodes of stream drainage between basalt flows, and range from a few inches to several tens of feet in thickness.

Overlying the basalt is a sequence of fluvial and lacustrine sand, gravel, and silt of Miocene to Quaternary age (Figure B-7). The Ringold Formation consists of sand, gravel, clay, and silt that were deposited in Miocene and Pliocene streams and lakes. The Ringold Formation is overlain by the Plio-Pleistocene unit and the early 'Palouse' soil (Pleistocene). The overlying Hanford formation consists of two facies, the Touchet beds and the Pasco gravels. These sediments were deposited by cataclysmic floods draining across the north-central Washington plateau from ice-dammed lakes in northwestern Montana and Idaho, that catastrophically failed. The Pasco gravels mark the main channels through the Pasco Basin; the Touchet beds were deposited in slack water environments in water hydraulically impounded north of the flow constriction at Wallula Gap. The 200 Areas 'plateau' on which the 2101-M Pond is located is a bar deposited during the cataclysmic flooding.

B-6b(1.1). Geology of the 200 Areas. A generalized stratigraphic column for the 200 Areas is given in Figure B-7. Surrounding and plunging into the structural Pasco Basin are anticlinal ridges and synclinal valleys. The crest of one of these anticlinal ridges, the Umtanum-Gable Mountain structure, lies north of the 200 Areas, while the axis of the Cold Creek syncline lies to the south. The 200 Areas lie above the south-dipping basalt surface between these two fold axes.

Overlying the basalt are the slightly to strongly indurated fluvial and lacustrine sediments of the Ringold Formation consisting of variable strata of gravel, sand, silt, and clay. The thickness of the Ringold Formation ranges from 0 ft in the northern part of the 200 East Area to more than 700 ft southwest of the 200 West Area (DOE 1988; Tallman et al. 1979). The formation thickens substantially south of the 200 Areas near the axis of the Cold Creek syncline.

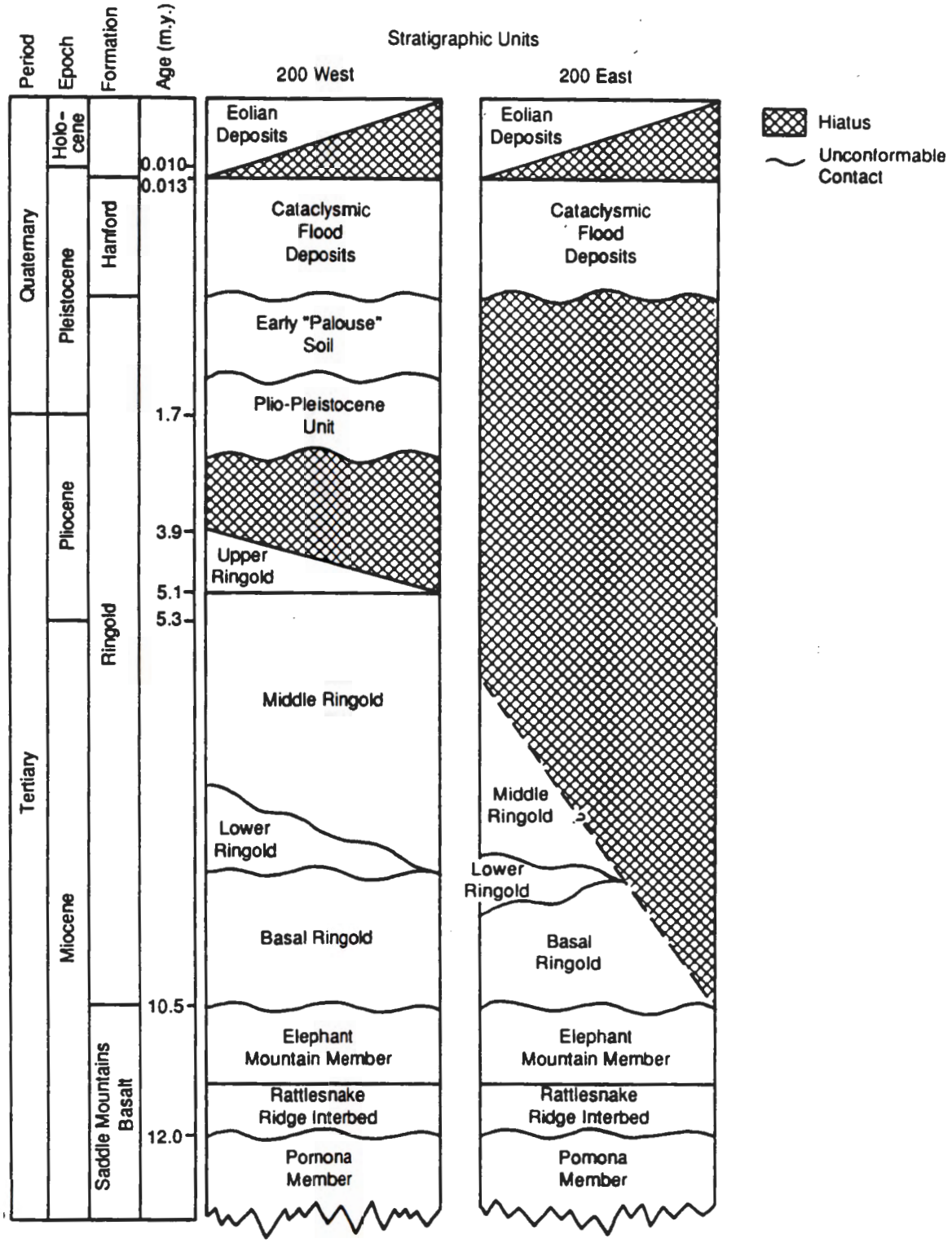


Figure B-7. Generalized Stratigraphic Column for the 200 Areas.

The Ringold Formation is divided into four stratigraphic units: basal, lower, middle, and upper. The basal Ringold unit, consists of silty sandy gravel overlain by fine-grained sand, silt, or clay. Overlying the basal Ringold is the lower Ringold unit, consisting of silty coarse- to medium-grained sand, sandy silt, and clay. Sediments of the lower Ringold unit are often indurated and have been recognized as a potential confining layer in places. The fine-grained portion of the basal Ringold can be difficult to distinguish from the lower Ringold.

The Ringold Formation is dominated by the middle unit throughout the 200 Areas. The predominant lithology consists of well-rounded sandy gravel with some sand and silty sand lenses. The gravels typically range from pebble to cobble in size; however, boulders are locally common (Tallman et al. 1979). The coarse-grained basal and middle Ringold units are difficult to distinguish from each other because of their similar textures. Where present, the fine-grained sediments of the lower and/or upper basal Ringold separate the basal and middle units and aid in their distinction. The uppermost unit, the upper Ringold, is another sequence of thinly bedded, well-sorted sands, silts, and silty clay.

Not all of the units of the Ringold Formation are present throughout the 200 Areas. Uplift along the flanks of the anticlinal ridges, along with erosion by the ancestral Columbia River and catastrophic flooding during the Pleistocene Epoch, have removed or prevented deposition of some or all of the Ringold Formation in areas (Bjornstad 1984; Tallman et al. 1979). All four units are currently identified only in the western and southern portion of the 200 West Area, while no units of the Ringold Formation are present in the northeastern part of the 200 East Area.

A well-developed caliche horizon and/or locally derived basaltic gravel, informally called the Plio-Pleistocene unit, is found on the uppermost surface of the eroded Ringold sediments in the western portion of the Pasco Basin. This unit can be up to 80 ft thick (Bjornstad 1984). In places, the Plio-Pleistocene unit is overlain by the early 'Palouse' soil, an eolian deposit of fine-grained sand and silt. Both of these units are found only in the 200 West Area, having either been eroded or not deposited in the 200 East Area.

The catastrophic flooding that helped erode the Ringold Formation also deposited a sequence of unconsolidated silts, sands, and gravels informally named the Hanford formation. The fine-grained sands and silts, called Touchet beds, were deposited in protected areas, while the Pasco gravels were deposited in and near the floodwater channels. Thickness of the formation ranges from approximately 70 ft in part of the 200 West Area to a maximum of about 350 ft east of the 200 East Area (Tallman et al. 1979). Within much of the southern portion of the 200 Areas the Hanford formation consists of sand. Locally, the Hanford formation is overlain by a thin (0- to 10-ft) veneer of fine-grained eolian sand.

Typically, the sediments in the 200 East Area contain little calcium carbonate and, to date, no caliche horizons have been identified. Where present, cementation of the Ringold Formation is generally by siliceous material.

B-6b(1.2). Stratigraphy Beneath the 2101-M Pond. The stratigraphy beneath the 2101-M Pond has been interpreted from field and laboratory analyses of cable tool borehole samples collected during the installation of the four monitoring wells and from previously drilled boreholes near the 2101-M Pond site. The following provides a summary of the site geology. More detailed discussions of the stratigraphy may be found in the 2101-M Pond Hydrogeologic Characterization Report (Chamness et al. 1990).

The upper three geologic units present beneath the 2101-M Pond area are: (1) the Saddle Mountains Basalt (Elephant Mountain Member), (2) the Ringold Formation, and (3) the Hanford formation. The early 'Palouse' soil and the Plio-Pleistocene units have not been identified in the 200-East Area. Cross sections and a fence diagram through the 2101-M Pond site are presented in Figures B-8, B-9, and B-10. Figure B-11 shows the locations of these cross sections and the fence diagram.

The new monitoring wells penetrated only the upper 20 ft of the unconfined aquifer. Therefore, stratigraphic knowledge of the underlying units is uncertain. In particular, the depth to the basalt and the lower/basal Ringold units is known only by interpolation from two nearby wells 299-E23-2 and 299-E19-1. The depth to basalt beneath the 2101-M Pond is approximately 480-ft (Chamness et al. 1990).

The lower Ringold Formation section is variable across the site. In well 299-E19-1, the basalt is overlain by 1 ft of muddy sandy gravel to sandy gravel. Above the gravel is 15 ft of clayey sand grading into gray clay. This unit may correlate with the fine grained basal Ringold unit. This clay is overlain by 40 ft of blue-gray clay, which likely correlates with the lower Ringold unit. These clays form a sharp contact with the overlying middle Ringold unit, which consists of muddy sandy gravel to sandy gravel.

The Ringold Formation northeast of the 2101-M Pond site is penetrated by well 299-E23-2. The basalt here is overlain by 180-ft of muddy sandy gravel to sandy gravel, which correlates to the middle Ringold unit. There is no fine-grained basal/lower Ringold present and the coarse grained basal unit is in contact with the middle Ringold unit.

Where present, the fine-grained basal/lower Ringold units form a lower confining layer within the Ringold Formation. If the basal/lower unit is present beneath the 2101-M Pond site, the unconfined aquifer could be approximately 40-ft thick. If absent, the unconfined aquifer would be approximately 150-ft thick.

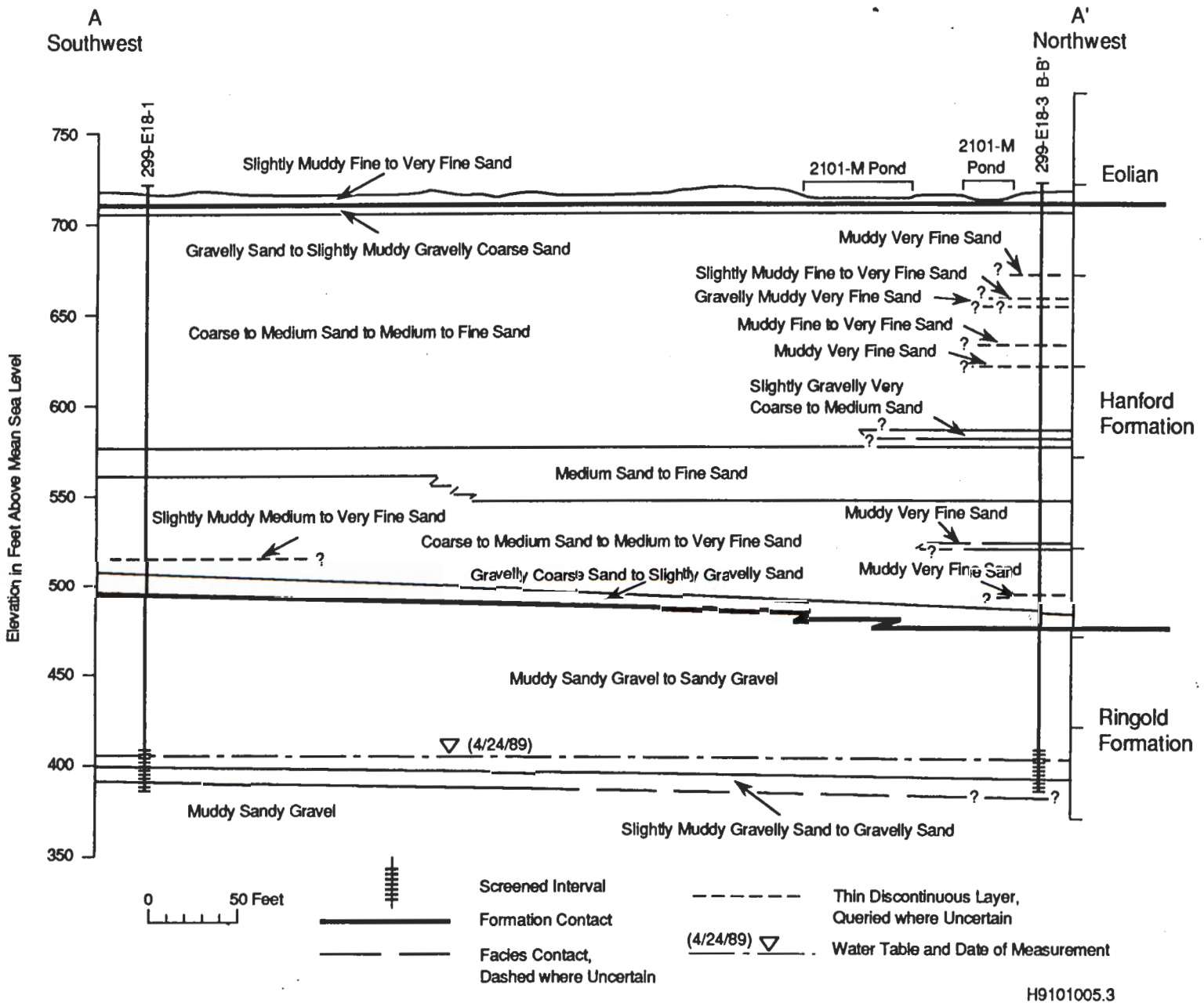


Figure B-8. Cross Section A-A' with no Vertical Exaggeration (Chamness et al. 1990).

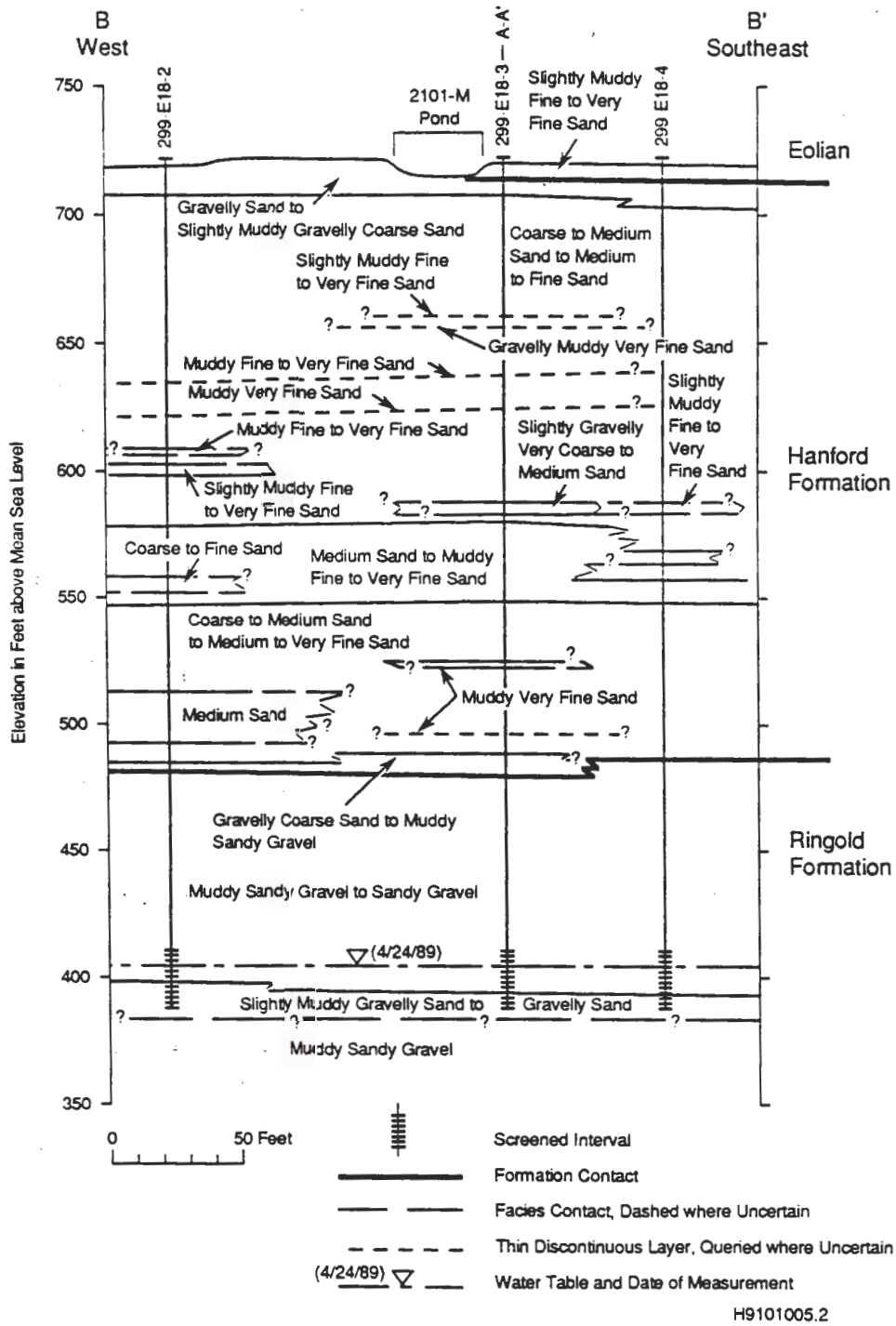


Figure B-9. Cross Section B-B' with no Vertical Exaggeration (Chamness et al. 1990).

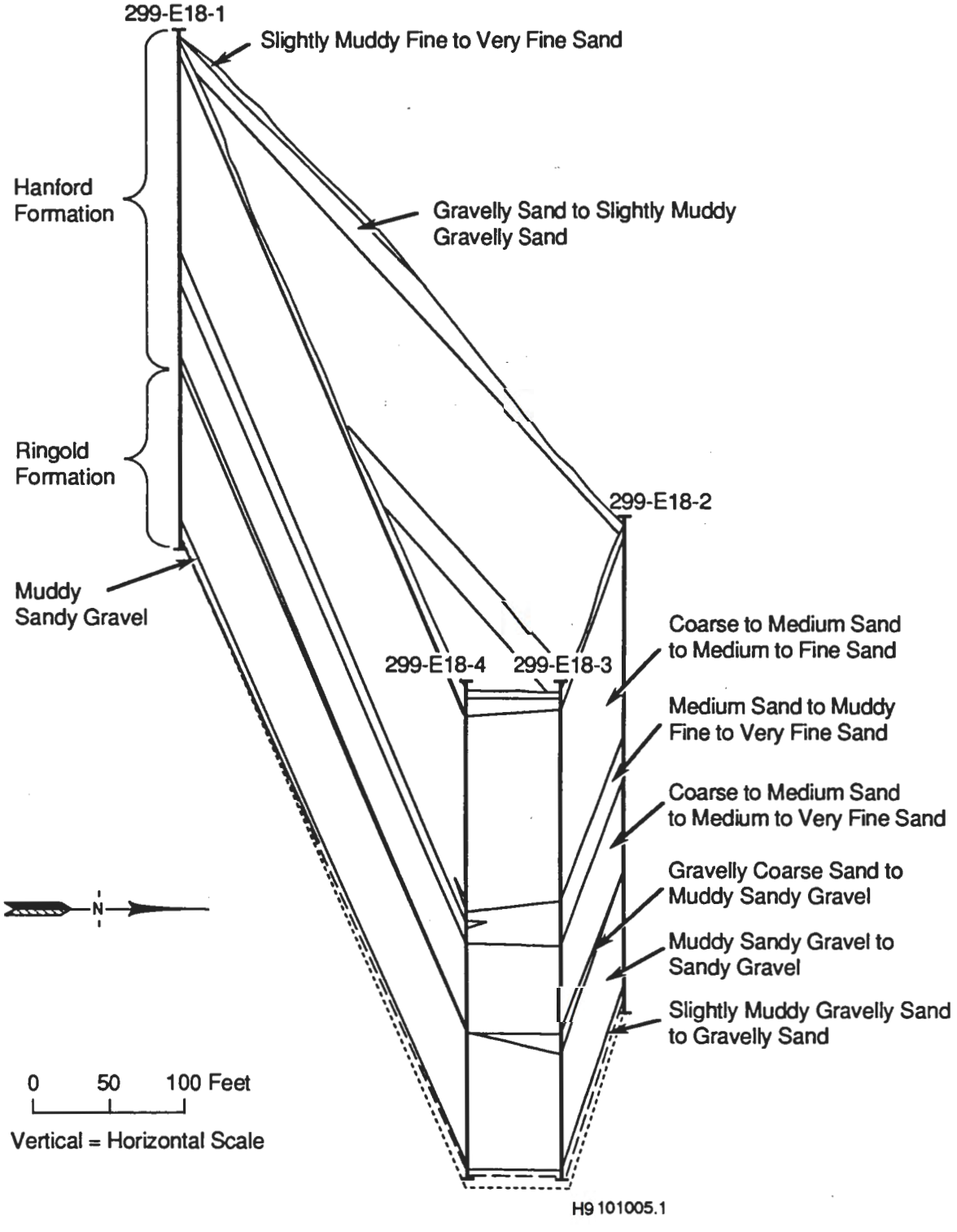


Figure B-10. Fence Diagram (Chamness et al. 1990).

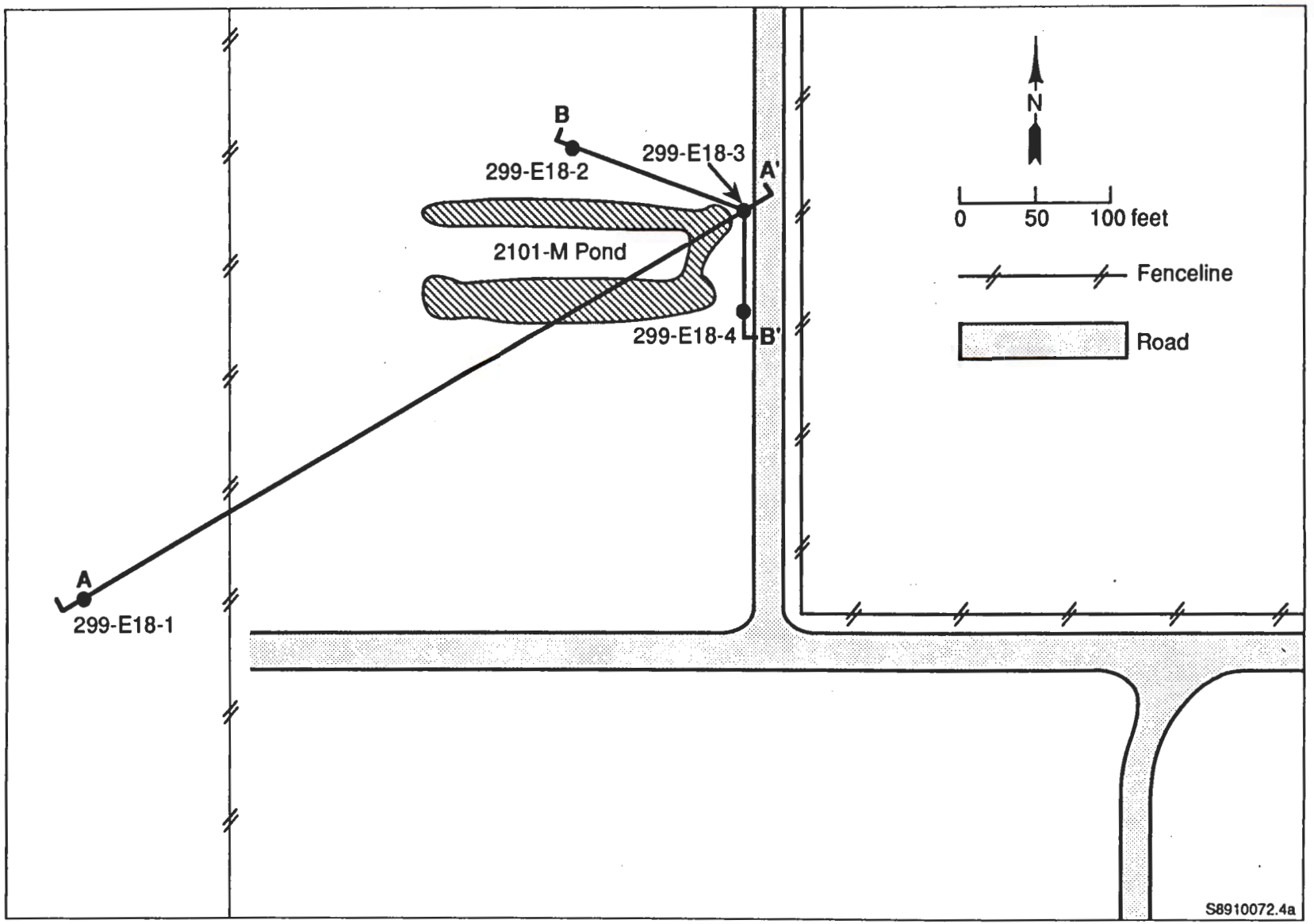


Figure B-11. Cross Section and Fence Diagram Location Map.

The four new monitoring wells penetrated nearly 100 ft of middle Ringold sediments and approximately 235 ft of the overlying Hanford formation. The middle Ringold unit in the area is dominated by unconsolidated to slightly consolidated muddy sandy gravels to sandy gravel. A 5 to 10-ft thick layer of slightly muddy gravelly sand to gravelly sand was found at the bottom of each well in the saturated zone. The overlying Hanford formation sediments consist of moderately to well sorted sand with minor gravelly sand and muddy sand lenses and layers.

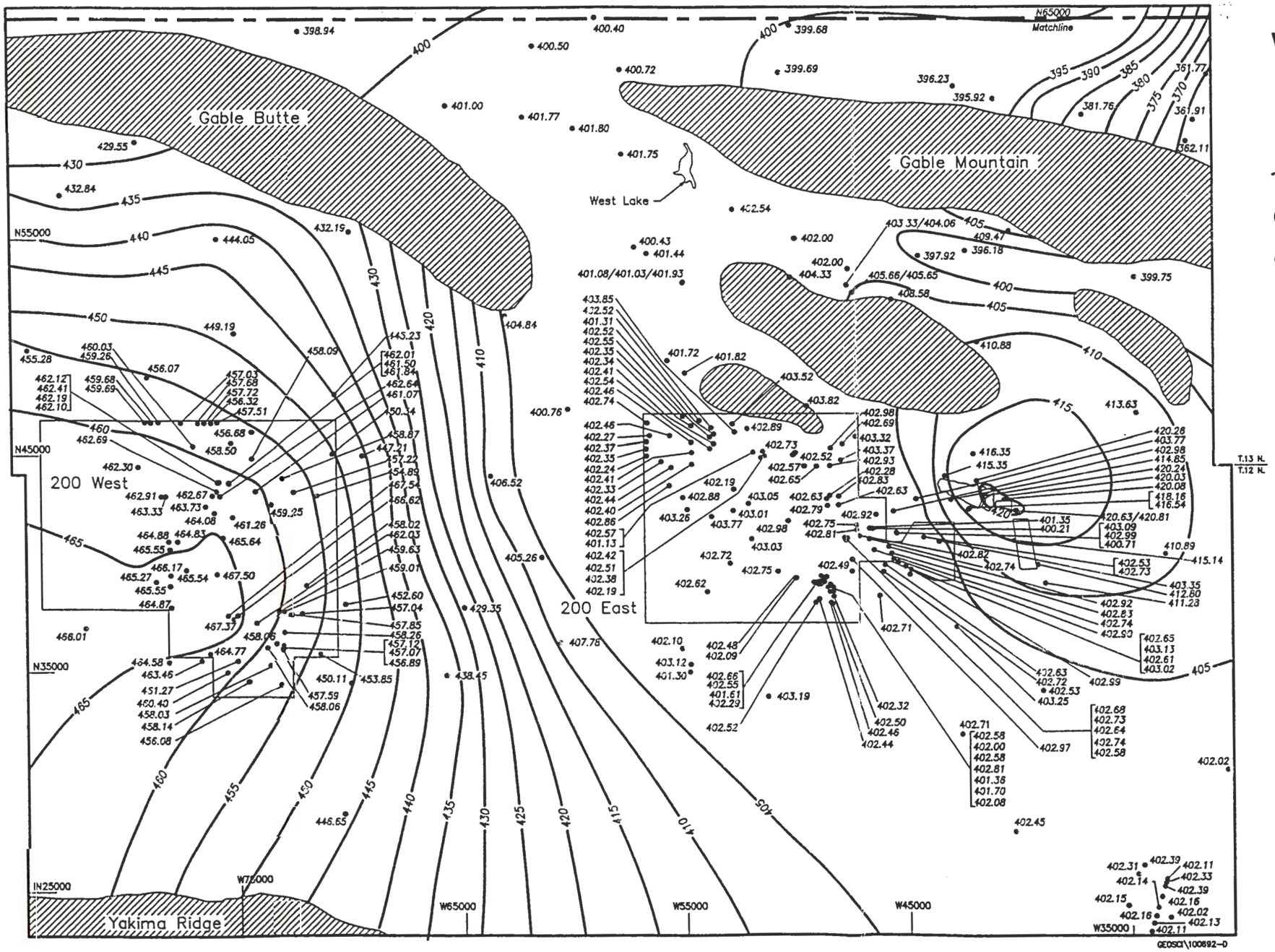
B-6b(2). Hydrogeology. This section provides background information on the hydrogeology of the Hanford Site. Detailed descriptions of Hanford Site hydrogeology are available in reports by DOE (1988), Gephart et al. (1979), Graham et al. (1981), Graham et al. (1984), and Law et al. (1987), and reports on water-level data collected and reported semiannually, such as in Kasza (1990).

The Hanford Site has an arid climate and receives an average of 6.25 in. of precipitation a year. Evapotranspiration rates are expected to far exceed this (DOE 1988); therefore, most precipitation likely is transpired or evaporated back to the atmosphere (Graham et al. 1981). Recharge rates range from near zero (Routson et al. 1988) to more than 4 in. each year, depending on surface conditions (Gee 1987). Small recharge rates generally occur where fine-textured sediments and deep-rooted plants occur. The larger values are associated with areas having a coarse gravelly surface and no vegetative cover. The Hanford Site is drained by the Yakima and Columbia Rivers.

Groundwater beneath the Hanford Site occurs under both unconfined and confined conditions. The unconfined aquifer is contained primarily within the middle unit of the Ringold Formation and extends up into the Hanford formation in areas. The base of the unconfined aquifer is the uppermost basalt flow of the Columbia River Basalt Group or, in some areas, the clay of the lower Ringold Formation (Figure B-7). The confined aquifers beneath the Hanford Site generally consist of sedimentary interbeds and interflow zones that occur between dense basalt flows of the Columbia River Basalt Group. Because the Elephant Mountain Basalt is assumed to be an effective confining layer between the unconfined and confined aquifers in most of the 200 Areas, this discussion is limited to the hydrologic properties of the uppermost portion of the unconfined aquifer contained in the Hanford and Ringold Formations.

The source of natural recharge to the unconfined aquifer and some of the confined aquifers is rainfall from areas of high relief west of the Hanford Site and ephemeral streams in the Cold Creek and Dry Creek valleys. Discharge from the unconfined aquifer is primarily to the Columbia River, with lesser amounts of discharge to the Yakima River (Graham et al. 1981). In the 200 Areas, the head of the confined aquifers is greater than that in the unconfined aquifer.

B-6b(2.1). Groundwater Hydrology of the 200 Areas. The unconfined aquifer receives artificial recharge from liquid disposal areas. This artificial recharge is estimated to be 10 times greater than natural recharge (Graham et al. 1981). The major sources of artificial recharge in the northern Hanford Site have been three waste ponds designated U Pond, Gable



200 Areas Water Table Elevation June 1992

411.49 • Water table elevation (feet above mean sea level)

400 Groundwater table elevation contour interval = 5ft

Ponds

Areas where the basalt surface is generally above the water table

The 200 Areas water table elevation map has been prepared by the Geosciences Group, Environmental Division, of Westinghouse Hanford Company

Note: To convert to metric, multiply elevation (ft) by 0.3048 to obtain elevation (m).

0 1 Mile

0 1 Kilometer

-N-

Figure B-12. 200 Area Water Table Map for 1992.

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Mountain Pond, and B Pond, all located near or in the 200 Areas. These areas of artificial recharge have had a major effect on the flow system of the unconfined aquifer. Both U Pond and Gable Mountain Pond were decommissioned within the past 8 yr. The B Pond is scheduled for decommissioning in the 1990's.

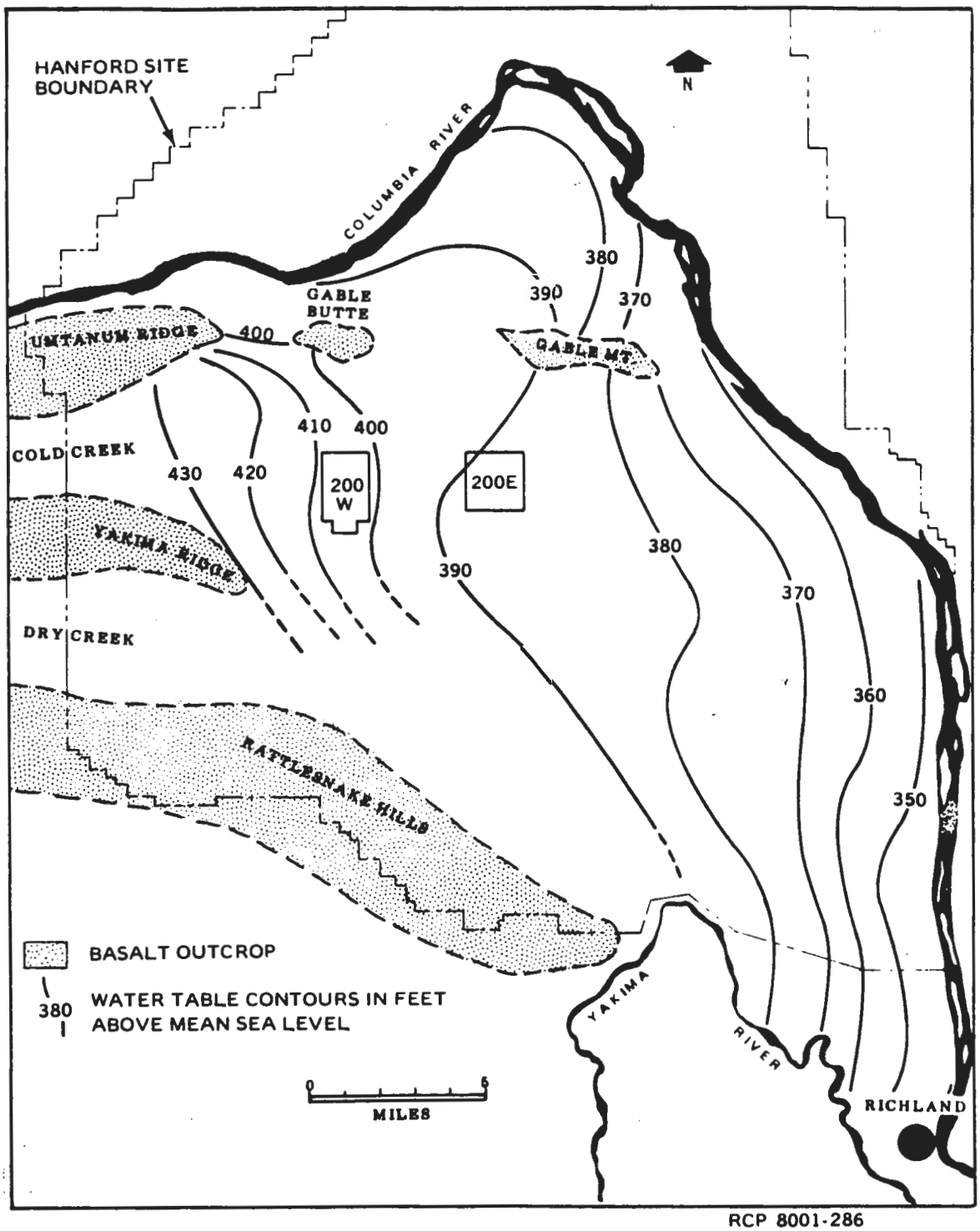
The depth to water of the unconfined aquifer within the 200 Areas ranges from approximately 190 ft beneath the former U Pond to approximately 340 ft west of the 200 East Area. The thickness of the unconfined aquifer ranges from 0 ft at the north edge of the 200 East Area to more than 250 ft in the northwest part of the 200 West Area.

Groundwater elevation contours for June 1992 (Kasza et al. 1992) for the unconfined aquifer in the 200 Areas are shown in Figure B-12. The regional flow direction in the 200 Areas is from west to east, but is affected by the two groundwater mounds that have resulted from discharges to U Pond and B Pond. Groundwater flow beneath the 200 West Area is generally toward the north and the east, away from the mound created by past discharges to U Pond. Partly because of this mound, the horizontal hydraulic gradient in the 200 West Area is sufficiently high to determine flow directions with a large degree of certainty. A vertical hydraulic gradient also is present within the unconfined aquifer in the 200 West Area as a result of the groundwater mound. As these mounds dissipate because of the cessation of discharges to U and B Ponds, the horizontal hydraulic gradients will decrease and shift to a more easterly direction, comparable to the original gradient in the unconfined aquifer before Hanford Site operations (Figure B-13). Vertical gradients should also decrease.

Groundwater flow beneath the 200 East Area is complex because flow converges from the west and east and then diverges, with one component flowing northward between Gable Butte and Gable Mountain and another component flowing southeast toward the Columbia River. In addition, the high transmissivity beneath most of the 200 East Area results in very small hydraulic gradients, ranging from 10^{-4} to 10^{-5} ft/ft. Flow directions shift because of changing rates of water discharged into B Pond and other disposal sites such as the 2101-M Pond. Therefore, it is often difficult to define flow directions at specific sites.

Dissipation of the groundwater mound beneath B Pond is anticipated after cessation of most discharges to B Pond in 1995. With time, this will lead to reestablishment of an eastward groundwater gradient.

The principal geologic units controlling the groundwater flow in the 200 Areas are, in ascending order, the Elephant Mountain Basalt, which generally forms the base of the unconfined aquifer, and the Hanford and Ringold Formations, which contain the unconfined aquifer (Figure B-7).



RCP 8001-286

Figure B-13. 1944 Water Table Map for the Hanford Site.

930423.1451

The Ringold Formation exhibits a variety of hydrologic characteristics including hydraulic conditions ranging from confined to unconfined. In some areas, the lower Ringold unit is the base of the unconfined aquifer. In the southern portion of the 200 East Area and much of the 200 West Area, the basal Ringold unit is locally confined by the overlying lower Ringold unit (Graham et al. 1984). In other areas, the lower Ringold unit is missing, and only the basal and middle Ringold units contain the unconfined aquifer. Textural changes, vertically between formations and laterally within them, cause the unconfined aquifer to exhibit widely varying hydraulic properties (Table B-14). The values given in this table are generalizations. In some locations, hydraulic properties lie outside the values given.

Table B-14. Hydraulic Properties in the 200 Areas.

Interval tested	Hydraulic conductivity (m/d)	(ft/d)	Storativity	Porosity (%)
Hanford formation	600-3,000	2,000-10,000	0.07	30
Middle Ringold unit	3-70	9-230	----	--
Lower Ringold unit	1-3.6	1-12	0.002	10

From Graham et al. (1981).

In general, the Hanford formation contains only the upper portion of the unconfined aquifer, but in the northeastern part of the 200 East Area where the Ringold Formation is missing, the unconfined aquifer is totally within the Hanford formation.

In the 200 West Area, the unconfined aquifer occurs within the middle Ringold unit, which is often partially cemented. Transmissivities range from 300 to 5,400 ft^2/d. In the 200 East Area, the aquifer is in either the unconsolidated Hanford formation or the middle Ringold unit or both, leading to the wide range of transmissivities from 5 to 135,000 ft^2/d (Graham et al. 1981).

B-6b(2.2) Groundwater Hydrology Beneath the 2101-M Pond. Previous hydrologic investigations in the 200 East Area have focused on areas to the north and east of the 2101-M Pond. The impetus for conducting hydrologic investigations in those areas has been an evaluation of B Pond, Gable Mountain Pond, and other liquid waste disposal facilities in and near the 200 East Area. Very little data were available on hydrologic properties near the 2101-M Pond, before monitoring well installation.

B-6b(3). Unconfined Aquifer. The unconfined aquifer is considered to be the uppermost aquifer, and is, therefore, of primary interest for groundwater monitoring.

Data collected from the monitoring wells installed at the site show that the upper portion of the unconfined aquifer is within the middle Ringold Formation. Sediment samples obtained during drilling show that the upper 15 ft of the saturated zone consists of unconsolidated to slightly consolidated muddy sandy gravel to sandy gravel. A 5 to 10-ft thick layer of slightly muddy gravelly sand was present at the base of each well (Chamness et at. 1990).

The base of the unconfined aquifer is uncertain beneath the 2101-M Pond. The four monitoring wells installed extended only 20 ft into the aquifer. The aquifer base is known only from data available for wells 299-E19-1 and 299-E23-2. As was discussed earlier in Section B-6b(1.2), the base of the unconfined aquifer in 299-E19-1 is the basal/lower Ringold clay layer while in 299-E23-2 it is the basalt units (Elephant Mountain Member). The unconfined aquifer thickness is estimated to range between 45 and 175 ft, depending on which unit acts as the base for the aquifer.

Because the 2101-M Pond is located in the vicinity of a groundwater divide, it is difficult to predict with confidence the direction of groundwater flow. In addition, the hydraulic gradient is so small that measurement error could be responsible for incorrectly determining the water levels, and thus, the direction of groundwater flow beneath the pond. Water levels obtained from the 2101-M Pond monitoring network confirm the flat water table (Table B-15). No useful water-level data are available from well 299-E19-1, located southwest to the 2101-M Pond, because it is currently plugged with drilling mud. Water-level data from the U.S. Ecology commercial waste disposal site, located less than 1 mi southwest of the pond (Figure I-1), indicate a flow direction to the northeast (Figures B-14 and B-15). Based on these data, the Hanford Site water-level measurements (Figure B-12), and the contaminant plumes (Law et al. 1987), the groundwater is interpreted to flow towards the northeast. However, it is recognized because of the low gradient that changes in discharges to nearby Hanford Site wastewater disposal facilities, other than 2101-M Pond, could influence the groundwater flow direction.

The effects of recharge from 2101-M Pond on the groundwater were evaluated to predict the amount of mounding that could occur. During the monitoring well design stage, before well installation, a preliminary numerical model simulation was considered (Chamness et al. 1989) to examine the effects of recharge from 2101-M Pond. This simulation assumed a transmissivity of 20,000 ft^2/d beneath the site. This value is more characteristic of the Hanford formation than the middle Ringold, which is the unit that contains the aquifer. The result of the preliminary model indicated a mound of only 0.0033 ft, which is insignificant.

Table B-15. Water-Level Measurements and Elevation Data. (sheet 1 of 6)

Well Number	Top of Casing Elevation (ft)	Correction Factor[a]	Measurement Date	Depth to Water (ft)	Water-Level Elevation(ft)
2-E18-1	720.24	+0.06	8/16/88(c,e)	----	----
			10/6/88	314.29	406.01
			10/14/88	314.24	406.06
			10/26/88	314.32	405.98
			11/10/88(e)	314.61	405.69
			11/14/88	314.49	405.81
			12/8/88	314.21	406.09
			2/9/89	314.47	405.83
			2/15/89(e)	----	----
			2/21/89	314.56	405.74
			4/24/89	314.70	405.60
			7/13/89	315.10	405.20
			10/13/89	315.25	405.05
			10/31/89(e)	315.90	404.40
			11/29/89(e)	315.33	404.97
			2/12/90	315.57	404.73
			5/31/90	315.94	404.36
			9/6/90	316.24	404.06
			12/15/90	315.81	404.49
			7/9/91	315.75	404.55
			9/5/91(c)	----	----
			9/6/91(e)	316.75	403.55
			11/21/91	317.05	403.25
			12/12/91	317.01	403.29
			1/24/92(e)	317.05	403.25
			1/30/92	317.09	403.21
			2/13/92	317.18	403.12
			3/13/92	317.27	403.03
			4/21/92	317.07	403.23
			5/28/92	317.44	402.86
			6/03/92(e)	317.12	403.18
			6/30/92	317.53	402.77
			7/20/92	317.58	402.72
			8/14/92	317.63	402.67
			9/14/92	317.60	402.70
			10/19/92	317.65	402.65
			11/3/92(e)	317.98	402.32
			11/11/92	317.83	402.47
			12/15/92	317.97	402.33
			12/16/92(e)	317.22	403.08
			1/11/93	318.12	402.18
			2/22/93	318.26	402.04
			3/29/93	318.03	402.27

Table B-15. Water-Level Measurements and Elevation Data. (sheet 2 of 6)

Well Number	Top of Casing Elevation (ft)	Correction Factor[a]	Measurement Date	Depth to Water (ft)	Water-Level Elevation(ft)
2-E18-2	721.21	+0.22	8/16/88(c,e)	----	----
			10/6/88	315.52	405.91
			10/14/88	315.52	405.91
			10/26/88	315.55	405.88
			11/10/88(e)	316.33	405.10
			11/14/88(b)	315.69	405.74
			12/8/88	315.47	405.96
			2/9/89	315.75	405.68
			2/15/89(e)	----	----
			2/21/89	315.84	405.59
			4/24/89	316.01	405.42
			7/13/89	316.37	405.06
			10/13/89	316.51	404.92
			11/27/30(e)	316.72	404.71
			2/12/90	316.85	404.58
			3/13/90(e)	318.68	402.75
			5/31/90	317.22	404.21
			9/6/90	317.48	403.95
			9/5/91(c)	----	----
			9/6/91(e)	317.85	403.58
			11/21/91	318.38	403.05
			12/12/91	318.26	403.17
			1/30/92	318.54	402.89
			2/13/92	318.47	402.96
			3/13/92	318.52	402.91
			4/21/92	318.49	402.94
			5/28/92	318.62	402.81
			7/10/92(e)	318.85	402.58
			7/20/92	318.86	402.57
			8/14/92	318.86	402.57
			9/14/92	318.97	402.46
			10/19/92	318.93	402.50
			11/03/92(e)	319.28	402.15
			11/11/92	319.14	402.29
			12/15/92	319.21	402.22
			12/16/92(e)	319.05	402.38
			1/11/93	319.30	402.13
			2/22/93	319.38	402.05
			3/29/93	319.31	402.12
2-E18-3	722.04	+0.03	8/16/88(c,e)	----	----
			10/6/88(c)	----	----
			10/14/88	316.13	405.94
			10/26/88	316.10	405.97
			11/10/89(e)	316.16	405.91
			11/14/88	316.21	405.86
			12/8/88(b)	316.02	406.05

Table B-15. Water-Level Measurements and Elevation Data. (sheet 3 of 6)

Well Number	Top of Casing Elevation (ft)	Correction Factor[a]	Measurement Date	Depth to Water (ft)	Water-Level Elevation(ft)
			2/9/89(b)	316.31	405.76
			2/15/89(e)	----	----
			2/21/89	316.39	405.68
			4/24/89	316.58	405.49
			7/13/89	316.91	405.16
			10/13/89	317.06	405.01
			11/27/89(e)	317.30	404.77
			2/12/90	317.44	404.63
			3/13/90(e)	317.65	404.42
			5/31/90	317.74	404.33
			9/6/90	318.01	404.06
			12/12/90	318.27	403.80
			9/5/91	318.44	403.63
			9/6/91(e)	318.48	403.59
			11/21/91	318.84	403.23
			12/12/91	318.86	403.21
			1/30/92	319.02	403.05
			2/13/92	319.10	402.97
			3/13/92	319.18	402.89
			4/21/92	319.09	402.98
			5/28/92	319.29	402.78
			6/03/92(e)	319.27	402.80
			6/30/92	319.42	402.65
			7/20/92	319.41	402.66
			8/14/92	319.42	402.65
			9/14/92	319.59	402.48
			10/19/92	319.58	402.49
			11/3/92(e)	320.10	401.97
			11/11/92	319.69	402.38
			12/15/92	319.82	402.25
			12/16/92(e)	320.01	402.06
			1/11/93	319.87	402.20
			2/22/93	319.92	402.15
			3/29/93	319.88	402.19
2-E18-4	721.57	+0.0	8/16/88(c,e)	----	----
			10/6/88	315.59	405.98
			10/14/88	315.66	405.91
			10/26/88	315.62	405.95
			11/9/89(e)	315.69	405.88
			11/14/88	315.74	405.83
			12/8/88	315.53	406.04
			2/9/89	315.81	405.76
			2/15/89(e)	----	----
			2/21/89	315.91	405.66
			4/24/89	316.08	405.49
			7/13/89	316.43	405.14

Table B-15. Water-Level Measurements and Elevation Data. (sheet 4 of 6)

Well Number	Top of Casing Elevation (ft)	Correction Factor[a]	Measurement Date	Depth to Water (ft)	Water-Level Elevation(ft)
			10/13/89	316.57	405.00
			11/21/89(e)	317.45	404.12
			2/12/90	316.92	404.65
			5/31/90	317.25	404.32
			9/6/90	317.50	404.07
			9/5/91	317.91	403.66
			9/6/91(e)	317.99	403.58
			11/21/91	318.26	403.31
			12/12/91	318.37	403.20
			1/30/92	318.50	403.07
			2/13/92	318.56	403.01
			3/13/92	318.66	402.91
			4/21/92	318.58	402.99
			5/28/92	318.73	402.84
			6/03/92(e)	318.78	402.79
			6/30/92	318.81	402.76
			7/20/92	318.87	402.70
			8/14/92	318.90	402.67
			9/14/92	319.10	402.47
			10/19/92	319.04	402.53
			11/3/92(e)	319.48	402.09
			11/11/92	319.12	402.45
			12/15/92	319.26	402.31
			12/16/92(e)	319.15	402.42
			1/11/93	319.31	402.26
			2/22/93	319.39	402.18
			3/29/93	319.36	402.21
2-E13-10	738.84	---	6/8/88	333.51	405.33
			10/6/88	332.82	406.02
			11/14/88	333.29	405.55
			12/8/88	332.78	406.06
			2/9/89	332.87	405.97
			2/21/89	333.05	405.79
			4/24/89	333.18	405.66
			7/13/89	333.54	405.30
			10/13/89	333.69	405.15
			2/12/90	333.91	404.93
			5/31/90	334.30	404.54
			9/6/90	334.62	404.22
			9/5/91	334.90	403.94
			12/5/91	335.17	403.67
			6/11/92	335.72	403.12
			12/13/92	336.48	402.36

Table B-15. Water-Level Measurements and Elevation Data. (sheet 5 of 6)

Well Number	Top of Casing Elevation (ft)	Correction Factor[a]	Measurement Date	Depth to Water (ft)	Water-Level Elevation(ft)
299-E13-14	745.15	---	7/29/88	340.08	405.07
			11/11/88	339.39	405.76
			12/12/88	340.00	405.15
			5/14/90	340.45	404.70
			6/19/90	340.65	404.50
			12/11/90	341.10	404.05
			6/6/91	341.42	403.73
			6/11/91	341.45	403.70
			12/5/91	341.38	403.77
			3/16/92	341.81	403.34
			6/11/92	343.05	402.10
			12/3/92	343.78	401.37
299-E23-2(0)	720.91	---	6/8/88	315.80	405.11
			10/6/88	315.12	405.79
			11/14/88	315.21	405.70
			12/8/88	314.92	405.99
			2/9/89	315.31	405.60
			2/21/89	315.35	405.56
			4/24/89	315.58	405.33
			7/13/89	315.91	405.00
			10/13/89	316.06	404.85
			2/12/90	316.40	404.51
			5/31/90	316.82	404.09
			9/6/90	317.07	403.84
			9/5/91	317.38	403.53
			12/4/91	317.69	403.22
			6/8/92	317.92	402.99
			12/3/92	318.61	402.03
2-E24-7	716.32	---	6/8/88	310.81	405.51
			10/6/88	310.09	406.23
			10/26/88	310.17	406.15
			12/8/88	309.93	406.39
			7/13/89	310.98	405.34
			10/13/89	311.09	405.23
			2/12/90	311.46	404.86
			5/31/90	311.89	404.43
			9/6/90	312.08	404.24
			9/5/91	312.46	403.86
			12/4/91	313.10	403.22
			6/8/92	313.26	402.75
			12/3/92	313/9	402.11
MW-10 (699-36-58A)	735.96	---	6/8/88	330.54	405.42
			10/6/88	329.86	406.10
			12/8/88	329.67	406.29

Table B-15. Water-Level Measurements and Elevation Data. (sheet 6 of 6)

Well Number	Top of Casing Elevation (ft)	Correction Factor[a]	Measurement Date	Depth to Water (ft)	Water-Level Elevation(ft)
			2/21/89(d)	----	----
			7/13/89	330.33	405.63
			2/12/90	330.88	405.08
			5/31/90	331.21	404.75
			9/6/90	331.61	404.35
			9/5/91	331.73	404.23
MW-13	724.10	---	10/6/88	315.57	408.53
(699-35-59)			12/8/88	315.40	408.70
			2/21/89	315.92	408.18
			7/13/89	315.71	408.39
			2/12/90(d)	------	------
			5/31/90	316.07	408.03
			9/6/90	316.33	407.77
			9/5/91	316.34	407.76

(a) Based on inclinometer measurements. This has already been calculated into the water-level elevation.
(b) Measured only once.
(c) Unable to make measurements.
(d) Could not get two measurements within 0.02 ft.
(e) Measurements taken at time of sampling.

A second simulation was completed (Chamness et al. 1990) using transmissivity values obtained from aquifer tests in 2101-M Pond monitoring wells. The value used was 4,000 ft^2/d. A two-dimensional model was used (McDonald and Harbaugh 1984) for the simulation. The model simulated a single 50-ft layer on a 50- x 50-node grid with a 20-ft node spacing. A hydraulic gradient of 5×10^{-4} ft/ft was used by the model. Constant-head upgradient and downgradient boundaries were established. A recharge rate of 18,000 gal/d was induced on an 80 x 120-ft area in the grid center. The model was run to steady state. The model simulated a mound beneath the region of recharge. At its highest point, the simulated mound was approximately 0.3 ft above the pre-recharge level.

B-6b(3.1). Historical Groundwater Data. Historical groundwater data are available from two existing wells within 2,000 ft of the 2101-M Pond. A summary of the status of these wells and their locations are given in Table B-16.

B-6b(3.2). Water Levels. Water level data for wells near the 2101-M Pond are provided in Table B-15. A hydrograph is presented for the four wells monitoring the pond in Figure B-16. Many other wells are regularly monitored in the general vicinity and provide information on the depth to groundwater and direction of groundwater flow reported in semiannual reports (e.g. Kasza et al. 1992).

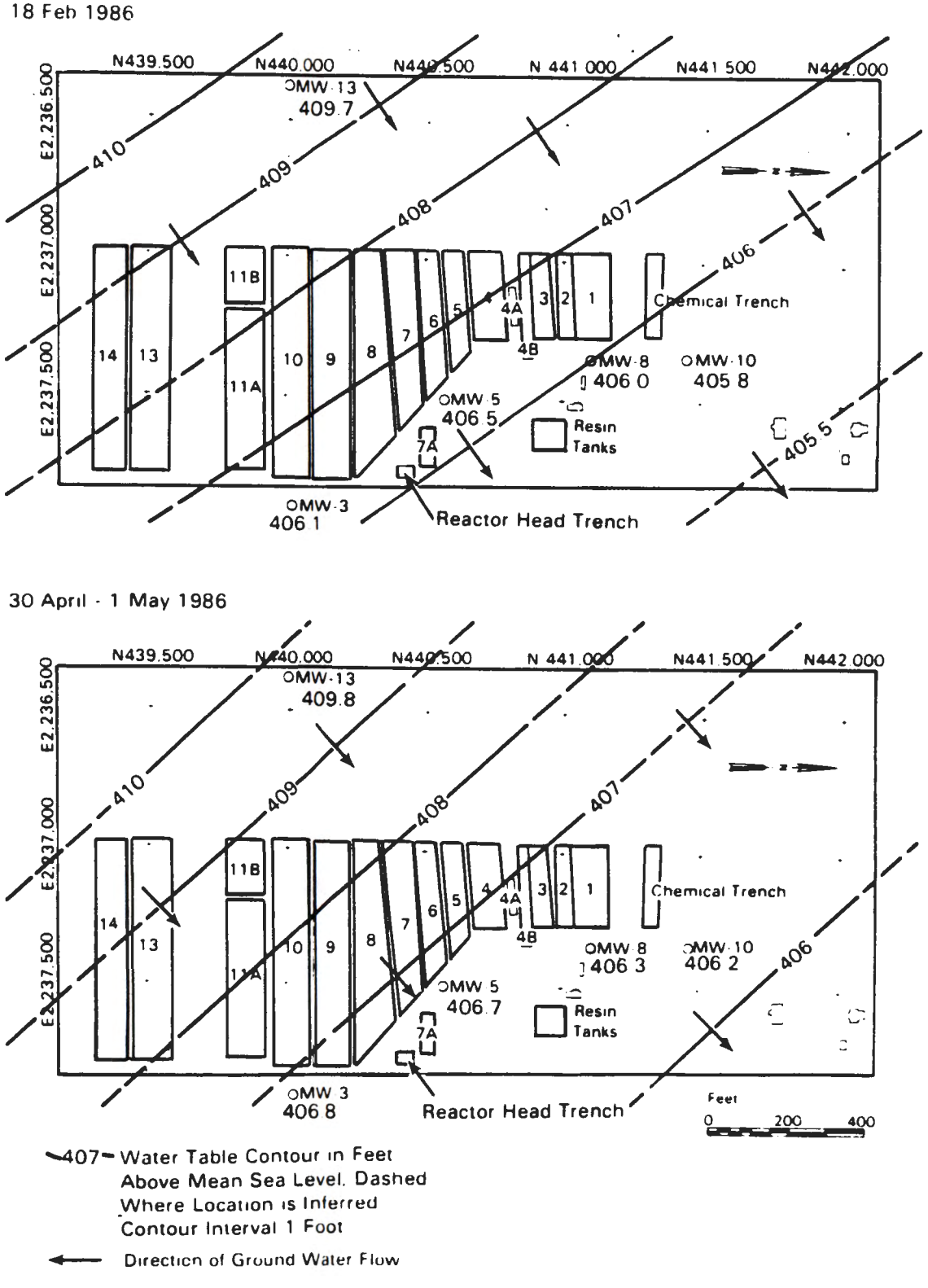


Figure B-14. Water Table Maps of the U.S. Ecology Site for February and April-May 1986 (from Bergeron et al. 1987).

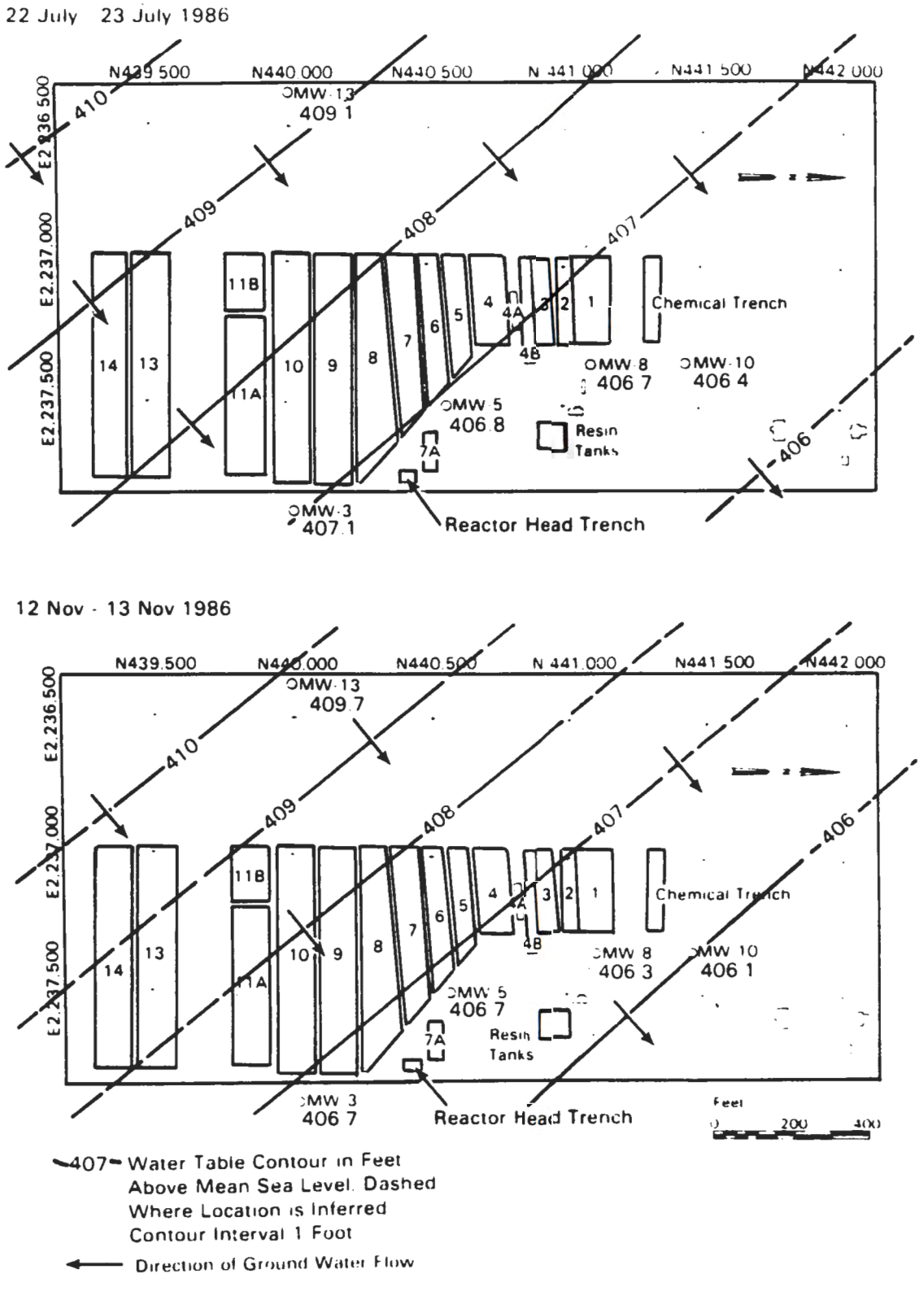


Figure B-15. Water Table Maps of the U.S. Ecology Site for July and November 1986 (from Bergeron et al. 1987).

Table B-16. Status of Existing Wells in the Vicinity of the 2101-M Pond.

Well number	Approximate distance and direction from site (ft)	Well status
299-E13-14	1,800 SW	Constructed of 8-in. carbon-steel casing perforated from 212 to 217 ft below ground surface.
299-E23-2	1,700 NE	Constructed of 8-in. carbon-steel casing perforated from 320 to 340 ft below ground surface. It has three piezometers set at depths of 340, 400, and 456 ft. Problems with the piezometers have prevented sample collection since October 1987.

Water level measurements for the monitoring wells and four nearby wells show a decline in water-level elevation beginning in December 1989. A hydrograph for the four monitoring wells illustrates this trend (Figure B-16). This trend is repeated in wells throughout the 200 East Area. Water levels have declined an average of 3.68 ft in the four wells monitoring the 2101-M Pond since measurements were started in 1988. This is due to the decreased discharges to various waste water disposal sites in the 200 East and 200 West Areas, as indicated by similar water level drops throughout the 200 Areas. There is no indication that discharges to the 2101-M Pond have decreased and are causing the drop in water levels.

B-6b(3.3). Groundwater Gradient and Quality. The regional groundwater gradient in the vicinity of the 2101-M Pond is from the west/southwest toward the east/northeast (Figure B-12). Near the 2101-M Pond, the water table is nearly flat, with less than a foot of difference between 299-E18-1 and 299-E18-2. The gradient beneath the pond has been calculated using an average of 1992 water level data for the two 2101-M Pond monitoring wells consistently showing the greatest difference, 299-E18-1 and 299-E18-2. This calculation estimates a gradient of 4×10^{-4} ft/ft. Water levels in Figure B-17 were measured in December 1992. Water level contours are not shown, because differences between some wells are within the measurement error.

The numerical model discussed previously suggests that a 0.3-ft mound could be present beneath the 2101-M Pond. Water level data do not support this. However, because of the relatively flat water table, it is not possible to delineate whether a smaller mound is present.

Table B-17. Water-Level Residuals for Interwell Comparisons of 299-E18-1 vs. 299-E18-2, 299-E18-3, and 299-E18-4.

Measurement date	299-E18-1 vs. 299-E18-2	299-E18-1 vs. 299-E18-3	299-E18-1 vs. 299-E18-4
10/6/88	0.10	--	0.03
10/14/88	0.15	0.12	0.15
10/26/88	0.10	0.01	0.03
11/14/88	0.07	-0.05	-0.02
12/8/88	0.13	0.04	0.05
2/9/89	0.15	0.07	0.07
2/21/89	0.18	0.06	0.08
4/24/89	0.18	0.11	0.11
7/13/89	0.14	0.04	0.06
10/13/89	0.13	0.04	0.05
2/12/90	0.27	0.22	0.22
5/31/90	0.15	0.03	0.04
9/6/90	0.11	0.00	-0.01
11/21/91	0.20	0.20	-0.06
12/12/91	0.12	0.08	0.09
1/30/92	0.32	0.16	0.14
2/13/92	0.16	0.15	0.11
3/13/92	0.12	0.14	0.12
4/21/92	0.29	0.25	0.24
5/28/92	0.05	0.08	0.02
6/30/92	--	0.12	0.01
7/20/92	0.15	0.06	0.02
8/14/92	0.10	0.02	0.00
9/14/92	0.24	0.22	0.23
10/19/92	0.15	0.16	0.12
11/11/92	0.18	0.09	0.02
12/15/92	0.11	0.08	0.02
1/11/93	0.05	-0.02	-0.08
2/22/93	-0.01	-0.11	-0.14
3/29/93	0.15	0.08	0.06
Mean	0.14	0.08	0.06
Standard deviation	0.07	0.08	0.09

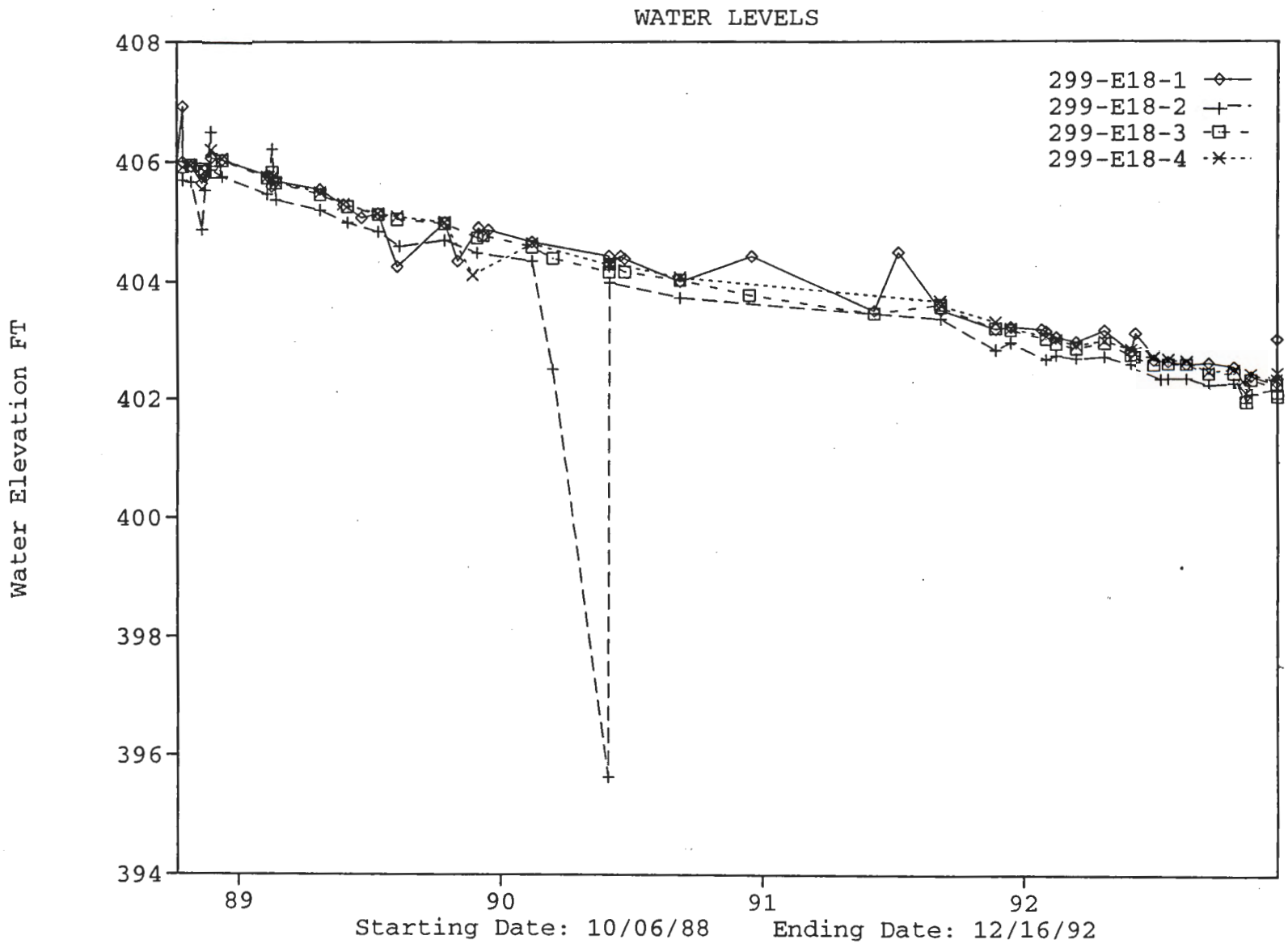


Figure B-16. Hydrograph for the Four 2101-M Pond Monitoring Wells.

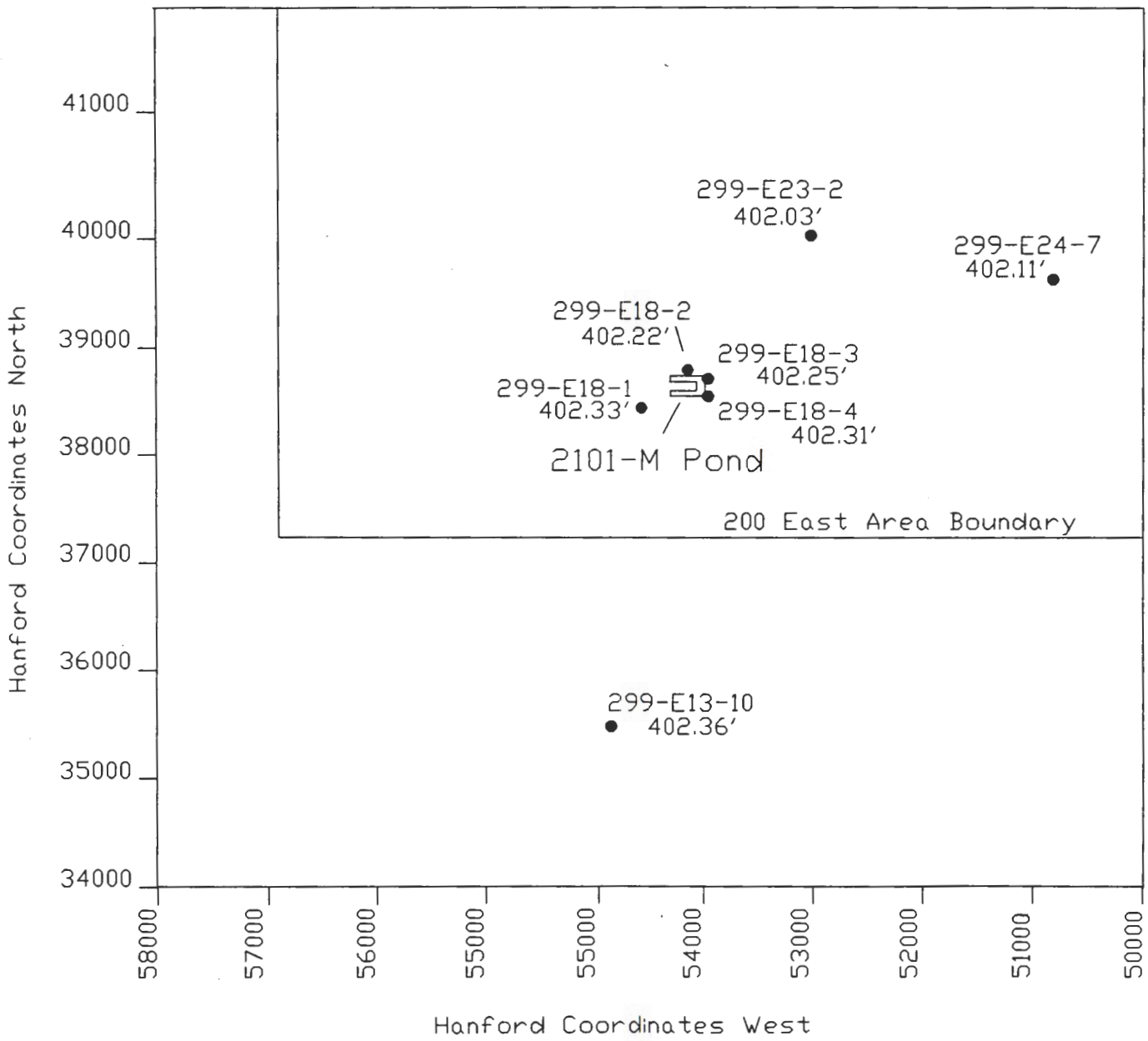


Figure B-17. The 2101-M Pond and Vicinity Water Table Elevation, December 1992.

930427.1042

The water level differences have remained relatively consistent for the four wells monitoring the 2101-M Pond (Table B-17). The differences between well 299-E18-1 and the other three wells is generally greater than the surveying error of +/- 0.02 ft, and for wells 299-E18-3 and 299-E18-4 is usually less than the estimated total measurement error of +/- 0.15 ft (Chamness et al. 1990). If measurement error was the only reason for the difference between wells 299-E18-1 and 299-E18-2, it would be expected that the standard deviation of the mean would be larger than 0.07 ft. These results indicate well 299-E18-1 is upgradient of 299-E18-2, 299-E18-3, and 299-E18-4.

Water quality at well 299-E18-1 is different from wells 299-E18-2, 299-E18-3, and 299-E18-4. Well 299-E18-1 has significantly higher conductivity, calcium, magnesium, nitrate, sulfate and lower barium concentrations (Appendix D-2).

Current discharges to the 2101-M Pond appear to be influencing the groundwater quality beneath the site. Figure B-18 is a series of plots including water quality parameters indicating the influence of the pond on the groundwater. Plotted are average concentrations for well 299-E18-1, average concentrations for the three monitoring wells, and the average concentration observed from sampling of 1988 discharges to the 2101-M Pond. The plots illustrate that groundwater quality near the pond is generally intermediate to that found in well 299-E18-1 and the pond influent. This indicates that the current discharges are improving the groundwater quality relative to 299-E18-1.

Quarterly water quality samples were collected for 1 yr from all four 2101-M Pond monitoring wells. Semiannual groundwater sampling was initiated in November 1989 and will continue through certification of closure. Results of the groundwater sampling are discussed in sections B-6d and B-6e.

B-6b(3.4). Uppermost Aquifer. The uppermost aquifer beneath the 2101-M Pond is the unconfined aquifer, which is estimated to range from approximately 45- to 175-ft thick, depending on whether the lower/basal Ringold Formation or basalt forms the base of the unconfined aquifer. Where it has not been eroded, the Elephant Mountain Member basalt is typically dense, relatively impervious, and thick enough to prevent communication between the unconfined and deeper confined aquifers. The available geologic data for the 200 Areas (Tallman et al. 1979) suggest that the cataclysmic floods that eroded the Ringold Formation and the Elephant Mountain Member north of the 200 East Area did not erode these units beneath the 2101-M Pond. Groundwater flow beneath the 2101-M Pond is estimated to be to the northeast. It is assumed that there is an insignificant or minor vertical flow component based on the numerical modeling.

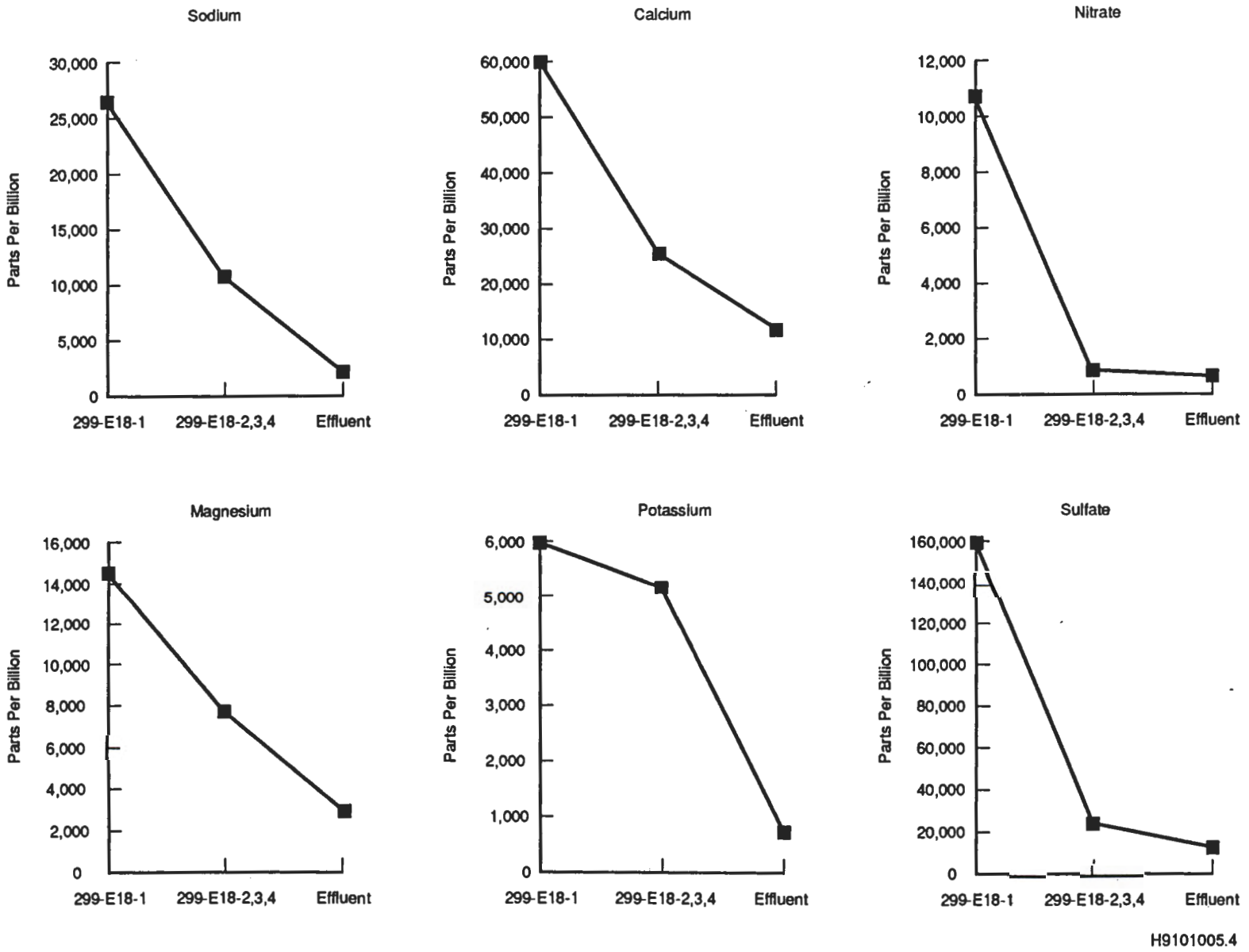


Figure B-18. Plots Comparing Average Groundwater Compositions for Wells 299-E18-1, 299-E18-2, -3, -4 and Average Composition for 2101-M Pond Effluent Water.

B-6b(4). Characterization/Monitoring Wells. The four monitoring wells installed around 2101-M Pond are shown in Figure B-6. The wells were located to provide one monitoring well upgradient and three monitoring wells downgradient of the pond. These wells perform the following functions.

1. Provide water level data to determine the groundwater flow direction beneath the site.

2. Provide up- and down-gradient groundwater quality information from the upper portion of the unconfined aquifer.

3. Provide a means to evaluate the hydraulic properties of the upper part of the aquifer.

4. Define the subsurface stratigraphy beneath the site.

5. Determine the moisture content of the unsaturated zone.

The wells are constructed of nominal 4-in.-dia stainless-steel casings with nominal 4-in.-dia 20-slot continuous-wound stainless-steel screens. The screens extend from approximately 2 ft above to 18 ft below the water table. A 20-40 mesh sand filter pack surrounds the screens within the annular space. The 4-in.-dia materials are constructed within 8-in.-dia boreholes. Eight-inch-diameter telescoping 10-slot continuous-wound stainless-steel screens were set in the bottom of the borehole before final completion. The 8-in.-dia screens extend from approximately the water table to 20 ft below the water table.

B-6b(4.1). Justification for Locations. Groundwater flow in the southwestern corner of the 200 East Area is estimated to be to the northeast. The background well (299-E18-1) was located approximately 280 ft southwest of the southwestern corner of the 2101-M Pond at sufficient distance from the pond to be unaffected by discharges to the pond. The background well will provide information on the groundwater quality upgradient of the pond (Figure B-6).

The three downgradient wells were located at the edge of the pond, on the southeast and northeast corners and halfway along the north side [299-E18-4, 299-E18-3, and 299-E18-2, respectively, (Figure B-6)]. These wells are close enough to the pond to monitor any contaminants in the groundwater originating from the pond.

B-6b(4.2). Drilling and Well Installation. The wells were drilled by the cable-tool method for the following reasons.

- Drill cuttings are easily contained (important in contaminated material).

- Representative geologic samples can be collected.

- Moisture samples can be collected from above the water table using core-barrel techniques.

- Disturbance to the borehole wall is minimized.
- A relatively straight and plumb borehole is produced.
- No drilling additives other than water are used.

Temporary carbon-steel casing was driven the total depth of the well. After reaching the desired depth, installing the 8-in. telescoping screen, and developing the well, groundwater samples were taken. The following groundwater contamination indicator parameters were analyzed as soon as possible after sampling to determine if water could be discharged to the ground:

- Volatile organic constituents
- Metals (analyzed by the ICP method)
- Gamma scan
- Gross alpha
- Gross beta
- Iodine-129 (one well only).

No levels exceeding standards were found, enabling purge water to be discharged to the ground.

At the completion of aquifer testing, the telescoping well screen was left in the hole. The nominal inside diameter of the temporary casing and/or telescoping screen at the bottom of the borehole was 8 in., so that a 4-in.-dia monitoring well could be installed with an adequate annular seal.

A schematic diagram of a completed well is presented in Figure B-19 and as-built diagrams are shown in Appendix E-1. Final wells were constructed of 4-in.-inside diameter (ID) 304 or 316 stainless-steel casing and a 0.20-in. continuous-slot stainless-steel well screen. Final well screen lengths were 20 ft with approximately 2 ft of screen extending above the water table to allow for possible future fluctuations of the unconfined aquifer. This configuration ensures that samples were from the upper portion of the aquifer and that any immiscible constituents floating on the surface of the water were sampled.

The annular seal was emplaced between the borehole wall and the stainless-steel casing, while pulling back the temporary carbon-steel casing. Figure B-19 shows the general thicknesses and positions of each of the different types of materials used for the annular seal. The materials and methods of installation meet the WAC 173-160 requirements for resource protection wells.

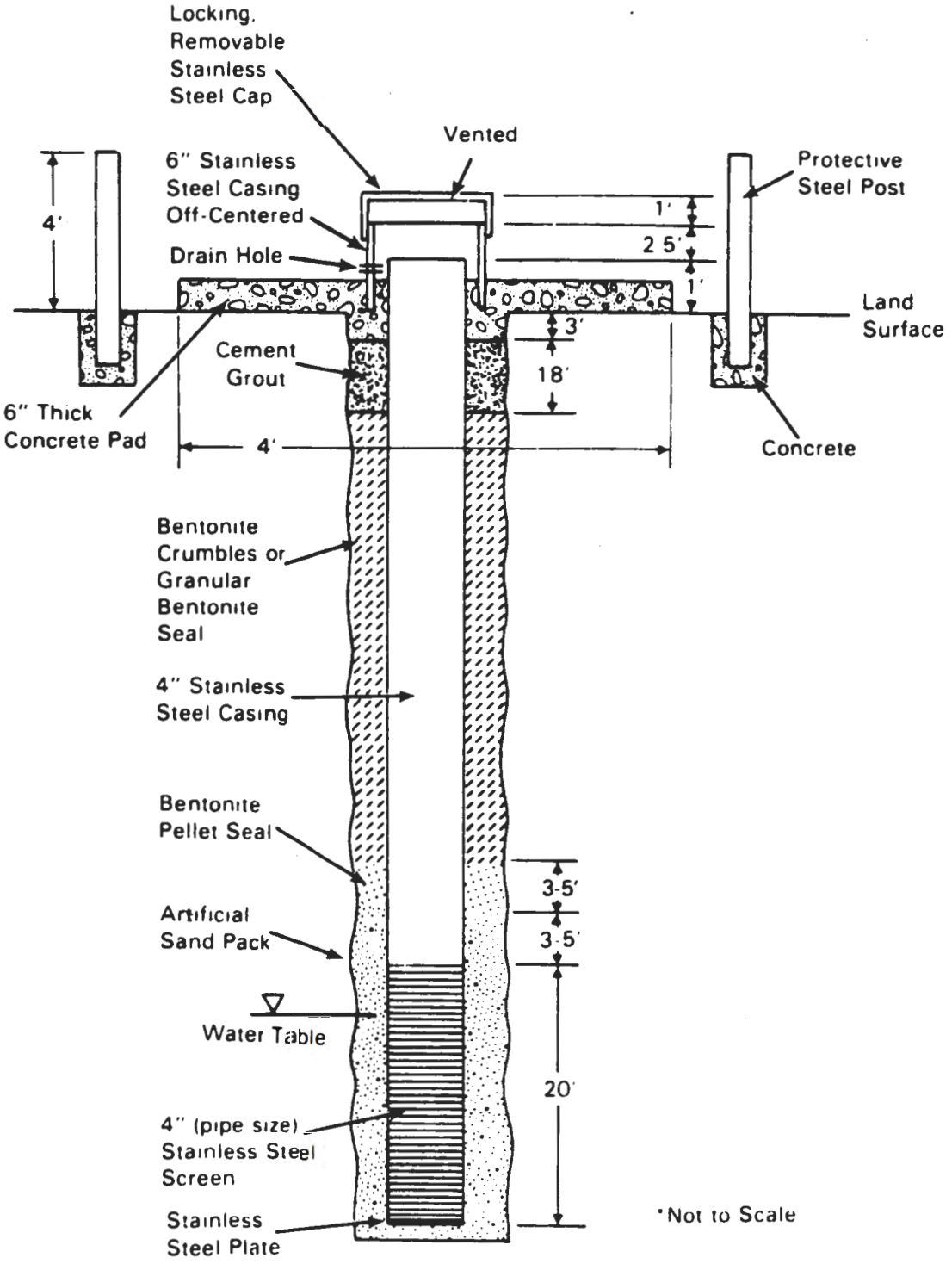


Figure B-19. Schematic Diagram of a Completed Groundwater Monitoring Well.

The 4-in.-well casing extends approximately 1 ft above ground surface. To protect the 4-in. well and provide shelter for data loggers, a piece of 6-in. stainless-steel casing was set into the concrete pad. A drain hole was drilled approximately 1/2 in. above the concrete pad for drainage of water from inside the protective casing. The protective casings were banded and permanently marked with well identification numbers. This information also was stamped on brass plaques in the concrete pads. At least three guard posts were cemented into place around each well pad and painted safety yellow. After completion, all monitoring wells were surveyed for location and elevation. The elevation of the top of the stainless-steel casing was determined to the nearest 0.02 ft. A mark was placed on the casing to indicate the location that was surveyed. The areal location was determined to the nearest 0.5 ft. All measurements were referenced to a common datum. The wells were developed after completion of well construction and before installation of the sampling pumps. Well development proceeded until turbidity was less than 5 nephelometric turbidity units.

B-6b(4.3). Monitoring Parameters. Quarterly samples were collected for 1 yr from the four groundwater monitoring wells for chemical analysis of the constituents listed in Table B-18. These constituents were required by 40 CFR 265, Subpart F, which was in force at the time of quarterly groundwater sampling. Constituents included in the DW constituents list (WAC 173-303-9905) were analyzed during the second quarter (November 1988) and the first semiannual sampling period (November 1989). The samples were analyzed by U.S. Testing. The results of these analyses are given in Appendix E-1. Groundwater sampling began on June 6, 1991 after a 1-yr hiatus. Semi-annual samples are generally analyzed for most of the constituents identified in Table B-18. As time goes on, the list is being reduced to only those constituents either (1) detected in the past, (2) thought to have been discharged to the pond, (3) detected in the soil, or (4) are groundwater contamination indicator parameters. These analyses are also given in Appendix E-1.

B-6b(5). Geologic Sampling. Geologic samples were collected during drilling at 5-ft intervals or at changes in lithology. Samples were collected with a drive barrel in the unsaturated sediments whenever possible. When hard-tool drilling was necessary, a bailer was used to collect the sediment samples. No drilling water or other material was added to the borehole during drive-barrel drilling unless necessary and approved by the well-site geologist. This was done so that perched water zones could be detected and representative moisture samples could be taken, although none were encountered.

Moisture samples were collected in the unsaturated sediments at 5-ft intervals when possible and at unusually moist or wet zones. The samples collected were described as hand specimens in the field and documented on geologic field forms.

B-6b(5.1). Sample Analyses. Selected samples were collected for laboratory analyses, including (1) sieve, (2) moisture content, (3) calcium carbonate content, (4) saturated hydraulic conductivity, (5) water retention, (6) petrographic description of mineral content, and (7) chemical analyses for dangerous constituents. The first three analyses were run on all of the

Table B-18. Groundwater Monitoring Parameters.

Parameter	Maximum level[a]
Interim primary drinking water standards	
Arsenic	0.05
Barium	1.0
Cadmium	0.01
Chromium	0.05
Fluoride	1.4 to 2.4
Lead	0.05
Mercury	0.002
Nitrate (as N)	10
Selenium	0.01
Silver	0.05
Endrin	0.0002
Lindane	0.004
Methoxychlor	0.1
2,4-D	0.1
2,4,5-TP silvex	0.01
Radium	5 (pCi/L)
Gross alpha	15 (pCi/L)
Gross beta	4 (millirem/yr)
Turbidity (surface water only)	1 (TU)
Coliform bacteria	1 count/100 mL
Groundwater quality parameters	
Chloride	
Iron	
Manganese	
Phenols	
Sodium	
Sulfate	
Groundwater contamination indicator parameters	
pH	
Specific conductance	
Total organic carbon	
Total organic halogen	

NOTE: From 40 CFR 265, Subpart F.
[a]Concentrations are in mg/L unless otherwise noted.
TU = turbidity units.

samples in the vadose zone; sieve and calcium carbonate analyses also were run on the samples that may have reached the saturated zone. At least one representative sample was collected for the second three analyses from each major stratigraphic unit encountered during drilling. Sixteen sediment samples were analyzed for metals and nine for volatile organics; no contamination was found in these samples. The latter analyses were performed by U.S. Testing following procedures given in SW-846 (EPA 1982b), when possible.

B-6b(5.2). Borehole Logging. Each well was geophysically logged with natural gamma, density, and neutron probes. Logs will be included in the characterization report and have been submitted to Ecology in quarterly reports on monitoring wells used for RCRA on the Hanford Site.

B-6b(5.3). Data Interpretation and Presentation. All geologic and geophysical data will be presented in cross sections and tables following RCRA groundwater monitoring technical enforcement guidance (EPA 1986d) and will be placed in the characterization report. Aquifer testing is reported in Section B-6c.

B-6b(6). Sampling and Analysis. Each well is equipped with a dedicated HydroStar* pump, capable of pumping 3 to 5 gal/min. Groundwater sampling is being conducted by trained personnel from PNL following established procedures. The samples are delivered to the analytical laboratory for analysis following chain-of-custody procedures. Analyses at the analytical laboratory are performed following EPA-recommended procedures.

B-6b(6.1). Statistical Analysis of Detection-Level Monitoring Data. The WAC 173-303-645 (8)(h) establishes the requirement that a statistical analysis will be completed to determine if contamination is occurring at a facility. The regulation requires the Cochran's Approximation to the Behrens-Fisher Student's t-test (CABF) to be used for normally distributed data, or an alternate statistical method may be used.

An alternate statistical method, the tolerance interval method, was chosen. This method was chosen for several reasons: (1) the CABF method is not applicable if the replicate analyses are not independent; (2) the number of analyses available for statistical evaluation during the compliance monitoring period is inadequate; (3) the tolerance interval method is one of several methods recommended by EPA (1989b) and in 40 CFR 264, Subpart F; (4) the tolerance interval method is easily applied; and (5) the tolerance interval method accommodates analyses that are less than detection limits.

The quarterly sampling completed at the 2101-M Pond site was based on the interim status requirements that were in place at the time of sampling. Therefore, only the indicator parameters conductivity, pH, TOC, and TOX had replicate analyses collected. However, the replicates were not independent but splits from the same sample. Because of this, the CABF method is not applicable.

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*HydroStar is a trademark of Instrumentation Northwest, Inc.

The tolerance interval approach provides concentration limits representing reasonable upper limits using data on background wells. For pH, both the upper and lower limits are constructed. If the compliance concentrations do not fall in the tolerance interval, it is interpreted as statistically significant evidence of contamination. Normal tolerance intervals are constructed (if data are normally or lognormally distributed) by the following formula:

$$T.I. = X_b + KS_b \text{ (one-sided)}$$

or

$$T.I. = X_b \pm KS_b \text{ (two-sided)}$$

where:

X_b denotes the background mean; S_b denotes the background standard deviation; and K is a normal tolerance factor [obtained from Table 5 of EPA (1989b)] which depends on sample size (n), coverage (P%), and confidence level (Y). A coverage of 95% and confidence level of 95% are recommended (EPA 1989b).

If data are not normally or lognormally distributed or there are too many nondetects, nonparametric tolerance intervals are calculated. A two-sided nonparametric tolerance interval is the range (largest minus smallest datum) of the observed data. An upper one-sided nonparametric tolerance limit is the largest observation.

When all of the background values are less than detection limit (e.g., cadmium), the background threshold value is determined to be the limit of quantitation (LOQ) using applicable laboratory QC data obtained from Appendix E-1. The use of LOQ to establish a threshold criterion, in such a case, is recommended by EPA (EPA 1986a, page 123).

B-6b(6.2). Establishing Baseline. Establishing a groundwater constituent baseline for the 2101-M Pond facility requires the answering of two questions: (1) is well 299-E18-1 truly an upgradient well to the 2101-M Pond facility; and (2) if well 299-E18-1 is not upgradient, WAC 173-303-645(8)(g)(iii) allows for water quality comparisons to be made with nonupgradient wells. Data presented in Section B-6b(3.3) does not conclusively show that well 299-E18-1 is upgradient from the 2101-M Pond.

To establish a groundwater quality baseline to be used for comparison, additional wells were chosen to establish groundwater baseline conditions for the 2101-M Pond site. Initially, nine wells were selected on the basis that they are most probably unaffected by Hanford Site operations. The list was reduced to six following a review of borehole completion summaries and the amount of representative groundwater data. The locations of the six wells

chosen are shown in Figure B-20. These wells transect the Hanford Site and should encompass the spatial variability necessary to establish baseline concentrations.

Data used to establish constituent baseline concentrations for the six baseline wells are from data collected after January 1985 and are listed in Appendix E-1. The first quarter of data collected for the 2101-M Pond will not be used as there is a question of whether the wells were fully developed before sampling. Well 299-E18-1 shows concentrations above DWS for unfiltered manganese, iron, and selenium and filtered manganese and selenium. Specific conductivity also was elevated above the following four quarters of data. Concentration of the above constituents dropped below DWS following additional well development before the November 1988 sampling event.

Following selection of baseline wells, each constituent of concern was checked to determine if the data were normal, log-normal or nonnormally distributed. The normality assumption of data distribution was examined or checked by a normal probability plot.

Tolerance intervals were developed for general contamination indicator parameters specific conductance, pH, TOC, and TOX; water quality parameters: chloride, manganese, sodium, sulfate, and nitrate; and for metals: arsenic, barium, cadmium, chromium, lead, selenium, mercury, silver, and copper. Tolerance intervals developed for the 2101-M Site are listed on Table B-19.

B-6b(6.3). Data Evaluation. Following the initial year of quarterly sampling, semiannual sampling was initiated in November 1989. Semiannual sampling will continue through certification of clean closure. Results from semiannual analyses are compared to the individual constituent tolerance interval. If an analysis exceeds the tolerance interval the following steps will be taken.

- Ecology will be notified in writing within 7 days with a report summarizing the compliance well indicator parameters that have shown a statistically significant increase over the baseline tolerance intervals.

- All monitoring wells will be immediately sampled and analyzed for all constituents listed in 40 CFR Part 264, Appendix IX.

- Following the review and validation of the Appendix IX analytical data, resample and reanalyze the compliance wells for all of the compounds detected.

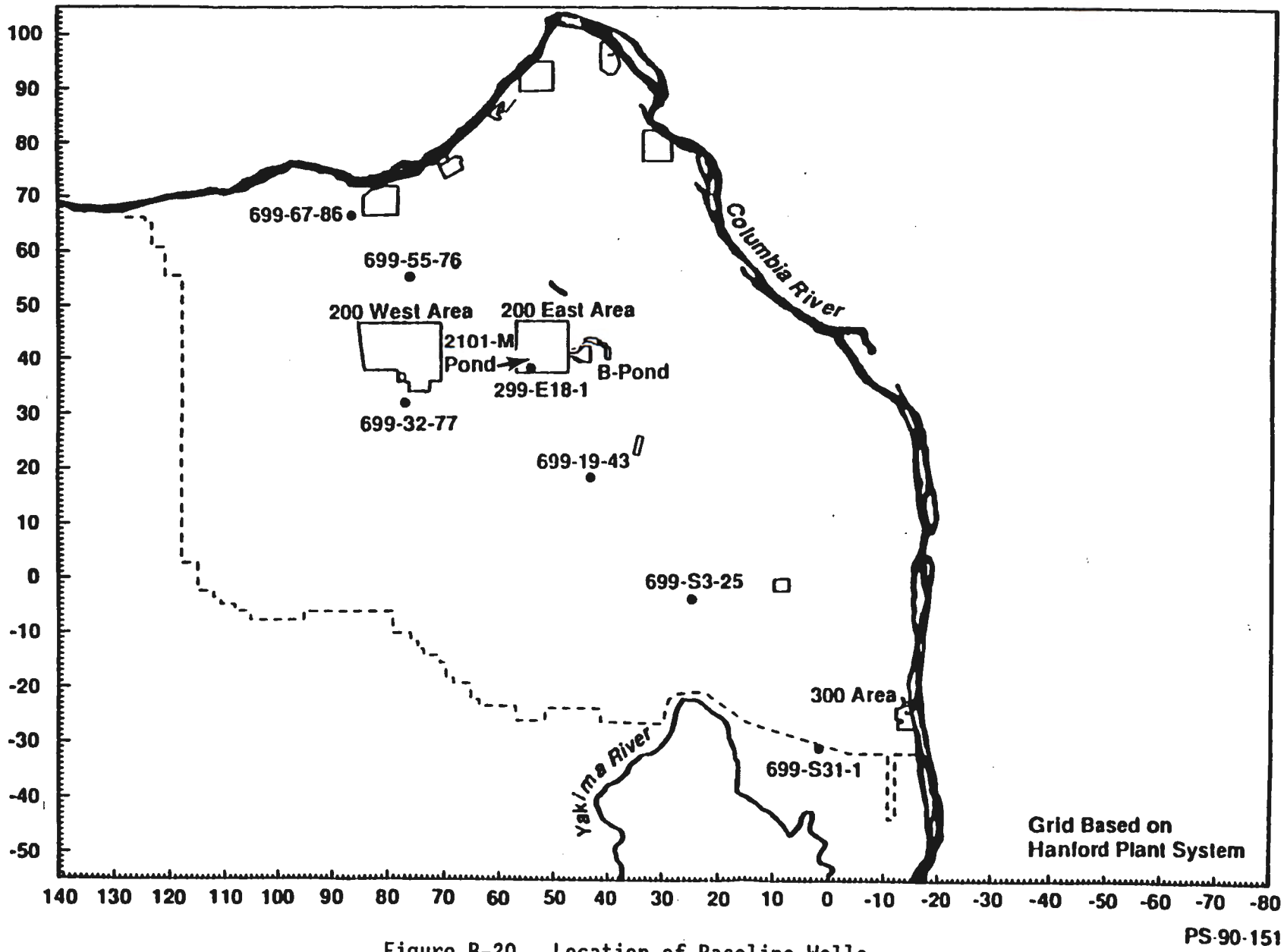

Figure B-20. Location of Baseline Wells.

Table B-19. Upper Tolerance Interval Values for 2101-M Pond Baseline.
(sheet 1 of 3)

	Average	Standard deviation	Number of samples above detection limits Total	GT	LT	Upper tolerance interval value
Indicator parameters						
Conductivity 1/700[a] µS/cm	299	77	25	25	0	475
pH 0.1/6.5-8.5[g]	7.6	0.40	26	26	0	(6.3 8.2)[d]
TOC 1,000 ppb/none	450	376	26	4	22	1,500[d]
TOX 20 ppb/none	10	14.9	20	2	18	61[d]
Water quality parameters						
Chloride 500/250,000[g] ppb	6,046	1,198	18[b]	18[b]	0[b]	9,093[c]
Manganese 5/50[g] ppb	N/A	N/A	5	1	4	21[d]
Filtered manganese 5/50[g] ppb	N/A	N/A	19	5	14	47[d]
Sodium 200 ppb/none	N/A	N/A	5	5	0	21,500[d]
Filtered sodium 200 ppb/none	15,856	5,253	21	21	0	28,311[c]
Sulfate 500/250,000[g] ppb	38,238	19,202	24	24	0	82,400[d]
Selenium 5/10 ppb	<5	N/A	5	0	5	8.6[g]

Table B-19. Upper Tolerance Interval Values for 2101-M Pond Baseline. (sheet 2 of 3)

	Average	Standard deviation	Number of samples above detection limits Total	GT	LT	Upper tolerance interval value
Filtered selenium 5/10 ppb	<5	N/A	17	0	17	7.7[g]
ICP Metals						
Arsenic 5/50 ppb	N/A	N/A	5	1	4	6[d]
Filtered arsenic 5/50 ppb	N/A	N/A	17	2	15	6[d]
Barium 6/1,000 ppb	24	18	5	5	0	150[e]
Filtered barium 6/1,000 ppb	23	2	21	20	1	110[e]
Cadmium 2/10 ppb	<2	N/A	5	0	5	16.4[g]
Filtered cadmium 2/10 ppb	<2	N/A	21	0	21	16.4[g]
Chromium 10/50 ppb	<10	N/A	5	0	5	28.8[g]
Filtered chromium 10/50/ ppb	N/A	N/A	21	5	16	26[d]
Copper 10/100[g] ppb	<10	N/A	5	0	5	39[f]
Filter copper 10/100[g] ppb	N/A	N/A	21	1	20	12[d]

Table B-19. Upper Tolerance Interval Values for 2101-M Pond Baseline. (sheet 3 of 3)

	Average	Standard deviation	Number of samples above detection limits Total	GT	LT	Upper tolerance interval value
Lead 5/50 ppb	<5	N/A	1	0	1	10.0[g]
Filtered lead 5/50 ppb	<5	N/A	17	0	17	5.0[g]
Mercury 0.1/2 ppb	<0.1	N/A	5	0	5	2.7[g]
Filtered mercury 0.1/2 ppb	<0.1	N/A	17	0	17	2.7[g]
Silver 10[c]/50 ppb	<10	NA	5	0	5	25.3[g]
Filtered silver 10[c]/50 ppb	<10	N/A	21	0	21	25.3[g]

NOTES:
[a]Detection limit/regulatory standard.
[b]Excluding data from well 299-E55-76 and well 299-E53-25.
[c]Normal distribution.
[d]Maximum value reported. For pH, range reported.
[e]Log-Normal distribution.
[f]Based on limit of quantitation (LOQ).
[g]Secondary drinking water standard.
D.L. = detection limit
TOC = total organic carbon
TOX = total organic halogen
GT = greater than
LT = less than.

- Following review and validation of the reanalysis data, establish a background value for each valid detected constituent identified in the Appendix IX analysis.

- Within 45 days, submit to Ecology a plan to establish a compliance monitoring program meeting the requirements of WAC 173-303-645(10) if the reanalysis data confirm that background was exceeded, or submit to Ecology the data necessary to justify that a compliance monitoring program is not required.

Discussion of the results for the first semiannual sampling event are presented in Section B-6e(1).

B-6c. Well Development and Aquifer Testing

Before sampling the unconfined aquifer beneath the 2101-M Pond, the wells were developed to eliminate any water and/or contaminants that may have been added during well construction. Wells are generally considered adequately developed when turbidity is below 5 nephelometric turbidity units.

Hydrologic tests (aquifer pumping tests) were conducted in wells near the 2101-M Pond in August and November 1988 to determine the transmissivity of the uppermost portion of the aquifer beneath the 2101-M Pond and, if possible, the storativity of the uppermost portion of the aquifer beneath the pond. The tests were conducted in wells installed near the pond for groundwater monitoring. The tests are considered to be opportunistic because the wells were not designed for aquifer testing. Results obtained from the tests must be considered in this perspective.

Tests were initially planned in wells 299-E18-1 and 299-E18-3 (Chamness et al. 1989). Four tests were eventually conducted, one at each well. The third and fourth tests were conducted in wells 299-E18-2 and 299-E18-4 when these wells were redeveloped with submersible pumps. Initial plans were for the tests to be conducted with 8-in.-dia telescoping screens set in the wells. Development tests indicated that transmissivity was actually much lower than anticipated. Wells were developed before conducting constant-discharge aquifer tests. The discharge rate was initially low, with steps of increasing discharge rate. While developing well 299-E18-3 with a 50-hp pump, the aquifer yielded much less water than expected. A 25-hp pump then was installed in the well, which also was too large for the aquifer yield. Therefore, a much smaller pump with a lower discharge rate was required. To prevent construction schedule delays, the tests were conducted after the wells had been completed with a 4-in. casing and screen.

About 4,000 gal were removed during these development periods. It was then decided to complete the well before conducting the constant-discharge aquifer test. After the well was completed, it was developed and tested with a 1 1/2-hp pump, and approximately 1,200 gal were removed during this development period.

Well 299-E18-1 was developed with a 1 1/2-hp pump after final completion. Approximately 1,500 gal were removed during development. The aquifer test was performed using the 1 1/2-hp pump.

Distribution of transmissivity across the site was determined by conducting tests in wells 299-E18-1 and 299-E18-3 (Figure B-6). Responses were measured in wells 299-E18-2 and 299-E18-4, while pumping from well 299-E18-3. Redevelopment at wells 299-E18-2 and 299-E18-4 provided an opportunity for the collection of corroborative information.

B-6c(1). Data Analysis. The solutions used to analyze the data include the Cooper-Jacob (1946) straight-line method (where greater than or equal to 0.01) and the Theis (1935) type-curve fitting method, devised by Wenzel (1942). These methods are discussed in Lohman (1972). The following assumptions are inherent in these solutions.

- The aquifer is homogeneous and isotropic.
- The aquifer is of infinite areal extent.
- The well penetrates the entire thickness of the aquifer.
- The pumped well has an infinitesimal diameter.
- Water is instantaneously released from storage.

The pumping well drawdown data were evaluated to determine when borehole storage effects were no longer a factor, using the following equation by Hargis (1979):

$$t_c = 360{,}000 \times r_c^2 / T$$

where:

t_c = the time of pumping to dissipate borehole storage effects, in minutes

r_c = the radius of the well casing in the interval over which the water-level declines, in feet

T = the transmissivity of the aquifer, in square feet per day.

B-6c(2). Results and Limitations. The four site wells only partially penetrate the aquifer. This results in a violation of a major assumption in aquifer test analysis--that the wells fully penetrate the aquifer. Vertical movement can be induced in the vicinity of partially penetrating wells, affecting ideal drawdown responses. In addition, insufficient stress was imposed, so that very little drawdown (a few hundredths of a foot), or even no drawdown, resulted in some cases. Aquifer heterogeneity also appeared to affect some of the data.

For these reasons, the resulting values for transmissivity are not considered to be quantitative; however, they are indicative of the range of transmissivity values beneath the 2101-M Pond. Results of the analyses, as well as the drawdown data trends, indicate that heterogeneous aquifer materials underlie the 2101-M Pond. Drawdown recovery curves and data from drawdown and recovery during pumping will be included in the site characterization report. A summary of the test results is presented in Table B-20. These data are within the expected range of values presented in Table B-14, using estimated aquifer thickness values.

Table B-20. Summary of Aquifer Test Results for Wells Tested at the 2101-M Pond.

	Transmissivity (ft^2/d)		
Well no.	Pumping well	Observation well	Storativity
299-E18-1	700	--	--
299-E18-2	2,000	8,700	0.01
299-E18-3	800	--	--
299-E18-4	--	5,000 to 60,000	0.005 to 0.04

B-6d. Quarterly Sampling Results

B-6d(1). Water Level Measurements. Water levels are now measured on a monthly basis separate from those taken when the groundwater is sampled. Water level data for wells monitoring the 2101-M Pond are listed in each quarterly report, and Hanford site water table maps are provided in semiannual reports (e.g., Kasza et al. 1992). These water level measurements are all obtained within a few hour period, thereby minimizing temporal effects on measurements. Data are collected using a calibrated steel tape. Measurements are taken until two measurements agree to within 0.02 ft. The measurements taken at times other than sampling events are generally used for interpretation of the gradient and groundwater flow direction.

Inclinometer surveys, using Sure Shot Technique*, were run on the four monitoring wells. Three of the wells depart slightly from vertical. The surveys were run at 50-ft intervals. Deviation was assumed to occur midway between measurements. Water levels and borehole deviations are listed in Table B-15.

*Sure Shot Technique is a trademark of Al Bit and Tool Company.

No correction is made for barometric or tidal effects. Informal barometric efficiency studies for the unconfined aquifer, in the 200 Areas, have shown unexpected high values. Values range from 0 to 80%. No studies have been done at the 2101-M Pond site.

B-6d(2). Water Quality Analyses. Before sampling, the wells were developed to remove water and particulates added during the drilling process. Initial sampling results indicate that well development may not have been adequate. Data from unfiltered analyses of first quarter sampling indicate that some residual particulate metals in concentrations above DWS and/or SMCL (chromium, manganese, and iron) may remain from the drilling process, but these are very close to or below DWS or SMCLs in filtered analyses. Similar elevated values for chromium in unfiltered analyses have been noted at other newly drilled RCRA monitoring wells in the 200 East Area.

After well development and purging, first quarter samples were obtained from all four monitoring wells. Samples were collected and analyzed in accordance with procedures given in Chamness et al. (1989). Samples were obtained using dedicated HydroStar pumps and were stored in the field and in transit as specified in Chamness et al. (1989). Analyses were conducted by U.S. Testing using the recommended analyses and methods specified by the EPA and contained in the sampling and analysis plan (Chamness et al. 1989).

Filtered analyses are considered to represent more valid indications of groundwater contamination than unfiltered analyses. Constituents detected in filtered analyses can be mobile solutes that can migrate more readily with groundwater to surface waters or to areas where groundwater is extracted for a drinking water supply. Unfiltered analyses indicate the presence of ions in solution, as well as those adhered to particulate matter or wear-abraded fragments of rock or drilling equipment, produced in the construction of a monitoring well. As such, the particulate constituents are unlikely to be mobile and to be transported to where they may become part of a drinking water supply. A considerable amount of turbidity is created in the aquifer at and in the vicinity of penetration by a monitoring well through activities associated with well construction, purging, pumping, and well development. If the well has not had a chance to stabilize after drilling, purging, and development, residual particulate matter may remain. If a well were to be used for drinking water supply, consideration of unfiltered analyses would be appropriate in assessing public health and safety because the total metals present in the water could potentially be consumed. However, for monitoring wells, "Any difference in concentration between the total and dissolved fractions may be attributed to the original metallic ion content of the particles and any sorption of ions to the particles" (EPA 1986d, p. 114). Unfiltered iron and chromium values for the five quarterly samples and the first semiannual sample are elevated. Concentrations are variable from quarter to quarter, (Appendix E-1) and no discernable pattern is apparent.

B-6d(2.1). First Quarter. First quarter samples were obtained August 16, 1988. Analytical data indicate concentrations above DWS for chromium, arsenic, selenium, and manganese in unfiltered samples. However, only selenium and manganese were slightly above DWS in filtered samples. Filtered selenium, at 10.7 parts per billion in well 299-E18-1, is barely

above the 10 ppb primary drinking water standard. Filtered manganese, at 51 parts per billion in well 299-E18-1, is barely above the SMCL of 50 parts per billion. Values from filtered samples for these analytes in all other wells are below the respective DWS.

To verify the elevated values of these metals during first quarter analyses, all four wells were resampled in September 1988. These groundwater samples were analyzed for metals only. The results of this resampling (Appendix E-1) generally verify the data from the first set of samples. However, manganese, selenium, and arsenic dropped to or below DWS in both filtered and unfiltered analyses.

B-6d(2.2). Second Quarter. Second quarter samples were taken on November 9 and 10, 1988. After purging, samples were taken from all four wells and submitted for analyses. Results obtained indicate that all analyzed constituents were below the DWS in the filtered samples (Appendix E-1). Results show that only iron was above the SMCL in unfiltered samples from two wells, but was below the SMCL in filtered analyses from all wells. Turbidity is the suspected cause of this difference. Results showed that manganese and selenium, which were above DWS during first quarter sampling in filtered and unfiltered analyses from well 299-E18-1, were below the DWS and SMCL limits for both filtered and unfiltered analyses for second quarter samples. Two values of field pH in well 299-E18-1 were 8.6; all others were 8.5 or lower.

No volatile organic compounds were found to exceed DWS with the exception of acetone. Acetone was detected at very low concentrations in almost all samples and the blank. Another set of samples (including a blank) were rerun, and the results indicated that three of the four wells and some of the blanks contained acetone at very low levels. Because in both instances the blanks contained the highest concentrations of acetone, all four wells were resampled and the samples were split and sent to different laboratories. Results from U.S. Testing indicated that groundwater only from well 299-E18-2 contained acetone, at 11 parts per billion; results obtained from PNL indicated no acetone in any of the samples from any of the wells. These results suggest that acetone was introduced during sample handling or analysis and is not a true constituent of groundwater.

B-6d(2.3). Third Quarter. Third quarter samples were collected on February 15 and 16, 1989. Results show that all analytes, except unfiltered chromium and iron, were below DWS. In addition, turbidity was slightly above the DWS in well 299-E18-1. Filtered iron and chromium were well below standards. Results are listed in Appendix E-1.

B-6d(2.4). Fourth Quarter. The fourth quarter samples were collected on May 26 and June 1, 1989. Results show that only unfiltered iron was above DWS in well 299-E18-1. Turbidity was above DWS in wells 299-E18-1, 299-E18-3, and 299-E18-4. All other constituents in well 299-E18-1 were below standards and the other three wells were below standards. Results are listed in Appendix E-1.

B-6d(2.5). Fifth Quarter. A fifth set of samples were collected between August 8 and 11, 1989. Unfiltered iron and chromium were higher than DWS in

wells 299-E18-1, 299-E18-3, and 299-E18-4. Filtered iron and chromium were below or at detection limits. Turbidity was above DWS in wells 299-E18-1, 299-E18-2, 299-E18-3, and 299-E18-4. Results are listed in Appendix E-1.

B-6d(2.6). Discussion of Quarterly Sampling Results. Quarterly sampling results show consistent exceedance for unfiltered chromium. Filtered analyses for chromium is consistently at or slightly above detection limits. In addition to unfiltered chromium, unfiltered iron shows a high degree of variability over the five quarters of sampling. This variability is thought to be a 'near well' feature and does not represent a widespread problem.

The first quarter sampling data are not used in the development of tolerance intervals because of higher-than-expected values for conductivity, and certain metals, i.e., aluminum, chromium, iron, selenium, and manganese (Appendix E-1).

Comparison of quarterly sampling results with baseline tolerance intervals shows that the three monitoring wells exceed the upper tolerance interval for several constituents, for the quarters beginning in November 1988. The constituents, wells, and date of exceedance are as follows:

- Chloride (299-E18-4, 2/89 and 5/89)
- Arsenic (E18-2, 6/89; 299-E18-3, all quarters; 299-E18-4, all quarters)
- Filtered arsenic (E18-3, all quarters; 299-E18-4, all quarters).

The cause for this exceedance is uncertain and may be attributed to local concentration variability that is not incorporated into the calculated tolerance interval, due to turbidity in unfiltered samples, past discharges to the 2101-M Pond facility, or influence from other Hanford Site facilities.

Arsenic values, for both filtered and unfiltered samples, are consistently slightly above the tolerance interval of 6 parts per billion but well below the DWS of 50 parts per billion. This, in combination with the fact that no records of any arsenic compounds having been disposed of at the 2101-M Pond, indicates that the arsenic values measured are only part of the natural background for the site (Johnson 1993).

Exceedance for chromium and high iron content only occur in unfiltered samples. Elevated chromium and iron appear to be correlated with high turbidity in the unfiltered samples. This suggests that elevated chromium and iron are the result of particulate matter, most likely from the middle Ringold sediments. Columbia River basalts contain from approximately 10 to 110 parts per million chromium and 11 to 13% iron (Landon and Long 1989). Chamness et al. (1990) show that basalt gravels make up approximately from 20% to 60% of the total gravels in the middle Ringold. If this same ratio is applied to the fine grained sediments (silts and muds), the elevated chromium and iron could be the result of basaltic particles in the samples. The preferred explanation is that elevated iron and chromium is a result of particulates

remaining from well construction which are slowly corroding, releasing metals into the groundwater adjacent to the well. Detection of higher chromium and iron concentrations in newly installed stainless steel wells than nearby carbon steel wells supports this theory. Because the exceedences are due to causes other than past discharges to the 2101-M Pond, no further action will be required. It is expected that exceedence for chromium, above the regulatory level and closure plan tolerance intervals, will continue through closure.

B-6e. Semiannual Sampling

Well 299-E18-1 is sampled by the 216-B-3 Pond RCRA project as an upgradient well. Early in the project, samples were taken independently of those collected for this project. Arrangements have now been made to sample concurrently and save analytical costs. Additional samples for radioactive constituents monitored by the Environmental Surveillance Program are also collected on occasion. All results are included in Appendix E-1. Results from all four semiannual sampling events corroborate the first years quarterly results. The 2101-M Pond is affecting the groundwater primarily through dilution of the groundwater constituents found in the upgradient well. Elevated metals continue to show up in all four of the monitoring wells at least periodically, supporting the conclusion that they are related to well construction and not to contamination of the groundwater from 2101-M Pond.

B-6e(1). First Semiannual Sampling Event. The first semiannual samples were collected between October 31 and November 29, 1989. A breakdown of the constituent groups analyzed for are provided in Table B-21.

Concentrations for constituents of concern were all below their respective tolerance interval (Table B-19) except chloride (299-E18-4), arsenic (299-E18-2, 299-E18-3, and 299-E18-4), and iron (299-E18-4). In addition, the upgradient well 299 E18-1 exceeded the tolerance interval for specific conductance, sulfate, chromium, and selenium. All exceedances are consistent with those observed during quarterly sampling except selenium. However, selenium is only 1 part per billion over the tolerance interval of 5 parts per billion. This exceedance is considered insignificant and is well below DWS. All analytical results have been reported in the appropriate quarterly and annual reports (Smith et al. 1990; DOE 1991a).

Results from the expanded list of analytes based on WAC 173-303-9905 and 40 CFR 264, Appendix IX show all values to be below detection limits except for chloroform and methylene chloride. Replicate samples were taken for well 299-E18-3. For both of these analytes, one replicate had concentrations above detection limits for chloroform and methylene chloride, and the second replicate was below detection limits. It is interpreted that the presence of these two constituents is due to contamination during sampling or in the laboratory and are not of concern to the 2101-M Pond facility.

B-6e(2). Second Semiannual Sampling Event. Samples were initially collected for the second semiannual sampling event on May 30, 1990. These samples were not analyzed because of contractual problems with the analytical

laboratory. A new analytical contract was established in 1991, and samples for the second semiannual sampling event were collected on September 6, 1991. Table B-21 provides a breakdown of the constituent groups analyzed for. Appendix E-1 contains all analytical results.

Concentrations for constituents of concern were all below their respective tolerance interval (Table B-19) except unfiltered chromium (299-E18-1 and 299-E18-4), filtered copper (299-E18-2 and 299-E18-3), and unfiltered sodium (299-E18-1). This is the only semiannual sampling period that has ever detected filtered or unfiltered copper in any of the wells. Levels of copper detected are below drinking water standards and are consequently not of concern. As in the first semiannual results, the upgradient well, 299-E18-1, continued to exceed the tolerance intervals derived from the 6 background wells in specific conductivity. These analytical results have been previously reported in the appropriate quarterly and annual reports (DOE-RL 1991b and c; DOE-RL 1992a and b; DOE-RL 1992c).

B-6e(3). Third Semiannual Sampling Event. Samples were collected on June 3 and July 10, 1992 for the third semiannual sampling period. Table B-21 provides a breakdown of the constituent groups analyzed for. Appendix E-1 contains all analytical results. Samples were collected from 299-E18-1 on January 24, 1992 for the 216-B-3 Pond project. The analytical results are provided with the rest of the data, and are consistent with other data from the same well. These analytical results have been previously reported in the appropriate quarterly and annual reports (DOE 1992d and e; DOE-RL 1993).

Problems with the analysis of TOX were identified at this time. Samples collected from the three downgradient wells all showed levels of TOX above the established critical mean for the 2101-M Pond. The laboratory had noted some analytical problems, and duplicates also indicated a wide variability in the data. As a precaution, resampling of all 4 wells was requested and scheduled for November 3, 1992. The resampling results indicated all 4 wells were below the detection limit for TOX, which would also put them below the critical mean. All recent analytical TOX results are still under review until the problem has been resolved with the laboratory and are flagged in Appendix E-1 appropriately.

Concentrations for constituents of concern were all at or below their respective tolerance intervals (Table B-19) except filtered and unfiltered arsenic (299-E18-3 and 299-E18-4), filtered chromium (299-E18-4), unfiltered chromium (all 4 wells), and pH (299-E18-3). As before, well 299-E18-1 continued to show exceedance of the tolerance intervals for specific conductivity, sulfate, and unfiltered sodium. Uranium was detected at a somewhat higher concentration in well 299-E18-2 than previous samples, but did not exceed drinking water standards.

B-6e(4). Fourth Semiannual Sampling Event. Samples for the fourth semiannual period were collected on December 16, 1992. Table B-21 provides a breakdown of the constituent groups analyzed for. The present plan is to sample for all of the indicator parameters and most of the drinking water and groundwater quality parameters once a year. The alternate sampling period will analyze for a smaller list of constituents that consists of the

Table B-21. Groundwater Sampling Parameters[a]

Parameter	Sampling Date 11/89	9/91	6/92	12/92
Interim primary drinking-water standards				
Arsenic	All[b]	-[c]	All	All
Barium	All	All	All	All
Cadmium	All	All	All	All
Chromium	All	All	All	All
Fluoride	All	All	All	All
Lead	All	-	All	1
Mercury	All	-	All	1
Nitrate (as N)	All	All	All	All
Selenium	All	-	All	All
Silver	All	All	All	All
Endrin	All	-	All	1
Lindane	All	-	All	1
Methoxychlor	All	-	All	1
2,4-D	All	-	All	1
2,4,5-TP silvex	All	-	All	1
Radium	All	All	All	1
Gross alpha	All	All	All	All
Gross beta	All	All	All	All
Turbidity (surface water only)	All	All	All	All
Coliform bacteria	1,3,4	-	All	All
Groundwater quality parameters				
Chloride	All	All	All	All
Iron	All	All	All	All
Manganese	All	All	All	All
Phenols	All	All	All	1
Sodium	All	All	All	All
Sulfate	All	All	All	All
Groundwater contamination indicator parameters				
pH	All	All	All	All
Specific conductance	All	All	All	All
Total organic carbon	All	All	All	All
Total organic halogen	All	All	All	All
Other constituents				
Volatile organics	All	All	All	All
Semivolatile organics	All	-	All	All
WAC 173-303-9905/40 CFR 264 App. IX	All	-	-	-
Radionuclides, additional	1	All	All	All

(a) Each well number was abbreviated in the following table to its last digit, e.g., 299-E18-1 becomes 1, 299-E18-2 becomes 2.
(b) All = Indicates all four monitoring wells were sampled for that constituent.
(c) Not analyzed.

constituents of concern. Upgradient well 299-E18-1 was cosampled with the 216-B-3 Pond project and the results are provided with the others in Appendix E-1. These analytical results have been previously reported in the appropriate quarterly and annual reports (DOE 1993a; DOE 1993b).

Concentrations for constituents of concern were all at or below their respective tolerance intervals (Table B-19) except for filtered and unfiltered arsenic (299-E18-2, 299-E18-3, and 299-E8-14), chloride (299-E18-4), unfiltered chromium in all four wells, filtered chromium in one duplicate sample (299-E18-3),and pH (299-E18-3). Upgradient well 299-E18-1 continued to show specific conductivity, sodium, and sulfate at levels exceeding the tolerance intervals calculated from the 6 background wells. Uranium was requested again and was back to levels comparable to earlier results. Therefore the higher value reported in the third semiannual sample is considered to be anomalous.

B-6f. Comparison of Soil and Groundwater Analyses

To assess whether contaminants from the 2101-M Pond have entered the groundwater, soil analyses (Section B-5) and groundwater analyses were compared. Many of the metals that may have been discharged to the 2101-M Pond are indigenous to Hanford Site sediments and soils and may occur naturally in the groundwater. The mere presence of such elements in the groundwater is, thus, no indication that groundwater quality beneath the 2101-M Pond has been affected by discharges to the pond. Furthermore, most metals sorb or precipitate in Hanford Site soils and, thus, are not very mobile (see EP toxicity results and discussion in Section B-5).

For example, copper and chromium are found in Hanford Site soils as well as in the 2101-M Pond soil (Section B-5). Copper was discharged to the pond from dissolution of pipes within the 2101-M Building HVAC system as well as certain copper compounds that could have been disposed of down sink drains in the BWIP Laboratory. Dissolved copper from piping in the facility and the HVAC is the most likely source. These discharges may account for elevated values of copper in the 2101-M soil above those in background soils. However, values of copper in groundwater are well below values for copper in both background soils and the 2101-M Pond sediments. Concentrations of copper in groundwater (filtered and unfiltered analyses) are well below SMCLs for drinking water. The relative immobility of copper in sediments of the 2101-M Pond also is shown by the decline in concentrations of copper with depth in the upper 12 ft of pond sediments. An EP toxicity test was performed on copper-containing soil samples from the 2101-M Pond, and it was found that copper did not readily leach from the sample. Copper values from ICP analyses of soil samples far exceeded the copper that resulted from the EP toxicity test. Thus, little copper is likely to be leached from the soil and transported to groundwater.

Chromium may have been discharged to the pond from the BWIP Laboratory. Values for chromium are approximately the same in the 2101-M sediments and in background soils. Chromium is found in particulate form in groundwater as indicated by the difference in values between unfiltered and filtered

analyses. As discussed earlier, chromium is thought to be related to well construction, and is probably not a result of any discharges to the pond.

Barium, a DW that was discharged to the 2101-M Pond, is attenuated rapidly with depth in 2101-M Pond sediments, similar to copper. Barium also is present in background soils at concentrations approximating those in most samples of 2101-M Pond sediments. Barium is present in ground water in presumed upgradient as well as downgradient wells, but in concentrations substantially lower (three orders of magnitude) than those in background soils and sediments of the 2101-M Pond and well below primary DWS. The EP toxicity tests were performed for barium on several samples from the 2101-M Pond, and it was found that barium was unlikely to leach out of the soil.

Not all metals form immobile solutes. Selenium, which was used in small quantities in dilute solution for waste package studies in the BWIP Laboratory, generally does not sorb well and is quite soluble in some soil systems. In calcareous soil systems such as at the Hanford Site, it is likely sorbed on the surface of calcium carbonate (Fujii et al. 1988). Selenium was below detection limits in all soil samples taken from the 2101-M Pond and from both the 'wet' and 'dry' background sample sites (Section B-5). Samples of vadose zone sediments were taken at selected intervals in the wells and were analyzed for metals using either XRF or ICP. One sample from a depth of 194 ft in well 299-E18-3 contained 1.14 parts per million selenium by XRF. All others were less than the detection limit of 1 part per million. Selenium values found in groundwater are at or near the detection limit of 5 parts per billion.

Volumes of liquid discharged to the 2101-M Pond have been estimated [Section B-3a(3)] at approximately 0.8 to about 1.5 Mgal/yr for 1982 to 1988. Liquid discharges may provide a driving force to transport soluble, unsorbed contaminants from the surface and near-surface sediments to groundwater. For the BWIP Laboratory, these volumes are significant only during and after the period of laboratory operation; i.e., the period from about 1981 to 1985 when contaminants may have been discharged down sink drains and up to the present. After 1985, administrative controls were imposed to restrict the nature of liquids poured down sink drains in the laboratory. Since 1953, when the 2101-M facility opened, the only other known discharge to the 2101-M Pond was water from the HVAC system and possibly some run-off from paved parking areas. This liquid effluent may have contained dilute quantities of copper dissolved by flow through copper pipes in the facility and HVAC units. Recent measurements of the waste stream discharged to the 2101-M Pond indicate copper concentrations of up to 530 parts per billion (Table B-2).

Analyses of filtered samples suggest that the groundwater beneath the 2101-M Pond meets DWS. The groundwater beneath 2101-M Pond is not a source of drinking water and is unlikely to be so in the immediate future. Furthermore, considerably more dilution will occur before groundwater beneath the 2101-M Pond reaches the Columbia River, more than 7 mi away. Drinking water supplies are extracted by communities along the Columbia River downstream from the Hanford Site.

B-6g. Quality Assurance/Quality Control

Quality assurance procedures for the collection and analyses of groundwater samples are addressed in the Interim Status Ground-Water Monitoring Plan (Chamness et al. 1989). This section discusses the results of a review of the QA and QC for groundwater samples collected in August, September, and October 1988 at 2101-M Pond. The groundwater samples were analyzed using the 2nd edition of SW-846 (EPA 1982b) as guidance.

B-6g(1). Quality Assurance Review of Inorganic Analyses. Thirteen water samples were collected between August 16 and November 13, 1988 for analysis of inorganics by U.S. Testing. Four samples were collected for the first quarter on August 16. Four more samples were collected on September 23 and 28 as a check on the metals analyses. Five samples were collected on November 9, 10, and 22, with the four samples collected on November 9 and 10 being the second quarter samples. One of the wells was sampled on November 22 for another project. Inorganics discussed below include ICP metals, mercury, arsenic, selenium, lead, thallium, cyanide, anions, sulfide, total carbon, coliform bacteria, and radionuclides. These were all analyzed following SW-846 procedures (EPA 1982b), other EPA procedures (EPA 1984b; Kreiger and Whittaker 1980; Johns 1975), methods given in ASTM (1986) and APHA (1985), and/or modifications of these.

The following comments refer to the laboratory performance in meeting the QC specifications for each of the procedures in SW-846, 2nd edition (EPA 1982b).

1. Holding Times

   All holding times were within QC limits.

2. Instrument Detection Limits

   Detection limits provided by U.S. Testing were appropriate for the methods used.

3. Blanks

   The concentrations of analytes in the blanks were all below detection limits. All of the inorganic samples were seen with blanks.

4. Duplicate Analyses

   Duplicates have been run for all of the analytes. However, there is no duplicate for anions on November 22. Either no analysis was performed or the information was not provided.

5. Matrix Spike Sample Analysis

All appropriate inorganic samples were run with matrix spike samples and duplicate matrix spikes, all with acceptable recovery percentages.

6. Overall Sample Analysis

The data are acceptable for the following reasons.

- EPA methods were used for analysis.
- Percent spike recoveries were within QC limits.
- Control samples were used for accuracy checks.
- The sample matrices were similar.

B-6g(2). Quality Assurance Review of Organic Analyses. Thirteen groundwater samples were collected between August and November 1988 for analysis of organics by U.S. Testing, Richland, Washington. On August 16, 1988, samples for pesticides, herbicides, and phenol were collected for compliance with 40 CFR 265. On November 9 and 10, 1988, samples were collected for the three groups above as well as for volatile organic compounds, and ABNs. On November 23, all four wells were sampled again for VOCs only. For this discussion, organic analyses include pesticides, herbicides, phenol, TOX, TOC, volatile organic constituents, ABNs, citrus red, and PCBs. Procedures used were from the 2nd edition of SW-846, methods given in ASTM (1986) and APHA (1985), or modifications of these.

The following comments refer to the laboratory performance in meeting the QC specifications for each of the procedures in SW-846, 2nd edition.

1. Holding Times

All holding times for organics were within the QC limits.

2. Detection Limits

All detection limits were equal to or lower than drinking water (or other proposed EPA) standards except:

	EPA[a] (ppb)	U.S. Testing[b] (ppb)
1,1-dichloroethylene	7	10
Vinyl chloride	2	10
1,2-dichloroethane	5	10
1,2-dichloropropane	6[c]	10
Ethylbenzene	680[c]	
Styrene	140[c]	

[a]U.S. Environmental Protection Agency.
[b]U.S. Testing Company, Inc.
[c]Proposed standard.

Changes in procedures at the beginning of calendar year 1989 are such that the U.S. Testing detection limits are now equal to or less than the EPA standards for all but 1,1-dichloroethylene and vinyl chloride. U.S. Testing now has a detection limit of 5 parts per million for ethylbenzene and styrene.

3. Blanks

The concentrations of ABNs and pesticides in the method blanks were all below the EPA method detection limits. For the VOCs, acetone was detected at 18 parts per billion in the method blank run on November 9, 1988, which is above the method detection limit of 10 parts per billion. Another set of VOA samples were collected from all four wells and analyzed by both PNL and U.S. Testing laboratories, and the method blanks were all below the MDL. This is within the limits for acetone in method blanks specified in the EPA's Certified Laboratory Procedures.

4. Duplicates

Duplicates were run for most of the organics analyzed. The possible exceptions were: herbicides in August and both November 9 and 10 and November 22; phenols on November 22; ABNs on November 9 and 10; and citrus red and PCBs. Either these analyses did not have duplicates run, or the information has not been provided.

5. Surrogate Recoveries

Surrogate recoveries were all within the EPA limits, which are ± 3 standard deviations (Appendix E-1).

6. Matrix Spike Samples Analysis

Percent matrix spike and duplicate matrix spike recoveries were within the EPA limits. Matrix spikes were performed on all organic samples with the exception of citrus red and some semivolatile compounds analyzed by direct aqueous injection on November 9/10. Matrix spikes are not performed on citrus red samples because of difficulties with their insolubility. Either spikes were not performed for the semivolatiles or the data were not provided (Appendix E-1).

7. Overall Sample Analysis

The data are acceptable for the following reasons.

- EPA-approved methods were used for analysis.
- Percent spike recoveries were within QC limits.
- Control samples were used for accuracy checks.
- The sample matrices were similar.

B-6h. Groundwater Support of Closure Option

Available data from analyses of metals suggest that the constituents in filtered analyses of the groundwater beneath the 2101-M Pond do not exceed the DWS or SMCL. Constituents above DWS and SMCL in unfiltered analyses are assumed to result from turbidity arising during well purging. If these results are confirmed by continuing sampling and analyses of groundwater beneath the facility, the 2101-M Pond appears not to be a source of groundwater contamination. Nothing has been discovered to date that would appear to warrant closure of the 2101-M Pond in any manner but as a clean-closed facility. In summary, clean closure remains an option for the 2101-M Pond.

B-7. SCHEDULE FOR CLOSURE

In accordance with WAC 173-303-610(3)(a)(vii), this section outlines the schedule for final closure of the 2101-M Pond. Closure of the 2101-M Pond will begin upon notification of approval of the closure plan by Ecology. The activities to be completed during the final closure period will proceed according to the schedule presented in Figure B-21.

Phase II sampling was completed in June 1991, following Ecology's approval of the sampling plan.

The schedule in Figure B-21 is based on the removal of the entire pond area to a depth of 2 ft. This was done because the extent of remediation, if

any, was not fully known. Based on the results of the Phase II sampling, no remediation is necessary and closure will be accomplished within 180 days of approval of the closure plan.

Closure of the 2101-M Pond as a landfill will be implemented only in the event that clean closure is not achieved.

Other final closure activities include continued groundwater monitoring through certification of closure/postclosure care period and the process of certification of closure by an independent registered professional engineer.

B-8. AMENDMENT OF PLAN

The preliminary closure plan for the 2101-M Pond was submitted to Ecology in April 1987. Revision 0 of the plan was submitted in September 1989 to provide the site characterization information and closure strategy. Revision 1 of the plan was submitted in April 1991 to provide the Phase II sampling plan and the contingency plan. Revision 2 of the plan is being submitted to present the results of the Phase II sampling and conclusions.

In accordance with WAC 173-303-610(3)(b), the closure plan for the 2101-M Pond will be amended whenever changes in operating plans or facility design affect the closure plan; or if, when conducting final closure activities, unexpected events (e.g., groundwater contamination) require a modification of the closure plan. This plan may be amended any time before certification of final closure of the 2101-M Pond.

If an amendment to the approved closure plan is required, DOE-RL will submit a written request to Ecology to authorize a change to the approved plan. The written request will include a copy of the closure plan amendment for approval.

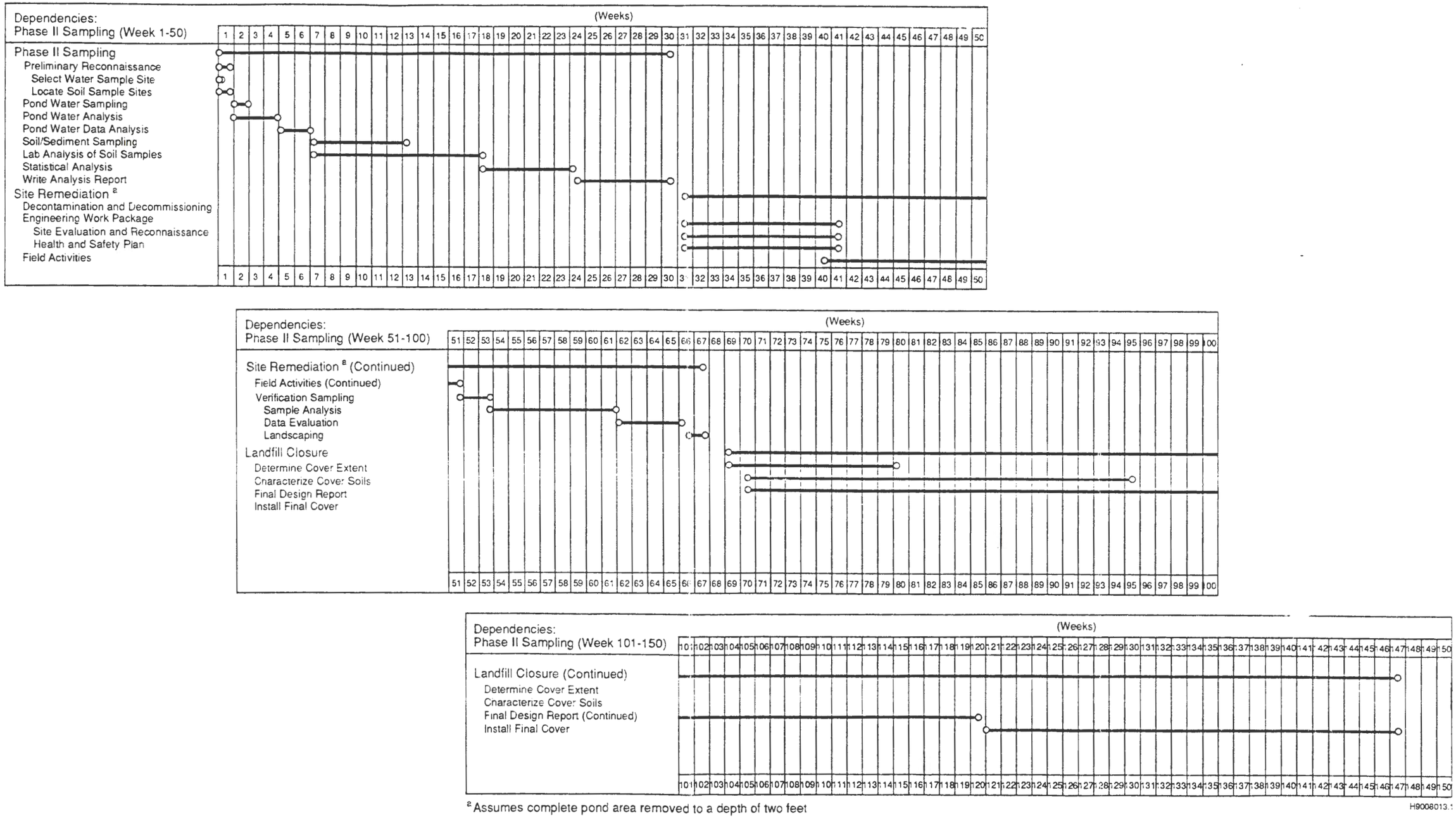

Figure B-21. Closure Schedule Bar Graph.

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C. CERTIFICATION OF CLOSURE

Within 60 days of closure of the 2101-M Pond, the DOE-RL will submit to the Benton County Auditor and the lead regulatory agency a certification of closure. The certification of closure will be signed by both the DOE-RL and a registered independent professional engineer, stating that the unit has been closed in accordance with the approved closure plan. The certification will be submitted by registered mail or an equivalent delivery service. Documentation supporting the independent registered professional engineer's certification will be supplied upon request of the regulatory authority. The DOE-RL and the independent professional engineer will certify with a document similar to Figure C-1.

Official copies of the closure plan will be located at the following office:

Office of Environmental Assurance,
Permits, and Policy
U.S. Department of Energy
Richland Operations Office
Federal Building
825 Jadwin Avenue
P.O. Box 550
Richland, Washington 99352.

If clean closure is not attained, the owner or operator will submit to the local zoning authority, or to the authority with jurisdiction over local land use, a survey plat indicating the location and dimensions of the 2101-M Pond. The EPA will be provided with a survey plat. The plat will show the facility location with respect to permanently surveyed benchmarks and will be prepared and certified by a professional land surveyor. The plat will also contain a note, prominently displayed, stating the owner's obligation to restrict disturbance of the surveyed area.

CLOSURE CERTIFICATION
FOR

_____

Hanford Site
U.S. Department of Energy, Richland Operations Office

We, the undersigned, hereby certify that all _____ _____ closure activities were performed in accordance with the specifications in the approved closure plan.

_____ _____
Owner/Operator Signature DOE-RL Representative Date
(Typed Name)

_____ P.E.#_____ State___ _____
Signature Independent Registered Professional Engineer Date
(Typed Name, Professional Engineer license number, state of issuance, and date of signature)

1 Figure C-1. Closure Certification for the 2101-M Pond.

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APPENDIX A-1.

PART A PERMIT APPLICATION

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FORM 3

DANGEROUS WASTE PERMIT APPLICATION

I. EPA/STATE I.D. NUMBER: W A 7 8 9 0 0 0 8 9 6 7

FOR OFFICIAL USE ONLY

APPLICATION APPROVED	DATE RECEIVED (mo., day, & yr.)	COMMENTS

II. FIRST OR REVISED APPLICATION

Place an "X" in the appropriate box in A or B below (mark one box only) to indicate whether this is the first application you are submitting for your facility or a revised application. If this is your first application and you already know your facility's EPA/STATE I.D. Number, or if this is a revised application, enter your facility's EPA/STATE I.D. Number in Section I above.

A. FIRST APPLICATION (*place an "X" below and provide the appropriate date*)

☐ 1. EXISTING FACILITY (*See instructions for definition of "existing" facility. Complete item below.*)

MO. 0 3 DAY YR 5 3 — FOR EXISTING FACILITIES, PROVIDE THE DATE (*mo., day, & yr.*) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED (*see the boxes to the left*)

☐ 2. NEW FACILITY (*Complete item below.*)

MO. DAY YR — FOR NEW FACILITIES, PROVIDE THE DATE (*mo., day, & yr.*) OPERATION BEGAN OR IS EXPECTED TO BEGIN

B. REVISED APPLICATION (*place an "X" below and complete Section I above*)

☒ 1. FACILITY HAS AN INTERIM STATUS PERMIT

☐ 2. FACILITY HAS A FINAL PERMIT

III. PROCESSES — CODES AND DESIGN CAPACITIES

A. PROCESS CODE — Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes. If more lines are needed, enter the code(s) in the space provided. If a process will be used that is not included in the list of codes below, then describe the process (*including its design capacity*) in the space provided on the (*Section III-C*).

B. PROCESS DESIGN CAPACITY — For each code entered in column A enter the capacity of the process.
1. AMOUNT — Enter the amount.
2. UNIT OF MEASURE — For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Storage:		
CONTAINER (barrel, drum, etc.)	S01	GALLONS OR LITERS
TANK	S02	GALLONS OR LITERS
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS
Disposal:		
INJECTION WELL	D80	GALLONS OR LITERS
LANDFILL	D81	ACRE-FEET (*The volume that would cover one acre to a depth of one foot*) OR HECTARE-METER
LAND APPLICATION	D82	*ACRES OR HECTARES*
OCEAN DISPOSAL	D83	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	D84	GALLONS OR LITERS

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Treatment:		
TANK	T01	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR; GALLONS PER HOUR OR LITERS PER HOUR
OTHER (Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or incinerators. Describe the processes in the space provided; Section III-C.)	T04	GALLONS PER DAY OR LITERS PER DAY

UNIT OF MEASURE	UNIT OF MEASURE CODE
GALLONS	G
LITERS	L
CUBIC YARDS	Y
CUBIC METERS	C
GALLONS PER DAY	U
LITERS PER DAY	V
TONS PER HOUR	D
METRIC TONS PER HOUR	W
GALLONS PER HOUR	E
LITERS PER HOUR	H
ACRE-FEET	A
HECTARE-METER	F
ACRES	B
HECTARES	Q

EXAMPLE FOR COMPLETING SECTION III (*shown in line numbers X-1 and X-2 below*): *A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons.* The facility also has an incinerator that can burn up to 20 gallons per hour.

LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY	LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY
X-1	S 0 2	600	G		5				
X-2	T 0 3	20	E		6				
1	D 8 4	18,750	G		7				
2					8				
3					9				
4					10				

Continued from the front.

III. PROCESSES (continued)

C. SPACE FOR ADDITIONAL PROCESS CODES OR FOR DESCRIBING OTHER PROCESS (code "T04"). FOR EACH PROCESS ENTERED HERE INCLUDE DESIGN CAPACITY.

D84
The 2101-M Pond receives nonregulated process and cooling wastes from the 2101-M Laboratory, and, historically received chemical wastes which may have been designated dangerous wastes. Disposal of the wastes occurred by percolation of the wastes through the soil column, using the precipitation, filtration, and ion exchange which occurred in the soil to reduce the toxicity and corrosivity of the wastes. The 2101-M Pond receives approximately 18,750 gallons per day of waste waters, of which the historic discharge of dangerous wastes constituted approximately 6% of the total. This pond has not received dangerous wastes since July 1985 and will be closed under interim status. The process design capacity reflects the maximum volume of water discharged to the facility on a daily basis rather than the physical capacity of the unit.

IV. DESCRIPTION OF DANGEROUS WASTES

A. **DANGEROUS WASTE NUMBER** — Enter the four digit number from Chapter 173-303 WAC for each listed dangerous waste you will handle. If you handle dangerous wastes which are not listed in Chapter 173-303 WAC, enter the four digit number(s) that describes the characteristics and/or the toxic contaminants of those dangerous wastes.

B. **ESTIMATED ANNUAL QUANTITY** — For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual ba For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non—listed waste(s) that will be handled wi possess that characteristic or contaminant.

C. **UNIT OF MEASURE** — For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate den sity or specific gravity of the waste.

D. **PROCESSES**

1. **PROCESS CODES:**

For listed dangerous waste: For each listed dangerous waste entered in column A select the code(s) from the list of process codes contained in Section III to indicate how th waste will be stored, treated, and/or disposed of at the facility.

For non—listed dangerous wastes: For each characteristic or toxic contaminant entered in Column A, select the code(s) from the list of process codes contained in Section II to indicate all the processes that will be used to store, treat, and/or dispose of all the non—listed dangerous wastes that possess that characteristic or toxic contaminant.

Note: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter "000" in the extreme right box of Ite IV-D(1); and (3) Enter in the space provided on page 4, the line number and the additional code(s).

2. **PROCESS DESCRIPTION:** If a code is not listed for a process that will be used, describe the process in the space provided on the form.

NOTE: DANGEROUS WASTES DESCRIBED BY MORE THAN ONE DANGEROUS WASTE NUMBER — Dangerous wastes that can be described by more than one Wast Number shall be described on the form as follows:

1. Select one of the Dangerous Waste Numbers and enter it in column A. On the same line complete columns B, C, and D by estimating the total annual quantity of th waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
2. In column A of the next line enter the other Dangerous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above and make no other entries on that line.
3. Repeat step 2 for each other Dangerous Waste Number that can be used to describe the dangerous waste.

EXAMPLE FOR COMPLETING SECTION IV *(shown in line numbers X-1, X-2, X-3, and X-4 below)* — A facility will treat and dispose of an estimated 900 pounds per year of chrome sha ings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non—listed wastes. Two wastes are corrosive only and there will be an estimate 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator an disposal will be in a landfill.

LINE NO.	A. DANGEROUS WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES 1. PROCESS CODES (enter)				D. PROCESSES 2. PROCESS DESCRIPTION (If a code is not entered in D(1))
X-1	K 0 5 4	900	P	T 0 3	D 8 0			
X-2	D 0 0 2	400	P	T 0 3	D 8 0			
X-3	D 0 0 1	100	P	T 0 3	D 8 0			
								included with above

Continued from page 2.

NOTE: Photocopy this page before completing if you have more than 26 wastes to list.

I.D. NUMBER (enter from page 1): WA 7 8 9 0 0 0 8 9 6 7

IV. DESCRIPTION OF DANGEROUS WASTES (continued)

LINE	A. DANGEROUS WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES 1. PROCESS CODES (enter)				D. PROCESSES 2. PROCESS DESCRIPTION (If a code is not entered in D(1))
1	D005	5,500	P	D84				Percolation
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
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Continued from the front.

IV. DESCRIPTION OF DANGEROUS WASTES *(continued)*

E USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM SECTION D(1) ON PAGE 3.

The 2101-M Pond received, for a two-year period, a discharge of a solution containing barium chloride. This waste exhibited the dangerous waste characteristic of EP toxicity due to the barium. A total of approximately 1,200 gallons of this waste was discharged to the 2101-M Pond.

V. FACILITY DRAWING

All existing facilities must include in the space provided on page 5 a scale drawing of the facility *(see instructions for more detail)*.

VI. PHOTOGRAPHS

All existing facilities must include photographs *(aerial or ground—level)* that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas *(see instructions for more detail)*.

VII. FACILITY GEOGRAPHIC LOCATION *This information appears on the attached drawing and photograph

LATITUDE *(degrees, minutes, & seconds)*	LONGITUDE *(degrees, minutes, & seconds)*

VIII. FACILITY OWNER

[X] A. If the facility owner is also the facility operator as listed in Section VII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.

B. If the facility owner is not the facility operator as listed in Section VII on Form 1, complete the following items:

1. NAME OF FACILITY'S LEGAL OWNER	2. PHONE NO *(area code & no.)*

3. STREET OR P.O. BOX	4. CITY OR TOWN	5. ST.	6. ZIP CODE

IX. OWNER CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

NAME *(print or type)*	SIGNATURE	DATE SIGNED
Michael J. Lawrence Manager, Richland Operations United States Department of Energy	Michael J. Lawrence	November 16, 1987

X. OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

NAME *(print or type)*	SIGNATURE	DATE SIGNED
SEE ATTACHMENT		

9513319.1628

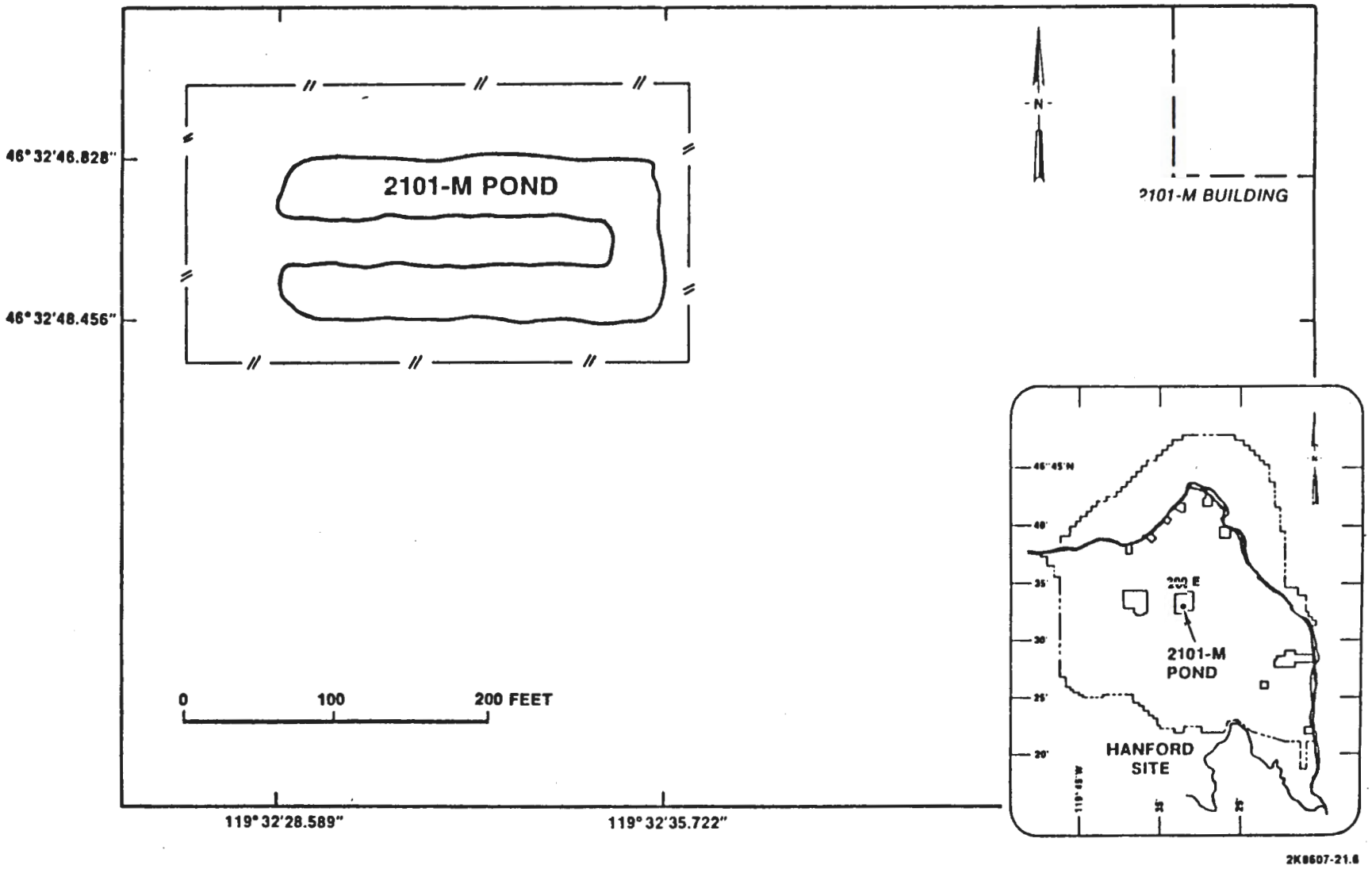
X. OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Michael J. Lawrence — 11-16-87
Michael J. Lawrence
Manager, Richland Operations
United States Department of Energy
Date

W.M. Jacobi — 11/16/87
William M. Jacobi
President
Westinghouse Hanford Company
Date

2101-M POND


46°32'46.828"
46°32'48.456"
2101-M POND
N
2101-M BUILDING
0
100
200 FEET
119°32'28.589"
119°32'35.722"
2101-M
POND
HANFORD
SITE
2K8607-21.6

9513319.1629

7 of 7

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2101-M POND

46°32'46.828"
46°32'48.456"
119°32'28.589"
119°32'35.722"

8505779-5CN

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APPENDIX B-1.

LABORATORY INVENTORY

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APPENDIX B-1

LABORATORY INVENTORY

This appendix presents the inventory of chemicals that the BWIP Laboratory might have had on hand during its active life. The BWIP Laboratory inventory was compared to the list of dangerous constituents presented in Appendix IX of 40 CFR 261. An "X" has been placed next to the chemical name if it appears on the Appendix IX list.

Chemical/Reagent/Chemical Product	Appendix IX
Acetic acid	
Acetone	X
Acetone, em grade	X
Acetonitride	
Acetonitrile (UV grade)	X
Acid, ammonium salt	
Acidic surface cleaner	
Acrylic spray coating	
Actyl alcohol	
Alkaline surface cleaner	
Deagglomerated alpha alumina	
Gamma alumince	
Aluminum orthophosphate	
Aluminum hydroxide gel	
Aluminum powder	
Aluminum sulfate	
Ammonia-based cleaner	
Ammonium acetate	
Ammonium chloride	
Ammonium hydroxide	
Ammonium molybdate	
Ammonium nitrate	
Ammonium sulfate	
Ammonium thiocyanate	X
Amyl acetate	
Anion exchange resin	
Antipyrine	
Arsenic (III) oxide	X
Arsenic (V) oxide	X
Arsenic (V) conc. 1,000 ppm	X
Arsenic (V) conc. 20 ppm	X
Ascorbic acid	
L-Ascorbic acid	
Barium chloride, dihydrate	X
Barium diphenylamine sulfonate	X
Bentonite	
Benzene	X
Benzoic acid	
Aminobenzoic acid	
P-Aminobenzoic acid	
3-(Trifluoromethyl) benzoic acid	
Beryllium nitrate	
Boric acid	
Boron (reagent)	
Bromcresol green, 0.1%	
Bromcresol purple	
Brucine sulfate	
Cadmium acetate, dihydrate	X

Chemical/Reagent/Chemical Product	Appendix IX
Cadium nitrate	X
Cadmium sulfate, crystal	X
Calcium (reagent)	
Calcium carbonate	
Calcium chloride, dihydrate	
Calcium hydroxide	
Calcium sulfate, anhydrous	
Carbon tetrachloride	
Cation exchange resin	
Cement	
Acrylic cement (chlorinated solvents)	
Cesium chloride	
Cesium iodide	
Chloride (reagent)	
Chloroform HPLC grade	X
Chromic acid	X
Chromium nitrate	X
Cobalt metal (powder)	
Cobalt oxide	
Cobalt (III) oxide	
Cobalt nitrate	
Cobaltous chloride	
Copper II chloride	
Copper II nitrate	
Copper metal (powder)	
Cupferron	
Cupric chloride, dehydrate	
Deuterium oxide	
Diallyl methalate (mounting compound)	
trans-1,2-diaminocyclohexane tetraacetic acid	
2',7' - Dichlorofluorescein	
2.6 Dichloro-indophenol sodium salt	
Dimethylaniline	
N,N-Dimethylformamide	
N,N-Dimethyl-P-phenylenediamine	
1,4-Dioxane	X
Diphenylamine	
S-diphenyl-carbazide	
2,2-Dipyridyl sodium salt	
Disodium ethylenediamine tetraacetate	
dl-mandelic acid 98%	
Epoxy accelerator B BDMA (N-Benzyl dimethylamine)	
Epoxy plasticizer DBP (dibutyl phthalate)	
Epoxy hardner DDSA (dodecenylsuccinic anhydride)	

Chemical/Reagent/Chemical Product	Appendix IX
Epoxy resins (contains amines)	
Ethanol (ethyl alcohol)	
Ethylene alcohol	
Ethylene glycol	
Ferric ammonium sulfate, 12-hydrate	
Ferric chloride	
Ferric nitrate, 9-hydrate	
Ferrous ammonium sulfate, 6-hydrate	
Ferrozine (iron reagent)	
Floride (reagent)	
Fluorescein, water soluble	
Formaldehyde	X
Formazin (4,000 NTU Turbidity std)	
Glycerin	
Colloidal graphite	
H_4EDTA	
Hexanol	
1-Hexanol	
Hydraulic-jack oil	
Hydrochloric acid	
Hydrogen peroxide, 30%	
Hydrofluoric acid	X
Hydrophobic silica	
Hydrazine sulfate	X
Hydriodic acid (HI)	
Hydroxylamine hydrochloride crystal reagent	
Indigo carmine	
Iodine	
Iodine oxide	
Iron (reagent)	
Iron metal (powder)	
Iron oxide (Fe_2O_3)	
Iron sulfate	
Isopropyl alcohol	
Isopropyl ether	
Kryon	
Lanthanum nitrate, hexahydrate	
Lead acetate	X
Lead acetate, trihydrate	X
Lead nitrate	X
Linseed oil	
Lithium (reagent)	
Lithium bromide purified	
Lithium carbonate	
Lithium nitrate	
Lithium hydroxide, monohydrate	
Lithium metaborate, anhydrous	
Lithium tetraborate	

Chemical/Reagent/Chemical Product	Appendix IX
Magnesium (reagent)	
Magnesium chloride	
Magnesium nitrate, 6-hydrate	
Manganese oxide	
Manganous sulfate	
MEK (methyl ethyl ketone) (nitrite rubber)	X
Mercuric chloride	X
Mercuric iodide	X
Mercuric oxide	X
Methanol	
Methyl alcohol	
Methyl alcohol, anhydrous	
Methyl-2-cyanoacrylate (adhesive/catalyst)	
Methyl orange solution 0.1%	
Methyl red hydrochloride crystal	
Methylene blue	
Mineral oil	
Naphthol sulfonic acid	
Nickelous nitrate, hexahydrate	X
Nickel metal (powder)	X
Nickel oxide	X
Niobium chloride	
Nitric acid	
Palladium chloride	
Para-amino	
Pentafluorobenzoic acid	
Petroleum distillates (cleaning polish, glass cleaner, lubricant, oil)	
Phenanthroline	
Phenol	X
Phenolphthalein indicator	X
Phenolic resin powder (mounting compound)	X
Epoxy - phenolic adhesive	X
Phenylazoformic acid 2-phenylhydrazide	
Phosphoric acid	
Phosphorous acid	
Pipe tape (Teflon* spray)	
Polishing agents	
Polyurethane (xylene)	
Potassium carbonate	
Potassium chloride (crystal)	
Potassium dichromate	X
Potassium dihydrogen orthophosphate	
Potassium ferricyanide	X
Potassium ferrocyanide, trihydrate	X
Potassium fluoride	

Chemical/Reagent/Chemical Product	Appendix IX
Potassium hydrogen phthalate	
Potassium hydroxide	
Potassium iodate	
Potassium iodide	
Potassium nitrate	
Potassium nitrite	
Potassium permanganate	
Potassium persulfate	
Potassium phosphate, monobasic	
Potassium pyrosulfate	
Potassium sulfate	
Potassium thiocyanate	X
2-Amino-2-hydroxymethyl-1,3-propanediol	
Pyridine	X
1-Pyrrolidinecarbodithioic acid ammonium salt	
Rhodamine B	
Samarium chloride	
Selenium (IV) oxide	X
Selenous acid	X
Silica colloidal	
Silicic acid, N-hydrate	
Silicon carbide powder	
Silicon lubricant	
Silicon oil	
Silicon oxide	
Silicon rubber	
Silicon rubber sealant	
Silver chloride	X
Silver diethyldithiocarbamate	X
Silver (II) oxide	X
Silver nitrate	X
Sodium acetate, anhydrous	
Sodium acetate, trihydrate	
Sodium arsenate	X
Sodium arsenite	X
Sodium azide	
Sodium bicarbonate	
Sodium bisulfite	
Sodium borate	
Sodium bromide	
Sodium meta-bisulfite	
Sodium carbonate, anhydrous	
Sodium citrate, dihydrate	
Sodium chloride	
Sodium diphenylamine sulfonate	
Sodium fluoride	
Sodium hydroxide	

Chemical/Reagent/Chemical Product	Appendix IX
Sodium hypochlorite	
Sodium hypophosphite	
Sodium iodide	
Sodium molybdate	
Sodium nitrate	
Sodium nitrite	
Sodium nitroprusside (cyanide compound)	X
Sodium oxalate	
Sodium phosphate, dibasic	
Sodium selenate	X
Sodium selenite	X
Sodium meta-silicate	
Sodium sulfate anhydrous (reagent)	
Sodium sulfide 9-hydrate	
Sodium sulfide anhydrous	
Sodium sulfite	
Sodium tartrate, dihydrate	
Sodium tetrahydroborate	
Sodium thiosulfate	
Sodium thiosulfate, pentahydrate	
Soluble oil	
Stannous chloride, dihydrate	
Starch, soluble	
Strontium (reagent)	
Strontium carbonate	
Strontium chloride	
Strontium nitrate	
Structural adhesive (contains amines and epoxy resins)	
Sucrose (ultrex)	
Sulfanilic acid	
Sulfate (reagent)	
Sulfer capping compound	
Sulfuric acid	
Tetraethylorthosilicate	
Thallium (I) salt	X
Tin, mossy	
Titanium (III) chloride	
Titanium chloride ($TiCl_4$)	
Toluene (acrylic)	
Toluene	X
Trichloroethylene	X
1-1-1 Trichloroethane	X
1,1,2-Trichloro-trifluoroethane	
Zinc (reagent)	
Zinc acetate, dihydrate	
Zinc dust	
Zinc granular, 20 mesh	

Chemical/Reagent/Chemical Product	Appendix IX
Zinc nitrate	
Zinc sulfate	
Zirconium tetrachloride	
Additive Cooling Fluid	
Best-Test* Paper Cement	
Bestine* Solvent and Thinner	
Buehler* Epoxide Hardner	
Buehler* Epoxide Resin	
Buehler* Polishing Oil	
Buehler* Release Agent	
200 Catalyst*	
Weld-on 3 Solvent Cement*	
Chem-Grip A*	
Chem-Grip B*	
Chemgrip Treating Agent*	
Collodian* Flexible (topical protectant)	
EPO - Kwick Hardner	
EPO - Kwick Resin	
Epomet Molding Compound	
Epoxy Casting Resin A* (Araldite 6005)	
Epoxy Solvent 537*	
Eriochrome Black T Solution*	
Fiberlay Epoxy*	
550 Fluid (contains benzene)*	
Gacoflex Thinner*	
Incal Oil*	
Iso Cut Fluid*	
Leco* Microid Diamond Extender	
Low-Ba Vacuum Oil	
LPS 1* Greaseless Lubricant	
Magomet Polishing Compound	
M-Bond 200	
Metacoat* Protective Lacquer	
Mitadi Fluid Diamond Paste Extender	
Monometer* Fluid	
Multitherm* PG-1 Oil	
Never-Seez*	
Nitri Ver III*	
PAR Oil*	
Petropoxy 154 Curing Agent	
Petropoxy 154 Resin	
PG-1 Oil*	
711 Plastic Pipe Cement*	
Primer P-70* for PVC	
E RTV* Moldmaking Rubber	
RTV E* Catalist	
RTV* 630 A (Silicone Rubber Compound)	
RTV* 630 B (Curing Agent)	
RTV* Silicone Rubber Sealant	

Chemical/Reagent/Chemical Product	Appendix IX
Silicones RTV* 31 Silicone Rubber Compound	
Silicones RTV* 60 Silicone Rubber Compound	
Silicone Mold Release	
Thermoplastic Cement	
Titan* Casting Resin	
Titan* Hardener	
Transoptic Powder (mounting compound)	
Triton X-100*	
Ultramet* Cleaning Solutions	

*Best-Test is a trademark of Union Rubber, Inc.
Bestine is a trademark of Union Rubber, Inc.
Buehler is a trademark of Buehler, Limited.
200 Catalyst is a trademark of M-Line Accessories.
Weld-on 3 Solvent Cement is a trademark of Industrial Polychemical Services.
Chem-Grip is a trademark of Chemplast, Inc.
Chemgrip Treating Agent is a trademark of Chemplast, Inc.
Collodian is a trademark of J.T. Baker.
Epoxy Casting Resin A is a trademark of R.P. Cargille Labs, Inc.
Epoxy Solvent 537 is a trademark of R.P. Cargille Labs, Inc.
Eriochrome Black T Solution is a trademark of Ciba-Geigy Corporation.
Fiberlay Epoxy is a trademark of Chemical Processing Company.
550 Fluid is a trademark of Dow Corning.
Gacoflex is a trademark of Gaco Western, Inc.
Incal Oil is a trademark of Conoco.
Iso Cut Fluid is a trademark of Buehler, Limited.
Leco is a trademark of Leco Corporation.
LPS 1 is a trademark of Holt Lloyd Company.
Metacoat is a trademark of Buehler, Limited.
Monometer is a trademark of Humbolt Test Equipment.
Multitherm is a trademark of Multitherm Corporation.
Never-Seez is a trademark of Never-Seez Corporation.
Nitri Ver III is a trademark of Hach Company.
PAR Oil is a trademark of Conoco.
PG-1 Oil is a trademark of Multitherm Corporation.
711 Plastic Pipe Cement is a trademark of Industrial Polychemical Services.
Primer P-70 is a trademark of Industrial Polychemical Services.
RTV is a trademark of General Electric Company.
Teflon is a trademark of DuPont.
Titan is a trademark of California Titan Products, Inc.
Triton X-100 is a trademark of Spectrum Chemical Manufacturing Corporation.
Ultramet is a trademark of Ultra-met Manufacturing Company.

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APPENDIX B-2.

SAMPLE BWIP ADMINISTRATIVE PROCEDURE FOR HANDLING HAZARDOUS WASTE

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TITLE HAZARDOUS WASTE HANDLING, STORAGE, AND SHIPPING IN THE BWIP LABORATORY GROUP

J. R. Smith	10-23-87	W. F. Davis	10/23/87
Author	Date	Project Assurance Engineer	Date
P. D. Mix	10/23/87	A. F. Noonan	10/27/87
Manager, Laboratory Support Section	Date	Manager, BWIP Laboratory Group	Date

1.0 PURPOSE

This desk instruction (DI) describes the practices that shall be followed in the generation, identification, storage, and shipment of chemical wastes in the Basalt Waste Isolation Project (BWIP) laboratory in the 2101-M building. It will bring the facility into compliance with the Washington State Department of Ecology Regulations (Washington Administration Code [WAC] 173-303) and Department of Transportation (DOT) Hazardous Material Regulations (49 CFR 171-179).

2.0 APPLICABILITY

The requirements outlined in this DI apply to all activities and personnel working in the BWIP laboratory in the 2101-M building.

3.0 DEFINITIONS

3.1 CHEMICAL WASTE

For the purpose of this DI, chemical waste is any hazardous substance as defined in WAC 173-303, "Dangerous Waste Regulations." A hazardous substance is any liquid, solid, gas, or sludge, including any material, substance, product commodity, or waste, regardless of quantity, that exhibits any of the physical, chemical, or biological properties described in WAC 173-303. This includes dangerous wastes, hazardous wastes, and extremely hazardous wastes.

NOTE: This desk instruction is essentially a complete rewrite, therefore, no revision bars are indicated in the right margin.

EXAMPLE

INFORMATION ONLY

3.2 CHEMICAL WASTE CONTAINER INVENTORY SHEET

A Chemical Waste Container Inventory Sheet (figure 1) is used to record the contents of a chemical waste container. An entry is made on the sheet for each waste added to the container. A separate sheet is maintained for each container.

3.3 CHEMICAL WASTE CONTAINER STICKER

A chemical waste container sticker (figure 2) is a sticker obtained from the hazardous chemical waste disposal (HCWD) coordinator. It is placed on all chemical disposal containers. The internal unique hazardous chemical waste container identification number (ID) is written on this sticker.

3.4 ENVIRONMENTAL PROTECTION AGENCY HAZARDOUS WASTE STICKER

An Environmental Protection Agency (EPA) hazardous waste stickers (figure 3) are markings required by law to be on all waste containers. These stickers are store stock items available from the HCWD coordinator. When the stickers are applied to a waste container, the "ACCUMULATION START DATE" line is completed by the HCWD coordinator. The lines on the sticker are completed using information provided by the Hazardous Waste Unit (HWU). The manifest number is written in the upper right corner. The unique shipping container number is written in the upper left corner.

3.5 HAZARDOUS CHEMICAL WASTE CONTAINER IDENTIFICATION NUMBER

A hazardous chemical waste container ID is a number assigned by the HCWD coordinator. This number provides unique identification of the container to which it is affixed. It is part of the traceability of waste containers required in a waste generating facility.

3.6 HAZARDOUS CHEMICAL WASTE DISPOSAL COORDINATOR

The HCWD coordinator is an individual, designated by the Manager, Solution and Solids Characterization Section, to be responsible for coordination of the activities outlined in this instruction.

3.7 WASTE GENERATOR

A waste generator is any individual who generates chemical waste.

EXAMPLE

INFORMATION ONLY

4.0 RESPONSIBILITIES

4.1 MANAGER, BASALT WASTE ISOLATION PROJECT LABORATORY GROUP

The Manager, BWIP Laboratory Group (BLG), is responsible for ensuring that the provisions of this DI are conveyed to all employes in the BLG who generate hazardous wastes.

4.2 MANAGER, SOLUTION AND SOLIDS CHARACTERIZATION SECTION

The Manager, Solution and Solids Characterization Section, is responsible for:

- reviewing test plans for hazardous waste potential
- appointing an HCWD coordinator for the BLG
- ensuring that training of the HCWD coordinator is current
- maintaining a list of response personnel for hazardous waste problem response
- conducting weekly inspection of hazardous waste storage and staging areas
- reviewing procurement documents to minimize waste generation.

4.3 HAZARDOUS CHEMICAL WASTE DISPOSAL COORDINATOR

The HCWD coordinator is responsible for assessing the wastes that may be generated prior to the start of any test in the BWIP laboratory. All requests for shipments of hazardous wastes are generated by the HCWD coordinator.

4.4 WASTE GENERATOR

The waste generator is responsible for contacting the HCWD coordinator prior to the start of any test that may produce hazardous waste. Similarly, the waste generator must notify the HCWD coordinator of any condition (i.e., spills or accidents) that may involve hazardous chemicals.

EXAMPLE

5.0 REQUIREMENTS

Materials designated as "Dangerous Waste" or "Extremely Hazardous Waste" by WAC 173-303 shall be retained for proper disposal. The waste generator will maintain the waste in a properly labeled and documented container in the generator's work area. When the waste container is filled or otherwise ready for disposal, the container and accompanying documentation are transferred to the HCWD staging area (2101-M: designated hood in room 216, designated hood in room 220, and the door 111 entry). The HCWD coordinator will arrange for the proper disposal of the waste. The HCWD coordinator and the alternate shall have completed the Hazardous Waste Shipment Certification Course 0055.

6.0 INSTRUCTION

1. Prior to the start of any test in the BWIP Laboratory, an assessment of the chemical wastes that may be generated shall be performed by the waste generator with the assistance of the HCWD coordinator.

2. The waste generator shall obtain a chemical waste container sticker (figure 2), an EPA hazardous waste sticker (figure 3), and a Chemical Waste Container Inventory Sheet (figure 1) from the HCWD coordinator (see Definitions, Appendix A) for each chemical waste to be produced.

3. The waste generator shall obtain a chemical waste disposal container. These are available from Westinghouse Hanford Company Stores or offsite vendors as applicable. All containers shall be DOT approved for the intended use (see Title 49 CFR, parts 170-179).

   Chemical waste disposal containers may be plastic, glass, or metal. Aqueous waste should be stored in plastic bottles. Glass bottles may be suitable for some organic wastes. Special containers may be required for flammable chemical wastes. The HCWD coordinator, upon request, will assist the waste generator in the selection of suitable containers for storage of chemical wastes prior to disposal.

4. The HCWD coordinator will assign a hazardous chemical waste container ID to each container. The ID shall be written on the chemical waste container sticker and on the Chemical Waste Container Inventory Sheet.

5. If enough information is available, the HCWD coordinator shall assign a DOT hazard class and a Washington State Department of Ecology waste code to the wastes to be accumulated. This information shall be written on the chemical waste container sticker (figure 2) and on the Chemical Waste Container Inventory Sheet (figure 1).

EXAMPLE

INFORMATION ONLY

6. The stickers (figures 2 and 3) shall be affixed to the chemical waste disposal container to receive the waste.

7. The HCWD coordinator enters the appropriate information on the Chemical Waste Container Identification Log Sheet (figure 4) in the first four columns.

8. The waste generator shall place the chemical waste disposal container in the laboratory where the wastes will be generated.

9. The waste generator shall maintain the Chemical Waste Container Inventory Sheet in close proximity to the chemical waste disposal container at all times.

10. When chemical wastes are generated, all hazardous chemical wastes shall be placed in chemical waste disposal containers.

    The transfer of wastes to containers shall be performed in a hood or in a well-ventilated area in the laboratory.

11. The waste generator shall make an entry on the Chemical Waste Container Inventory Sheet each time wastes are added to a container.

12. When the container is full, the waste generator shall contact the HCWD coordinator.

13. The HCWD coordinator shall move the chemical waste disposal container to the HCWD staging area.

    Staging areas are in designated hoods in rooms 208 and 216, and the BWIP Laboratory storage area.

14. The waste generator shall calculate the weight percent composition of the chemical wastes in the container. This information shall be entered on the Chemical Waste Container Inventory Sheet.

15. The Chemical Waste Container Inventory Sheet is then given to the HCWD coordinator.

16. The HCWD coordinator completes a Chemical Waste Disposal Request (figure 5) according to instructions given in the Hazardous Waste Shipment Certification Course 006S.

17. The Chemical Waste Disposal Request is sent to the HWU.

18. The personnel of the HWU prepare a chemical waste disposal analysis and send it to the HCWD coordinator.

EXAMPLE

TRAINING ONLY

19. The chemical waste disposal analysis provides instructions on the proper packaging for shipment, the proper labeling and marking, and gives the manifest number for shipment.

20. The HCWD coordinator prepares the waste for shipment according to the instructions.

21. The HCWD coordinator completes the hazardous waste sticker using information supplied by the HWU.

22. The HCWD coordinator requests an inspection by the HWU personnel.

23. Hazardous Waste Unit personnel conduct a preshipment inspection to verify compliance with packaging instructions. Properly completed Uniform Hazardous Waste Manifest(s) shall be delivered and initialed by the HWU representative upon satisfactory inspection.

24. The HCWD coordinator will arrange for transportation.

25. When the transporter arrives to pick up the wastes, the generator shall sign the manifest, obtain the transporter's signature, and retain the tissue "generator copy" of the manifest.

26. The HCWD coordinator shall verify that proper placards are displayed on the truck.

27. The original and remaining copies of the manifest must accompany the shipment.

28. When the shipment is complete, the HWU personnel will return the original copy of the manifest to the generator.

EXAMPLE

6.1 INSPECTIONS

The Manager, Solution and Solids Characterization Section, or his delegate, shall conduct a weekly inspection of the chemical waste inventory. Records of these inspections shall be maintained by the responsible section manager or his delegate.

The inspection shall be recorded on the Weekly Inspection Log (figure 6).

6.2 ACCIDENTAL RELEASE OF REGULATED CHEMICALS

If a regulated chemical is accidentally released into a laboratory drain, the HCWD coordinator or the alternate shall be notified immediately.

NOTE: The HCWD coordinator shall maintain records and report monthly all accidental releases of regulated chemicals to the environment using approved forms. If the quantity of material released exceeds regulatory limits, the HCWD coordinator shall complete a Comprehensive Environmental Response, Compensation and Liability Act/Washington Department of Ecology Hazardous Substance Release Report. Instructions for completion of such a report are given in a letter from Mr. J. C. Fulton, Manager, Process Engineering Department, on Chemical Sewer Management (65900-86-171).

7.0 RECORDS

The HCWD coordinator shall maintain the following records:

- Chemical Waste Container Inventory Sheets (figure 1)
- Chemical Waste Container Identification Log Sheets (figure 4)
- Copies of Chemical Waste Disposal Requests (figure 5)
- Weekly Inspection Log (figure 6)
- Copies of the Uniform Hazardous Waste Manifests--These shall be maintained in a auditable file by authorized Washington Department of Ecology, U.S. Department of Energy, and contractor personnel.

EXAMPLE

8.0 APPLICABLE DOCUMENTS

Code of Federal Regulations

40 CFR 260-265, "Environmental Protection Agency Regulations"

49 CFR 171-179, "Department of Transportation Hazardous Material Regulations"

WAC 173-303 Washington State Department of Ecology Regulations.

INFORMATION ONLY

9.0 ATTACHMENTS

- Figure 1. Chemical Waste Container Inventory Sheet.
- Figure 2. Chemical Waste Container Sticker.
- Figure 3. Environmental Protection Agency Hazardous Waste Sticker.
- Figure 4. Chemical Waste Container Identification Log Sheet.
- Figure 5. Chemical Waste Disposal Request.
- Figure 6. Weekly Inspection Log Generating Facility Temporary Hazardous Waste Storage Area.

EXAMPLE

CHEMICAL WASTE CONTAINER INVENTORY SHEET

BOTTLE NO. _____ CATEGORY _____

DATE	BATCH NAME	BATCH VOL.	CHEMICAL COMPOSITION	WT. %	COMMENT

EXAMPLE

Figure 1. Chemical Waste Container Inventory Sheet.

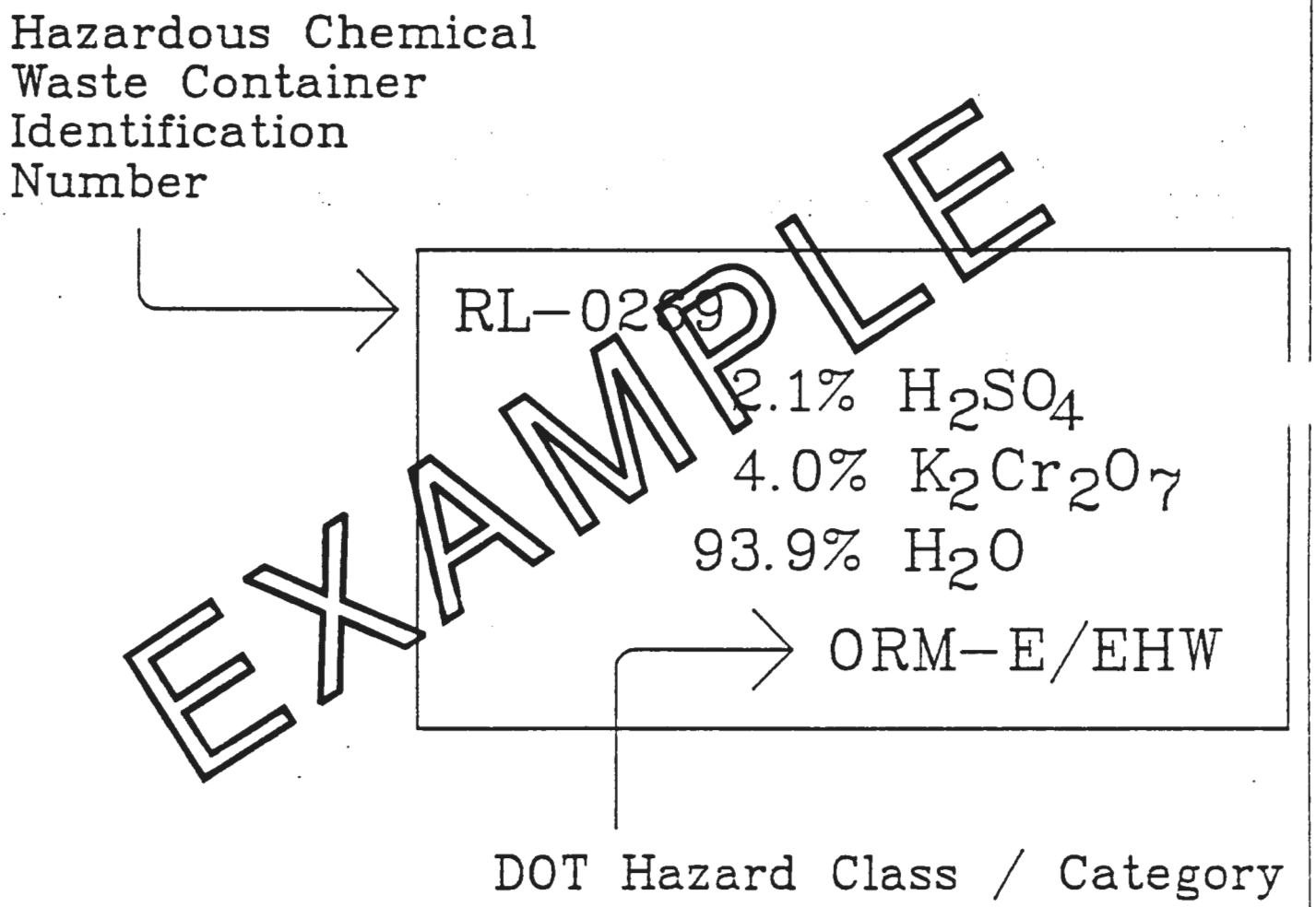

Figure 2. Chemical Waste Container Sticker.

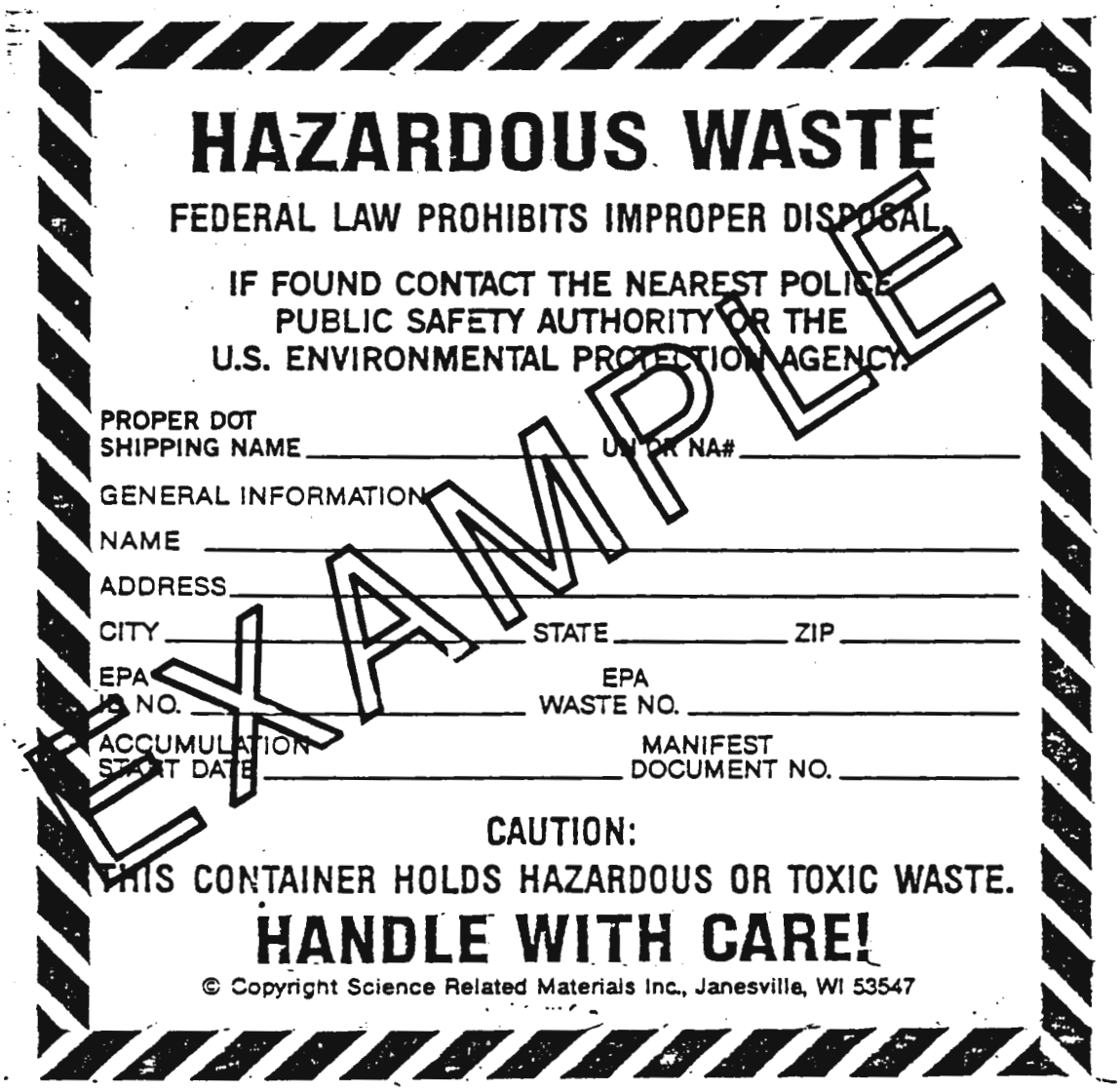

Figure 3. Environmental Protection Agency Hazardous Waste Sticker.

CHEMICAL WASTE CONTAINER IDENTIFICATION LOG SHEET

BOTTLE NUMBER	NAME OF WASTE GENERATOR	DATE OF ISSUE	CATEGORY DESIGNATION	DRUM NO.	SHIPPED DATE

EXAMPLE

Figure 4. Chemical Waste Container Identification Log Sheet.

Complete unshaded parts and forward to: SWP&DU
2750E/A105/200E
Hockwell

CHEMICAL WASTE DISPOSAL REQUEST

Logbook No.

Manifest(s) cross-reference

Requested by | Telephone Number | Address | Company

Signature _____ Date _____ Waste Location: _____

WASTE DESCRIPTION (For additional items, continue on the back of this form)

A Item No.	B No. of Containers	C Container Size	D Total Waste Quantity (kg)	E Container Description	F Waste Description	G Chemical Components	H Weight %	I Physical State	J Hazards	K Waste Status	L Container Status	M Accumulation Date
Example 1	1	55 gal	205	Steel Drum	TURCO Decon 4521 Solution, 10% In Water	TURCO 4521, MSDS Attached Water	10.0 90.0	L	C	O	F	7-3-86
Example 2	1	5 gal	34	Metal Can	Waste from Hg Cleanup	Mercury Glass Soil	1.3 4.0 94.7	S	EP	S	PF	7-7-86
Example 3	23	55 gal	0	Steel Drum	Empty Conoco 32 Oil Drum - Contained Used Oil	Oil - MSDS Attached PCB - Lab Data Attached	100.0 < 1 ppm	L	None	U	MT	7-10-86

EXAMPLE

INSTRUCTIONS

COLUMN A - ITEM NUMBER – Item number for each unique waste.

COLUMN B - NUMBER OF CONTAINERS – Number of containers of a unique waste to be disposed

COLUMN C - CONTAINER SIZE – Size of containers specified in Column B. If multiple container sizes, specify number and size of each.

COLUMN D - TOTAL WASTE QUANTITY – Total waste quantity (in kilograms only) of each unique waste to be disposed

COLUMN E - CONTAINER DESCRIPTION – Specify container type e.g. steel drum, glass bottle

COLUMN F - WASTE DESCRIPTION – Specify trade name or general description of each unique waste.

COLUMN G - CHEMICAL COMPONENTS – List all organic and inorganic components of the unique waste using specific chemical names. Attach Material Safety Data Sheets, analytical data or other documents to the waste to describe the composition of the waste

COLUMN H - WEIGHT (%) – For each waste component indicate percent or range of percents in which the component is present in the waste. Trace amounts of pesticides, herbicides, heavy metals or PCB's should be specified. Components must add up to 100% including water, earth, or other components. If a unit other than percent is used, indicate the unit. When possible provide lab results or other documentation to verify percentages.

COLUMN I - PHYSICAL STATE – Indicate whether Solid (S), Liquid (L), or Gas (G) or any combination of these phases.

COLUMN J - HAZARDS – Indicate whether waste is Corrosive (C), Ignitable (I), Reactive (R), Toxic (T), Explosive (E), Persistent (P), EP Toxic (EP) or Carcinogenic (X).

COLUMN K - WASTE STATUS – Indicate whether waste is: Reacted (Rx), Treated (T) New (unused) (N), Used (U), Old (or expired) (O), Spill Material (S).

COLUMN L - CONTAINER STATUS – Indicate whether container is: Full (F), Partially Full (PF), Empty (< ½ in. in 55 Gal Drums) (MT), Triple Rinsed (TR).

COLUMN M - ACCUMULATION DATE – Indicate the accumulation date marked on each container.

Figure 5. Chemical Waste Disposal Request

WEEKLY INSPECTION LOG
GENERATING FACILITY TEMPORARY
HAZARDOUS WASTE STORAGE AREA

DATE _____

FACILITY _____

LOCATION _____

	STATUS		
	NO PROBLEMS NOTED	REQUIRED REMEDIAL ACTIONS/DATE	SEE COMMENTS
1. CONTAINER CONDITION AND COMPLIANCE			
A. CLOSED	☐	☐ _____	☐
B. STRUCTURAL DEFECTS	☐	☐ _____	☐
C. CORROSION	☐	☐ _____	☐
D. LABELS REQUIRED	☐	☐ _____	☐
E. EVIDENCE OF SPILLS OR LEAKING	☐	☐ _____	☐
F. INCOMPATIBLE CONTAINERS SEPARATED	☐	☐ _____	☐
G. CONTAINER ACCUMULATION DATE COMPLIANT	☐	☐ _____	☐
2. SAFETY/EMERGENCY EQUIPMENT			
A. ABSORBENTS	☐	☐ _____	☐
B. OVERPACK DRUMS	☐	☐ _____	☐
C. EYEWASH	☐	☐ _____	☐
D. FIRE EXTINGUISHER	☐	☐ _____	☐
E. COMMUNICATION EQUIPMENT	☐	☐ _____	☐
F. PROTECTIVE CLOTHING	☐	☐ _____	☐
G. RESPIRATORS/CARTRIDGES	☐	☐ _____	☐

3. COMMENTS

4. STATUS OF OUSTANDING ACTIONS PREVIOUS INSPECTION

5. INSPECTOR SIGNATURE

_____
PRINT NAME

_____
SIGN NAME

2K8606-1.1

EXAMPLE

Figure 6. Weekly Inspection Log Generating Facility Temporary Hazardous Waste Storage Area.

APPENDIX A

SAFETY

HAZARDS

The handling, storage, and shipment of hazardous wastes is associated with numerous health and safety hazards. Specific hazards are associated with the chemicals being disposed, the materials used in the packaging of the waste, as well as physical hazards associated with the mass of the containers of waste.

The major laboratory wastes include mineral acids (hydrochloric, hydrofluoric, nitric, phosphoric, sulfuric), alkalis (ammonia water, sodium hydroxide), poisonous metal salts (primarily barium chloride), solvents (acetone, benzene, ethanol, and methanol), and cyanides.

HAZARD MITIGATION

Fundamental to hazard mitigation is that waste handling is limited to trained personnel.

Transfer of chemicals to waste disposal bottles shall be performed in a laboratory hood or well ventilated area.

Weekly inspections shall include the hoods and drum or laboratory pack storage areas.

Specific hazard mitigation measures (including clothing and respiratory protection) are listed in the appropriate Material Safety Data Sheets.

RULES/REGULATIONS

Specific statutory rules covering disposal of hazardous waste appear in the text of this procedure.

Specific Accident Prevention Standards (APS) involved with handling hazardous waste include: 11.A (Foot Protection), 11.B (Eye & Face Protection), 11.C (Protective Headware), 17 (Materials Handling & Storage), 19 (Flammable and Combustible Liquids), 29 (Respiratory Protective Equipment), and 42 (Hazardous Materials).

EXAMPLE

Specific Accident Prevention Bulletins involved with handling hazardous waste include: A-2 (Office Safety), B-5 (Equipment Cleaning-Compressed Air, Solvents, Steam, and Ultrasonic), and D-3 (Handling Containers of Corrosive Liquids).

PERSONNEL PROTECTION

Specific personnel protection required depends largely on the nature and mass of the wastes.

In general, ordinary laboratory safety equipment (safety glasses, rubber gloves, and laboratory coat) provide adequate protection when transferring most wastes.

Specific protective equipment information can be obtained from the appropriate Material Safety Data Sheets (located in Laboratory 208, 2101-M building).

EMERGENCY RESPONSE

The emergency situations envisioned include: (1) cuts, (2) exposure of worker to hazardous gases or mists, (3) skin or eye contact with hazardous liquids, (4) leakage or rupture of containers, and (5) generation of gases in enclosed containers.

For cuts, the worker is to wash the affected area with water for at least 15 minutes, notify management, and go to First Aid.

For skin and eye contact with hazardous liquids, the worker is to leave the contaminated area immediately, rinse affected areas at least 15 minutes, notify management, and go to first aid.

For exposure to hazardous gases or mists, the worker is to leave the contaminated area immediately, rinse affected areas at least 15 minutes, notify management, and go to first aid.

For leakage or rupture of containers, the specific response depends on the nature of the leak. In general, the casual "passer by" is to warn others in the work site of the leak, notify management, and call 811. The HCWD coordinator is permitted to mitigate the hazard using best judgement (see APS 2). Major spills are reported (section 6.2).

For pressurization of containers of waste, the specific response depends on the contents of the container. In general, the casual "passer by" is to warn others in the work site of the hazard, notify management, and call 811. The HCWD coordinator is permitted to mitigate the hazard using best judgement (see APS 2).

EXAMPLE

APPENDIX B-3.

ON-SITE SHIPPING DOCUMENTS

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APPENDIX B-3

ON-SITE SHIPPING DOCUMENTS

This appendix presents the on-site shipping documents and disposal analysis records for a one-year period from September 1985 through September 1986.

Uniform Hazardous Waste Manifests are not required per WAC 173-303 for wastes being transported onsite. They were used, as a matter of convienience to document intra-facility shipment of dangerous wastes from the BWIP Laboratory to the onsite Hanford storage facility. These on-site shipping documents provide the quantity and types of chemical wastes generated at the BWIP Laboratory and collected for ultimate disposal at an offsite dangerous waste management unit.

Disposal analysis records have been prepared for each on-site shipping document to provide an estimate of the chemical makeup of each waste listed on the on-site shipping documents. The disposal analysis records were generated from various BWIP Laboratory records. The percentage of each chemical in a waste container is generally reported on the disposal analysis record as it was documented in the BWIP Laboratory records. As a result, percentages are reported to varying significant figures, and the total of all chemicals in a waste container does not necessarily add up to 100 percent.

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1 **ON-SITE SHIPPING DOCUMENTS**
2
3 RHO-19-13

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9513319.1649

DOE/RL 88-41
Revision 2

Please print or type. (Form designed for use on elite 12-pitch typewriter.)

Form Approved. OMB No. 2050-0039. Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST

21. Generator's US EPA ID No: WA 789 000 8967

Manifest Document No: RHO-19-13

2. Page 1 of 1

Information in the shaded areas is not required by Federal law

3. Generator's Name and Mailing Address
A.D. Marcy/RHO
2102-M/200 East Area

4. Generator's Phone (509) 373-3841

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: Rockwell Hanford Operations

6. US EPA ID Number: WA 789 000 8967

C. State Transporter's ID

D. Transporter's Phone: 376-1420

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
2727-S/200 West Area
Storage Facility

10. US EPA ID Number: ~~WA~~ WA 789 000 8967

G. State Facility's ID

H. Facility's Phone: 373-4032

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Corrosive Liquid, NOS (ICP/AES solutions pH below 2) Corrosive material UN1760		1	DM	~~3~~ 21	K	D002, D006 D007, D008
b. Waste Benzene Flammable Liquid UN1114		1	DM	0.22	K	U019
c. Waste Corrosive Liquid, NOS (pH above 10) Corrosive material UN1760		1	DM	4	K	D002, D003
d.						

J. Additional Descriptions for Materials Listed Above
Item a. is one 30-gallon 17H or 17C metal drum.
Item b. is one 1-gallon metal paint can (DOT).
Item c. is one 30-gallon 17H or ~~17H~~ 17C metal drum.

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment. Certified by Rlerne Mar 2-28-

Printed/Typed Name	Signature	Month	Day	Year
A. DALE MARCY	A D Marcy	02	28	86

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
J.A. Aldridge	J A Aldridge	03	05	96

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
A. W. Lilly	A W Lilly	3	5	86

Style F15R-6 Labelmaster, Div. of American Labelmark Co. Inc. 60646

EPA Form 8700-22 (Rev. 4-85) Previous edition is obsolete.

ORIGINAL RETURN TO GENERATOR

Disposal Analysis
No. RHO-19-13

Item number	DOT shipping name	Constituents	Percent of volume	Total quantity (kg)
1. (RL-0050A)	Waste corrosive liquid, NOS (ICP/AES solutions, pH below 2)	ICP standards*	0.06	21.0
		Nitric acid	2.00	
		Water	97.94	
(RL-0070)	Waste corrosive liquid, NOS (ICP/AES solutions, pH below 2)	ICP standards*	.22	
		Nitric acid	2.00	
		Water	97.78	
2. (RL-0017)	Waste benzene	Benzene	98.0	0.22
		Paraffin	2.0	
3. (RL-0002)	Waste corrosive liquid, NOS (pH above 10)	$K^4Fe(CN)^6 \cdot 3H_2O$	0.46	1.0
		$K_3Fe(CN)_6$	0.33	
		$KF \cdot 2H_2O$	0.34	
		H_2SO_4	0.003	
		Ba	0.004	
		NaOH	0.5	
		Water	93.0	
(RL-0036)		Na_2S	$\leq$1.0	1.0
		NaOH	10.0	
		Water	89.0	
(RL-0040) (RL-0041)		Na_2S	0.1	2.0
		NaOH	1.0	
		Water	98.9	

*See waste analysis sheets on following pages.
AES = atomic emission spectroscopy
DOT = U.S. Department of Transportation
ICP = inductively coupled plasma
NOS = not otherwise specified.

Waste Analysis Sheet

Analysis of RL-0070		Analysis of RL-0050	
Element	Concentration in mg/L (unless otherwise specified)	Element	Concentration in mg/L (unless otherwise specifies)
Na	1561.7	Na	47.784
K	198.77	K	46.159
Ca	5.4277	Ca	45.087
Mg	3.9144	Mg	45.633
Cu	3.6863	Cu	44.918
Fe	4.3658	Fe	44.576
Mn	3.7885	Mn	44.724
Ce	1.0059	Ce	47.051
Ba	5.9151	Ba	22.322
Sr	4.0855	Sr	22.076
Li	9.9130	Li	22.851
V	0.7076	V	22.565
Rb	<0.4150	Rb	23.623
La	No quantitative value	La	No quantitative value
Al	58.250	Al	11.630
Pb	66.102	Pb	10.178
Zn	42.038	Zn	5.0634
Cr	43.562	Cr	10.709
Co	42.590	Co	5.0526
Cd	42.133	Cd	5.0189
Ni	42.163	Ni	4.9656
Be	23.488	Be	9.9550
Bi	24.248	Bi	5.4462
Ag	3.6136	Ag	3.8697
Total in mg/L	2191.8824	Total in mg/L	546.2574
Total in percent*	0.22	Total in percent*	0.05

*10,000mg/L = 1%.

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ON-SITE SHIPPING DOCUMENTS

RHO-19-13A

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9513319.1652

DOE/RL 88-41
Revision 2

Please print or type. (Form designed for use on elite 12-pitch typewriter.)

Form Approved. OMB No. 2000-0404 Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: WA 789 000 8967
Manifest Document No.: RHO-19-13A
2. Page 1 of 1
Information in the shaded areas is not required by Federal law

3. Generator's Name and Mailing Address
A. D. Marcy/RHO
2101-M/200 East Area
4. Generator's Phone (509) 373-4100

A. State Manifest Document Number
B. State Generator's ID

5. Transporter 1 Company Name: Rockwell Hanford Operations
6. US EPA ID Number: WA 789 000 8967
C. State Transporter's ID
D. Transporter's Phone: 376-1420

7. Transporter 2 Company Name: N/A
8. US EPA ID Number:
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
2727-S/200 West Area
Storage Facility
10. US EPA ID Number: WA 789 000 8967
G. State Facility's ID
H. Facility's Phone: 373-4032

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.		Hazardous Waste Liquid, NOS (selenium solution 80 ppm) ORM-E NA9189	1	DM	2	K	D010
b.							
c.							
d.							

J. Additional Descriptions for Materials Listed Above
Item a. is one 5-gallon 17C steel drum labpacked with two plastic bottles and absorbent.

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage or disposal current available to me which minimizes the present and future threat to human health and the environment. Certified by RLK 5-12-86

GENERATOR

Printed/Typed Name: A.D. MARCY
Signature: A.D. Marcy
Month 5 Day 14 Year 86

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: K.L. STEENSMA
Signature: K. L. Steensma
Month 5 Day 14 Year 86

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name:
Signature:
Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: JR Romero
Signature: JR Romero
Month 5 Day 14 Year 86

Style F15R-6 Labelmaster, Div. of American Labelmark Co. Inc. 60646

EPA Form 8700-22 (Rev. 4-85) Previous edition is obsolete.

Disposal Analysis
No. RHO-19-13A

Item number	DOT Shipping name	Constituents	Percent of volume	Total quantity (kg)
1. (RL-0020) (RL-0021)	Hazardous waste liquid, NOS (selenium solution 80 ppm)	Se Water	0.008 99.9	2.0

DOT = U.S. Department of Transportation
NOS = not otherwise specified.

ON-SITE SHIPPING DOCUMENTS

RHO-22-37

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9513319.1654

DOE/RL 88-41
Revision 2

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Form Approved. OMB No. 2000-0404. Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST

21. Generator's US EPA ID No: WA 789 000 8967

Manifest Document No: RHO-22-37

2. Page 1 of 2

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
A. D. Marcy/RHO
2101-M/200 East Area

4. Generator's Phone (509) 373-4100

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: Rockwell Hanford Operations

6. US EPA ID Number: WA 789 000 8967

C. State Transporter's ID

D. Transporter's Phone: 376-1420

7. Transporter 2 Company Name: N/A

8. US EPA ID Number:

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
2727-S/200 West Area
Storage Facility

10. US EPA ID Number: WA 789 000 8967

G. State Facility's ID

H. Facility's Phone: 373-4032

	11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)			12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.	Waste Acid Liquid, NOS (ICP/AES waste solution, pH <1)	Corrosive Material	NA1760	1	DM	20	K	WT01,D002 D008,D010
b.	Waste Acid Liquid, NOS (ICP/AES waste solution pH <1)	Corrosive Material	NA1760	1	DM	20	K	WT01,D002 D005,D010
c.	Waste Acid Liquid, NOS (Spectrometric waste solution)	Corrosive Material	NA1760	1	DM	20	K	F003,D002
d.	Waste Acid Liquid, NOS (lab waste w/sulfuric acid & potassium dichromate in H_2O)	Corrosive Material	NA1760	2	DM	5	K	D002,D007

J. Additional Descriptions for Materials Listed Above
Items a., b. and c. are labpacks in 30-gallon 17H steel drums.
Item d. is two 5-gallon 17C steel drums of labpacks;
all inner containers are plastic bottles with filler used.

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment. Certified by ADR 5-12-86

GENERATOR

Printed/Typed Name: A. D. Marcy

Signature: Allen Dale Marcy

Month 5 Day 14 Year 86

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: K. L. STEENSMA

Signature: K. L. Steensma

Month 5 Day 14 Year 86

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name:

Signature:

Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19

Printed/Typed Name: M. R. Reinses

Signature: M. R. Reinses

Month 5 Day 14 Year 86

Style F15R-6 Labelmaster, Div. of American Labelmark Co. Inc. 60646

EPA Form 8700-22 (Rev. 4-85) Previous edition is obsolete.

DOE/RL 88-41
Revision 2

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Form Approved OMB No. 2000-0404 Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator's US EPA ID No. WA 789 000 8967	Manifest Document No. RHO-22-37	22. Page 2	Information in the shaded areas is not required by Federal law.

23. Generator's Name
A. D. Marcy/RHO
2101-M/200 East Area

L. State Manifest Document Number

M. State Generator's ID

24. Transporter 1 Company Name: Rockwell Hanford Operations
25. US EPA ID Number: WA 789 000 8967

N. State Transporter's ID

O. Transporter's Phone 376-1420

26. Transporter ___ Company Name: N/A
27. US EPA ID Number:

P. State Transporter's ID

Q. Transporter's Phone

	28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)			29. Containers No.	Type	30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
a.	Hazardous Waste Liquid, NOS (lab waste potassium ferrocyanide)	ORM-E	NA9189	1	DM	1	K	D003
b.	Hazardous Waste Liquid, NOS (Cr^{3+} and Cr^{6+} solutions)	ORM-E	NA9189	1	DM	2	K	D007
c.	Waste Alkaline Liquid, NOS (Colorimetric wastes)	Corrosive Material	NA1719	1	DM	3	K	D002
d.	Waste Alkaline Liquid, NOS (Na_2S standard solutions)	Corrosive Material	NA1719	1	DM	3	K	D002,D003
e.	Waste Sulfuric Acid, Spent	Corrosive Material	UN1832	1	DM	1.3	K	D002
f.								
g.								
h.								
i.								

S. Additional Descriptions for Materials Listed Above
Items a., b., c. and d. and e. are all labpacks of plastic bottles in 5-gallon 17C steel drums with absorbent.

T. Handling Codes for Wastes Listed Above

32. Special Handling Instructions and Additional Information

GENERATOR

TRANSPORTER

33. Transporter ___ Acknowledgement of Receipt of Materials
Printed/Typed Name: A.D. MARCY
Signature: A.D. Marcy
Date: Month 5 Day 14 Year 86

34. Transporter ___ Acknowledgement of Receipt of Materials
Printed/Typed Name: K.L. STEENSMA
Signature: K. L. Steensma
Date: Month 5 Day 14 Year 86

FACILITY

35. Discrepancy Indication Space

APP B3-16

Style F16-6 Labelmaster, Chicago, IL 60646 (312) 478-0900

EPA Form 8700-22A (3-84)

ORIGINAL—RETURN TO GENERATOR

Disposal Analysis
No. RHO-22-37
(sheet 1 of 2)

Item number	DOT shipping name	Constituents	Percent of volume	Total quantity (kg)
1. (RL-0086)	Waste acid liquid, NOS (ICP/AES waste solution, pH below 1)	ICP standards*	0.03	20.0
		Nitric acid	2.00	
		Water	97.97	
2. (RL-0076)	Waste acid liquid, NOS (ICP/AES waste solution, pH below 1)	ICP standards*	0.02	20.0
		Nitric acid	2.00	
		Water	97.98	
3. (RL-0043)	Waste acid liquid, NOS (spectrometric waste solution)	p-amino-dimethyl aniline	0.005	
		Methylene blue	5.0×10^{-5}	
		HCl	0.3	
		H_2SO_4	1.6	
		Cr^6	1.3×10^{-4}	
		Diphenyl carbazide	0.018	
		Acetone	0.07	
		Water	98.0	
		Spectrophotometric Wastes		
4. (RL-0082)	Waste acid liquid, NOS (lab waste with H_2SO_4, and KCr_2O_7 as main components with sulfuric acid and potassium dichromate)	$K_2Cr_2O_7(Cr^{6+})$	0.05	1.0
		H_2SO_4	9.8	
		Diphenylamine carbazide	<0.05	
		Water	90.0	
		Calorimetric Wastes		
(RL-0088)		$K_4Cr_2O_7$	0.03	3.0
(RL-0089)		H_2SO_4	1.1	
(RL-0090)		Water	98.9	
(RL-0083)		Cr^{6+} stock solution	0.28	1.0
		$K_2Cr_2O_7$	9.6	
		H_2SO_4	90.1	
		Water		

Disposal Analysis
No. RHO-22-37
(sheet 2 of 2)

Item number	DOT shipping name	Constituents	Percent of volume	Total quantity (kg)
5. (RL-0026)	Hazardous waste liquid, NOS (lab waste potassium ferrocyanide)	$K_4Fe(CN)_6 \cdot 3H_2O$	0.46	1.0
		$K_3Fe(CN)_6$	0.33	
		$KF \cdot 2H_2O$	0.34	
		Water	98.8	
6. (RL-0091)	Hazardous waste liquid, NOS (Cr^3 and Cr^6 solutions)	$K_2Cr_2O_7$	0.5	1.0
		Water (deionized)	99.5	
(RL-0092)		Cr^{3+}	0.5	1.0
		Water	99.5	
7. (RL-0095) (RL-0096)	Waste alkaline liquid, NOS (calorimetric wastes)	EDTA	7.0	3.0
		Ascorbic acid	4.0	
		NaOH	8.0	
		Water	81.0	
8. (RL-0093) (RL-0094) (RL-0097)	Waste alkaline liquid, NOS (Na_2S standard solutions)	Na_2S	0.3	3.0
		NaOH	1.0	
		Water	98.7	
(RL-0098)		Na_2S	0.2	
		NaOH	1.0	
		Water	98.8	
9. (RL-0102)	Waste sulfuric acid, spent	n,n-dimethyl-p-phenylenediamine sulfate	1.2	1.3
		H_2SO_4	50.0	
		Water	48.8	

*See waste analysis sheets on following pages.
AES = atomic emission spectroscopy
DOT = U.S. Department of Transportation
ICP = inductively coupled plasma
NOS = not otherwise specified.

Waste Analysis Sheet

Analysis of RL-0086		Analysis of RL-0076	
Element	Concentration in mg/L (unless otherwise specified)	Element	Concentration in mg/L (unless otherwise specified)
Na	10.722	Na	15.773
K	199.39	K	46.978
Ca	3.0887	Ca	3.6956
Mg	2.7103	Mg	5.2572
Cu	34.835	Cu	7.4664
Fe	2.3384	Fe	22.264
Mn	2.3174	Mn	4.2498
Ce	2.0027	Ce	1.0090
Ba	1.0715	Ba	1.4857
Sr	1.1723	Sr	3.0695
Li	1.0538	Li	2.2308
V	1.0354	V	0.5315
Rb	1.1715	Rb	<0.6500
La	0.9845	La	0.3940
Al	34.055	Al	8.7113
Pb	1.3846	Pb	0.4319
Zn	1.1482	Zn	16.963
Cr	0.8063	Cr	2.3655
Co	0.8410	Co	0.2882
Cd	0.8503	Cd	0.3415
Ni	0.8100	Ni	0.2887
Be	0.8258	Be	0.2863
Bi	0.9498	Bi	0.2950
Ag	0.1346	Ag	0.0491
Se	1.4731	Se	3.4483
As	No quantitative value	As	<5.0000
Total in mg/L	307.2222	Total in mg/L	153.5322
Total in percent*	0.03	Total in percent*	0.02

*10,000 mg/L = 1%.

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1 **ON-SITE SHIPPING DOCUMENTS**
2
3 RHO-22-165

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9513319.1658 DOE/RL 88-41 Revision 2

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039 Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. WA 789 000 8967 | Manifest Document No. RHO-22-165 | 2. Page 1 of 2 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
A.D. Marcy/RHO
2101M/200 East
4. Generator's Phone (509) 373-4100

A. State Manifest Document Number
B. State Generator's ID

5. Transporter 1 Company Name: Rockwell Hanford Operations
6. US EPA ID Number: WA 789 000 8967
C. State Transporter's ID
D. Transporter's Phone: 376-1420

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
2727-S/200 West Area
Storage Facility
10. US EPA ID Number: WA 789 000 8967
G. State Facility's ID
H. Facility's Phone: 373-4032

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Acid Liquid,NOS (RL-0104) Corrosive material NA1760		1	DM	20	K	D008,D010 D004,D002
b. Waste Acid Liquid,NOS (RL-0105) Corrosive material NA1760		1	DM	20	K	D002,D004
c. Waste Acid, Liquid,NOS (RL-0108) Corrosive material NA1760		1	CF ~~DM~~	20	K	D002,D010 D008
d. Waste Acid Liquid,NOS (RL-0130) Corrosive material NA1760		1	CF	20	K	D006,D007 D008,D010 D002

J. Additional Descriptions for Materials Listed Above
Items a and b are labpacked in 30-gallon 17H steel drums.
Items c and d are labpacked in 5-gallon 12P fiberboxes with 2U inner polyethylene containers.

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment. NLL 7-21-86

Printed/Typed Name: A. D. MARCY | Signature: A D Marcy | Month 7 Day 21 Year 86

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: K.L. STEENSMA | Signature: K L Steensma | Month 7 Day 23 Year 86

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Month Day Year

FACIL.

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: H C Boynton | Signature: H C Boynton | Month 7 Day 23 Year 86

Style F15R-6 Labelmaster, Div. of American Labelmark Co. Inc. 60646 EPA Form 8700-22 (Rev. 4-85) Previous edition is obsolete.

Please print or type. (Form designed for use on elite (12-pitch) typewriter) ...000-0404 Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST
(Continuation Sheet)

21. Generator's US EPA ID No.: WA 789 000 8967

Manifest Document No.:

22. Page: 2

... the shaded ... required by Federal law.

23. Generator's Name: A.D. Marcy/RHO 2101M/200 East

RHO-22-165

L. State Manifest Document Number:

M. State Generator's ID:

24. Transporter 1 Company Name: Rockwell Hanford Operations

25. US EPA ID Number: WA 789 000 8967

N. State Transporter's ID:

O. Transporter's Phone: 376-1420

26. Transporter ___ Company Name:

27. US EPA ID Number:

P. State Transporter's ID:

Q. Transporter's Phone:

	28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)			29. Containers No.	Type	30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
a.	Waste Acid Liquid,NOS (RL-0107,RL-0109--RL-0113,RL-0120)	Corrosive material	NA1760	3	DM	26	K	D002
b.	Hazardous Waste Liquid,NOS (RL-0081)	ORM-E	NA9189	1	DM	0.9	K	D003
c.	Waste Alkaline liquid,NOS (RL-0114-RL-0116,RL-0118 RL-0119,RL-0132)	Corrosive material	NA1719	2	DM	5.45	K	D002,D003
d.	Waste Alkaline Liquid,NOS (RL0117)	Corrosive material	NA1719	1	DM	1.0	K	D008,D002
e.	Waste Acid Liquid,NOS (RL-0121-RL-0125,RL-0135)	Corrosive material	NA1760	2	DM	6	K	WT01,D002 D007
f.	Waste Toluene (RL-0131)	Flammable Liquid	UN1294	1	DM	1.0	K	U220,F00
g.	Waste Hydrofluoric Acid Solution(48%)(RL-0134)	Corrosive material	UN1790	1	CF	6.0	K	U134
h.	Hazardous Waste Liquid,NOS (RL-0137)	ORM-E	NA9189	1	DM	24.6	K	D005
i.	Waste Acid Liquid,NOS (RL-0106)	Corrosive material	NA1760	1	DM	20	K	D002,D010

S. Additional Descriptions for Materials Listed Above

Item a is two 5-gallon 17C drums and one 30-gallon 17H drum labpack. Items b, c, d, e, and f are 5-gallon 17C drum labpacks.Item g. is a 12P CF with a 2U inner poly container. Items h and i are 30-gallon 17H steel drum labpacks.

T. Handling Codes for Wastes Listed Above

32. Special Handling Instructions and Additional Information

TRANSPORTER

33. Transporter ___ Acknowledgement of Receipt of Materials

Printed/Typed Name: R.L. STEENSMA

Signature: R.L. Steensma

Date: Month Day Year 7 23 86

34. Transporter ___ Acknowledgement of Receipt of Materials

Printed/Typed Name:

Signature:

Date: Month Day

FACILITY

35. Discrepancy Indication Space

APP B3-24

Disposal Analysis
No. RHO-22-165
(sheet 1 of 3)

Item number	DOT shipping name	Constituents	Percent of volume	Total quantity (kg)
1. (RL-0104)	Waste acid liquid, NOS (ICP/AES waste solution containing lead, selenium, and arsenic)	ICP Standards* Nitric acid Water	0.10 2.00 97.90	20
2. (RL-0105)	Waste acid liquid, NOS (ICP/AES waste solution containing arsenic)	ICP Standards* Nitric acid Water	1.45 2.00 96.55	20
3. (RL-0108)	Waste acid liquid, NOS (ICP/AES waste solution containing lead and selenium)	ICP Standards* Nitric acid Water	0.06 2.00 97.94	20
4. (RL-0130)	Waste acid liquid, NOS (ICP/AES waste solution containing lead, chromium, cadmium, and selenium)	ICP Standards* Nitric acid Water	0.05 2.00 97.95	20
5. (RL-0107)	Waste acid liquid, NOS (sulfuric acid, spectrometric waste solutions)	H_2SO_4 $FeCl_3$ Para-amino dimethyl aniline (PADMA) Water	2.8 0.75 0.009 96.4	20
(RL-0109 RL-0110 RL-0111 RL-0112)		$CdSO_4$ H_2SO_4 $FeCl_3$ PADMA Methylene blue Water	0.2 3.0 0.1 0.05 0.0001 96.6	5.0
(RL-0120)		PADMA H_2SO_4 Water	0.3 50.0 49.7	1.0

Disposal Analysis
No. RHO-22-165
(sheet 2 of 3)

Item number	DOT shipping name	Constituents	Percent of volume	Total quantity (kg)
6. (RL-0081)	Hazardous waste liquid, NOS (potassium ferro-cyanide complexes)	$K_4Fe(CN)_6 \cdot 3H_2O$	0.46	0.9
		$K_3Fe(CN)_6$	0.33	
		$KF \cdot 2H_2O$	0.34	
		Water	98.87	
7. (RL-0114)	Waste alkaline liquid, NOS (Na_2 standards solutions)	Na_2S	0.005	
		Water	99.995	
(RL-0115)				
		Na_2S	1.0	3.0
		Water	99.0	
(RL-0116)				
		Na_2S	0.005	
		Water	99.995	
(RL-0118)				
		Na_2S	0.75	
		NaOH	0.5	2.0
		Water	98.75	
(RL-0119)				
		Na_2S	1.8	
		Water	98.2	0.45
8. (RL-0117)	Waste alkaline liquid, NOS (sodium hydroxide with lead)	NaOH	8.0	1.0
		EDTA	7.0	
		Ascorbic acid	4.0	
		Solid PbS	1.0	
		$Pb(NO_3)_2$	0.05	
		H_2O	79.95	
9. (RL-0121 RL-0124)	Waste acid liquid, NOS (chromic acid solutions)	Cr_2O_3	4.1	
		Water	95.9	
				3.0
(RL-0135)	Cleanup from leaking chromic acid vials	Cr_2O_3	3.0	
		Water	97.0	
(RL-0122 RL-0123)	Cleanup from leaking chromic acid vials	Cr_2O_3	8.2	
		Water	91.8	
				3.0
(RL-0125)	Cleanup from leaking	Cr_2O_3	1.0	

Disposal Analysis
No. RHO-22-165
(sheet 3 of 3)

Item number	DOT shipping name	Constituents	Percent of volume	Total quantity (kg)
10. (RL-0131)	Waste toluene	Toluene	100.0	1.0
11. (RL-0134) (RL-0136) (RL-0129)	Waste hydrofluoric acid solution (trace amount of Zr)	HF Water	48.0 52.0	6.0
12. (RL-0137)	Hazardous waste liquid, NOS (barium waste solution)	See waste analysis sheets on following pages Water	0.70 99.30	24.6
13. (RL-0106)	Waste acid liquid, NOS (ICP/AES waste solution containing selenium)	ICP standards* Nitric acid Water	0.01 2.00 97.99	20.0

*See waste analysis sheets on following pages.
AES = atomic emission spectroscopy
DOT = U.S. Department of Transportation
ICP = inductively coupled plasma
NOS = not otherwise specified.

Waste Analysis Sheet

Analysis of RL-0104		Analysis of RL-0105	
Element	Concentration in mg/L (unless otherwise specified)	Element	Concentration in mg/L (unless otherwise specified)
Na	531.17	Na	30.465
K	6.3830	K	9.2606
Ca	2.7781	Ca	7.8282
Mg	1.8726	Mg	2.7290
Cu	3.3071	Cu	54.542
Fe	3.3961	Fe	8.2753
Mn	1.7989	Mn	0.5956
Ce	1.4739	Ce	0.5223
Ba	2.9840	Ba	69.148
Sr	0.8316	Sr	0.3968
Li	14.478	Li	165.25
V	0.7924	V	0.2084
Rb	0.3525	Rb	0.3534
La	0.5949	La	0.2242
Al	1.0757	Al	65.147
Pb	45.137	Pb	0.2135
Zn	0.4512	Zn	0.3645
Cr	2.7182	Cr	0.0952
Co	0.0824	Co	0.0731
Cd	0.3812	Cd	0.1555
Ni	0.0742	Ni	0.1425
Be	0.0907	Be	0.0467
Bi	<0.0340	Bi	0.3134
Ag	0.0524	Ag	0.0095
Se	151.77	Se	0.9917
As	224.60	As	66.000
Si	7.3276	Si	38.112
B	26.986	Mo	0.1519
Mo	0.0901		
Total in mg/L	1033.0838	Total in mg/L	521.6153
Total in percent*	0.10	B in percent	1.4
		Total in percent*	1.45

*10,000 mg/L = 1%.

Waste Analysis Sheet

Analysis of RL-0108		Analysis of RL-0130	
Element	Concentration in mg/L (unless otherwise specified)	Element	Concentration in mg/L (unless otherwise specified)
Na	23.903	Na	103.709
K	241.66	K	17.255
Ca	2.1098	Ca	15.529
Mg	2.8750	Mg	13.511
Cu	1.4455	Cu	12.833
Fe	1.0532	Fe	13.613
Mn	1.1520	Mn	13.183
Ce	0.9522	Ce	12.707
Ba	0.9362	Ba	6.9672
Sr	0.5315	Sr	6.3842
Li	0.9667	Li	6.4643
V	0.5146	V	6.4511
Rb	0.3810	Rb	6.3361
La	0.4953	La	6.3666
Al	0.8587	Al	19.532
Pb	149.59	Pb	82.047
Zn	113.46	Zn	17.745
Cr	2.3358	Cr	9.0063
Co	0.3762	Co	9.0192
Cd	0.5915	Cd	8.9671
Ni	24.490	Ni	9.2826
Be	0.3558	Be	9.0041
Bi	0.2863	Bi	9.0506
Ag	0.0641	Ag	0.0903
Se	1.0579	Se	111.89
As	0.4717	As	0.5566
Si	4.7246	Si	2.9655
B	20.025	B	0.2412
Mo	5.7198	Mo	0.5110
Total in mg/L	603.3834	Total in mg/L	531.2090
Total in percent*	0.06	Total in percent*	0.05

*10,000 mg/L = 1%.

Waste Analysis Sheet

Analysis of RL-0137		Analysis of RL-0106	
Element	Concentration in mg/L (unless otherwise specified)	Element	Concentration in mg/L (unless otherwise specified)
Na	7000.0	Na	45.451
K	3.3764	K	1.8931
Ca	4.8843	Ca	1.0667
Mg	2.3434	Mg	0.7224
Sr	0.0114	Cu	0.8223
Ba	2.9413	Fe	0.7684
Li	0.0162	Mn	0.8205
V	<0.0200	Ce	0.5402
Si	7.7766	Ba	1.2799
B	<0.1000	Sr	0.3369
Mo	<0.6000	Li	2.7759
Cu	<0.0300	V	0.3185
Fe	<0.0300	Rb	<0.0830
Mn	<0.0100	La	0.2985
Zn	<0.0400	Al	0.3898
Al	<0.2000	Pb	0.2112
Ti	<0.2000	Zn	0.1686
Zr	<0.2000	Cr	0.1168
		Co	0.1144
Total in mg/L	7022.7796	Cd	0.1159
		Ni	0.1068
Total in percent*	0.70	Be	0.1226
		Bi	0.0689
		Ag	0.0531
		Se	2.0767
		As	1.3245
		Si	3.8420
		B	3.1921
		Mo	0.0211
		Total in mg/L	69.0988
		Total in percent*	0.01

*10,000 mg/L = 1%.

1 **ON-SITE SHIPPING DOCUMENTS**
2
3 RHO-22-246

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9513319.1663

DOE/RL 88-41
Revision 2

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UNIFORM HAZARDOUS WASTE MANIFEST	21. Generator's US EPA ID No. WA 789 000 8967	Manifest Document No. RHO-22-246	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address A.D. Marcy/RHO 2101M/200 East 4. Generator's Phone (509) 373-4100	A. State Manifest Document Number B. State Generator's ID
5. Transporter 1 Company Name: Rockwell Hanford Operations 6. US EPA ID Number: WA 789 000 8967	C. State Transporter's ID D. Transporter's Phone 376-1420
7. Transporter 2 Company Name 8. US EPA ID Number	E. State Transporter's ID F. Transporter's Phone
9. Designated Facility Name and Site Address: 2727-S/200 West Area Storage Facility 10. US EPA ID Number: WA 789 000 8967	G. State Facility's ID H. Facility's Phone 373-4032

	11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.	Flammable Waste Liquid,NOS (Acetone bottle, Toluene bottle) Flammable Liquid UN1993	1	DM	1.2	K	U002,F003 U220,F005
b.	Waste Acid liquid,NOS (ICP/AES nitric acid with Se) Corrosive material NA1760	1	CF	20	K	D002,D010
c.	Hazardous Waste Liquid,NOS (95% sodium sulfite solution) ORM-E NA9189	1	DM	8	K	WT02
d.						

J. Additional Descriptions for Materials Listed Above
Item a is a labpacked 5-gallon 17C steel drum with kitty litter
Item b is a 5-gallon 12P fiberboard box with a 2U inner polyethylene container. Item c is a labpacked 17H 30-gallon steel drum with kitty litter filler.

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment. 7-30-86

Printed/Typed Name	Signature	Month	Day	Year
A.D. Marcy	A.D. Marcy	8	5	86

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
D.E. MOLNAA	D.E. Molnaa	8	6	86

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19:

Printed/Typed Name	Signature	Month	Day	Year
H.C. Bagnstad	H.C. Bagnstad	8	6	86

Style F15R-6 Labelmaster, Div. of American Labelmark Co. Inc. 60646 EPA Form 8700-22 (Rev. 4-85) Previous edition is obsolete.

Disposal Analysis
No. RHO-22-246

Item number	DOT shipping name	Constituents	Percent of volume	Total quantity (kg)
1. (RL-0011)	Flammable liquid, NOS (acetone bottle, toluene bottle)	Acetone Basalt	99.0 1.0	1.0
(RL-0087)		Toluene Epoxy	95.0 5.0	0.2
2. (RL-0138)	Waste acid liquid, NOS (ICP/AES metric acid with selenium)	ICP standards* Nitric acid Water	0.03 2.0 97.97	20.0
3. (RL-0073) (RL-0067)	Hazardous waste liquid, NOS (5% sodium sulfite solution)	Na_2SO_3 Water	5.0 95.0	7.0 1.0

*See waste analysis sheets on following page.
AES = atomic emission spectroscopy
DOT = U.S. Department of Transportation
ICP = inductively coupled plasma
NOS = not otherwise specified.

Waste Analysis Sheet

Analysis of RL-0138

Element	Concentration in mg/L (unless otherwise specified)
Na	31.901
K	14.430
Ca	14.065
Mg	13.255
Cu	12.818
Fe	13.750
Mn	12.944
Ce	1.5580
Ba	11.761
Sr	11.455
Li	45.387
V	1.0544
Rb	0.9083
La	0.8512
Al	4.2272
Pb	0.8073
Zn	0.4606
Cr	0.3844
Co	0.4040
Cd	0.3786
Ni	0.3955
Be	0.3865
Bi	0.4740
Ag	0.0610
Se	1.1867
As	0.3888
Si	42.960
B	71.424
Mo	15.631
Total in mg/L	325.7075
Total in percent*	0.03

*10,000 mg/L = 1%.

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ON-SITE SHIPPING DOCUMENTS

RHO-22-282

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Please Print or Type. (Form designed for use on elite (12-pitch) typewriter.) DOE/RL 88-41 Revision 2 Form Approved. OMB No. 2050-0039. Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. WA 789 000 8967
Document No. RHO-22-282
2. Page 1 of 2
Information in the shaded areas is required by Federal law.

3. Generator's Name and Mailing Address
~~Rockwell Hanford Op~~ J. R. Smith
2101-M/200 East Area
Generator's Phone (509) 373-4100

A. State Manifest Document Number
B. State Generator's ID

5. Transporter 1 Company Name: Rockwell Hanford OPerations
6. US EPA ID Number: WA 789 000 8967
C. State Transporter's ID
D. Transporter's Phone: 376-1420

7. Transporter 2 Company Name: N/A
8. US EPA ID Number:
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
2727-S/200 West Area
Storage Facility
10. US EPA ID Number: WA 789 000 8967
G. State Facility's ID
H. Facility's Phone: 373-4032

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)				12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.	Waste Alkaline, Liquid, NOS (item #1)	Corrosive Material	NA1719	4	DF	456	K	D002 D005
b.	Waste Acid, Liquid, NOS (item #2)	Corrosive Material	NA1760	2	DM	7	K	D002
c.	Waste Acid, Liquid, NOS (item #3)	Corrosive Material	NA1760	1	DM	15	K	D002 F003
d.	Waste Acid, Liquid, NOS (item #4)	Corrosive Material	NA1760	1	CF	20	K	WT02 D002

J. Additional Descriptions for Materials Listed Above: Item a. are 4 DOT 34, 30-gallon plastic drums. Item b. is 2 4-liter plastic bottles labpacked in 25-gallon 17C drum with kitty litter filler. Item c. is a 5-gallon plastic jug labpacked in a 30-gallon 17H steel drum with kitty litter. Item d. is a 5-gallon DOT 12P fiberboard box with a 2U inner poly container.

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment. 8-27-86

Printed/Typed Name	Signature	Month	Day	Year
J. R. Smith	J. R. Smith	9	3	86

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
D. E. Mollas	D. E. Mollas	9	3	86

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
Gary M. DeWinkle	G M DeWinkle	9	3	86

GENERATOR TRANSPORTER FACILITY

Style F15R-6 Labelmaster, Div. of American Labelmark Co. Inc. 60646 EPA Form 8700-22 (Rev. 4-85) Previous edition is obsolete.

.. type. (Form designed for use on elite (12-pitch) typewriter.) DOE/RL 88-41

FORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator's US EPA ID No. WA 789 000 8967	Revision 2 Document No. RHO-22-282	22. Page 2	Information in the shaded areas is not required by Federal law.

3. Generator's Name
XXXXXXXXXXXXXXXXXX J. R. Smith
2101-M/200 East Area

L. State Manifest Document Number

M. State Generator's ID

24. Transporter 1 Company Name — 25. US EPA ID Number: WA 789 000 8967

N. State Transporter's ID

O. Transporter's Phone

26. Transporter ___ Company Name — 27. US EPA ID Number

P. State Transporter's ID

Q. Transporter's Phone

	28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)			29. Containers No.	Type	30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
a.	Waste Acid, Liquid, NOS (item #5)	Corrosive Material	NA1760	1	CF	17	K	D002 WT02
b.								
c.								
d.								
e.								
f.								
g.								
h.								
i.								

GENERATOR

S. Additional Descriptions for Materials Listed Above
Item a. is a 5-gallon DOT 12P fiberboard box with an inner DOT 2U poly container.

T. Handling Codes for Wastes Listed Above

32. Special Handling Instructions and Additional Information

TRANSPORTER

33. Transporter ___ Acknowledgement of Receipt of Materials

Printed/Typed Name: D.R. McLuan — Signature: [signature] — Date: Month 9 Day 13 Year 86

34. Transporter ___ Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Date: Month Day Year

FACILITY

35. Discrepancy Indication Space

APP B3-40

EPA Form ...

FOR RETURN TO ...

Disposal Analysis
No. RHO-22-282

Item number	DOT shipping name	Constituents	Percent of volume	Total quantity (kg)
1. (RL-0140 RL-0148 RL-0154 RL-0155)	Waste alkaline liquid, NOS	$BaCl_2$	0.4	456.0
		NaOH	0.2	
		Water	99.4	
2. (RL-0146 RL-0153)	Waste acid liquid, NOS	H_2SO_4	2.8	7.0
		$FeCl_3$	0.75	
		Para-amino dimethyl aniline	0.009	
		Water	96.4	
3. (RL-0151)	Waste acid liquid, NOS	H_2SO_4	0.03	15.0
		Diphenyl carbazide	0.0005	
		Acetone	0.08	
		$K_2Cr_2O_7$	0.0003	
		Water	99.8	
4. (RL-0152)	Waste acid liquid, NOS	NHO_3	2.0	20.0
		Heavy metals	0.01	
		Water	98.0	
5. (RL-0157)	Waste acid liquid, NOS	$LiBO_2$	0.6	17.0
		HNO_3	4.0	
		Clay components	0.06	
		Water	95.3	

DOT = U.S. Department of Transportation
NOS = not otherwise specified.

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APPENDIX B-4.

WELL CONSTRUCTION DIAGRAMS

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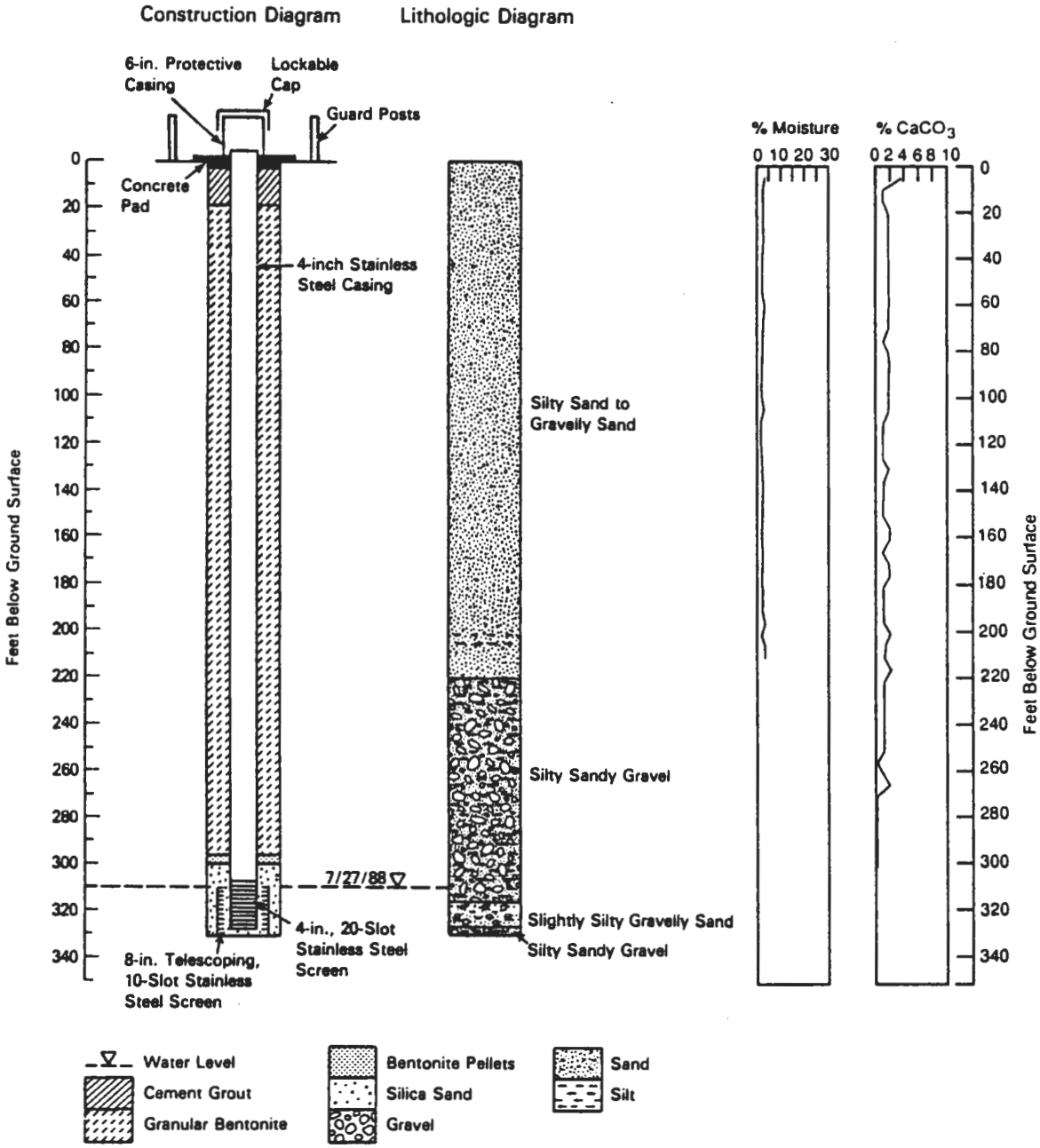
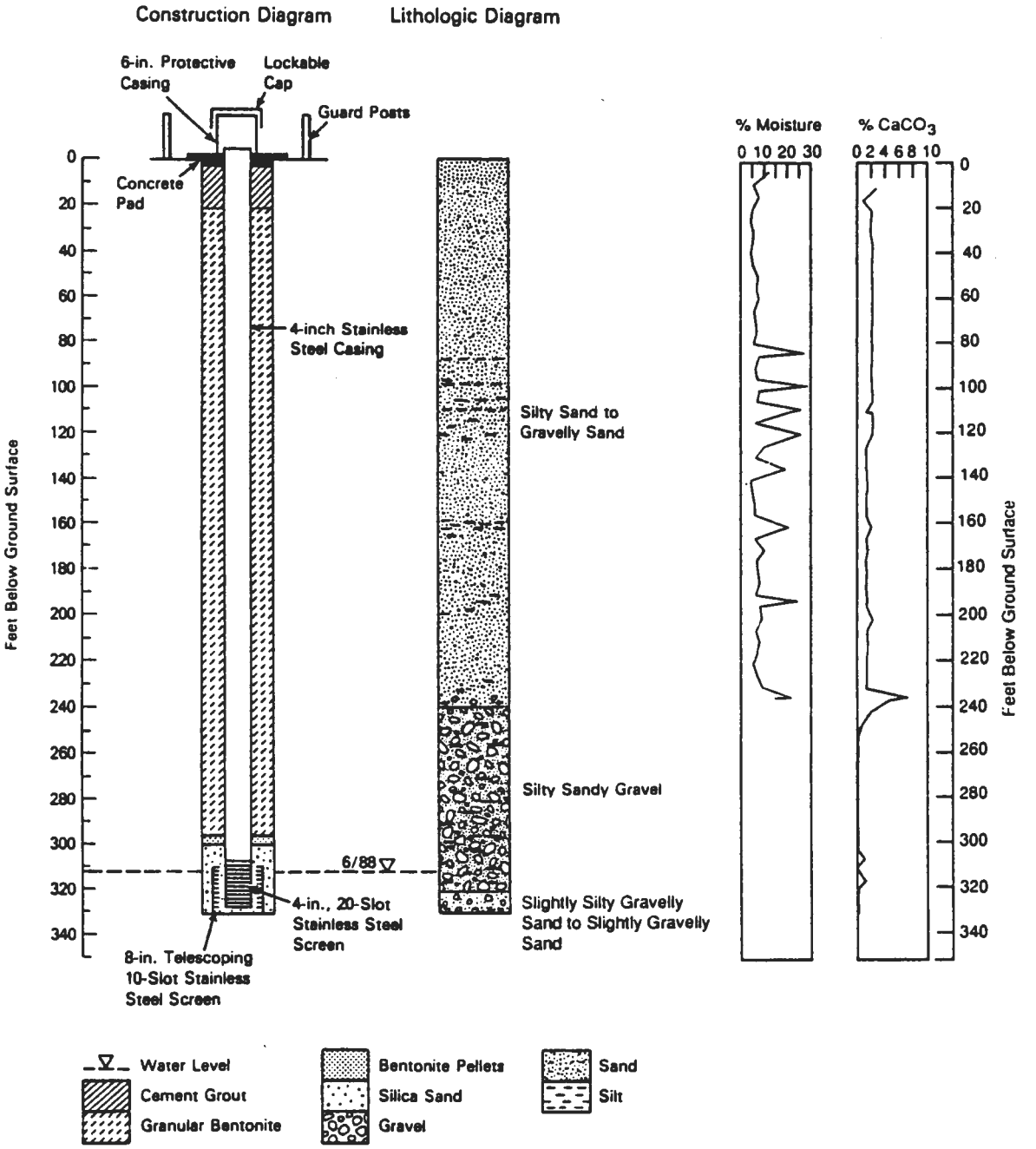
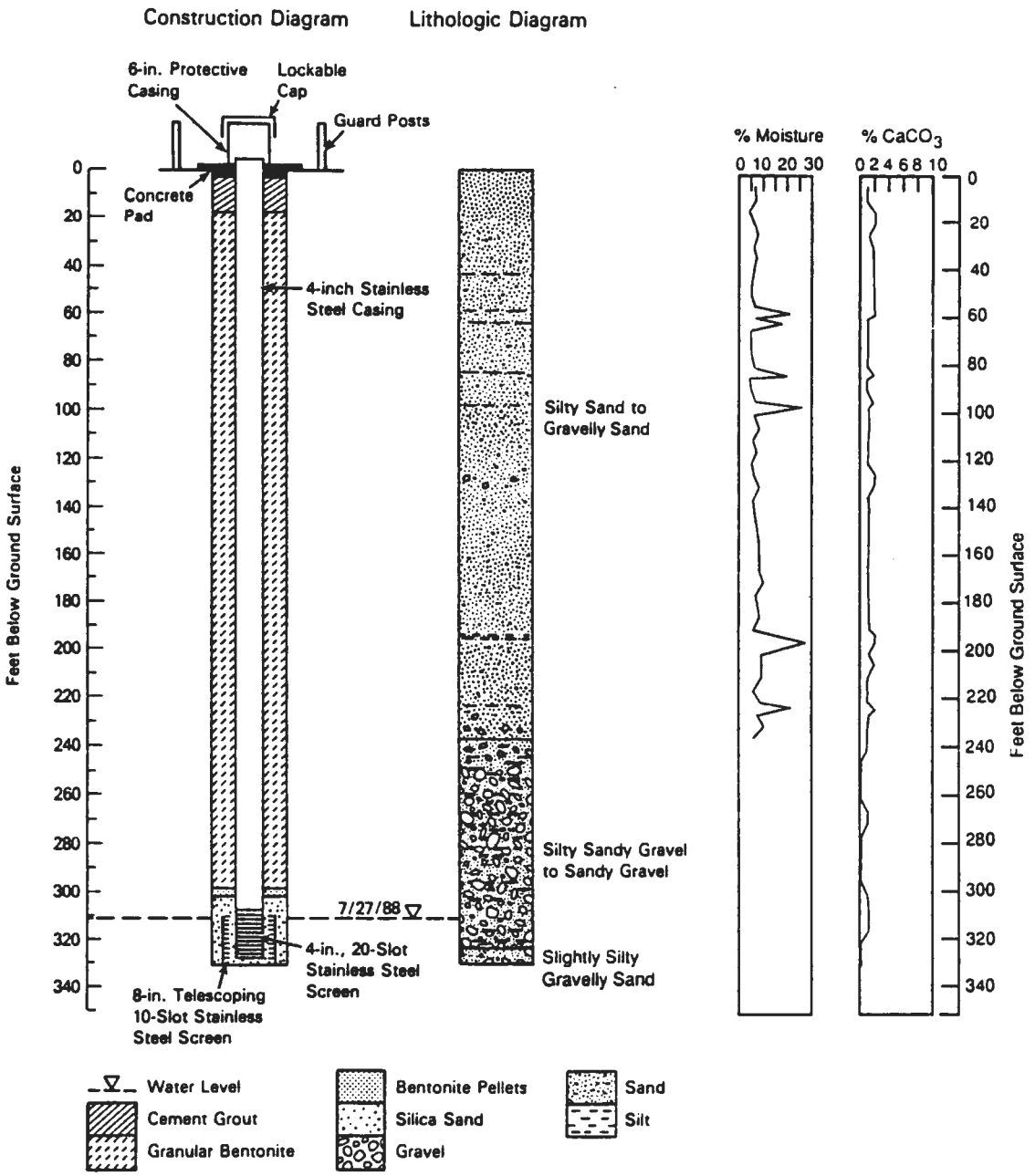


Well 299-E18-1



Well 299-E18-2



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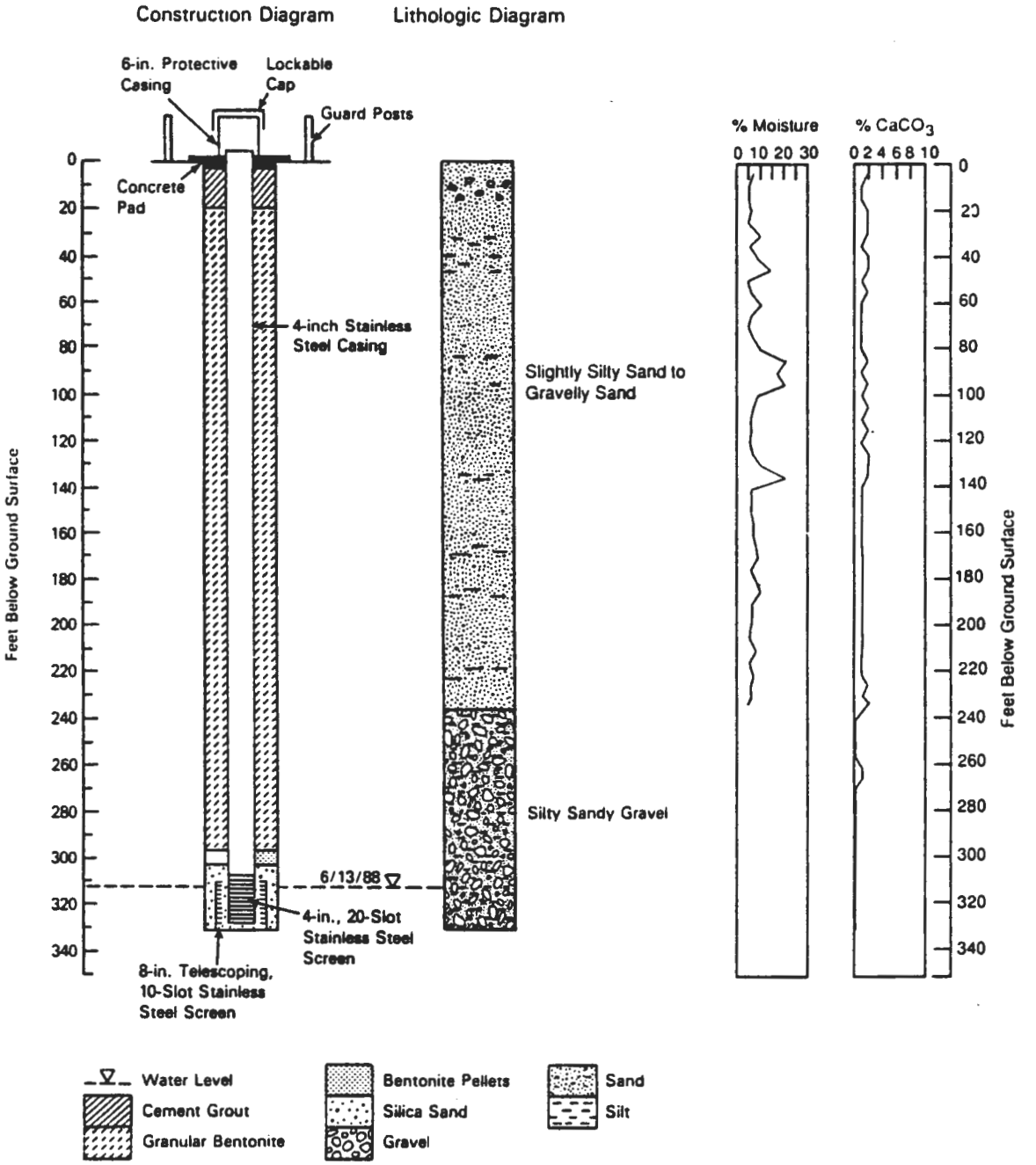

Well 299-E18-4

APPENDIX B-5.

EVALUATION OF COVER DESIGN PERFORMANCE

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1.0 INTRODUCTION

The following sections evaluate the performance of the preliminary cover design as required by WAC-173-303. The areas in which the cover is evaluated are (1) surface water erosion, (2) wind erosion, (3) and landfill performance (HELP model evaluation). These evaluations support the effectiveness of the preliminary cover design.

2.0 SURFACE WATER EROSION

Water Erosion Potential--The erosion potential of the cover surface soil because of precipitation events is evaluated using the U.S. Department of Agriculture (USDA) Universal Soil Loss Equation (USLE). The Universal Soil Loss Equation consists of six quantifiable factors, as follows (EPA 1979):

$$A = RKLSCP$$

where:

A = average soil loss (tons/acre/yr)
R = rainfall and run-off erosivity index
K = soil erodibility factor
L = slope length factor
S = slope steepness factor
C = cover/management factor
P = practice factor.

For this preliminary design, McGee Ranch will be the assumed borrow site for the topsoil layer. The following topsoil properties and cover design details are used to evaluate A:

- Topsoil type: silt to silt loam
- Average percent organic matter: 0.23% (Routson 1973)
- Estimated percent clay: 6% (Routson 1973)
- Estimated percent silt: 85% (Last et al. 1987)
- Estimated percent sand: 9% (Last et al. 1987)
- Uniform percent cover slope: 3%
- Cover length (Maximum drainage length): 50 ft
- Cover vegetation: Thickspike and Siberian wheatgrasses.

Therefore:

R = 20, from Figure B5-1 (EPA 1979)
K = 0.64, from Figure B5-2 (EPA 1979)
LS = 0.24, from Table B5-1 (EPA 1979)
C = 0.20 (Nyhan 1986)
P = 1.0 (Nyhan 1986)
A = (20)(0.64)(0.24)(0.20)(1.0) = 0.62 tons/acre per yr.

This is an acceptable erosion rate as the overall site erosion is recommended to be limited to 2 tons/acre, which is a rate that does not significantly increase cover maintenance (EPA 1982).

Sheet Erosion Potential of Cover--The cover design is evaluated also to determine if the 3% topsoil slope can withstand overland or sheet flow with a minimum of erosion. The 50-yr, 20-minute storm rainfall intensity of 1.6 in./hour (Table B5-2) is assumed for the design storm (Stone et al. 1983). The 50-yr storm was selected because it exceeds the minimum design life of the cover. The 20-minute rainfall intensity of 1.6 in./hour was assumed because that intensity did occur once in a 20-minute thunderstorm over the 37 yr that data was recorded at the Hanford Meteorology Station (Stone et al. 1983). The Rational Method is used for determining design discharge for tributary areas of 1 m^2 or less (about 1.196 yd^2) (Nelson and Abt 1986). Unit width analysis is used where area is expressed as slope length by unit width and where unit width = 1 foot.

$$Q = CiA$$

where:

Q = Maximum design discharge (ft^3/s)
C = Run-off coefficient (assuming C = 1.00 indicates no infiltration or worst-case scenario)
i = Intensity of rainfall (in./h)
A = Area of tributary (acres).

A portion of the design is all that need to be evaluated. The portion will be assumed to be a homogeneous watershed area. It will have a 3% slope with a length and a width of roughly 55 ft. Because the entire cover section cannot contribute to a single tributary, it is assumed that any tributary area is square. This yields an area of 0.07 acres.

Therefore:

$$Q = (1\ ft)(1.6\ in/hr)(0.07\ acres) = 0.11\ ft^3/s$$

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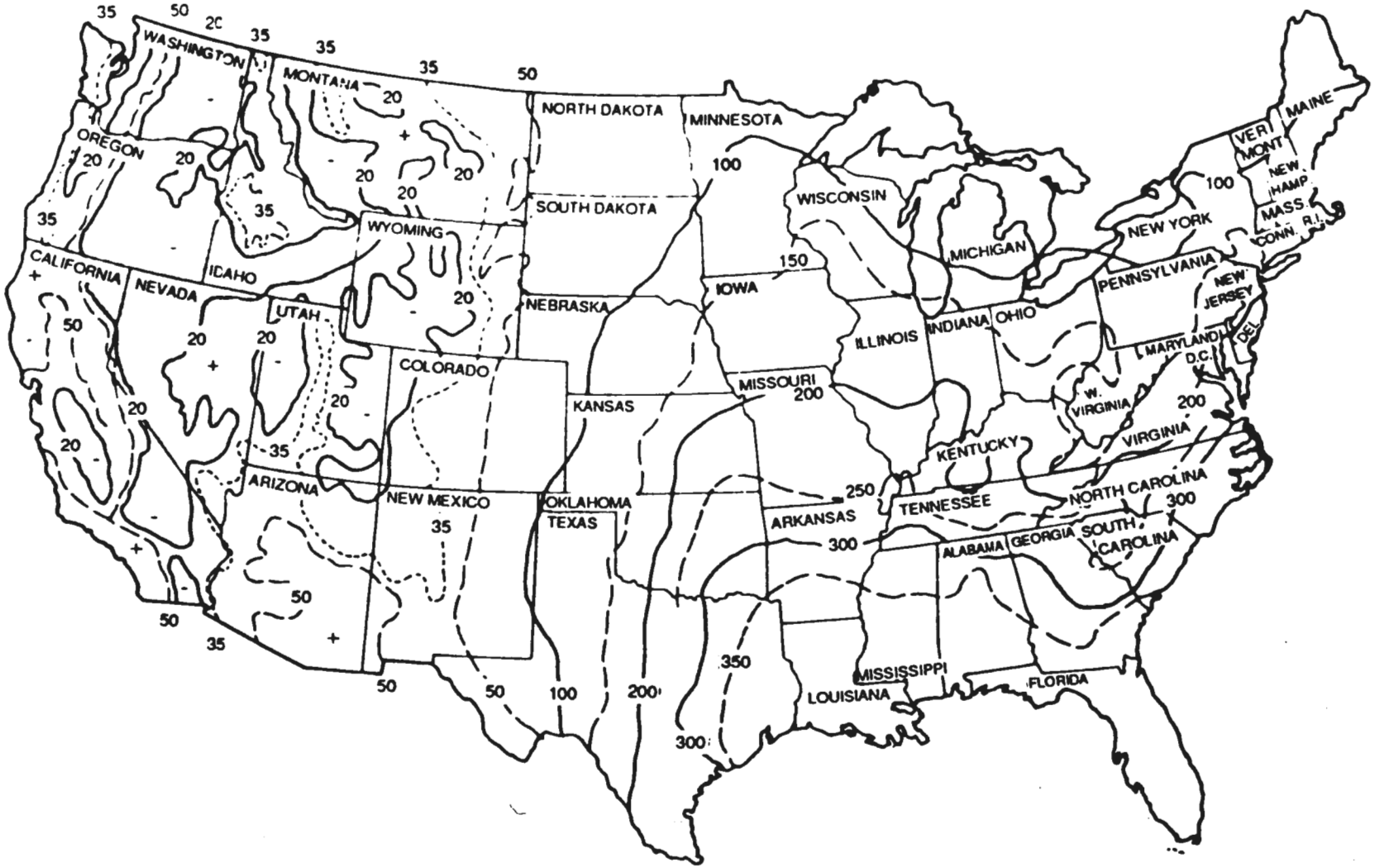
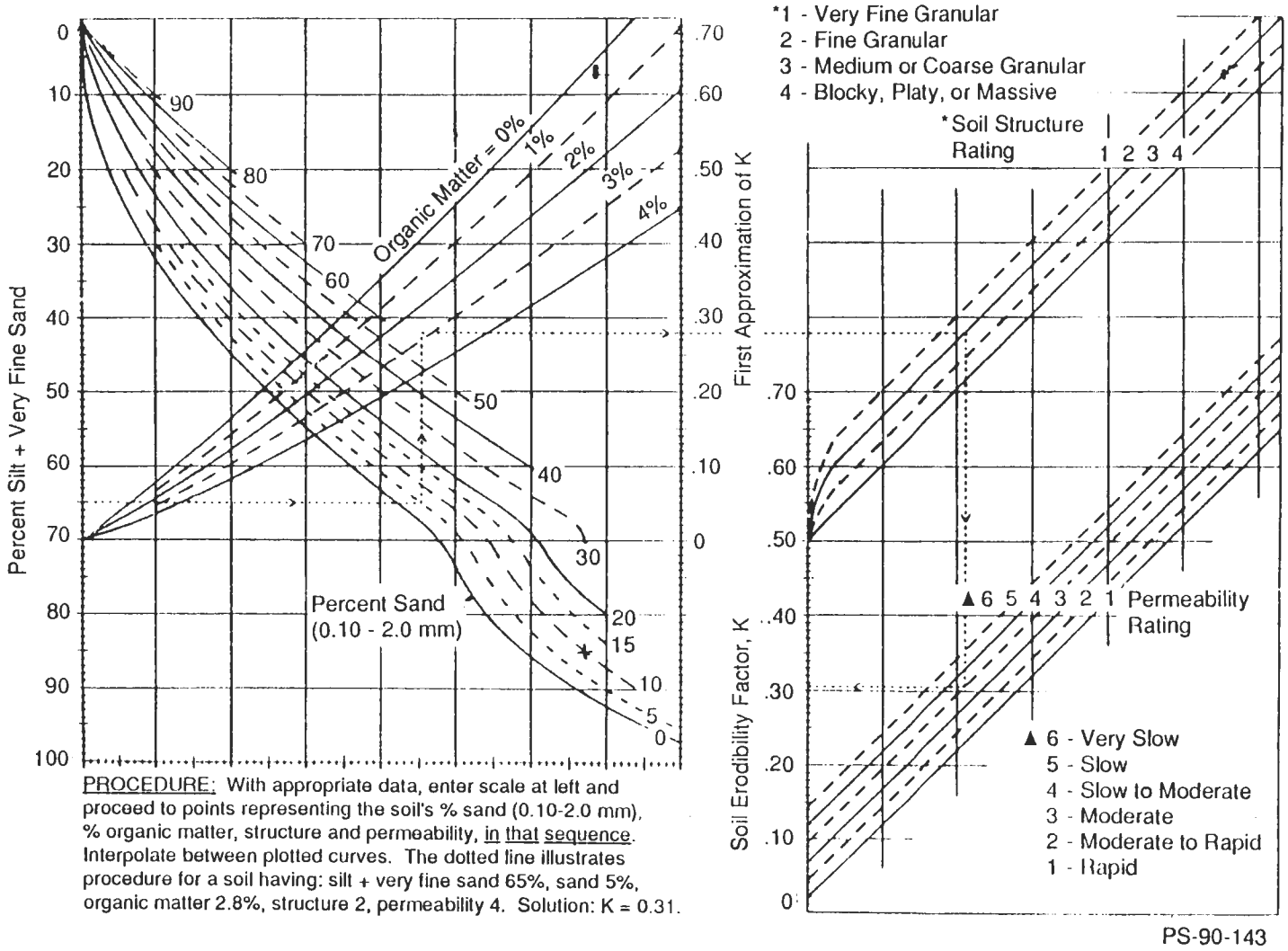


EPA, 1979

PS-90-138

Figure B5-1. Average Annual Values of Rainfall-Erosivity Factor R. (EPA 1979).

EPA, 1979



PROCEDURE: With appropriate data, enter scale at left and proceed to points representing the soil's % sand (0.10-2.0 mm), % organic matter, structure and permeability, in that sequence. Interpolate between plotted curves. The dotted line illustrates procedure for a soil having: silt + very fine sand 65%, sand 5%, organic matter 2.8%, structure 2, permeability 4. Solution: K = 0.31.

1 **Figure B5-2. Nomograph for Determining Soil-Erodibility Factor K for U.S. Mainland. (EPA 1979).**

Table B5-1. Values of the Factor LS for Specific Combinations of Slope Length and Steepness.

% Slope	Slope length (feet)											
	25	50	75	100	150	200	300	400	500	600	800	1,000
0.5	0.07	0.08	0.09	0.10	0.11	0.12	0.14	0.15	0.16	0.17	0.19	0.20
1	0.09	0.10	0.12	0.13	0.15	0.16	0.18	0.20	0.21	0.22	0.24	0.26
2	0.13	0.16	0.19	0.20	0.23	0.25	0.28	0.31	0.33	0.34	0.38	0.40
3	0.19	0.23	0.26	0.29	0.33	0.35	0.40	0.44	0.47	0.49	0.54	0.57
4	0.23	0.30	0.36	0.40	0.47	0.53	0.62	0.70	0.76	0.82	0.92	1.0
5	0.27	0.38	0.46	0.54	0.66	0.76	0.93	1.1	1.2	1.3	1.5	1.7
6	0.34	0.48	0.58	0.67	0.82	0.95	1.2	1.4	1.5	1.7	1.9	2.1
8	0.50	0.70	0.86	0.99	1.2	1.4	1.7	2.0	2.2	2.4	2.8	3.1
10	0.69	0.97	1.2	1.4	1.7	1.9	2.4	2.7	3.1	3.4	3.9	4.3
12	0.90	1.3	1.6	1.8	2.2	2.6	3.1	3.6	4.0	4.4	5.1	5.7
14	1.2	1.6	2.0	2.3	2.8	3.3	4.0	4.6	5.1	5.6	6.5	7.3
16	1.4	2.0	2.5	2.8	3.5	4.0	4.9	5.7	6.4	7.0	8.0	9.0
18	1.7	2.4	3.0	3.4	4.2	4.9	6.0	6.9	7.7	8.4	9.7	11.0
20	2.0	2.9	3.5	4.1	5.0	5.8	7.1	8.2	9.1	10.0	12.0	13.0
25	3.0	4.2	5.1	5.9	7.2	8.3	10.0	12.0	13.0	14.0	17.0	19.0
30	4.0	5.6	6.9	8.0	9.7	11.0	14.0	16.0	18.0	20.0	23.0	25.0
40	6.3	9.0	11.0	13.0	16.0	18.0	22.0	25.0	28.0	31.0	--	--
50	8.9	13.0	15.0	18.0	22.0	25.0	--	--	--	--	--	--
60	12.0	16.0	20.0	23.0	28.0	--	--	--	--	--	--	--

NOTE: Values given for slopes longer than 300 ft or steeper than 18% are extrapolations beyond the range of the research data and, therefore, are less certain than the others (EPA 1979).

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Table B5-2. Average Return Period and Existing Record for Various Precipitation Amounts and Intensity During Specified Time Periods at the Hanford Site (based on extreme value analysis of 1947 through 1969 records).

Average return period years	Time period (amount in inches)							Time period (intensity in inches per hour)						
	Minutes		Hours					Minutes		Hours				
	20	60	2	3	6	12	24	20	60	2	3	6	12	24
2	0.16	0.26	0.30	0.36	0.48	0.62	0.72	0.49	0.26	0.15	0.12	0.08	0.052	0.030
5	0.24	0.40	0.48	0.55	0.77	0.95	1.06	0.72	0.40	0.24	0.18	0.13	0.079	0.044
10	0.37	0.50	0.59	0.67	0.96	1.17	1.28	1.1	0.50	0.30	0.22	0.16	0.098	0.053
25	0.47	0.62	0.74	0.83	1.21	1.45	1.56	1.4	0.62	0.37	0.28	0.20	0.121	0.065
50	0.53	0.72	0.85	0.96	1.40	1.66	1.77	1.6	0.72	0.42	0.32	0.23	0.138	0.074
100	0.60	0.81	0.96	1.07	1.59	1.87	1.99	1.8	0.81	0.48	0.36	0.27	0.156	0.083
250	0.68	0.93	1.11	1.22	1.82	2.13	2.26	2.0	0.93	0.55	0.41	0.30	0.177	0.094
500	0.73	1.02	1.22	1.33	2.00	2.34	2.47	2.2	1.02	0.61	0.44	0.33	0.195	0.103
1,000	0.80	1.11	1.33	1.45	2.20	2.55	2.68	2.4	1.11	0.67	0.48	0.37	0.212	0.122
Existing record	[a]	0.59	0.88	1.08	1.68	1.88	1.91	[a]	0.59	0.44	0.36	0.28	0.157	0.080
Month/day		6/12	10/1	10.5	10.5	10.5	10.5		6/12	10/1	10/1	10.5	10.5	10.5
Year	--	1969	1957	1957	1957	1957	1957	--	1969	1959	1959	1959	1959	1959

NOTE: Records for 1947 through 1969 are from Stone et al. (1983).

[a]No records have been kept for time periods of less than 60 min. However, the rain gage chart for 6-12/69 shows the 0.55 in occurred during a 20-min period from 6:35 p.m., Pacific Standard Time. An additional 0.04 in occurred between 6:55 p.m. and 7:10 p.m., Pacific Standard Time, to account for the record 60-minute amount of 0.59 inch.

In order to do unit analysis, the depth of flow for this discharge must be determined. Flow depth is calculated as follows:

$$y = [Qn/(1.486)(S^{0.5})]^{0.6}$$

where:

y = depth of flow (ft)
Q = maximum design discharge (ft^3/second) (from previous equation)
n = manning roughness coefficient (where n = 0.02 for silt loam (Nelson and Abt 1986))
S = cover slope (percent).

Therefore:

$$y = [(0.11\ cfs)(0.020)/(1.486)(0.03)^{0.5}]^{0.6} = 0.06\ ft.$$

The velocity can now be determined for a unit area (one flow depth deep, and one foot in width).

$$V = Q/A$$

where:

V = design flow velocity (ft/s)
Q = maximum design discharge (ft^3/s)
A = y (area of flow).

$$V = (0.11\ cfs)/(1\ ft)(0.06\ ft) = 1.83\ ft/s.$$

Allowable V for silt loam is 3 ft/second (Nelson and Abt 1986). Therefore, sheet erosion potential of the cover materials is not a problem.

3.0 WIND EROSION EVALUATION

To evaluate the wind erosion potential of the cover surface soil, the Wind Erosion Equation (WEQ) was developed by the USDA Agricultural Research Service (ARS). It has been modified for use in the state of Washington by the

Soil Conservation Service (USDA 1987). The equation is used to evaluate the potential for wind erosion of soil surfaces and is used as follows:

$$E = f(IKCLV)$$

where:

- E = the estimated average annual soil loss in tons/acre/yr due to wind erosion
- f - an indication that the equation includes functional relationships that are not straight-line mathematical functions
- I = soil erodibility factor
- K = ridge roughness factor
- C = climatic factor
- L = unsheltered distance
- V = vegetative factor.

The equation can be considered to be successive modifications to I. The I factor is the potential annual wind erosion in tons/acre/yr for a given soil on an isolated, level, smooth, unsheltered, wide, and bare field with a noncrusted surface where the climatic factor is 100 percent.

The I factor is dependent on the soil texture and the percentage of dry aggregates over 0.84 mm in size. From DOE 1990, this value is roughly 3% for McGee Ranch Silt. To evaluate a soil in a realistic manner entails determining the normal, natural occurring state of the soil after exposure to the elements. McGee Ranch soils normally exhibits a crusted surface condition, for which the I value in Table B5-3 is 36.7. It is expected that the topsoil layer will form a crusted surface relatively soon after construction, in response to rain and snowfall events during the winter of the first year. If necessary, the formation of a crusted surface may be accelerated by direct application of water.

This I value must be adjusted for the portion of the cover that will be sloped and facing the prevailing winds. This is applied where an unsheltered distance of 500 ft or less exists as is the case with the 2101-M Pond cover. With a cover slope of 3%, the adjustment factor from Table B5-4 is 1.3, therefore;

$$I = (36.7)(1.3) \approx 48 \text{ tons/acre/yr}$$

The ridge roughness factor's (K) primary use is in application to agricultural related activities that take place on a recurring basis (e.g., plowing, planting, discing, harrowing, etc.). Ridges may be created at planting time, but these will exist for only a short period of time. This assumes that the seed is planted using a drill as opposed to planting by broadcast seeding methods. Assuming a ridge height of 1 in. after seeding, a

Table B5-3. Soil Erodibility Index (I).

Percent of dry soil not passing a 20 mesh screen	0	1	2	3	4	5	6	7	8	9
(Units)	Noncrusted soil surface (tons/acre)									
0	0	310	250	220	195	180	170	160	150	140
10	134	131	128	125	121	117	113	109	106	102
20	98	95	92	90	88	86	83	81	79	76
30	64	72	71	69	67	65	63	62	60	58
40	56	54	52	51	50	48	47	45	43	41
50	38	36	33	31	29	27	25	24	23	22
60	21	20	19	18	17	16	16	15	14	13
70	12	11	10	8	76	6	4	3	3	2
80	2	0	0	0	0	0	0	0	0	0
	Fully crusted soil surface (tons/acre)									
0	0	51.7	41.7	36.7	32.5	30.0	28.7	26.7	25.0	23.3
10	22.3	21.8	21.3	20.8	20.2	19.5	18.8	18.2	17.7	17.0
20	16.3	15.8	15.3	15.0	14.7	14.3	13.8	13.5	13.2	12.7
30	12.3	12.0	11.8	11.5	11.2	10.8	10.5	10.3	10.0	9.7
40	9.3	9.0	8.7	8.5	8.3	8.0	7.8	7.5	7.2	6.8
50	6.3	6.0	5.5	5.2	4.8	4.5	4.2	4.0	3.8	3.7
60	3.5	3.3	3.2	3.0	2.8	2.7	2.7	2.5	2.3	2.2
70	2.0	1.8	1.7	1.3	1.2	1.0	0.7	0.5	0.5	0.3
80	0.3	0	0	0	0	0	0	0	0	0

Israelsen et al. 1980.

9513319.1677

Table B5-4. Knoll Erodibility I Correction Factor.

Knoll facing wind rise in percent slope (along prevailing wind erosion direction)	I slope correction
3	1.3
4	1.6
5	1.9
6	2.3
8	3.0
10	3.6

K factor of 0.6 is obtained from Figure B5-3. This ridge height can only be assumed for the first year of the cover's life because the 2101-M Pond cover will not be subjected to annual tillage activities to develop and maintain soil ridges. The K factor will have little or no influence on the cover design after this first year. Therefore, the ridge height is assumed to be zero over long periods of time. From Figure B5-3, the K value is then 1.

The distribution of climatic factor (C) across Washington State is indicated in Figure B5-4. Appropriate ranges for the C factor is 60 to 70 for the 2101-M Pond area.

The vegetative factor (V) is difficult to characterize. During the first year after cover construction, before a mature stand of cover vegetation has been produced, the soil surface will be protected from wind erosion by spreading and crimping 4,000 lbs of straw per acre on or into the soil surface. For following years, the amount of plant production for the site must be estimated. The USDA Soil Conservation Service has performed a number of evaluations of range site conditions for varying soil and precipitation conditions. The average annual rainfall for this area is in the 6- to 9-in. range. Using the data from similar climate and land use areas, the total annual production of air-dry weight per acre for the 2101-M Pond vegetative cover runs from a low of 200 lbs for unfavorable years, to 500 lbs for favorable years (USDA 1981). The design assumes the median value for V. This yields 350 lbs of air-dry material. Using Crested Wheatgrass from Table B5-5 to represent the cover vegetation, the flat small grain equivalent is roughly 1,100 lbs/acre. The unsheltered field length (L) for the worst case condition on the cover is 50 ft.

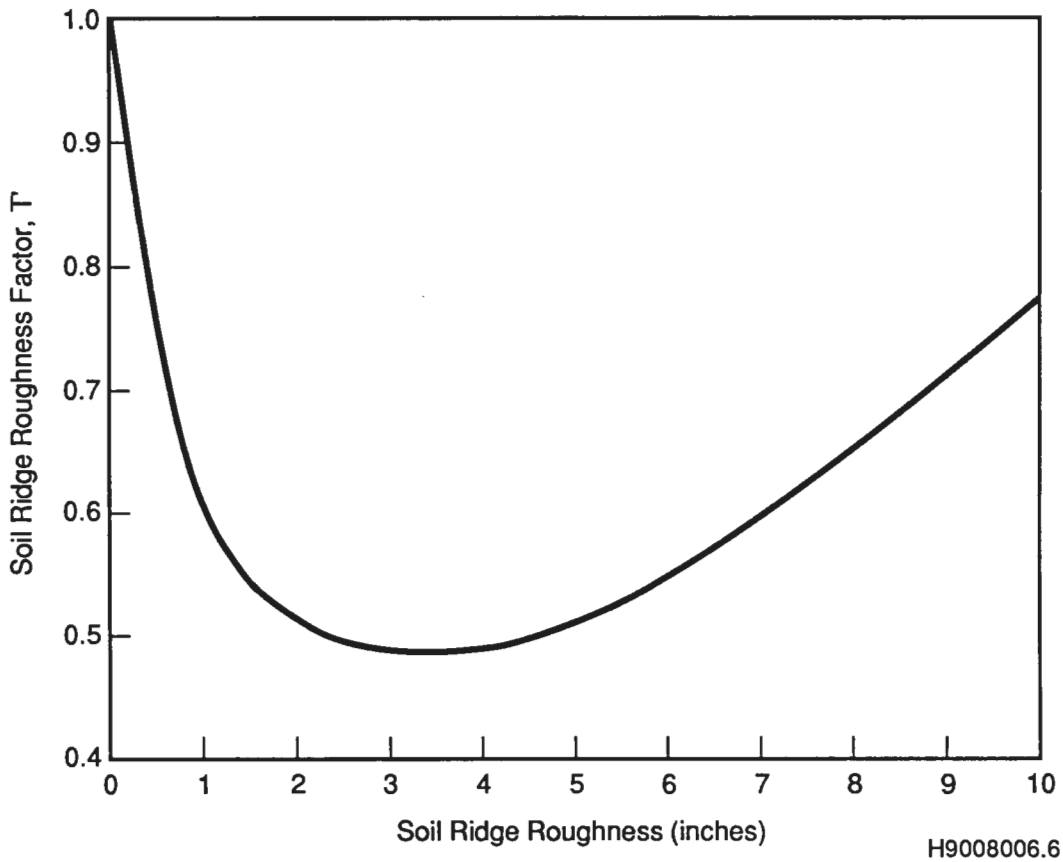

Figure B5-3. Soil Ridge Roughness Factor K From Actual Soil Ridge Roughness (EPA 1979).

Washington

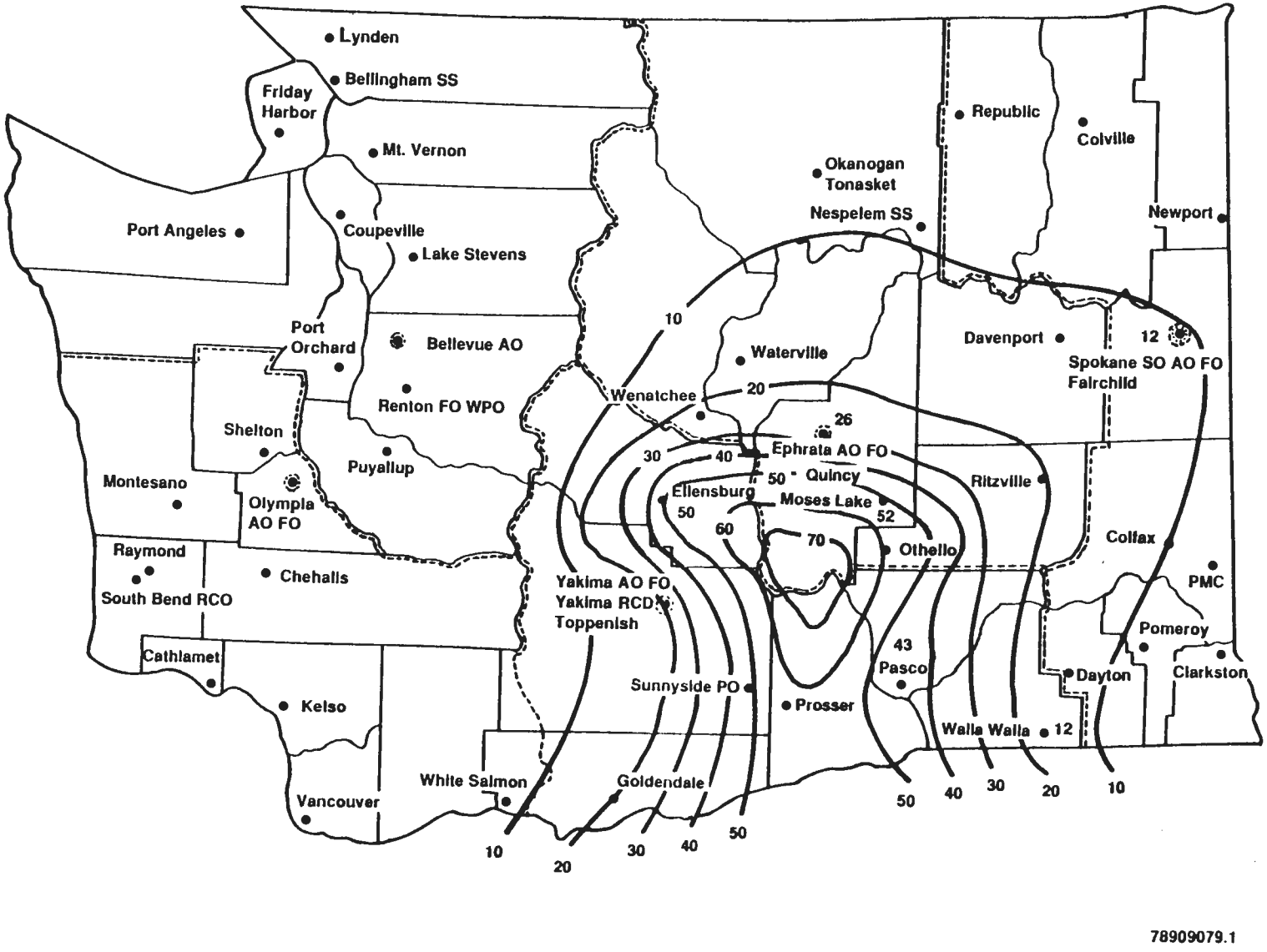

Figure B5-4. Annual Wind Erosion Climatic 'C' Factor Map.

Table B5-5. Guide for Converting Range Vegetation to Equivalent Quantity of Flat Small Grain Residue. (sheet 1 of 2)

Grass plants	Pounds per acre of range vegetation										
	50	100	200	300	400	500	600	700	800	900	1,000
Buffalograss[a], burrograss, and Inland saltgrass	320	720	1,630	2,630							
Big bluestem[a]	45	110	280	480	705	950	1,215	1,495	1,785	2,090	2,410
Western wheatgrass[a], creeping wildrye, and side oats grama	155	245	775	1,240	1,740	2,260	2,795	3,345			
Little Bluestem[a]	45	110	285	495	735	995	1,280	1,580	1,900	2,230	2,575
Blue grama[a], threadleaf sedge, and perennial three-awn	110	235	490	760	1,040	1,325	1,610	1,905			
Galleta and tobosa	150	300	800	1,200	1,700	2,600					
Bottlebrush squirreltail, needle and thread[a], and thruber needlegrass	70	150	300	600	800	1,200					
Alkali sacaton	60	150	400	800	1,400	2,200	2,800	3,600			
Bluebunch wheatgrass	50	120	300	550	850	1,150	1,500	1,900	2,300	2,600	3,000
Idaho fescue	100	200	400	900	1,500	2,300					

9513319.1679

Table B5-5. Guide for Converting Range Vegetation to Equivalent Quantity of Flat Small Grain Residue. (sheet 2 of 2)

Grass plants	Pounds per acre of range vegetation										
	50	100	200	300	400	500	600	700	800	900	1,000
Indian ricegrass	100	175	300	600	900	1,400					
Crested wheatgrass	130	300	600	900	1,300	1,800	2,400	3,100	4,000		
Cheatgrass	100	200	300	600	800	1,000	1,200	2,000	2,500	3,000	

NOTE: Other grass species equivalents were estimated by comparing the growth characteristics with the tested species.

[a]Lyles and Allison (1980).

With the given information: I=48, K=0.6 for the first year and then 1.0 for the life of the cover; C=60 to 70, L=50, and V=4,000 for the first year and then 1,100 for following years; the value of E can be determined from interpolation of SCS wind erosion charts for these values.

Wind erosion for the first year is estimated to be essentially zero. This is primarily attributed to the projected effectiveness of the straw mulch treatment. In following years, wind erosion will be determined by the condition of the grass stand. In the years following the initial seeding, when an average stand is present, wind erosion is predicted to be less than 0.5 tons/acre/yr. It is assumed also that the straw mulch will continue to assist in reducing wind erosion for two to three years after placement. This will be dependent upon the climatic conditions during that time span.

In those years when a less-than-average stand of grass develops (200 lbs air-dry weight/acre), the estimated V will drop to roughly 600 lbs/acre. This will yield a predicted erosion rate of 0.7 ton/acre/yr (C=60) to 1.0 ton/acre/yr (C=70). As is demonstrated by these results, the projected soil losses are highly dependent on the vegetative factor. In those years when the vegetation yield is above the predicted average, the erosion rate will be insignificant. Until the vegetative cover becomes fully established, the erosion rates may exceed the estimated average range. After establishment of the vegetative cover, the erosion rates should more closely coincide with the predicted rates. An increase in the vegetative growth to around optimal production (500 lbs air-dry weight per acre) would decrease soil losses to zero.

4.0 HYDROLOGIC EVALUATION OF LANDFILL PERFORMANCE

The Hydrologic Evaluation of Landfill Performance (HELP) computer modelling results are included in this appendix. The HELP model was developed by the U.S. Environmental Protection Agency (EPA) to aid hazardous waste landfill designers in estimating water budget and quantity of leachate from a landfill. Therefore, the model is used as a tool to estimate water drainage and percolation through covers and/or liner and leachate collection systems for landfills. The model uses a deterministic, sequential daily analysis to calculate run-off, evapotranspiration, percolation, and lateral drainage. The following discussion is based on the documentation of the HELP Model, Version 2.0 (EPA 1984). The newest existing released version of the HELP model will be used during definitive design.

The HELP model requires the use of specific cover-soil physical properties and local climatological data. The HELP model is provided with climatological data for many locations across the United States. Local climatological data available from the Hanford Meteorological Station were input to the HELP model where available (Skelly 1990).

The model is set up to run four different kinds of layers, only one of which is used for this design. The four types of layers are: (1) vertical percolation, (2) lateral drainage, (3) barrier or low-permeability components, and (4) waste layer. For the model, only the vertical drainage layer was used as a cover component as opposed to the low-permeability component to build some conservatism into the evaluation. The vertical layers work on the principle that there is no significant resistance to vertical flow. Water can move up or down to account for evapotranspiration as well as percolation. No lateral drainage is assumed for vertical drainage components.

The model calculates water movement off of the cover surface and through the cover on a daily basis. The model handles precipitation as subdivided into components including runoff, evapotranspiration, percolation, and subsurface lateral drainage.

Surface run-off is that component of precipitation that does not infiltrate the soil. Once the infiltration requirements are fulfilled, water begins to be stored in natural surface depressions and flows through small channels in the cover surface. A Soil Conservation Service curve number is assigned to the soil and is coupled with a Darcian flow equation modified for unsaturated flow conditions.

Infiltration has been calculated based on the differences between daily precipitation and the sum of the change in surface storage of precipitation, the daily run-off, and surface evaporation. If the mean daily temperature is below 32 °F, the precipitation would be stored as snow.

Evapotranspiration has been modelled as a function of available energy, vegetation, soil, water transmissivity, and water content. For the evapotranspiration function, available surface water is first addressed and then subsurface water is used to separately calculate plant transpiration and evaporation on a daily basis.

The model assumes that each layer is homogeneous with respect to hydraulic conductivity, porosity, and field capacity.

The products of the model runs are summaries of annual totals, average annual total for 5 yr, and peak daily totals for precipitation, run-off, evapotranspiration, and percolation from base of cover. The following summary data is provided.

2101-M Pond
Steady State Output
7/16/90

Layer 1

Vertical Percolation Layer

Thickness	=	30.00 In.
Porosity	=	0.5140 Vol/Vol
Field Capacity	=	0.2585 Vol/Vol
Wilting Point	=	0.0681 Vol/Vol
Initial Soil Water Content	=	0.0899 Vol/Vol
Saturated Hydraulic Conductivity	=	0.001000000047 Cm/Sec

Layer 2

Vertical Percolation Layer

Thickness	=	12.00 In.
Porosity	=	0.3470 Vol/Vol
Field Capacity	=	0.2585 Vol/Vol
Wilting Point	=	0.0681 Vol/Vol
Initial Soil Water Content	=	0.0925 Vol/Vol
Saturated Hydraulic Conductivity	=	0.000000300000 Cm/Sec

Layer 3

Vertical Percolation Layer

Thickness	=	12.00 In.
Porosity	=	0.4370 Vol/Vol
Field Capacity	=	0.1050 Vol/Vol
Wilting Point	=	0.0470 Vol/Vol
Initial Soil Water Content	=	0.1114 Vol/Vol
Saturated Hydraulic Conductivity	=	0.002700000070 Cm/Sec

General Simulation Data

SCS Runoff Curve Number	=	80.00
Total Area of Cover	=	27600. Sq. Ft
Evaporative Zone Depth	=	36.00 In.
Upper Limit Veg. Storage	=	17.5020 In.
Initial Veg. Storage	=	3.2520 In.
Initial Snow Water Content	=	0.0000 In.
Initial Total Water Storage in Soil and Waste Layers	=	5.1438 In.

Soil Water Content Initialized by User.

Climatological Data

User Specified Rainfall with Synthetic Daily Temperatures and Solar Radiation for Hanford Wash

Maximum Leaf Area Index	=	1.60
Start of Growing Season (Julian Date)	=	113
End of Growing Season (Julian Date)	=	288

Normal Mean Monthly Temperatures, Degrees Fahrenheit

Jan/Jul	Feb/Aug	Mar/Sep	Apr/Oct	May/Nov	Jun/Dec
29.30	36.30	45.10	53.10	61.50	69.30
76.40	74.30	65.20	53.00	39.80	32.70

Monthly Totals for Year 1979

	Jan/Jul	Feb/Aug	Mar/Sep	Apr/Oct	May/Nov	Jun/Dec
Precipitation (in.)	0.54 0.09	0.17 0.38	0.54 0.20	0.52 0.67	0.10 1.43	0.00 0.99
Run-off (in.)	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
Evapotranspiration (in.)	0.778 0.090	0.324 0.280	0.206 0.300	0.447 0.137	0.606 0.349	0.309 0.531
Percolation From Layer 3 (in.)	0.0030 0.0026	0.0026 0.0025	0.0028 0.0024	0.0027 0.0024	0.0027 0.0023	0.0026 0.0023

Annual Totals for Year 1979

	(Inches)	(Cubic Feet)	Percent
Precipitation	5.63	12949.	100.00
Run-off	0.000	0.	0.00
Evapotranspiration	4.357	10021.	77.39
Percolation from Layer 3	0.0309	71.	0.55
Change in Water Storage	1.242	2856.	22.06
Soil Water at Start of Year	5.14	11831.	
Soil Water at End of Year	6.39	14687.	
Snow Water at Start of Year	0.00	0.	
Snow Water at End of Year	0.00	0.	
Annual Water Budget Balance	0.00	0.	0.00

Monthly Totals for Year 1980

	Jan/Jul	Feb/Aug	Mar/Sep	Apr/Oct	May/Nov	Jun/Dec
Precipitation (in.)	1.32 0.00	1.30 0.02	0.30 0.85	0.86 0.33	1.43 0.44	0.96 1.89
Run-off (in.)	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
Evapotranspiration (in.)	0.487 0.215	1.187 0.020	1.937 0.379	0.663 0.362	1.678 0.291	2.076 0.324
Percolation from Layer 3 (in.)	0.0023 0.0020	0.0021 0.0020	0.0022 0.0019	0.0021 0.0019	0.0021 0.0018	0.0020 0.0019

Annual Totals for Year 1980

	(Inches)	(Cubic Feet)	Percent
Precipitation	9.70	22310.	100.00
Run-off	0.000	0.	0.00
Evapotranspiration	9.619	22124.	99.17
Percolation from Layer 3	0.0244	56.	0.25
Change in Water Storage	0.057	130.	0.58
Soil Water at Start of Year	6.39	14687.	
Soil Water at End of Year	6.44	14817.	
Snow Water at Start of Year	0.00	0.	
Snow Water at End of Year	0.00	0.	
Annual Water Budget Balance	0.00	0.	0.00

Monthly Totals for Year 1981

	Jan/Jul	Feb/Aug	Mar/Sep	Apr/Oct	May/Nov	Jun/Dec
Precipitation (in.)	0.56 0.19	0.60 0.03	0.70 0.60	0.02 0.39	0.99 1.08	0.43 1.45
Run-off (in.)	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
Evapotranspiration (in.)	0.696 0.181	1.502 0.030	1.071 0.098	0.431 0.334	0.367 0.537	1.395 0.558
Percolation from Layer 3 (in.)	0.0018 0.0017	0.0016 0.0017	0.0018 0.0016	0.0017 0.0016	0.0017 0.0015	0.0016 0.0016

Annual Totals for Year 1981

	(Inches)	(Cubic Feet)	Percent
Precipitation	7.04	16192.	100.00
Run-off	0.000	0.	0.00
Evapotranspiration	7.202	16565.	102.30
Percolation from Layer 3	0.0199	46.	0.28
Change in Water Storage	-0.182	-419.	-2.59
Soil Water at Start of Year	6.44	14817.	
Soil Water at End of Year	6.26	14399.	
Snow Water at Start of Year	0.00	0.	
Snow Water at End of Year	0.00	0.	
Annual Water Budget Balance	0.00	0.	0.00

Monthly Totals for Year 1982

	Jan/Jul	Feb/Aug	Mar/Sep	Apr/Oct	May/Nov	Jun/Dec
Precipitation (in.)	0.38 0.22	0.57 0.20	0.30 0.55	0.75 1.37	0.28 0.91	0.75 1.79
Run-off (in.)	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
Evapotranspiration (in.)	0.692 0.717	1.161 0.195	1.038 0.291	0.583 0.399	0.709 1.038	0.342 0.569
Percolation from Layer 3 (in.)	0.0015 0.0014	0.0014 0.0014	0.0015 0.0013	0.0014 0.0014	0.0015 0.0013	0.0014 0.0013

Annual Totals for Year 1982

	(Inches)	(Cubic Feet)	Percent
Precipitation	8.07	18561.	100.00
Run-off	0.000	0.	0.00
Evapotranspiration	7.735	17791.	95.85
Percolation from Layer 3	0.0168	39.	0.21
Change in Water Storage	0.318	731.	3.94
Soil Water at Start of Year	6.26	14399.	
Soil Water at End of Year	6.58	15130.	
Snow Water at Start of Year	0.00	0.	
Snow Water at End of Year	0.00	0.	
Annual Water Budget Balance	0.00	0.	0.00

Monthly Totals for Year 1983

	Jan/Jul	Feb/Aug	Mar/Sep	Apr/Oct	May/Nov	Jun/Dec
Precipitation (in.)	1.44 0.31	1.36 0.12	1.00 0.46	0.42 0.52	0.52 2.12	0.68 2.12
Run-off (in.)	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
Evapotranspiration (in.)	0.597 0.680	1.000 0.132	2.188 0.452	0.863 0.165	0.706 0.700	2.009 0.459
Percolation from Layer 3 (in.)	0.0013 0.0012	0.0012 0.0012	0.0013 0.0012	0.0012 0.0012	0.0013 0.0011	0.0012 0.0012

Annual Totals for Year 1983

	(Inches)	(Cubic Feet)	Percent
Precipitation	11.07	25461.	100.00
Run-off	0.000	0.	0.00
Evapotranspiration	9.951	22887.	89.89
Percolation from Layer 3	0.0145	33.	0.13
Change in Water Storage	1.105	2541.	9.98
Soil Water at Start of Year	6.58	15130.	
Soil Water at End of Year	7.68	17671.	
Snow Water at Start of Year	0.00	0.	
Snow Water at End of Year	0.00	0.	
Annual Water Budget Balance	0.00	0.	0.00

Monthly Totals for Year 1984

	Jan/Jul	Feb/Aug	Mar/Sep	Apr/Oct	May/Nov	Jun/Dec
Precipitation (in.)	0.23 0.06	0.94 0.00	1.01 0.42	0.60 0.07	0.55 1.83	0.99 0.57
Run-off (in.)	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
Evapotranspiration (in.)	0.463 0.235	1.325 0.000	2.024 0.217	0.624 0.268	0.748 0.468	2.403 0.595
Percolation from Layer 3 (in.)	0.0011 0.0011	0.0011 0.0011	0.0011 0.0010	0.0011 0.0010	0.0011 0.0010	0.0011 0.0010

Annual Totals for Year 1984

	(Inches)	(Cubic Feet)	Percent
Precipitation	7.27	16721.	100.00
Run-off	0.000	0.	0.00
Evapotranspiration	9.369	21548.	128.87
Percolation from Layer 3	0.0128	29.	0.18
Change in Water Storage	-2.112	-4857.	-29.05
Soil Water at Start of Year	7.68	17671.	
Soil Water at End of Year	5.57	12814.	
Snow Water at Start of Year	0.00	0.	
Snow Water at End of Year	0.00	0.	
Annual Water Budget Balance	0.00	0.	0.00

Monthly Totals for Year 1985

	Jan/Jul	Feb/Aug	Mar/Sep	Apr/Oct	May/Nov	Jun/Dec
Precipitation (in.)	0.34 0.12	0.82 0.01	0.36 0.63	0.01 0.46	0.12 1.24	0.15 0.86
Run-off (in.)	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
Evapotranspiration (in.)	0.673 0.027	1.205 0.103	0.933 0.339	0.050 0.263	0.130 0.279	0.150 0.632
Percolation from Layer 3 (in.)	0.0010 0.0010	0.0009 0.0010	0.0010 0.0009	0.0010 0.0009	0.0010 0.0009	0.0009 0.0009

Annual Totals for Year 1985

	(Inches)	(Cubic Feet)	Percent
Precipitation	5.12	11776.	100.00
Run-off	0.000	0.	0.00
Evapotranspiration	4.785	11006.	93.46
Percolation from Layer 3	0.0114	26.	0.22
Change in Water Storage	0.323	744.	6.32
Soil Water at Start of Year	5.57	12814.	
Soil Water at End of Year	5.89	13558.	
Snow Water at Start of Year	0.00	0.	
Snow Water at End of Year	0.00	0.	
Annual Water Budget Balance	0.00	0.	0.00

Monthly Totals for Year 1986

	Jan/Jul	Feb/Aug	Mar/Sep	Apr/Oct	May/Nov	Jun/Dec
Precipitation (in.)	1.76 0.21	1.21 0.02	0.76 0.96	0.00 0.29	0.30 0.65	0.00 0.77
Run-off (in.)	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
Evapotranspiration (in.)	0.542 0.981	1.381 0.020	1.746 0.320	0.443 0.265	0.367 0.234	0.457 0.272
Percolation from Layer 3 (in.)	0.0009 0.0009	0.0008 0.0009	0.0009 0.0008	0.0009 0.0008	0.0009 0.0008	0.0008 0.0008

Annual Totals for Year 1986

	(Inches)	(Cubic Feet)	Percent
Precipitation	6.93	15939.	100.00
Run-off	0.000	0.	0.00
Evapotranspiration	7.028	16164.	101.41
Percolation from Layer 3	0.0102	24.	0.15
Change in Water Storage	-0.108	-249.	-1.56
Soil Water at Start of Year	5.89	13558.	
Soil Water at End of Year	5.79	13309.	
Snow Water at Start of Year	0.00	0.	
Snow Water at End of Year	0.00	0.	
Annual Water Budget Balance	0.00	0.	0.00

Monthly Totals for Year 1987

	Jan/Jul	Feb/Aug	Mar/Sep	Apr/Oct	May/Nov	Jun/Dec
Precipitation (in.)	0.80 0.50	0.55 0.07	1.05 0.01	0.14 0.00	0.39 0.40	0.08 1.63
Run-off (in.)	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
Evapotranspiration (in.)	0.274 0.500	1.025 0.070	1.593 0.010	0.643 0.000	0.671 0.234	0.383 0.231
Percolation from Layer 3 (in.)	0.0008 0.0008	0.0007 0.0008	0.0008 0.0007	0.0008 0.0008	0.0008 0.0007	0.0008 0.0008

Annual Totals for Year 1987

	(Inches)	(Cubic Feet)	Percent
Precipitation	5.62	12926.	100.00
Run-off	0.000	0.	0.00
Evapotranspiration	5.634	12958.	100.25
Percolation from Layer 3	0.0093	21.	0.17
Change in Water Storage	-0.023	-53.	-0.41
Soil Water at Start of Year	5.79	13309.	
Soil Water at End of Year	5.76	13256.	
Snow Water at Start of Year	0.00	0.	
Snow Water at End of Year	0.00	0.	
Annual Water Budget Balance	0.00	0.	0.00

Monthly Totals For Year 1988

	Jan/Jul	Feb/Aug	Mar/Sep	Apr/Oct	May/Nov	Jun/Dec
Precipitation (in.)	0.48 0.13	0.00 0.00	0.60 0.39	1.12 0.01	0.33 0.82	0.11 0.40
Run-off (in.)	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
Evapotranspiration (in.)	0.254 0.130	0.165 0.000	0.279 0.190	1.040 0.210	1.410 0.303	1.057 0.297
Percolation from Layer 3 (in.)	0.0008 0.0007	0.0007 0.0007	0.0007 0.0007	0.0007 0.0007	0.0007 0.0007	0.0007 0.0007

Annual Totals for Year 1988

	(Inches)	(Cubic Feet)	Percent
Precipitation	4.39	10097.	100.00
Run-off	0.000	0.	0.00
Evapotranspiration	5.335	12270.	121.52
Percolation from Layer 3	0.0085	20.	0.19
Change in Water Storage	-0.953	-2193.	-21.72
Soil Water at Start of Year	5.76	13256.	
Soil Water at End of Year	4.81	11064.	
Snow Water at Start of Year	0.00	0.	
Snow Water at End of Year	0.00	0.	
Annual Water Budget Balance	0.00	0.	0.00

Average Monthly Values In Inches for Years 1979 Through 1988						
	Jan/Jul	Feb/Aug	Mar/Sep	Apr/Oct	May/Nov	Jun/Dec
Precipitation						
Totals	0.78 0.18	0.75 0.09	0.66 0.51	0.44 0.41	0.50 1.09	0.42 1.25
Std. Deviations	0.53 0.14	0.46 0.12	0.29 0.28	0.40 0.40	0.41 0.57	0.40 0.60
Run-off						
Totals	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
Std. Deviations	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
Evapotranspiration						
Totals	0.546 0.376	1.028 0.085	1.302 0.260	0.579 0.240	0.739 0.443	1.058 0.447
Std. Deviations	0.178 0.323	0.441 0.094	0.707 0.133	0.268 0.118	0.472 0.257	0.855 0.151
Percolation from Layer 3						
Totals	0.0015 0.0013	0.0013 0.0013	0.0014 0.0013	0.0013 0.0013	0.0014 0.0012	0.0013 0.0012
Std. Deviations	0.0007 0.0006	0.0006 0.0006	0.0007 0.0006	0.0006 0.0006	0.0006 0.0005	0.0006 0.0005

Average Annual Totals and (Standard Deviations) for Years 1979 Through 1988

	(Inches)		(Cubic Feet)	Percent
Precipitation	7.08	(2.085)	16293.	100.00
Run-off	0.000	(0.000)	0.	0.00
Evapotranspiration	7.101	(2.060)	16333.	100.25
Percolation from Layer	0.0159	(0.0073)	37.	0.22
Change in Water Storage	-0.033	(0.965)	-77.	-0.47

Peak Daily Values for Years 1979 Through 1988

	(Inches)	(Cubic Feet)
Precipitation	0.93	2139.0
Run-off	0.000	0.0
Percolation from Layer 3	0.0001	0.2
Snow Water	0.76	1738.3
Maximum Veg. soil water (vol/vol)	0.1694	
Minimum Veg. soil water (vol/vol)	0.0679	

Final Water Storage at End of Year 1988		
Layer	(Inches)	(Vol/Vol)
1	2.66	0.0888
2	0.97	0.0807
3	1.18	0.0982
Snow Water	0.00	

5.0 COVER MATERIAL VOLUME ESTIMATES

The required volume of each of the cover components is estimated in Table B5-6. The exact surface area requirements for the cover have yet to be determined. However, a preliminary amount of materials required for each cover component is estimated based on the following assumptions:

- Cover area is 100 ft x 230 ft
- Cover is 3 ft high (above grade)
- The individual component thicknesses are as depicted in Figures II-5 and II-6.

Table B5-6. Cover Material Volume/Area Estimates.

Cover Component	Cubic Yards
Foundation Soil	1,600
Low-Permeability Soil	850
Topsoil	1,700

NOTE: Ecology must approve the final cover design before construction.

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APPENDIX C-1.

PHASE I DATA PACKAGE FOR ANALYSIS OF 2101-M POND SOIL SAMPLES AND BACKGROUND SAMPLES

NOTE: A KEY TO CONSTITUENT CODES IS PROVIDED AT THE END OF THIS APPENDIX

Table C-1. Comparison of U.S. Testing Company, Incorporated, and U.S. Environmental Protection Agency Methods. (sheet 1 of 2)

Analysis	Analyte(s) determined	Analytical Method Number	
		U.S. Environmental Protection Agency[a]	U.S. Testing Co., Inc.
Metals	18 metals[b]	SW-846[c], No. 6010	726
Mercury	Mercury	SW-846, No. 7470	A21
Arsenic	Arsenic	SW-846, No. 7060	A20
Lead	Lead	SW-846, No. 7421	A51
Selenium	Selenium	SW-846, No. 7740	A22
Thallium	Thallium	SW-846, No. 7841	A23
Ammonium	NH^{4+}	ASTM 1426-D-79[d]	C80
Anions	Cl^-, F^-, NO_3^-, SO_4^{-2},	In-hours ion chromatography	
	PO_4		735
Cyanide	CN	SW-846, No. 9010	C70
Sulfide	S^{-2}	SW-846, No. 9030	C78
Thioure[a]	7 compounds	SW-846, No. 8330	727
Chlorinated pesticides	18 pesticides	SW-846, No. 8080	729
Phosphorous pesticides	6 pesticides	SW-846, No. 8140	734
Chlorinated herbicides	3 herbicides	SW-846, No. 8150	737
Polychlorinated biphenyls	7 PCBs	SW-846, No. 8080	739
Total organic carbon	Total organic carbon	SW-846, No. 9060	C69
Total organic halogen	Total organic halogen	SW-846, No. 9020	C68
Volatile organics analysis	53 organics	SW-846, No. 8240	731
Extractable organics	141 organics	SW-846, No. 8270	733

Table C-1. Comparison of U.S. Testing Company, Incorporated, and U.S. Environmental Protection Agency Methods. (sheet 2 of 2)

Analysis	Analyte(s) determined	Analytical Method Number	
		U.S. Environmental Protection Agency[a]	U.S. Testing Co., Inc.
Conductivity		SW-846, No. 9050	088
pH		SW-846, No. 9045	207

[a]When EPA methods were not available, techniques from Standard Methods for the Examination of Water and Wastewater (APHA 1981) were used whenever possible.

[b]Aluminum, silver, barium, beryllium, calcium, cadmium, chromium, copper, iron, potassium, magnesium, manganese, sodium, nickel, antimony, strontium, vanadium, and zinc.

[c]EPA (1982).

[d]ASTM (1979).

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SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
********** <** SAMPLE: M131 **> **********															
===> PROCEDURE: 088		REPORTED: 14JUL88													
SOIL	M131	LSP COND	088		6.88E+02			0.00E+00	G	27JUN88	1020	10JUL88	I	341	011108
===> PROCEDURE: 207		REPORTED: 14JUL88													
SOIL	M131	PH (LAB)	207		6.10E+00			0.00E+00	G	27JUN88	1020	28JUN88	I	341	011108
===> PROCEDURE: 726		REPORTED: 12AUG88													
SOIL	M131	BERYLAM	A01	*	5.00E-01 UG/G			1.01E+00	G	27JUN88	1020	03AUG88	I	341	011108
SOIL	M131	STRONUM	A03		2.27E+01 UG/G			1.01E+00	G	27JUN88	1020	03AUG88	I	341	011108
SOIL	M131	ZINC	A04		1.12E+02 UG/G			1.01E+00	G	27JUN88	1020	03AUG88	I	341	011108
SOIL	M131	CALCIUM	A05		3.77E+03 UG/G			1.01E+00	G	27JUN88	1020	03AUG88	I	341	011108
SOIL	M131	BARIUM	A06		6.17E+01 UG/G			1.01E+00	G	27JUN88	1020	03AUG88	I	341	011108
SOIL	M131	CADMIUM	A07	*	2.00E-01 UG/G			1.01E+00	G	27JUN88	1020	03AUG88	I	341	011108
SOIL	M131	CHROMUM	A08		1.66E+01 UG/G			1.01E+00	G	27JUN88	1020	03AUG88	I	341	011108
SOIL	M131	SILVER	A10	*	1.00E+00 UG/G			1.01E+00	G	27JUN88	1020	03AUG88	I	341	011108
SOIL	M131	SODIUM	A11		9.37E+02 UG/G			1.01E+00	G	27JUN88	1020	03AUG88	I	341	011108
SOIL	M131	NICKEL	A12		9.20E+00 UG/G			1.01E+00	G	27JUN88	1020	03AUG88	I	341	011108
SOIL	M131	COPPER	A13		3.30E+00 UG/G			1.01E+00	G	27JUN88	1020	03AUG88	I	341	011108
SOIL	M131	VANADUM	A14		5.90E+01 UG/G			1.01E+00	G	27JUN88	1020	03AUG88	I	341	011108
SOIL	M131	ANTIONY	A15	*	1.00E+01 UG/G			1.01E+00	G	27JUN88	1020	03AUG88	I	341	011108
SOIL	M131	ALUMNUM	A16		1.01E+04 UG/G	1		1.01E+00	G	27JUN88	1020	03AUG88	I	341	011108
SOIL	M131	MANGESE	A17		1.64 +02 UG/G			1.01E+00	G	27JUN88	1020	03AUG88	I	341	011108
SOIL	M131	POTASUM	A18		1.62E+03 UG/G	1		1.01E+00	G	27JUN88	1020	03AUG88	I	341	011108
SOIL	M131	IRON	A19		2.69E+04 UG/G	1		1.01E+00	G	27JUN88	1020	03AUG88	I	341	011108
SOIL	M131	MAGNES	A20		4.70E+03 UG/G	1		1.01E+00	G	27JUN88	1020	03AUG88	I	341	011108
===> PROCEDURE: 727		REPORTED: 17AUG88													
SOIL	M131	THIOURA	A24	*	2.00E+00 UG/G			1.00E+01	G	27JUN88	1020	17AUG88	I	341	011108
SOIL	M131	ACETREA	A25	*	2.00E+00 UG/G			1.00E+01	G	27JUN88	1020	17AUG88	I	341	011108
SOIL	M131	CHLOREA	A26	*	2.00E+00 UG/G			1.00E+01	G	27JUN88	1020	17AUG88	I	341	011108
SOIL	M131	DIETROL	A27	*	2.00E+00 UG/G			1.00E+01	G	27JUN88	1020	17AUG88	I	341	011108
SOIL	M131	ETHYREA	A28	*	2.00E+00 UG/G			1.00E+01	G	27JUN88	1020	17AUG88	I	341	011108
SOIL	M131	NAPHREA	A29	*	2.00E+00 UG/G			1.00E+01	G	27JUN88	1020	17AUG88	I	341	011108
SOIL	M131	PHENREA	A32	*	5.00E+00 UG/G			1.00E+01	G	27JUN88	1020	17AUG88	I	341	011108
===> PROCEDURE: 729		REPORTED: 04AUG88													
SOIL	M131	ENDRIN	A33	*	1.00E-02 UG/G			1.00E+01	G	27JUN88	1020	07JUL88	I	341	011108

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
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SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M13	METHLOR	A34	*	3.00E-01 UG/G			1.00E+01 G	27JUN88	1020	07JUL88	I	341	011108
SOIL	M13	TOXAENE	A35	*	1.00E-01 UG/G			1.00E+01 G	27JUN88	1020	07JUL88	I	341	011108
SOIL	M13	A-BHC	A36	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1020	07JUL88	I	341	011108
SOIL	M13	B-BHC	A37	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1020	07JUL88	I	341	011108
SOIL	M13	G-BHC	A38	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1020	07JUL88	I	341	011108
SOIL	M13	D-BHC	A39	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1020	07JUL88	I	341	011108
SOIL	M13	DDD	A40	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1020	07JUL88	I	341	011108
SOIL	M13	DDE	A41	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1020	07JUL88	I	341	011108
SOIL	M13	DDT	A42	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1020	07JUL88	I	341	011108
SOIL	M13	HEPTLOR	A43	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1020	07JUL88	I	341	011108
SOIL	M13	HEPTIDE	A44	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1020	07JUL88	I	341	011108
SOIL	M13	DIELRIN	A46	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1020	07JUL88	I	341	011108
SOIL	M13	ALDRIN	A47	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1020	07JUL88	I	341	011108
SOIL	M13	CHLDANE	A48	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	07JUL88	I	341	011108
SOIL	M13	ENDO1	A49	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1020	07JUL88	I	341	011108
SOIL	M13	ENDO2	A52	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1020	07JUL88	I	341	011108
SOIL	M13	CHLLATE	C62	*	3.00E+00 UG/G			1.00E+01 G	27JUN88	1020	07JUL88	I	341	011108
SOIL	M13	DDC	X10		8.80E+01 %RECOV			1.00E+01 G	27JUN88	1020	07JUL88	I	341	011108
-==> PROCEDURE: 731		REPORTED: 14JUL88												
SOIL	M13	TETRANE	A61	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M13	BENZENE	A62	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M13	DIOXANE	A63	*	5.00E-01 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M13	METHONE	A64	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M13	PYRIDIN	A65	*	5.00E-01 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M13	TOLUENE	A66	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M13	1,1,1-T	A67	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M13	1,1,2-T	A68	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M13	TRICENE	A69	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M13	PERCENE	A70	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M13	OPXYLEN	A71	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M13	ACROLIN	A72	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M13	ACRYILE	A73	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M13	BISTHER	A74	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M13	BROMONE	A75	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M13	METHBRO	A76	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M13	CARBIDE	A77	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M13	CHLBENZ	A78	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M13	CHLTHER	A79	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M13	CHLFORM	A80	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M13	METHCHL	A81	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M13	CHMTHER	A82	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M13	CROTONA	A83	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M13	DIBRCHL	A84	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
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SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M131	DIBRETH	A85	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M131	DIBRMET	A86	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M131	DIBUTEN	A87	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M131	DICDIFN	A88	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M131	1,1-DIC	A89	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M131	1,2-DIC	A90	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M131	TRANDCE	A91	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M131	DICETHY	A92	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M131	METHYCH	A93	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M131	DICPANE	A94	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M131	DICPENE	A95	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M131	NNDIEHY	A96	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M131	HYDRSUL	A99	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M131	IODOMET	B01	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M131	METHACR	B02	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M131	METHTHI	B03	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M131	PENTACH	B04	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M131	1112-TC	B05	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M131	1122-TC	B06	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M131	BROMORM	B08	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M131	TRCMEOL	B09	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M131	TRCMFLM	B10	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M131	TRCPANE	B11	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M131	123-TRP	B12	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M131	VINYIDE	B13	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M131	M-XYLE	B14	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M131	DIETHY	B15	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M131	ACETILE	B19	*	3.00E+00 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M131	METACRY	C04	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M131	FORMALN	C71	*	5.00E-01 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M131	ETHOXID	H05	*	3.00E+00 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M131	ETHMETH	H06	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M131	HEXONE	H68	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M131	12DCAD4	X07		8.90E+01 %RECOV			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M131	TOLUD8	X08		1.01E+02 %RECOV			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
SOIL	M131	BFB	X09		1.01E+02 %RECOV			5.00E+00 G	27JUN88	1020	05JUL88	I	341	011108
===> PROCEDURE: 733		REPORTED: 21JUL88												
SOIL	M131	ACETOPH	B20	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	WARFRIN	B21	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	ACEFENE	B22	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	AMINOYL	B23	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	AMIISOX	B24	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	AMITROL	B25	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
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All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M131	ANILINE	B26	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	ARAMITE	B27	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	AURAMIN	B28	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	BENZCAC	B29	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	BENZAAN	B30	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	BENDICM	B31	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	BENTHOL	B32	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	BENDINE	B33	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	BENZDFL	B34	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	BENZJFL	B35	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	PBENZQU	B36	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	BENZCHL	B37	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	BIS2CHM	B38	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	BIS2CHE	B39	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	BIS2EPH	B40	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	BROPHEN	B41	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	BUTBENP	B42	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	BUTDINP	B43	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	CHALETH	B44	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	CHLANIL	B45	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	CHLCRES	B46	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	CHLEPOX	B47	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	CHLNAPH	B48	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	CHLPHEN	B49	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	CHRYSEN	B50	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	CRESOLS	B51	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	CYCHDIN	B52	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	DIBAHAC	B53	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	DIBAJAC	B54	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	DIBIHAN	B55	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	DIBCGCA	B56	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	DIBAEPY	B57	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	DIBAHPY	B58	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	DIBAIPY	B59	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	DIBPHTH	B60	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	12-DBEN	B61	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	13-DBEN	B62	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	14-DBEN	B63	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	DICHBEN	B64	*	2.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	24-DCHP	B65	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	26-DCHP	B66	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	DIEPHTH	B67	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	DIHYSAF	B68	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	DIMTHB	B69	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	DIMEAMB	B70	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108

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UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M131	DIMBENZ	B71	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	DIMEYLB	B72	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	THIONOX	B73	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	DIMPHAM	B74	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	DIMPHEN	B75	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	DIMPHTH	B76	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	DINBENZ	B77	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	DINCRES	B78	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	DINPHEN	B79	*	5.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	24-DINT	B80	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	26-DINT	B81	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	DIOPHTH	B82	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	DIPHAMI	B83	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	DIPHHYD	B84	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	DIPRNIT	B85	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	ETHMINE	B86	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	ETHMETS	B87	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	FLUORAN	B88	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	HEXCDEN	B89	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	HEXCBUT	B90	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	HEXCCYC	B91	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	HEXCETH	B92	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	INDENOP	B93	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	ISOSOLE	B94	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	MALOILE	B95	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	MELPHAL	B96	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	METHAPY	B97	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	METHNYL	B98	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	METAZIR	B99	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	METCHAN	C01	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	METBISC	C02	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	METACTO	C03	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	METMSUL	C05	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	METPROP	C06	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	METHIDU	C07	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	NAPHQUI	C08	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	1-NAPHA	C09	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	2-NAPHA	C10	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	NITRANI	C11	*	5.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	NITBENZ	C12	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	NITPHEN	C13	*	5.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	NNIBUTY	C14	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	NNIDIEA	C15	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	NNIDIEY	C16	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	NNIDIME	C17	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108

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UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M131	NNIMETH	C18	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	NNIURET	C19	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	NNIVINY	C20	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	NNIMORP	C21	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	NNINICO	C22	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	NNIPIPE	C23	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	NITRPYR	C24	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	NITRTOL	C25	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	PENTCHB	C26	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	PENTCHN	C27	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	PENTCHP	C28	*	5.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	PHENTIN	C29	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	PHENINE	C30	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	PHTHEST	C31	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	PICOLIN	C32	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	PRONIDE	C33	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	RESERPI	C34	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	RESORCI	C35	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	SAFROL	C36	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	TETRCHB	C37	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	TETRCHP	C39	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	THIURAM	C40	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	TOLUDIA	C41	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	OTOLHYD	C42	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	TRICHLB	C43	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	245-TRP	C44	*	5.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	246-TRP	C45	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	TRIPHOS	C46	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	SYMTRIN	C47	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	TRISPHO	C48	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	BENZOPY	C49	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	CHLNAPI	C50	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	BIS2ETH	C51	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	HEXAENE	C52	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	HEXACHL	C54	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	NAPHTHA	C55	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	123TRI	C56	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	PHENOL	C57	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	135TRI	C58	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	12341E	C59	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	1235TE	C60	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	KEROSEN	C79	*	1.00E+03 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	STRYCHN	C91	*	5.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	MALHYDR	C92	*	5.00E+01 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	NICOTIN	C93	*	1.00E+01 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108

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UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE	RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M131	TRIBUPH	I21	* 1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	UNKALI	I98	1.10E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	UNKALI	I9801	2.40E+00 UG/G			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	2FLPHEN	X01	8.95E+01 %RECOV			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	PHENOL	X02	8.51E+01 %RECOV			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	NITBN2	X03	7.90E+01 %RECOV			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	2FLBIPH	X04	7.80E+01 %RECOV			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	246TRI	X05	6.53E+01 %RECOV			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
SOIL	M131	TERD14	X06	6.88E+01 %RECOV			1.00E+01 G	27JUN88	1020	16JUL88	I	341	011108
===> PROCEDURE: 734		REPORTED: 14JUL88											
SOIL	M131	TETEPYR	C61	* 1.00E+00 UG/G			1.01E+01 G	27JUN88	1020	07JUL88	I	341	011108
SOIL	M131	CARBPHT	C63	* 1.00E+00 UG/G			1.01E+01 G	27JUN88	1020	07JUL88	I	341	011108
SOIL	M131	DISULFO	C64	* 1.00E+00 UG/G			1.01E+01 G	27JUN88	1020	07JUL88	I	341	011108
SOIL	M131	DIMETHO	C65	* 2.00E-01 UG/G			1.01E+01 G	27JUN88	1020	07JUL88	I	341	011108
SOIL	M131	METHPAR	C66	* 1.00E+00 UG/G			1.01E+01 G	27JUN88	1020	07JUL88	I	341	011108
SOIL	M131	PARATHI	C67	* 1.00E+00 UG/G			1.01E+01 G	27JUN88	1020	07JUL88	I	341	011108
===> PROCEDURE: 735		REPORTED: 16AUG88											
SOIL	M131	NITRATE	C72	* 1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	08AUG88	I	341	011108
SOIL	M131	SULFATE	C73	1.91E+01 UG/G			1.00E+01 G	27JUN88	1020	08AUG88	I	341	011108
SOIL	M131	FLOURID	C74	3.06E+00 UG/G			1.00E+01 G	27JUN88	1020	08AUG88	I	341	011108
				COMMENT: MIR									
SOIL	M131	CHLORID	C75	3.70E+01 UG/G	1		1.00E+01 G	27JUN88	1020	08AUG88	I	341	011108
SOIL	M131	PHOSPHA	C76	* 2.00E+00 UG/G			1.00E+01 G	27JUN88	1020	08AUG88	I	341	011108
===> PROCEDURE: 737		REPORTED: 28JUL88											
SOIL	M131	2,4-D	H13	* 1.00E+00 UG/G			2.50E+01 G	27JUN88	1020	20JUL88	I	341	011108
SOIL	M131	2,4,5TP	H14	* 1.00E+00 UG/G			2.50E+01 G	27JUN88	1020	20JUL88	I	341	011108
SOIL	M131	2,4,5-T	H15	* 1.00E+00 UG/G			2.50E+01 G	27JUN88	1020	20JUL88	I	341	011108
===> PROCEDURE: 739		REPORTED: 04AUG88											
SOIL	M131	AR1016	A54	* 1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	23JUL88	I	341	011108
SOIL	M131	AR1221	A55	* 1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	23JUL88	I	341	011108
SOIL	M131	AR1232	A56	* 1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	23JUL88	I	341	011108
SOIL	M131	AR1242	A57	* 1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	23JUL88	I	341	011108
SOIL	M131	AR1248	A58	* 1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	23JUL88	I	341	011108
SOIL	M131	AR1254	A59	* 1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	23JUL88	I	341	011108
SOIL	M131	AR1260	A60	* 1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	23JUL88	I	341	011108
===> PROCEDURE: A20		REPORTED: 12AUG88											
SOIL	M131	ARSENIC	A20	1.70E+00 UG/G			1.00E+00 G	27JUN88	1020	05AUG88	I	341	011108

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UNITED STATES TESTING COMPANY, INC.
2600 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE	RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: A21		REPORTED: 21JUL88											
SOIL	M131	MERCURY	A21	* 2.00E-01 UG/G			2.29E-01 G	27JUN88	1020	13JUL88	I	341	011108
===> PROCEDURE: A22		REPORTED: 12AUG88											
SOIL	M131	SELENUM	A22	* 5.00E-01 UG/G			1.00E+00 G	27JUN88	1020	05AUG88	I	341	011108
===> PROCEDURE: A23		REPORTED: 12AUG88											
SOIL	M131	THALIUM	A23	* 1.00E+00 UG/G			1.00E+00 G	27JUN88	1020	08AUG88	I	341	011108
===> PROCEDURE: A51		REPORTED: 12AUG88											
SOIL	M131	LEAD	A51	1.27E+01 UG/G	1		1.00E+00 G	27JUN88	1020	09AUG88	I	341	011108
===> PROCEDURE: C68		REPORTED: 12AUG88											
SOIL	M131	TOX	C68	* 1.00E+00 UG/G			1.00E+00 G	27JUN88	1020	08AUG88	I	341	011108
===> PROCEDURE: C69		REPORTED: 16AUG88											
SOIL	M131	TOC	C69	1.57E+02 UG/G			2.00E+01 G	27JUN88	1020	08AUG88	I	341	011108
===> PROCEDURE: C70		REPORTED: 12AUG88											
SOIL	M131	CYANIDE	C70	* 1.00E+00 UG/G			1.00E+01 G	27JUN88	1020	04AUG88	I	341	011108
===> PROCEDURE: C77		REPORTED: 12AUG88											
SOIL	M131	PERCHLO	C77	* 2.00E+00 UG/G			1.00E+01 G	27JUN88	1020	04AUG88	I	341	011108
===> PROCEDURE: C78		REPORTED: 21JUL88											
SOIL	M131	SULFIDE	C78	* 1.00E+01 UG/G			9.61E+00 G	27JUN88	1020	30JUN88	I	341	011108
===> PROCEDURE: C80		REPORTED: 28JUL88											
SOIL	M131	AMMONIU	C80	2.60E+00 UG/G			1.00E+01 G	27JUN88	1020	19JUL88	I	341	011108
===> PROCEDURE: C81		REPORTED: 12AUG88											
SOIL	M131	ETHYCLY	C81	* 1.00E+01 UG/G			5.00E+00 G	27JUN88	1020	30JUL88	I	341	011108
<*** SAMPLE: M132 ***>													
===> PROCEDURE: 088		REPORTED: 14JUL88											
SOIL	M132	LSP COND	088	8.00E+01			0.00E+00 G	27JUN88	1110	10JUL88	I	341	011109

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UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. 8-82472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: 207		REPORTED: 14JUL88												
SOIL	M132	PH (LAB)	207		5.80E+00			0.00E+00 G	27JUN88	1110	28JUN88	I	341	011109
===> PROCEDURE: 726		REPORTED: 12AUG88												
SOIL	M132	BERYLAM	A01	*	5.00E-01 UG/G			1.01E+00 G	27JUN88	1110	03AUG88	I	341	011109
SOIL	M132	STRONUM	A03		3.16E+01 UG/G			1.01E+00 G	27JUN88	1110	03AUG88	I	341	011109
					COMMENT: DD/D									
SOIL	M132	ZINC	A04		6.18E+01 UG/G			1.01E+00 G	27JUN88	1110	03AUG88	I	341	011109
					COMMENT: DD/D									
SOIL	M132	CALCIUM	A05		4.7[illegible]E+03 UG/G			1.01E+00 G	27JUN88	1110	03AUG88	I	341	011109
					COMMENT: DD/D									
SOIL	M132	BARIUM	A06		8.89E+01 UG/G			1.01E+00 G	27JUN88	1110	03AUG88	I	341	011109
SOIL	M132	CADMIUM	A07	*	2.00E-01 UG/G			1.01E+00 G	27JUN88	1110	03AUG88	I	341	011109
SOIL	M132	CHROMUM	A08		1.55E+01 UG/G			1.01E+00 G	27JUN88	1110	03AUG88	I	341	011109
					COMMENT: DD/D									
SOIL	M132	SILVER	A10	*	1.00E+00 UG/G			1.01E+00 G	27JUN88	1110	03AUG88	I	341	011109
SOIL	M132	SODIUM	A11		1.17E+03 UG/G			1.01E+00 G	27JUN88	1110	03AUG88	I	341	011109
					COMMENT: DD/D									
SOIL	M132	NICKEL	A12		1.27E+01 UG/G			1.01E+00 G	27JUN88	1110	03AUG88	I	341	011109
					COMMENT: DD/D									
SOIL	M132	COPPER	A13		5.50E+00 UG/G			1.01E+00 G	27JUN88	1110	03AUG88	I	341	011109
					COMMENT: DD/D									
SOIL	M132	VANADUM	A14		6.52E+01 UG/G			1.01E+00 G	27JUN88	1110	03AUG88	I	341	011109
					COMMENT: DD/D									
SOIL	M132	ANTIONY	A15	*	1.00E+01 UG/G			1.01E+00 G	27JUN88	1110	03AUG88	I	341	011109
SOIL	M132	ALUMNUM	A16		8.87E+03 UG/G	1		1.01E+00 G	27JUN88	1110	03AUG88	I	341	011109
SOIL	M132	MANGESE	A17		2.68E+02 UG/G			1.01E+00 G	27JUN88	1110	03AUG88	I	341	011109
SOIL	M132	POTASUM	A18		1.29E+03 UG/G	1		1.01E+00 G	27JUN88	1110	03AUG88	I	341	011109
SOIL	M132	IRON	A19		2.31E+04 UG/G	1		1.01E+00 G	27JUN88	1110	03AUG88	I	341	011109
SOIL	M132	MAGNES	A50		5.31E+03 UG/G	1		1.01E+00 G	27JUN88	1110	03AUG88	I	341	011109
===> PROCEDURE: 727		REPORTED: 17AUG88												
SOIL	M132	THIOURA	A24	*	2.00E+00 UG/G			1.00E+01 G	27JUN88	1110	17AUG88	I	341	011109
SOIL	M132	ACETREA	A25	*	2.00E+00 UG/G			1.00E+01 G	27JUN88	1110	17AUG88	I	341	011109
SOIL	M132	CHLOREA	A26	*	2.00E+00 UG/G			1.00E+01 G	27JUN88	1110	17AUG88	I	341	011109
SOIL	M132	DIETROL	A27	*	2.00E+00 UG/G			1.00E+01 G	27JUN88	1110	17AUG88	I	341	011109
SOIL	M132	ETHYREA	A28	*	2.00E+00 UG/G			1.00E+01 G	27JUN88	1110	17AUG88	I	341	011109
SOIL	M132	NAPHREA	A29	*	2.00E+00 UG/G			1.00E+01 G	27JUN88	1110	17AUG88	I	341	011109
SOIL	M132	PHENREA	A32	*	5.00E+00 UG/G			1.00E+01 G	27JUN88	1110	17AUG88	I	341	011109
===> PROCEDURE: 729		REPORTED: 19AUG88												
SOIL	M132	ENDRIN	A33	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1110	07JUL88	I	341	011109

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UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
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SOIL	M132	METHLOR	A34	*	3.00E-01 UG/G			1.00E+01 G	27JUN88	1110	07JUL88	I	341	011109
SOIL	M132	TOXAENE	A35	*	1.00E-01 UG/G			1.00E+01 G	27JUN88	1110	07JUL88	I	341	011109
SOIL	M132	A-BHC	A35	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1110	07JUL88	I	341	011109
SOIL	M132	B-BHC	A37	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1110	07JUL88	I	341	011109
SOIL	M132	G-BHC	A38	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1110	07JUL88	I	341	011109
SOIL	M132	D-BHC	A39	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1110	07JUL88	I	341	011109
SOIL	M132	DDD	A40	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1110	07JUL88	I	341	011109
SOIL	M132	DDE	A41	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1110	07JUL88	I	341	011109
SOIL	M132	DDT	A42	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1110	07JUL88	I	341	011109
SOIL	M132	HEPTLOR	A43	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1110	07JUL88	I	341	011109
SOIL	M132	HEPTIDE	A44	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1110	07JUL88	I	341	011109
SOIL	M132	DIELRIN	A46	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1110	07JUL88	I	341	011109
SOIL	M132	ALDRIN	A47	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1110	07JUL88	I	341	011109
SOIL	M132	CHLDANE	A48	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	07JUL88	I	341	011109
SOIL	M132	ENDO1	A49	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1110	07JUL88	I	341	011109
SOIL	M132	ENDO2	A52	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1110	07JUL88	I	341	011109
SOIL	M132	CHLLATE	C62	*	3.00E+00 UG/G			1.00E+01 G	27JUN88	1110	07JUL88	I	341	011109
SOIL	M132	DBC	X10		8.40E+01 %RECOV			1.00E+01 G	27JUN88	1110	07JUL88	I	341	011109
===> PROCEDURE: 731		REPORTED: 14JUL88												
SOIL	M132	TETRANE	A61	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	BENZENE	A62	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	DIOXANE	A63	*	5.00E-01 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	METHONE	A64	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	PYRIDIN	A65	*	5.00E-01 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	TOLUENE	A66	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	1,1,1-T	A67	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	1,1,2-T	A68	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	TRICENE	A69	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	PERCENE	A70	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	OPXYLEN	A71	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	ACROLIN	A72	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	ACRYILE	A73	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	BISTHER	A74	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	BROMONE	A75	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	METHBRO	A76	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	CARBIDE	A77	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	CHLBENZ	A78	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	CHLTHER	A79	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	CHLFORM	A80	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	METHCHL	A81	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	CHMTHER	A82	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	CROTONA	A83	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	DIBRCHL	A84	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109

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All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M132	DIBRETH	A85	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	DIBRMET	A86	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	DIBUTEN	A87	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	DICDIFN	A88	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	1,1-DIC	A89	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	1,2-DIC	A90	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	TRANDCE	A91	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	DICETHY	A92	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	METHYCH	A93	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	DICPANE	A94	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	DICPENE	A95	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	NNDIEHY	A96	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	HYDRSUL	A99	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	IODOMET	B01	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	METHACR	B02	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	METHTHI	B03	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	PENTACH	B04	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	1112-TC	B05	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	1122-TC	B06	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	BROMORM	B08	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	TRCMEOL	B09	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	TRCMFLM	B10	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	TRCPANE	B11	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	123-TRP	B12	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	VINYIDE	B13	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	M-XYLE	B14	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	DIETHY	B15	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	ACETILE	B19	*	3.00E+00 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	METACRY	C04	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	FORMALN	C71	*	5.00E-01 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	ETHOXID	H05	*	3.00E+00 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	ETHMETH	H06	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	HEXONE	H68	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	12DCAD4	X07		9.16E+01 %RECOV			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	TOLUD8	X08		1.01E+02 %RECOV			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
SOIL	M132	BFB	X09		1.00E+02 %RECOV			5.00E+00 G	27JUN88	1110	05JUL88	I	341	011109
===> PROCEDURE: 733		REPORTED: 21JUL88												
SOIL	M132	ACETOPH	B20	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	WARFRIN	B21	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	ACEFENE	B22	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	AMINOYL	B23	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	AMIISOX	B24	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	AMITROL	B25	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M132	ANILINE	B26	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	ARAMITE	B27	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	AURAMIN	B28	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	BENZCAC	B29	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	BENZAAN	B30	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	BENDICM	B31	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	BENTHOL	B32	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	BENDINE	B33	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	BENZBFL	B34	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	BENZJFL	B35	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	PBENZQU	B36	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	BENZCHL	B37	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	BIS2CHM	B38	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	BIS2CHE	B39	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	BIS2EPH	B40	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	BROPHEN	B41	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	BUTBENP	B42	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	BUTDINP	B43	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	CHALETH	B44	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	CHLANIL	B45	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	CHLCRES	B46	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	CHLEPOX	B47	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	CHLNAPH	B48	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	CHLPHEN	B49	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	CHRYSEN	B50	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	CRESOLS	B51	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	CYCHDIN	B52	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	DIBAHAC	B53	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	DIBAJAC	B54	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	DIBIHAN	B55	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	DICOCA	B56	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	DIBAEPY	B57	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	DIBAHPY	B58	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	DIBAIPY	B59	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	DIBPHTH	B60	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	12-DBEN	B61	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	13-DBEN	B62	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	14-DBEN	B63	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	DICHDEN	B64	*	2.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	24-DCHP	B65	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	26-DCHP	B66	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	DIEPHTH	B67	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	DIHYSAF	B68	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	DIMTHB	B69	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	DIMEAMB	B70	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1110	16JUL88	I	341	011109

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UNITED STATES TESTING COMPANY, INC.
2600 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	0132	DIMBENZ	B71	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	DIMEYLB	B72	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	THIONOX	B73	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	DIMPHAM	B74	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	DIMPHEN	B75	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	DIMPHTH	B76	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	DINBENZ	B77	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	DINCRES	B78	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	DINPHEN	B79	*	5.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	24-DINT	B80	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	26-DINT	B81	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	DIOPHTH	B82	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	DIPHAMI	B83	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	DIPHHYD	B84	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	DIPRNIT	B85	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	ETHMINE	B86	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	ETHMETS	B87	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	FLUORAN	B88	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	HEXCBEN	B89	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	HEXCBUT	B90	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	HEXCCYC	B91	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	HEXCETH	B92	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	INDENOP	B93	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	ISOSOLE	B94	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	MALOILE	B95	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	MELPHAL	B96	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	METHAPY	B97	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	METHNYL	B98	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	METAZIR	B99	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	METCHAN	C01	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	METBISC	C02	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	METACTO	C03	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	METMSUL	C05	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	METPROP	C06	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	METHIOU	C07	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	NAPHQUI	C08	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	1-NAPHA	C09	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	2-NAPHA	C10	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	NITRANI	C11	*	5.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	NITBENZ	C12	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	NITPHEN	C13	*	5.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	NNIBUTY	C14	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	NNIDIEA	C15	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	NNIDIEY	C16	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	0132	NNIDINE	C17	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M132	NNIMETH	C18	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	NNIURET	C19	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	NNIVINY	C20	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	NNIMORP	C21	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	NNINICO	C22	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	NNIPIPE	C23	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	NITRPYR	C24	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	NITRTOL	C25	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	PENTCHB	C26	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	PENTCHN	C27	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	PENTCHP	C28	*	5.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	PHENTIN	C29	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	PHENINE	C30	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	PHTHEST	C31	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	PICOLIN	C32	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	PRONIDE	C33	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	RESERPI	C34	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	RESORCI	C35	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	SAFROL	C36	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	TETRCHB	C37	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	TETRCHP	C39	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	THIURAM	C40	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	TOLUDIA	C41	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	OTOLHYD	C42	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	TRICHLB	C43	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	245-TRP	C44	*	5.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	246-TRP	C45	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	TRIPHOS	C46	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	SYMTRIN	C47	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	TRISPHO	C48	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	BENZOPY	C49	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	CHLNAPZ	C50	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	BIS2ETH	C51	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	HCXAENE	C52	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	HEXACHL	C54	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	NAPHTHA	C55	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	123TRI	C56	*	1.0[illegible]+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	PHENOL	C57	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	135TRI	C58	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	1234TE	C59	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	1235TE	C60	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	KEROSEN	C79	*	1.00E+03 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	STRYCHN	C91	*	5.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	MALHYDR	C92	*	5.00E+01 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	NICOTIN	C93	*	1.00E+01 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. D-82472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M132	TRIBUPH	I21	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	2FLPHEN	X01		7.66E+01 %RECOV			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	PHEND6	X02		6.97E+01 %RECOV			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	NITBN2	X03		6.72E+01 %RECOV			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	2FLBIPH	X04		6.30E+01 %RECOV			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	246TRI	X05		5.74E+01 %RECOV			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
SOIL	M132	TERD14	X06		8.12E+01 %RECOV			1.00E+01 G	27JUN88	1110	16JUL88	I	341	011109
===> PROCEDURE: 734		REPORTED: 14JUL88												
SOIL	M132	TETEPYR	C61	*	1.00E+00 UG/G			1.01E+01 G	27JUN88	1110	07JUL88	I	341	011109
SOIL	M132	CARBPHT	C63	*	1.00E+00 UG/G			1.01E+01 G	27JUN88	1110	07JUL88	I	341	011109
SOIL	M132	DISULFO	C64	*	1.00E+00 UG/G			1.01E+01 G	27JUN88	1110	07JUL88	I	341	011109
SOIL	M132	DIMETHO	C65	*	2.00E-01 UG/G			1.01E+01 G	27JUN88	1110	07JUL88	I	341	011109
SOIL	M132	METHPAR	C66	*	1.00E+00 UG/G			1.01E+01 G	27JUN88	1110	07JUL88	I	341	011109
SOIL	M132	PARATHI	C67	*	1.00E+00 UG/G			1.01E+01 G	27JUN88	1110	07JUL88	I	341	011109
===> PROCEDURE: 735		REPORTED: 16AUG88												
SOIL	M132	NITRATE	C72	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	08AUG88	I	341	011109
SOIL	M132	SULFATE	C73		7.75E+00 UG/G			1.00E+01 G	27JUN88	1110	08AUG88	I	341	011109
SOIL	M132	FLOURID	C74	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	08AUG88	I	341	011109
					COMMENT: MIR									
SOIL	M132	CHLORID	C75		4.09E+00 UG/G			1.00E+01 G	27JUN88	1110	08AUG88	I	341	011109
SOIL	M132	PHOSPHA	C76	*	2.00E+00 UG/G			1.00E+01 G	27JUN88	1110	08AUG88	I	341	011109
===> PROCEDURE: 737		REPORTED: 28JUL88												
SOIL	M132	2,4-D	H13	*	1.00E+00 UG/G			2.50E+01 G	27JUN88	1110	20JUL88	I	341	011109
SOIL	M132	2,4,5TP	H14	*	1.00E+00 UG/G			2.50E+01 G	27JUN88	1110	20JUL88	I	341	011109
SOIL	M132	2,4,5-T	H15	*	1.00E+00 UG/G			2.50E+01 G	27JUN88	1110	20JUL88	I	341	011109
===> PROCEDURE: 739		REPORTED: 04AUG88												
SOIL	M132	AR1016	A54	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	23JUL88	I	341	011109
SOIL	M132	AR1221	A55	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	23JUL88	I	341	011109
SOIL	M132	AR1232	A56	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	23JUL88	I	341	011109
SOIL	M132	AR1242	A57	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	23JUL88	I	341	011109
SOIL	M132	AR1248	A58	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	23JUL88	I	341	011109
SOIL	M132	AR1254	A59	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	23JUL88	I	341	011109
SOIL	M132	AR1260	A60	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	23JUL88	I	341	011109
===> PROCEDURE: A20		REPORTED: 12AUG88												
SOIL	M132	ARSENIC	A20		3.30E+00 UG/G			1.01E+00 G	27JUN88	1110	05AUG88	I	341	011109

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE	RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: A21		REPORTED: 21JUL88											
SOIL	M132	MERCURY	A21	* 2.00E-01 UG/G			2.25E-01 G	27JUN88	1110	13JUL88	I	341	011109
===> PROCEDURE: A22		REPORTED: 12AUG88											
SOIL	M132	SELENUM	A22	* 5.00E-01 UG/G			1.01E+00 G	27JUN88	1110	05AUG88	I	341	011109
===> PROCEDURE: A23		REPORTED: 12AUG88											
SOIL	M132	THALIUM	A23	* 1.00E+00 UG/G			1.01E+00 G	27JUN88	1110	08AUG88	I	341	011109
===> PROCEDURE: A51		REPORTED: 12AUG88											
SOIL	M132	LEAD	A51	8.86E+00 UG/G	1		1.01E+00 G	27JUN88	1110	09AUG88	I	341	011109
===> PROCEDURE: C68		REPORTED: 12AUG88											
SOIL	M132	TOX	C68	5.94E+00 UG/G			1.00E+00 G	27JUN88	1110	08AUG88	I	341	011109
===> PROCEDURE: C69		REPORTED: 16AUG88											
SOIL	M132	TOC	C69	7.19E+01 UG/G			2.00E+01 G	27JUN88	1110	08AUG88	I	341	011109
===> PROCEDURE: C70		REPORTED: 12AUG88											
SOIL	M132	CYANIDE	C70	* 1.00E+00 UG/G			1.00E+01 G	27JUN88	1110	04AUG88	I	341	011109
===> PROCEDURE: C77		REPORTED: 12AUG88											
SOIL	M132	PERCHLO	C77	* 2.00E+00 UG/G			1.00E+01 G	27JUN88	1110	04AUG88	I	341	011109
===> PROCEDURE: C78		REPORTED: 21JUL88											
SOIL	M132	SULFIDE	C78	* 1.00E+01 UG/G			9.96E+00 G	27JUN88	1110	30JUN88	I	341	011109
===> PROCEDURE: C80		REPORTED: 28JUL88											
SOIL	M132	AMMONIU	C80	9.00E-01 UG/G			1.00E+01 G	27JUN88	1110	19JUL88	I	341	011109
===> PROCEDURE: C81		REPORTED: 12AUG88											
SOIL	M132	ETHYGLY	C81	* 1.00E+01 UG/G			5.00E+00 G	27JUN88	1110	04AUG88	I	341	011109
********** <** SAMPLE: M133 **> **********													
===> PROCEDURE: 088		REPORTED: 14JUL88											
SOIL	M133	LSP COND	088	9.40E+01			0.00E+00 G	27JUN88	1345	10JUL88	I	341	011110

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UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: 207		REPORTED: 14JUL88												
SOIL	M133	PH (LAB)	207		6.20E+00			0.00E+00 G	27JUN88	1345	28JUN88	I	341	011110
===> PROCEDURE: 726		REPORTED: 12AUG88												
SOIL	M133	BERYLAM	A01	*	5.00E-01 UG/G			1.02E+00 G	27JUN88	1345	04AUG88	I	341	011110
SOIL	M133	STRONUM	A03		2.24E+01 UG/G			1.02E+00 G	27JUN88	1345	04AUG88	I	341	011110
SOIL	M133	ZINC	A04		4.88E+01 UG/G			1.02E+00 G	27JUN88	1345	04AUG88	I	341	011110
SOIL	M133	CALCIUM	A05		4.54E+03 UG/G			1.02E+00 G	27JUN88	1345	04AUG88	I	341	011110
SOIL	M133	BARIUM	A06		2.05E+02 UG/G			1.02E+00 G	27JUN88	1345	04AUG88	I	341	011110
SOIL	M133	CADMIUM	A07	*	2.00E-01 UG/G			1.02E+00 G	27JUN88	1345	04AUG88	I	341	011110
SOIL	M133	CHROMUM	A08		8.00E+00 UG/G			1.02E+00 G	27JUN88	1345	04AUG88	I	341	011110
SOIL	M133	SILVER	A10	*	1.00E+00 UG/G			1.02E+00 G	27JUN88	1345	04AUG88	I	341	011110
SOIL	M133	SODIUM	A11		9.91E+02 UG/G			1.02E+00 G	27JUN88	1345	04AUG88	I	341	011110
SOIL	M133	NICKEL	A12		1.30E+01 UG/G			1.02E+00 G	27JUN88	1345	04AUG88	I	341	011110
SOIL	M133	COPPER	A13	*	1.00E+00 UG/G			1.02E+00 G	27JUN88	1345	04AUG88	I	341	011110
SOIL	M133	VANADUM	A14		6.53E+01 UG/G			1.02E+00 G	27JUN88	1345	04AUG88	I	341	011110
SOIL	M133	ANTIONY	A15	*	1.00E+01 UG/G			1.02E+00 G	27JUN88	1345	04AUG88	I	341	011110
SOIL	M133	ALUMNUM	A16		5.77E+03 UG/G	1		1.02E+00 G	27JUN88	1345	04AUG88	I	341	011110
SOIL	M133	MANGESE	A17		2.87E+03 UG/G	1		1.02E+00 G	27JUN88	1345	04AUG88	I	341	011110
SOIL	M133	POTASUM	A18		6.43E+02 UG/G			1.02E+00 G	27JUN88	1345	04AUG88	I	341	011110
SOIL	M133	IRON	A19		2.54E+04 UG/G	1		1.02E+00 G	27JUN88	1345	04AUG88	I	341	011110
SOIL	M133	MAGNES	A50		4.03E+03 UG/G	1		1.02E+00 G	27JUN88	1345	04AUG88	I	341	011110
===> PROCEDURE: 727		REPORTED: 17AUG88												
SOIL	M133	THIOURA	A24	*	2.00E+00 UG/G			1.00E+01 G	27JUN88	1345	17AUG88	I	341	011110
SOIL	M133	ACETREA	A25	*	2.00E+00 UG/G			1.00E+01 G	27JUN88	1345	17AUG88	I	341	011110
SOIL	M133	CHLOREA	A26	*	2.00E+00 UG/G			1.00E+01 G	27JUN88	1345	17AUG88	I	341	011110
SOIL	M133	DIETROL	A27	*	2.00E+00 UG/G			1.00E+01 G	27JUN88	1345	17AUG88	I	341	011110
SOIL	M133	ETHYREA	A28	*	2.00E+00 UG/G			1.00E+01 G	27JUN88	1345	17AUG88	I	341	011110
SOIL	M133	NAPHREA	A29	*	2.00E+00 UG/G			1.00E+01 G	27JUN88	1345	17AUG88	I	341	011110
SOIL	M133	PHENREA	A32	*	5.00E+00 UG/G			1.00E+01 G	27JUN88	1345	17AUG88	I	341	011110
===> PROCEDURE: 729		REPORTED: 04AUG88												
SOIL	M133	ENDRIN	A33	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1345	07JUL88	I	341	011110
SOIL	M133	METHLOR	A34	*	3.00E-01 UG/G			1.00E+01 G	27JUN88	1345	07JUL88	I	341	011110
SOIL	M133	TOXAENE	A35	*	1.00E-01 UG/G			1.00E+01 G	27JUN88	1345	07JUL88	I	341	011110
SOIL	M133	A-BHC	A36	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1345	07JUL88	I	341	011110
SOIL	M133	B-BHC	A37	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1345	07JUL88	I	341	011110
SOIL	M133	G-BHC	A38	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1345	07JUL88	I	341	011110
SOIL	M133	D-BHC	A39	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1345	07JUL88	I	341	011110

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M133	DDD	A40	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1345	07JUL88	I	341	011110
SOIL	M133	DDE	A41	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1345	07JUL88	I	341	011110
SOIL	M133	DDT	A42	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1345	07JUL88	I	341	011110
SOIL	M133	HEPTLOR	A43	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1345	07JUL88	I	341	011110
SOIL	M133	HEPTIDE	A44	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1345	07JUL88	I	341	011110
SOIL	M133	DIELRIN	A46	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1345	07JUL88	I	341	011110
SOIL	M133	ALDRIN	A47	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1345	07JUL88	I	341	011110
SOIL	M133	CHLDANE	A48	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	07JUL88	I	341	011110
SOIL	M133	ENDO1	A49	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1345	07JUL88	I	341	011110
SOIL	M133	ENDO2	A52	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1345	07JUL88	I	341	011110
SOIL	M133	CHLLATE	C62	*	3.00E+00 UG/G			1.00E+01 G	27JUN88	1345	07JUL88	I	341	011110
SOIL	M133	DBC	X10		9.30E+01 %RECOV			1.00E+01 G	27JUN88	1345	07JUL88	I	341	011110
===> PROCEDURE: 731		REPORTED: 14JUL88												
SOIL	M133	TETRANE	A61	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	BENZENE	A62	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	DIOXANE	A63	*	5.00E-01 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	METHONE	A64	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	PYRIDIN	A65	*	5.00E-01 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	TOLUENE	A66	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	1,1,1-T	A67	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	1,1,2-T	A68	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	TRICENE	A69	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	PERCENE	A70	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	OPXYLEN	A71	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	ACROLIN	A72	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	ACRYILE	A73	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	BISTHER	A74	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	BROMONE	A75	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	METHBRO	A76	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	CARBIDE	A77	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	CHLBENZ	A78	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	CHLTHER	A79	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	CHLFORM	A80	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	METHCHL	A81	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	CHMTHER	A82	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	CROTONA	A83	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	DIBRCHL	A84	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	DIBRETH	A85	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	DIBRMET	A86	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	DIBUTEN	A87	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	DICDIFM	A88	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	1,1-DIC	A89	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	1,2-DIC	A90	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M133	TRANDCE	A91	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	DICETHY	A92	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	METHYCH	A93	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	DICPANE	A94	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	DICPENE	A95	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	NNDIEHY	A96	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	HYDRSUL	A99	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	IODOMET	B01	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	METHACR	B02	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	METHTHI	B03	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	PENTACH	B04	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	1112-TC	B05	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	1122-TC	B06	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	BROMORM	B08	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	TRCMEOL	B09	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	TRCMFLM	B10	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	TRCPANE	B11	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	123-TRP	B12	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	VINYIDE	B13	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	M-XYLE	B14	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	DIETHY	B15	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	ACETILE	B19	*	3.00E+00 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	METACRY	C04	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	FORMALN	C71	*	5.00E-01 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	ETHOXID	H05	*	3.00E+00 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	ETHMETH	H06	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	HEXONE	H68	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	12DCAD4	X07		8.52E+01 %RECOV			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	TOLUD8	X08		9.60E+01 %RECOV			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
SOIL	M133	BFB	X09		9.32E+01 %RECOV			5.00E+00 G	27JUN88	1345	05JUL88	I	341	011110
===> PROCEDURE: 733		REPORTED: 28JUL88												
SOIL	M133	ACETOPH	B20	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	WARFRIN	B21	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	ACEFENE	B22	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	AMINOYL	B23	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	AMIISOX	B24	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	AMITROL	B25	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	ANILINE	B26	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	ARAMITE	B27	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	AURAMIN	B28	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	BENZCAC	B29	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	BENZAAN	B30	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	BENDICN	B31	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110

* Denotes a result less than the detection limit

2300 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M133	BENTHOL	B32	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	DENDINE	B33	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	BENZDFL	B34	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	BENZJFL	B35	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	PBENZQU	B36	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	BENZCHL	B37	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	BIS2CHM	B38	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	BIS2CHE	B39	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	BIS2EPH	B40	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	BROPHEN	B41	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	BUTBENP	B42	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	BUTDINP	B43	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	CHALETH	B44	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	CHLANIL	B45	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	CHLCRES	B46	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	CHLEPOX	B47	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	CHLNAPH	B48	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	CHLPHEN	B49	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	CHRYSEN	B50	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	CRESOLS	B51	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	CYCHDIN	B52	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	DIBAHAC	B53	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	DIBAJAC	B54	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	DIBIHAN	B55	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	DIBCQCA	B56	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	DIBAEPY	B57	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	DIBAHPY	B58	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	DIBAIPY	B59	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	DIBPHTH	B60	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	12-DBEN	B61	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	13-DBEN	B62	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	14-DBEN	B63	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	DICHDCN	B64	*	2.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	24-DCHP	B65	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	26-DCHP	B66	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	DIEPHTH	B67	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	DIHYSAF	B68	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	DIMTHB	B69	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	DIMEAMB	B70	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	DINBENZ	B71	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	DIMEYLB	B72	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	THIONOX	B73	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	DIMPHAN	B74	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	DIMPHEN	B75	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	DIMPHTH	B76	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M133	DINBENZ	B77	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	DINCRES	B78	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	DINPHEN	B79	*	5.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	24-DINT	B80	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	26-DINT	B81	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	DIOPHTH	B82	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	DIPHAMI	B83	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	DIPHHYD	B84	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	DIPRNIT	B85	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	ETHMINE	B86	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	ETHMETS	B87	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	FLUORAN	B88	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	HEXCBEN	B89	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	HEXCBUT	B90	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	HEXCCYC	B91	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	HEXCETH	B92	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	INDENOP	B93	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	ISOSOLE	B94	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	MALOILE	B95	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	MELPHAL	B96	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	METHAPY	B97	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	METHNYL	B98	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	METAZIR	B99	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	METCHAN	C01	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	METBISC	C02	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	METACTO	C03	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	METMSUL	C05	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	METPROP	C06	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	METHIOU	C07	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	NAPHGUI	C08	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	1-NAPHA	C09	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	2-NAPHA	C10	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	NITRANI	C11	*	5.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	NITBENZ	C12	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	NITPHEN	C13	*	5.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	NNIBUTY	C14	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	NNIDIEA	C15	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	NNIDIEY	C16	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	NNIDIME	C17	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	NNIMETH	C18	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	NNIURET	C19	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	NNIVINY	C20	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	NNIMORP	C21	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	NNINICO	C22	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	NNIPIPE	C23	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M133	NITRPYR	C24	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	NITRTOL	C25	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	PENTCHB	C26	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	PENTCHN	C27	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	PENTCHP	C28	*	5.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	PHENTIN	C29	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	PHENINE	C30	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	PHTHEST	C31	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	PICOLIN	C32	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	PRONIDE	C33	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	RESERPI	C34	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	RESORCI	C35	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	SAFROL	C36	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	TETRCHB	C37	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	TETRCHP	C39	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	THIURAM	C40	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	TOLUDIA	C41	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	OTOLHYD	C42	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	TRICHLB	C43	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	245-TRP	C44	*	5.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	246-TRP	C45	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	TRIPHOS	C46	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	SYMTRIN	C47	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	TRISPHO	C48	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	BENZOPY	C49	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	CHLNAPZ	C50	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	BIS2ETH	C51	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	HEXAENE	C52	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	HEXACHL	C54	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	NAPHTHA	C55	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	123TRI	C56	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	PHENOL	C57	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	135TRI	C58	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	1234TE	C59	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	1235TE	C60	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	KEROSEN	C79	*	1.00E+03 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	STRYCHN	C91	*	5.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	MALHYDR	C92	*	5.00E+01 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	NICOTIN	C93	*	1.00E+01 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	TRIBUPH	I21	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	2FLPHEN	X01		5.37E+01 %RECOV			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	PHEND6	X02		4.68E+01 %RECOV			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	NITBN2	X03		8.36E+01 %RECOV			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	2FLBIPH	X04		7.38E+01 %RECOV			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110
SOIL	M133	246TRI	X05		4.34E+01 %RECOV			1.00E+01	G	27JUN88	1345	18JUL88	I	341	011110

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UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All Results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M133	TERD14	X06		7.18E+01 %RECOV			1.00E+01 G	27JUN88	1345	18JUL88	I	341	011110
===> PROCEDURE: 734		REPORTED: 14JUL88												
SOIL	M133	TETEPYR	C61	*	1.00E+00 UG/G			1.01E+01 G	27JUN88	1345	07JUL88	I	341	011110
SOIL	M133	CARBPHT	C63	*	1.00E+00 UG/G			1.01E+01 G	27JUN88	1345	07JUL88	I	341	011110
SOIL	M133	DISULFO	C64	*	1.00E+00 UG/G			1.01E+01 G	27JUN88	1345	07JUL88	I	341	011110
SOIL	M133	DIMETHO	C65	*	2.00E-01 UG/G			1.01E+01 G	27JUN88	1345	07JUL88	I	341	011110
SOIL	M133	METHPAR	C66	*	1.00E+00 UG/G			1.01E+01 G	27JUN88	1345	07JUL88	I	341	011110
SOIL	M133	PARATHI	C67	*	1.00E+00 UG/G			1.01E+01 G	27JUN88	1345	07JUL88	I	341	011110
===> PROCEDURE: 735		REPORTED: 16AUG88												
SOIL	M133	NITRATE	C72	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	08AUG88	I	341	011110
SOIL	M133	SULFATE	C73		6.10E+00 UG/G			1.00E+01 G	27JUN88	1345	08AUG88	I	341	011110
SOIL	M133	FLOURID	C74	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	08AUG88	I	341	011110
SOIL	M133	CHLORID	C75	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	08AUG88	I	341	011110
SOIL	M133	PHOSPHA	C76	*	2.00E+00 UG/G			1.00E+01 G	27JUN88	1345	08AUG88	I	341	011110
===> PROCEDURE: 737		REPORTED: 28JUL88												
SOIL	M133	2,4-D	H13	*	1.00E+00 UG/G			2.50E+01 G	27JUN88	1345	20JUL88	I	341	011110
SOIL	M133	2,4,5TP	H14	*	1.00E+00 UG/G			2.50E+01 G	27JUN88	1345	20JUL88	I	341	011110
SOIL	M133	2,4,5-T	H15	*	1.00E+00 UG/G			2.50E+01 G	27JUN88	1345	20JUL88	I	341	011110
===> PROCEDURE: 739		REPORTED: 04AUG88												
SOIL	M133	AR1016	A54	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	23JUL88	I	341	011110
SOIL	M133	AR1221	A55	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	23JUL88	I	341	011110
SOIL	M133	AR1232	A56	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	23JUL88	I	341	011110
SOIL	M133	AR1242	A57	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	23JUL88	I	341	011110
SOIL	M133	AR1248	A58	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	23JUL88	I	341	011110
SOIL	M133	AR1254	A59	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	23JUL88	I	341	011110
SOIL	M133	AR1260	A60	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	23JUL88	I	341	011110
===> PROCEDURE: A20		REPORTED: 12AUG88												
SOIL	M133	ARSENIC	A20		8.10E+00 UG/G			1.01E+00 G	27JUN88	1345	05AUG88	I	341	011110
===> PROCEDURE: A21		REPORTED: 21JUL88												
SOIL	M133	MERCURY	A21	*	2.00E-01 UG/G			2.52E-01 G	27JUN88	1345	13JUL88	I	341	011110
===> PROCEDURE: A22		REPORTED: 12AUG88												
SOIL	M133	SELENUM	A22	*	5.00E-01 UG/G			1.01E+00 G	27JUN88	1345	05AUG88	I	341	011110

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE	RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: A23		REPORTED: 12AUG88											
SOIL	M133	THALIUM	A23	* 1.00E+00 UG/G			1.01E+00 G	27JUN88	1345	08AUG88	I	341	011110
===> PROCEDURE: A51		REPORTED: 12AUG88											
SOIL	M133	LEAD	A51	3.91E+00 UG/G			1.01E+00 G	27JUN88	1345	09AUG88	I	341	011110
===> PROCEDURE: C68		REPORTED: 12AUG88											
SOIL	M133	TOX	C68	5.97E+00 UG/G			1.00E+00 G	27JUN88	1345	08AUG88	I	341	011110
===> PROCEDURE: C69		REPORTED: 16AUG88											
SOIL	M133	TOC	C69	4.23E+01 UG/G			2.00E+01 G	27JUN88	1345	08AUG88	I	341	011110
===> PROCEDURE: C70		REPORTED: 12AUG88											
SOIL	M133	CYANIDE	C70	* 1.00E+00 UG/G			1.00E+01 G	27JUN88	1345	04AUG88	I	341	011110
===> PROCEDURE: C77		REPORTED: 12AUG88											
SOIL	M133	PERCHLO	C77	* 2.00E+00 UG/G			1.00E+01 G	27JUN88	1345	04AUG88	I	341	011110
===> PROCEDURE: C78		REPORTED: 21JUL88											
SOIL	M133	SULFIDE	C78	* 1.00E+01 UG/G			1.01E+01 G	27JUN88	1345	30JUN88	I	341	011110
===> PROCEDURE: C80		REPORTED: 28JUL88											
SOIL	M133	AMMONIU	C80	1.20E+00 UG/G			1.00E+01 G	27JUN88	1345	19JUL88	I	341	011110
===> PROCEDURE: C81		REPORTED: 12AUG88											
SOIL	M133	ETHYGLY	C81	* 1.00E+01 UG/G			5.00E+00 G	27JUN88	1345	30JUL88	I	341	011110
**********													
<** SAMPLE: M134 **>													
**********													
===> PROCEDURE: 088		REPORTED: 14JUL88											
SOIL	M134	LSP COND	088	3.00E+01			0.00E+00 G	27JUN88	1425	13JUL88	I	341	011111
===> PROCEDURE: 207		REPORTED: 14JUL88											
SOIL	M134	PH (LAB)	207	6.60E+00			0.00E+00 G	27JUN88	1425	28JUN88	I	341	011111

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===> PROCEDURE: 726		REPORTED: 12AUG88												
SOIL	M134	BERYLAM	A01	*	5.00E-01 UG/G			1.02E+00 G	27JUN88	1425	04AUG88	I	341	011111
SOIL	M134	STRONUM	A03		1.50E+01 UG/G			1.02E+00 G	27JUN88	1425	04AUG88	I	341	011111
SOIL	M134	ZINC	A04		3.09E+01 UG/G			1.02E+00 G	27JUN88	1425	04AUG88	I	341	011111
SOIL	M134	CALCIUM	A05		2.77E+03 UG/G			1.02E+00 G	27JUN88	1425	04AUG88	I	341	011111
SOIL	M134	BARIUM	A06		6.30E+01 UG/G			1.02E+00 G	27JUN88	1425	04AUG88	I	341	011111
SOIL	M134	CADMIUM	A07	*	2.00E-01 UG/G			1.02E+00 G	27JUN88	1425	04AUG88	I	341	011111
SOIL	M134	CHROMUM	A08		5.90E+00 UG/G			1.02E+00 G	27JUN88	1425	04AUG88	I	341	011111
SOIL	M134	SILVER	A10	*	1.00E+00 UG/G			1.02E+00 G	27JUN88	1425	04AUG88	I	341	011111
SOIL	M134	SODIUM	A11		8.20E+02 UG/G			1.02E+00 G	27JUN88	1425	04AUG88	I	341	011111
SOIL	M134	NICKEL	A12		5.70E+00 UG/G			1.02E+00 G	27JUN88	1425	04AUG88	I	341	011111
SOIL	M134	COPPER	A13	*	1.00E+00 UG/G			1.02E+00 G	27JUN88	1425	04AUG88	I	341	011111
SOIL	M134	VANADUM	A14		3.51E+01 UG/G			1.02E+00 G	27JUN88	1425	04AUG88	I	341	011111
SOIL	M134	ANTIONY	A15	*	1.00E+01 UG/G			1.02E+00 G	27JUN88	1425	04AUG88	I	341	011111
SOIL	M134	ALUMNUM	A16		5.06E+03 UG/G	1		1.02E+00 G	27JUN88	1425	04AUG88	I	341	011111
SOIL	M134	MANGESE	A17		2.64E+02 UG/G			1.02E+00 G	27JUN88	1425	04AUG88	I	341	011111
SOIL	M134	POTASUM	A18		5.47E+02 UG/G			1.02E+00 G	27JUN88	1425	04AUG88	I	341	011111
SOIL	M134	IRON	A19		1.64E+04 UG/G	1		1.02E+00 G	27JUN88	1425	04AUG88	I	341	011111
SOIL	M134	MAGNES	A50		3.55E+03 UG/G	1		1.02E+00 G	27JUN88	1425	04AUG88	I	341	011111
===> PROCEDURE: 727		REPORTED: 17AUG88												
SOIL	M134	THIOURA	A24	*	2.00E+00 UG/G			1.00E+01 G	27JUN88	1425	17AUG88	I	341	011111
SOIL	M134	ACETREA	A25	*	2.00E+00 UG/G			1.00E+01 G	27JUN88	1425	17AUG88	I	341	011111
SOIL	M134	CHLOREA	A26	*	2.00E+00 UG/G			1.00E+01 G	27JUN88	1425	17AUG88	I	341	011111
SOIL	M134	DIETROL	A27	*	2.00E+00 UG/G			1.00E+01 G	27JUN88	1425	17AUG88	I	341	011111
SOIL	M134	ETHYREA	A28	*	2.00E+00 UG/G			1.00E+01 G	27JUN88	1425	17AUG88	I	341	011111
SOIL	M134	NAPHREA	A29	*	2.00E+00 UG/G			1.00E+01 G	27JUN88	1425	17AUG88	I	341	011111
SOIL	M134	PHENREA	A32	*	5.00E+00 UG/G			1.00E+01 G	27JUN88	1425	17AUG88	I	341	011111
===> PROCEDURE: 729		REPORTED: 14JUL88												
SOIL	M134	ENDRIN	A33	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1425	07JUL88	I	341	011111
SOIL	M134	METHLOR	A34	*	3.00E-01 UG/G			1.00E+01 G	27JUN88	1425	07JUL88	I	341	011111
SOIL	M134	TOXAENE	A35	*	1.00E-01 UG/G			1.00E+01 G	27JUN88	1425	07JUL88	I	341	011111
SOIL	M134	A-BHC	A36	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1425	07JUL88	I	341	011111
SOIL	M134	B-BHC	A37	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1425	07JUL88	I	341	011111
SOIL	M134	G-BHC	A38	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1425	07JUL88	I	341	011111
SOIL	M134	D-BHC	A39	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1425	07JUL88	I	341	011111
SOIL	M134	DDD	A40	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1425	07JUL88	I	341	011111
SOIL	M134	DDE	A41	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1425	07JUL88	I	341	011111
SOIL	M134	DDT	A42	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1425	07JUL88	I	341	011111
SOIL	M134	HEPTLOR	A43	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1425	07JUL88	I	341	011111

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M134	HEPTIDE	A44	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1425	07JUL88	I	341	011111
SOIL	M134	DIELRIN	A46	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1425	07JUL88	I	341	011111
SOIL	M134	ALDRIN	A47	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1425	07JUL88	I	341	011111
SOIL	M134	CHLDANE	A48	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	07JUL88	I	341	011111
SOIL	M134	ENDO1	A49	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1425	07JUL88	I	341	011111
SOIL	M134	ENDO2	A52	*	1.00E-02 UG/G			1.00E+01 G	27JUN88	1425	07JUL88	I	341	011111
SOIL	M134	CHLLATE	C62	*	3.00E+00 UG/G			1.00E+01 G	27JUN88	1425	07JUL88	I	341	011111
SOIL	M134	DDC	X10		9.20E+01 %RECOV			1.00E+01 G	27JUN88	1425	07JUL88	I	341	011111
===> PROCEDURE: 731		REPORTED: 14JUL88												
SOIL	M134	TETRANE	A61	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	BENZENE	A62	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	DIOXANE	A63	*	5.00E-01 UG/G			5.00E+00 G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	METHONE	A64	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	PYRIDIN	A65	*	5.00E-01 UG/G			5.00E+00 G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	TOLUENE	A66	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	1,1,1-T	A67	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	1,1,2-T	A68	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	TRICENE	A69	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	PERCENE	A70	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	OPXYLEN	A71	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	ACROLIN	A72	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	ACRYILE	A73	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	BISTHER	A74	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	BROMONE	A75	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	METHBRO	A76	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	CARBIDE	A77	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	CHLBENZ	A78	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	CHLTHER	A79	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	CHLFORM	A80	*	5.00E-03 UG/G			5.00E+00 G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	METHCHL	A81	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	CHMTHER	A82	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	CROTONA	A83	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	DIBRCHL	A84	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	DIBRETH	A85	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	DIBRMET	A86	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	DIBUTEN	A87	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	DICDIFM	A88	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	1,1-DIC	A89	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	1,2-DIC	A90	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	TRANDCE	A91	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	DICETHY	A92	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	METHYCH	A93	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	DICPANE	A94	*	1.00E-02 UG/G			5.00E+00 G	27JUN88	1425	05JUL88	I	341	011111

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UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M134	DICPENE	A95	*	1.00E-02 UG/G			5.00E+00	G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	NNDIEHY	A96	*	1.00E-02 UG/G			5.00E+00	G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	HYDRSUL	A99	*	1.00E-02 UG/G			5.00E+00	G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	IODOMET	B01	*	1.00E-02 UG/G			5.00E+00	G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	METHACR	B02	*	1.00E-02 UG/G			5.00E+00	G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	METHTHI	B03	*	1.00E-02 UG/G			5.00E+00	G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	PENTACH	B04	*	1.00E-02 UG/G			5.00E+00	G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	1112-TC	B05	*	1.00E-02 UG/G			5.00E+00	G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	1122-TC	B06	*	1.00E-02 UG/G			5.00E+00	G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	BROMORM	B08	*	1.00E-02 UG/G			5.00E+00	G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	TRCHEOL	B09	*	1.00E-02 UG/G			5.00E+00	G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	TRCHFLM	B10	*	1.00E-02 UG/G			5.00E+00	G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	TRCPANE	B11	*	1.00E-02 UG/G			5.00E+00	G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	123-TRP	B12	*	1.00E-02 UG/G			5.00E+00	G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	VINYIDE	B13	*	1.00E-02 UG/G			5.00E+00	G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	M XYLE	B14	*	5.00E-03 UG/G			5.00E+00	G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	DIETHY	B15	*	1.00E-02 UG/G			5.00E+00	G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	ACETILE	B19	*	3.00E+00 UG/G			5.00E+00	G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	METACRY	C04	*	1.00E-02 UG/G			5.00E+00	G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	FORMALN	C71	*	5.00E-01 UG/G			5.00E+00	G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	ETHOXID	H05	*	3.00E+00 UG/G			5.00E+00	G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	ETHMETH	H06	*	1.00E-02 UG/G			5.00E+00	G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	HEXONE	H68	*	1.00E-02 UG/G			5.00E+00	G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	I2DCAD4	X07		9.04E+01 %RECOV			5.00E+00	G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	TOLUD8	X08		9.56E+01 %RECOV			5.00E+00	G	27JUN88	1425	05JUL88	I	341	011111
SOIL	M134	BFB	X09		9.48E+01 %RECOV			5.00E+00	G	27JUN88	1425	05JUL88	I	341	011111
===> PROCEDURE: 733		REPORTED: 28JUL88													
SOIL	M134	ACETOPH	B20	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	WARFRIN	B21	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	ACEFENE	B22	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	AMINOYL	B23	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	AMIISOX	B24	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	AMITROL	B25	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	ANILINE	B26	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	ARAMITE	B27	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	AURAMIN	B28	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	BENZCAC	B29	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	BENZAAN	B30	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	BENDICN	B31	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	BENTHOL	B32	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	BENDINE	B33	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	BENZDFL	B34	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	BENZJFL	B35	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111

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UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M134	PBENZQU	B36	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	BENZCHL	B37	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	BIS2CHM	B38	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	BIS2CHE	B39	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	BIS2EPH	B40	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	BROPHEN	B41	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	BUTBENP	B42	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	BUTDINP	B43	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	CHALETH	B44	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	CHLANIL	B45	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	CHLCRES	B46	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	CHLEPOX	B47	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	CHLNAPH	B48	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	CHLPHEN	B49	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	CHRYSEN	B50	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	CRESOLS	B51	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	CYCHDIN	B52	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	DIBAHAC	B53	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	DIBAJAC	B54	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	DIBIHAN	B55	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	DIBCGCA	B56	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	DIBAEPY	B57	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	DIBAHPY	B58	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	DIBAIPY	B59	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	DIBPHTH	B60	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	12-DBEN	B61	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	13-DBEN	B62	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	14-DBEN	B63	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	DICHDEN	B64	*	2.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	24-DCHP	B65	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	26-DCHP	B66	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	DIEPHTH	B67	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	DIHYSAF	B68	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	DIMTHB	B69	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	DIMEAMB	B70	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	DIMBENZ	B71	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	DIMEYLB	B72	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	THIONOX	B73	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	DIMPHAM	B74	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	DIMPHEN	B75	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	DIMPHTH	B76	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	DINBENZ	B77	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	DINCRES	B78	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	DINPHEN	B79	*	5.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	24-DINT	B80	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	18JUL88	I	341	011111

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M134	26-DINT	B81	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	DIOPHTH	B82	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	DIPHAMI	B83	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	DIPHHYD	B84	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	DIPRNIT	B85	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	ETHMINE	B86	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	ETHMETS	B87	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	FLUORAN	B88	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	HEXCDEN	B89	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	HEXCBUT	B90	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	HEXCCYC	B91	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	HEXCETH	B92	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	INDENOP	B93	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	ISOSOLE	B94	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	MALOILE	B95	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	MELPHAL	B96	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	METHAPY	B97	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	METHNYL	B98	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	METAZIR	B99	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	METCHAN	C01	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	METBISC	C02	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	METACTO	C03	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	METMSUL	C05	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	METPROP	C06	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	METHIOU	C07	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	NAPHQUI	C08	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	1-NAPHA	C09	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	2-NAPHA	C10	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	NITRANI	C11	*	5.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	NITBENZ	C12	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	NITPHEN	C13	*	5.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	NNIBUTY	C14	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	NNIDIEA	C15	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	NNIDIEY	C16	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	NNIDIME	C17	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	NNIMETH	C18	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	NNIURET	C19	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	NNIVINY	C20	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	NNIMORP	C21	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	NNINICO	C22	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	NNIPIPE	C23	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	NITRPYR	C24	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	NITRTOL	C25	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	PENTCHB	C26	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	PENTCHN	C27	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111

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2600 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M134	PENTCHP	C28	*	5.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	PHENTIN	C29	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	PHENINE	C30	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	PHTHEST	C31	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	PICOLIN	C32	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	PRONIDE	C33	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	RESERPI	C34	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	RESORCI	C35	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	SAFROL	C36	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	TETRCHB	C37	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	TETRCHP	C39	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	THIURAM	C40	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	TOLUDIA	C41	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	OTOLHYD	C42	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	TRICHLB	C43	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	245-TRP	C44	*	5.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	246-TRP	C45	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	TRIPHOS	C46	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	SYMTRIN	C47	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	TRISPHO	C48	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	BENZOPY	C49	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	CHLNAPZ	C50	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	BIS2ETH	C51	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	HEXAENE	C52	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	HEXACHL	C54	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	NAPHTHA	C55	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	123TRI	C56	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	PHENOL	C57	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	135TRI	C58	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	1234TE	C59	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	1235TE	C60	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	KEROSEN	C79	*	1.00E+03 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	STRYCHN	C91	*	5.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	MALHYDR	C92	*	5.00E+01 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	NICOTIN	C93	*	1.00E+01 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	TRIBUTH	I21	*	1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	2FLPHEN	X01		7.98E+01 %RECOV			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	PHEND6	X02		5.91E+01 %RECOV			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	NITBN2	X03		7.60E+01 %RECOV			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	2FLBIPH	X04		7.56E+01 %RECOV			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	246TRI	X05		5.87E+01 %RECOV			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
SOIL	M134	TERD14	X06		7.56E+01 %RECOV			1.00E+01 G	27JUN88	1425	18JUL88	I	341	011111
---> PROCEDURE: 734		REPORTED: 14JUL88												
SOIL	M134	TETEPYR	C61	*	1.00E+00 UG/G			1.01E+01 G	27JUN88	1425	07JUL88	I	341	011111

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SOIL	M134	CARBPHT	C63	*	1.00E+00 UG/G			1.01E+01	G	27JUN88	1425	07JUL88	I	341	011111
SOIL	M134	DISULFO	C64	*	1.00E+00 UG/G			1.01E+01	G	27JUN88	1425	07JUL88	I	341	011111
SOIL	M134	DIMETHO	C65	*	2.00E-01 UG/G			1.01E+01	G	27JUN88	1425	07JUL88	I	341	011111
SOIL	M134	METHPAR	C66	*	1.00E+00 UG/G			1.01E+01	G	27JUN88	1425	07JUL88	I	341	011111
SOIL	M134	PARATHI	C67	*	1.00E+00 UG/G			1.01E+01	G	27JUN88	1425	07JUL88	I	341	011111
===> PROCEDURE: 735		REPORTED: 16AUG88													
SOIL	M134	NITRATE	C72	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	08AUG88	I	341	011111
SOIL	M134	SULFATE	C73		1.92E+00 UG/G			1.00E+01	G	27JUN88	1425	08AUG88	I	341	011111
SOIL	M134	FLOURID	C74	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	08AUG88	I	341	011111
SOIL	M134	CHLORID	C75	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	08AUG88	I	341	011111
SOIL	M134	PHOSPHA	C76	*	2.00E+00 UG/G			1.00E+01	G	27JUN88	1425	08AUG88	I	341	011111
===> PROCEDURE: 737		REPORTED: 28JUL88													
SOIL	M134	2,4-D	H13	*	1.00E+00 UG/G			2.50E+01	G	27JUN88	1425	20JUL88	I	341	011111
SOIL	M134	2,4,5TP	H14	*	1.00E+00 UG/G			2.50E+01	G	27JUN88	1425	20JUL88	I	341	011111
SOIL	M134	2,4,5-T	H15	*	1.00E+00 UG/G			2.50E+01	G	27JUN88	1425	20JUL88	I	341	011111
===> PROCEDURE: 739		REPORTED: 04AUG88													
SOIL	M134	AR1016	A54	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	23JUL88	I	341	011111
SOIL	M134	AR1221	A55	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	23JUL88	I	341	011111
SOIL	M134	AR1232	A56	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	23JUL88	I	341	011111
SOIL	M134	AR1242	A57	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	23JUL88	I	341	011111
SOIL	M134	AR1248	A58	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	23JUL88	I	341	011111
SOIL	M134	AR1254	A59	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	23JUL88	I	341	011111
SOIL	M134	AR1260	A60	*	1.00E+00 UG/G			1.00E+01	G	27JUN88	1425	23JUL88	I	341	011111
===> PROCEDURE: A20		REPORTED: 12AUG88													
SOIL	M134	ARSENIC	A20		1.20E+00 UG/G			1.00E+00	G	27JUN88	1425	05AUG88	I	341	011111
===> PROCEDURE: A21		REPORTED: 21JUL88													
SOIL	M134	MERCURY	A21	*	2.00E-01 UG/G			2.18E-01	G	27JUN88	1425	13JUL88	I	341	011111
===> PROCEDURE: A22		REPORTED: 12AUG88													
SOIL	M134	SELENUM	A22	*	5.00E-01 UG/G			1.00E+00	G	27JUN88	1425	05AUG88	I	341	011111
===> PROCEDURE: A23		REPORTED: 12AUG88													
SOIL	M134	THALIUM	A23	*	1.00E+00 UG/G			1.00E+00	G	27JUN88	1425	09AUG88	I	341	011111

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===> PROCEDURE: A51		REPORTED: 12AUG88											
SOIL	M134	LEAD	A51	3.10E+00 UG/G			1.00E+00 G	27JUN88	1425	09AUG88	I	341	011111
===> PROCEDURE: C68		REPORTED: 12AUG88											
SOIL	M134	TOX	C68	* -1.89E+00 UG/G			1.00E+00 G	27JUN88	1425	09AUG88	I	341	011111
===> PROCEDURE: C69		REPORTED: 16AUG88											
SOIL	M134	TOC	C69	* 1.00E+01 UG/G			2.00E+01 G	27JUN88	1425	08AUG88	I	341	011111
===> PROCEDURE: C70		REPORTED: 12AUG88											
SOIL	M134	CYANIDE	C70	* 1.00E+00 UG/G			1.00E+01 G	27JUN88	1425	04AUG88	I	341	011111
===> PROCEDURE: C77		REPORTED: 12AUG88											
SOIL	M134	PERCHLO	C77	* 2.00E+00 UG/G			1.00E+01 G	27JUN88	1425	04AUG88	I	341	011111
===> PROCEDURE: C78		REPORTED: 21JUL88											
SOIL	M134	SULFIDE	C78	* 1.00E+01 UG/G			9.93E+00 G	27JUN88	1425	30JUN88	I	341	011111
===> PROCEDURE: C80		REPORTED: 28JUL88											
SOIL	M134	AMMONIU	C80	1.50E+00 UG/G			1.00E+01 G	27JUN88	1425	19JUL88	I	341	011111
===> PROCEDURE: C81		REPORTED: 12AUG88											
SOIL	M134	ETHYGLY	C81	* 1.00E+01 UG/G			5.00E+00 G	27JUN88	1425	30JUL88	I	341	011111
********** ==> SAMPLE: M135 ==> **********													
===> PROCEDURE: 088		REPORTED: 14JUL88											
SOIL	M135	LSP COND	088	3.80E+01			0.00E+00 G	28JUN88	0855	10JUL88	I	341	011112
===> PROCEDURE: 207		REPORTED: 14JUL88											
SOIL	M135	PH (LAB)	207	6.90E+00			0.00E+00 G	28JUN88	0855	28JUN88	I	341	011112
===> PROCEDURE: 726		REPORTED: 12AUG88											
SOIL	M135	BERYLAM	A01	* 5.00E-01 UG/G			1.03E+00 G	28JUN88	0855	04AUG88	I	341	011112

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. D-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M135	STRONUM	A03		1.83E+01 UG/G			1.03E+00 G	28JUN88	0855	04AUG88	I	341	011112
SOIL	M135	ZINC	A04		3.14E+01 UG/G			1.03E+00 G	28JUN88	0855	04AUG88	I	341	011112
SOIL	M135	CALCIUM	A05		2.80E+03 UG/G			1.03E+00 G	28JUN88	0855	04AUG88	I	341	011112
SOIL	M135	BARIUM	A06		5.59E+01 UG/G			1.03E+00 G	28JUN88	0855	04AUG88	I	341	011112
SOIL	M135	CADMIUM	A07	*	2.00E-01 UG/G			1.03E+00 G	28JUN88	0855	04AUG88	I	341	011112
SOIL	M135	CHROMUM	A08		8.30E+00 UG/G			1.03E+00 G	28JUN88	0855	04AUG88	I	341	011112
SOIL	M135	SILVER	A10	*	1.00E+00 UG/G			1.03E+00 G	28JUN88	0855	04AUG88	I	341	011112
SOIL	M135	SODIUM	A11		8.48E+02 UG/G			1.03E+00 G	28JUN88	0855	04AUG88	I	341	011112
SOIL	M135	NICKEL	A12		9.10E+00 UG/G			1.03E+00 G	28JUN88	0855	04AUG88	I	341	011112
SOIL	M135	COPPER	A13		1.19E+01 UG/G			1.03E+00 G	28JUN88	0855	04AUG88	I	341	011112
SOIL	M135	VANADUM	A14		3.5[illegible]E+01 UG/G			1.03E+00 G	28JUN88	0855	04AUG88	I	341	011112
SOIL	M135	ANTIONY	A15	*	1.0[illegible]E+01 UG/G			1.03E+00 G	28JUN88	0855	04AUG88	I	341	011112
SOIL	M135	ALUMNUM	A16		6.57E+03 UG/G	1		1.03E+00 G	28JUN88	0855	04AUG88	I	341	011112
SOIL	M135	MANGESE	A17		2.37E+02 UG/G			1.03E+00 G	28JUN88	0855	04AUG88	I	341	011112
SOIL	M135	POTASUM	A18		7.23E+02 UG/G			1.03E+00 G	28JUN88	0855	04AUG88	I	341	011112
SOIL	M135	IRON	A19		1.86E+04 UG/G			1.03E+00 G	28JUN88	0855	04AUG88	I	341	011112
SOIL	M135	MAGNES	A50		4.68E+03 UG/G			1.03E+00 G	28JUN88	0855	04AUG88	I	341	011112
===> PROCEDURE: 727		REPORTED: 19AUG88												
SOIL	M135	THIOURA	A24	*	2.00E+00 UG/G			1.00E+01 G	28JUN88	0855	17AUG88	I	341	011112
SOIL	M135	ACETREA	A25	*	2.00E+00 UG/G			1.00E+01 G	28JUN88	0855	17AUG88	I	341	011112
SOIL	M135	CHLOREA	A26	*	2.00E+00 UG/G			1.00E+01 G	28JUN88	0855	17AUG88	I	341	011112
SOIL	M135	DIETROL	A27	*	2.00E+00 UG/G			1.00E+01 G	28JUN88	0855	17AUG88	I	341	011112
SOIL	M135	ETHYREA	A28	*	2.00E+00 UG/G			1.00E+01 G	28JUN88	0855	17AUG88	I	341	011112
SOIL	M135	NAPHREA	A29	*	2.00E+00 UG/G			1.00E+01 G	28JUN88	0855	17AUG88	I	341	011112
SOIL	M135	PHENREA	A32	*	5.00E+00 UG/G			1.00E+01 G	28JUN88	0855	17AUG88	I	341	011112
===> PROCEDURE: 729		REPORTED: 14JUL88												
SOIL	M135	ENDRIN	A33	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	0855	07JUL88	I	341	011112
SOIL	M135	METHLOR	A34	*	3.00E-01 UG/G			1.00E+01 G	28JUN88	0855	07JUL88	I	341	011112
SOIL	M135	TOXAENE	A35	*	1.00E-01 UG/G			1.00E+01 G	28JUN88	0855	07JUL88	I	341	011112
SOIL	M135	A-BHC	A36	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	0855	07JUL88	I	341	011112
SOIL	M135	B-BHC	A37	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	0855	07JUL88	I	341	011112
SOIL	M135	G-BHC	A38	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	0855	07JUL88	I	341	011112
SOIL	M135	D-BHC	A39	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	0855	07JUL88	I	341	011112
SOIL	M135	DDD	A40	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	0855	07JUL88	I	341	011112
SOIL	M135	DDE	A41	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	0855	07JUL88	I	341	011112
SOIL	M135	DDT	A42	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	0855	07JUL88	I	341	011112
SOIL	M135	HEPTLOR	A43	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	0855	07JUL88	I	341	011112
SOIL	M135	HEPTIDE	A44	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	0855	07JUL88	I	341	011112
SOIL	M135	DIELRIN	A46	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	0855	07JUL88	I	341	011112
SOIL	M135	ALDRIN	A47	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	0855	07JUL88	I	341	011112
SOIL	M135	CHLDANE	A48	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	0855	07JUL88	I	341	011112

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE	RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M135	ENDO1	A49	* 1.00E-02 UG/G			1.00E+01 G	28JUN88	0855	07JUL88	I	341	011112
SOIL	M135	ENDO2	A52	* 1.00E-02 UG/G			1.00E+01 G	28JUN88	0855	07JUL88	I	341	011112
SOIL	M135	CHLLATE	C62	* 3.00E+00 UG/G			1.00E+01 G	28JUN88	0855	07JUL88	I	341	011112
SOIL	M135	DBC	X10	9.30E+01 %RECOV			1.00E+01 G	28JUN88	0855	07JUL88	I	341	011112
===> PROCEDURE: 731		REPORTED: 14JUL88											
SOIL	M135	TETRANE	A61	* 5.00E-03 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	BENZENE	A62	* 5.00E-03 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	DIOXANE	A63	* 5.00E-01 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	METHONE	A64	* 1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	PYRIDIN	A65	* 5.00E-01 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	TOLUENE	A66	* 5.00E-03 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	1,1,1-T	A67	* 5.00E-03 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	1,1,2-T	A68	* 5.00E-03 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	TRICENE	A69	* 5.00E-03 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	PERCENE	A70	* 5.00E-03 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	OPXYLEN	A71	* 5.00E-03 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	ACROLIN	A72	* 1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	ACRYILE	A73	* 1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	BISTHER	A74	* 1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	BROMONE	A75	* 1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	METHBRO	A76	* 1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	CARBIDE	A77	* 1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	CHLBENZ	A78	* 1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	CHLTHER	A79	* 1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	CHLFORM	A80	* 5.00E-03 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	METHCHL	A81	* 1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	CHMTHER	A82	* 1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	CROTONA	A83	* 1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	DIBRCHL	A84	* 1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	DIBRETH	A85	* 1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	DIBRMET	A86	* 1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	DIBUTEN	A87	* 1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	DICDIFM	A88	* 1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	1,1-DIC	A89	* 1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	1,2-DIC	A90	* 1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	TRANDCE	A91	* 1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	DICETHY	A92	* 1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	METHYCH	A93	* 1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	DICPANE	A94	* 1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	DICPENE	A95	* 1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	NNDIEHY	A96	* 1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	HYDRSUL	A99	* 1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	ICDOMET	B01	* 1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112

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UNITED STATES TESTING COMPANY, INC.
2600 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M135	METHACR	B02	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	METHTHI	B03	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	PENTACH	B04	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	1112-TC	B05	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	1122-TC	B06	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	BROMORM	B08	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	TRCMEOL	B09	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	TRCMFLM	B10	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	TRCPANE	B11	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	123-TRP	B12	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	VINYIDE	B13	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	M XYLE	B14	*	5.00E-03 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	DIETHY	B15	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	ACETILE	B19	*	3.00E+00 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	METACRY	C04	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	FORMALN	C71	*	5.00E-01 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	ETHOXID	H05	*	3.00E+00 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	ETHMETH	H06	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	HEXONE	H68	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	12DCAD4	X07		8.90E+01 %RECOV			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	TOLUD8	X08		9.42E+01 %RECOV			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
SOIL	M135	BFB	X09		9.42E+01 %RECOV			5.00E+00 G	28JUN88	0855	05JUL88	I	341	011112
===> PROCEDURE: 733		REPORTED: 28JUL88												
SOIL	M135	ACETOPH	B20	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	WARFRIN	B21	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	ACEFENE	B22	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	ANINDYL	B23	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	AMIISOX	B24	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	AMITROL	B25	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	ANILINE	B26	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	ARAMITE	B27	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	AURAMIN	B28	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	BENZCAC	B29	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	BENZAAN	B30	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	BENDICN	B31	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	BENTHOL	B32	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	BENDINE	B33	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	BENZDFL	B34	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	BENZJFL	B35	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	PBENZQU	B36	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	BENZCHL	B37	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	BIS2CHM	B38	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	BIS2CHE	B39	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112

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2600 George Washington Way, Richland, WA
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SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M135	BIS2EPH	B40	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	BROPHEN	B41	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	BUTBENP	B42	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	BUTDINP	B43	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	CHALETH	B44	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	CHLANIL	B45	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	CHLCRES	B46	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	CHLEPOX	B47	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	CHLNAPH	B48	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	CHLPHEN	B49	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	CHRYSEN	B50	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	CRESOLS	B51	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	CYCHDIN	B52	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	DIBAHAC	B53	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	DIBAJAC	B54	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	DIBIHAN	B55	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	DIBCQCA	B56	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	DIBAEPY	B57	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	DIBAHPY	B58	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	DIBAIPY	B59	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	DIBPHTH	B60	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	12-DBEN	B61	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	13-DBEN	B62	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	14-DBEN	B63	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	DICHDEN	B64	*	2.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	24-DCHP	B65	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	26-DCHP	B66	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	DIEPHTH	B67	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	DIHYSAF	B68	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	DIMTHB	B69	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	DIMEAMD	B70	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	DIMBENZ	B71	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	DIMEYLB	B72	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	THIONOX	B73	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	DIMPHAM	B74	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	DINPHEN	B75	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	DIMPHTH	B76	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	DINBENZ	B77	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	DINCRES	B78	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	DINPHEN	B79	*	5.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	24-DINT	B80	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	26-DINT	B81	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	DIOPHTH	B82	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	DIPHAMI	B83	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	DIPHHYD	B84	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2200 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M135	DIPRNIT	B85	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	ETHMINE	B86	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	ETHMETS	B87	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	FLUORAN	B88	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	HEXCBEN	B89	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	HEXCBUT	B90	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	HEXCCYC	B91	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	HEXCETH	B92	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	INDENOP	B93	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	ISOSOLE	B94	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	MALOILE	B95	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	MELPHAL	B96	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	METHAPY	B97	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	METHNYL	B98	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	METAZIR	B99	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	METCHAN	C01	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	METBISC	C02	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	METACTO	C03	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	METMSUL	C05	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	METPROP	C06	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	METHIOU	C07	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	NAPHQUI	C08	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	1-NAPHA	C09	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	2-NAPHA	C10	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	NITRANI	C11	*	5.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	NITBENZ	C12	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	NITPHEN	C13	*	5.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	NNIBUTY	C14	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	NNIDIEA	C15	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	NNIDIEY	C16	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	NNIDIME	C17	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	NNIMETH	C18	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	NNIURET	C19	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	NNIVINY	C20	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	NNIMORP	C21	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	NNINICO	C22	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	NNIPIPE	C23	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	NITRPYR	C24	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	NITRTOL	C25	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	PENTCHB	C26	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	PENTCHN	C27	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	PENTCHP	C28	*	5.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	PHENTIN	C29	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	PHENINE	C30	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	PHTHEST	C31	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M135	PICOLIN	C32	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	PRONIDE	C33	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	RESERPI	C34	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	RESORCI	C35	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	SAFROL	C36	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	TETRCHB	C37	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	TETRCHP	C39	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	THIURAM	C40	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	TOLUDIA	C41	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	OTOLHYD	C42	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	TRICHLB	C43	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	245-TRP	C44	*	5.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	246-TRP	C45	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	TRIPHOS	C46	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	SYMTRIN	C47	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	TRISPHO	C48	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	BENZOPY	C49	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	CHLNAPZ	C50	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	BISEETH	C51	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	HEXAENE	C52	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	HEXACHL	C54	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	NAPHTHA	C55	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	123TRI	C56	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	PHENOL	C57	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	135TRI	C58	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	1234TE	C59	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	1235TE	C60	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	KEROSEN	C79	*	1.00E+03 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	STRYCHN	C91	*	5.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	MALHYDR	C92	*	5.00E+01 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	NICOTIN	C93	*	1.00E+01 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	TRIBUPH	I21	*	1.00E+00 UG/G			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	2FLPHCN	X01		7.67E+01 %RECOV			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	PHEND6	X02		5.88E+01 %RECOV			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	NITBN2	X03		7.60E+01 %RECOV			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	2FLBIPH	X04		6.[illegible]E+01 %RECOV			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	246TRI	X05		4.66E+01 %RECOV			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
SOIL	M135	TERD14	X06		7.04E+01 %RECOV			9.99E+00 G	28JUN88	0855	18JUL88	I	341	011112
===> PROCEDURE: 734		REPORTED: 14JUL88												
SOIL	M135	TETEPYR	C61	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	0855	07JUL88	I	341	011112
SOIL	M135	CARBPHT	C63	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	0855	07JUL88	I	341	011112
SOIL	M135	DISULFO	C64	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	0855	07JUL88	I	341	011112
SOIL	M135	DIMETHO	C65	*	2.00E+01 UG/G			1.00E+01 G	28JUN88	0855	07JUL88	I	341	011112

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M135	METHPAR	C66	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	0855	07JUL88	I	341	011112
SOIL	M135	PARATHI	C67	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	0855	07JUL88	I	341	011112
===> PROCEDURE: 735		REPORTED: 16AUG88													
SOIL	M135	NITRATE	C72	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	0855	08AUG88	I	341	011112
SOIL	M135	SULFATE	C73		1.71E+00 UG/G			1.00E+01	G	28JUN88	0855	08AUG88	I	341	011112
SOIL	M135	FLOURID	C74	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	0855	08AUG88	I	341	011112
SOIL	M135	CHLORID	C75	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	0855	08AUG88	I	341	011112
SOIL	M135	PHOSPHA	C76	*	2.00E+00 UG/G			1.00E+01	G	28JUN88	0855	08AUG88	I	341	011112
===> PROCEDURE: 737		REPORTED: 28JUL88													
SOIL	M135	2,4-D	H13	*	1.00E+00 UG/G			2.50E+01	G	28JUN88	0855	20JUL88	I	341	011112
SOIL	M135	2,4,5TP	H14	*	1.00E+00 UG/G			2.50E+01	G	28JUN88	0855	20JUL88	I	341	011112
SOIL	M135	2,4,5-T	H15	*	1.00E+00 UG/G			2.50E+01	G	28JUN88	0855	20JUL88	I	341	011112
===> PROCEDURE: 739		REPORTED: 04AUG88													
SOIL	M135	AR1016	A54	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	0855	23JUL88	I	341	011112
SOIL	M135	AR1221	A55	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	0855	23JUL88	I	341	011112
SOIL	M135	AR1232	A56	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	0855	23JUL88	I	341	011112
SOIL	M135	AR1242	A57	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	0855	23JUL88	I	341	011112
SOIL	M135	AR1248	A58	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	0855	23JUL88	I	341	011112
SOIL	M135	AR1254	A59	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	0855	23JUL88	I	341	011112
SOIL	M135	AR1260	A60	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	0855	23JUL88	I	341	011112
===> PROCEDURE: A20		REPORTED: 12AUG88													
SOIL	M135	ARSENIC	A20		1.40E+00 UG/G			1.00E+00	G	28JUN88	0855	10AUG88	I	341	011112
===> PROCEDURE: A21		REPORTED: 21JUL88													
SOIL	M135	MERCURY	A21	*	2.00E-01 UG/G			2.22E-01	G	28JUN88	0855	14JUL88	I	341	011112
===> PROCEDURE: A22		REPORTED: 12AUG88													
SOIL	M135	SELENUM	A22	*	5.00E-01 UG/G			1.00E+00	G	28JUN88	0855	10AUG88	I	341	011112
===> PROCEDURE: A23		REPORTED: 12AUG88													
SOIL	M135	THALIUM	A23	*	1.00E+00 UG/G			1.00E+00	G	28JUN88	0855	08AUG88	I	341	011112
===> PROCEDURE: A51		REPORTED: 12AUG88													
SOIL	M135	LEAD	A51		3.69E+00 UG/G			1.00E+00	G	28JUN88	0855	09AUG88	I	341	011112

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UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: C68		REPORTED: 12AUG88												
SOIL	M135	TOX	C68		1.97E+00 UG/G			1.00E+00 G	28JUN88	0855	09AUG88	I	341	011112
===> PROCEDURE: C69		REPORTED: 16AUG88												
SOIL	M135	TOC	C69	*	1.00E+01 UG/G			2.00E+01 G	28JUN88	0855	08AUG88	I	341	011112
===> PROCEDURE: C70		REPORTED: 12AUG88												
SOIL	M135	CYANIDE	C70	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	0855	04AUG88	I	341	011112
===> PROCEDURE: C77		REPORTED: 12AUG88												
SOIL	M135	PERCHLO	C77	*	2.00E+00 UG/G			1.00E+01 G	28JUN88	0855	04AUG88	I	341	011112
===> PROCEDURE: C78		REPORTED: 21JUL88												
SOIL	M135	SULFIDE	C78		1.20E+01 UG/G			9.87E+00 G	28JUN88	0855	30JUN88	I	341	011112
===> PROCEDURE: C80		REPORTED: 28JUL88												
SOIL	M135	AMMONIU	C80		1.60E+00 UG/G			1.00E+01 G	28JUN88	0855	19JUL88	I	341	011112
===> PROCEDURE: C81		REPORTED: 12AUG88												
SOIL	M135	ETHYGLY	C81	*	1.00E+01 UG/G			5.00E+00 G	28JUN88	0855	04AUG88	I	341	011112
********** <** SAMPLE: M136 **> **********														
===> PROCEDURE: 088		REPORTED: 14JUL88												
SOIL	M136	LSP COND	088		5.70E+01			0.00E+00 G	28JUN88	1010	10JUL88	I	341	011113
===> PROCEDURE: 207		REPORTED: 14JUL89												
SOIL	M136	PH (LAB)	207		6.40E+00			0.00E+00 G	28JUN88	1010	28JUN88	I	341	011113
===> PROCEDURE: 726		REPORTED: 12AUG88												
SOIL	M136	BERYLAN	A01	*	5.00E-01 UG/G			1.02E+00 G	28JUN88	1010	04AUG88	I	341	011113
SOIL	M136	STRONUM	A03		1.89E+01 UG/G			1.02E+00 G	28JUN88	1010	04AUG88	I	341	011113

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UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
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SOIL	M136	ZINC	A04		3.39E+01 UG/G			1.02E+00 G	28JUN88	1010	04AUG88	I	341	011113
SOIL	M136	CALCIUM	A05		3.05E+03 UG/G			1.02E+00 G	28JUN88	1010	04AUG88	I	341	011113
SOIL	M136	BARIUM	A06		7.70E+01 UG/G			1.02E+00 G	28JUN88	1010	04AUG88	I	341	011113
SOIL	M136	CADMIUM	A07	*	2.00E-01 UG/G			1.02E+00 G	28JUN88	1010	04AUG88	I	341	011113
SOIL	M136	CHROMUM	A08		7.50E+00 UG/G			1.02E+00 G	28JUN88	1010	04AUG88	I	341	011113
SOIL	M136	SILVER	A10	*	1.00E+00 UG/G			1.02E+00 G	28JUN88	1010	04AUG88	I	341	011113
SOIL	M136	SODIUM	A11		8.52E+02 UG/G			1.02E+00 G	28JUN88	1010	04AUG88	I	341	011113
SOIL	M136	NICKEL	A12		6.80E+00 UG/G			1.02E+00 G	28JUN88	1010	04AUG88	I	341	011113
SOIL	M136	COPPER	A13	*	1.00E+00 UG/G			1.02E+00 G	28JUN88	1010	04AUG88	I	341	011113
SOIL	M136	VANADUM	A14		3.80E+01 UG/G			1.02E+00 G	28JUN88	1010	04AUG88	I	341	011113
SOIL	M136	ANTIONY	A15	*	1.00E+01 UG/G			1.02E+00 G	28JUN88	1010	04AUG88	I	341	011113
SOIL	M136	ALUMNUM	A16		7.21E+03 UG/G	1		1.02E+00 G	28JUN88	1010	04AUG88	I	341	011113
SOIL	M136	MANGESE	A17		3.61E+02 UG/G			1.02E+00 G	28JUN88	1010	04AUG88	I	341	011113
SOIL	M136	POTASUM	A18		9.10E+02 UG/G			1.02E+00 G	28JUN88	1010	04AUG88	I	341	011113
SOIL	M136	IRON	A19		1.95E+04 UG/G	1		1.02E+00 G	28JUN88	1010	04AUG88	I	341	011113
SOIL	M136	MAGNES	A50		4.93E+03 UG/G	1		1.02E+00 G	28JUN88	1010	04AUG88	I	341	011113
===> PROCEDURE: 727		REPORTED: 19AUG88												
SOIL	M136	THIOURA	A24	*	2.00E+00 UG/G			1.00E+01 G	28JUN88	1010	17AUG88	I	341	011113
SOIL	M136	ACETREA	A25	*	2.00E+00 UG/G			1.00E+01 G	28JUN88	1010	17AUG88	I	341	011113
SOIL	M136	CHLOREA	A26	*	2.00E+00 UG/G			1.00E+01 G	28JUN88	1010	17AUG88	I	341	011113
SOIL	M136	DIETROL	A27	*	2.00E+00 UG/G			1.00E+01 G	28JUN88	1010	17AUG88	I	341	011113
SOIL	M136	ETHYREA	A28	*	2.00E+00 UG/G			1.00E+01 G	28JUN88	1010	17AUG88	I	341	011113
SOIL	M136	NAPHREA	A29	*	2.00E+00 UG/G			1.00E+01 G	28JUN88	1010	17AUG88	I	341	011113
SOIL	M136	PHENREA	A32	*	5.00E+00 UG/G			1.00E+01 G	28JUN88	1010	17AUG88	I	341	011113
===> PROCEDURE: 729		REPORTED: 14JUL88												
SOIL	M136	ENDRIN	A33	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	1010	07JUL88	I	341	011113
SOIL	M136	METHLOR	A34	*	3.00E-01 UG/G			1.00E+01 G	28JUN88	1010	07JUL88	I	341	011113
SOIL	M136	TOXAENE	A35	*	1.00E-01 UG/G			1.00E+01 G	28JUN88	1010	07JUL88	I	341	011113
SOIL	M136	A-BHC	A36	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	1010	07JUL88	I	341	011113
SOIL	M136	B-BHC	A37	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	1010	07JUL88	I	341	011113
SOIL	M136	G-BHC	A38	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	1010	07JUL88	I	341	011113
SOIL	M136	D-BHC	A39	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	1010	07JUL88	I	341	011113
SOIL	M136	DDD	A40	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	1010	07JUL88	I	341	011113
SOIL	M136	DDE	A41	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	1010	07JUL88	I	341	011113
SOIL	M136	DDT	A42	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	1010	07JUL88	I	341	011113
SOIL	M136	HEPTLOR	A43	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	1010	07JUL88	I	341	011113
SOIL	M136	HEPTIDE	A44	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	1010	07JUL88	I	341	011113
SOIL	M136	DIELRIN	A46	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	1010	07JUL88	I	341	011113
SOIL	M136	ALDRIN	A47	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	1010	07JUL88	I	341	011113
SOIL	M136	CHLDANE	A48	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	07JUL88	I	341	011113
SOIL	M136	ENDDI	A49	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	1010	07JUL88	I	341	011113

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

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SOIL	M136	ENDO2	A52	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	1010	07JUL88	I	341	011113
SOIL	M136	CHLLATE	C62	*	3.00E+00 UG/G			1.00E+01 G	28JUN88	1010	07JUL88	I	341	011113
SOIL	M136	DBC	X10		9.00E+01 %RECOV			1.00E+01 G	28JUN88	1010	07JUL88	I	341	011113
===> PROCEDURE: 731		REPORTED: 14JUL88												
SOIL	M136	TETRANE	A61	*	5.00E-03 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	BENZENE	A62	*	5.00E-03 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	DIOXANE	A63	*	5.00E-01 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	METHONE	A64	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	PYRIDIN	A65	*	5.00E-01 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	TOLUENE	A66	*	5.00E-03 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	1,1,1-T	A67	*	5.00E-03 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	1,1,2-T	A68	*	5.00E-03 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	TRICENE	A69	*	5.00E-03 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	PERCENE	A70	*	5.00E-03 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	OPXYLEN	A71	*	5.00E-03 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	ACROLIN	A72	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	ACRYILE	A73	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	BISTHER	A74	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	BROMONE	A75	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	METHBRO	A76	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	CARBIDE	A77	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	CHLBENZ	A78	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	CHLTHER	A79	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	CHLFORM	A80	*	5.00E-03 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	METHCHL	A81	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	CHMTHER	A82	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	CROTONA	A83	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	DIBRCHL	A84	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	DIBRETH	A85	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	DIBRMET	A86	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	DIBUTEN	A87	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	DICDIFM	A88	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	1,1-DIC	A89	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	1,2-DIC	A90	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	TRANDCE	A91	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	DICETHY	A92	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	METHYCH	A93	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	DICPANE	A94	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	DICPENE	A95	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	NNDIEHY	A96	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	HYDRSUL	A99	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	IODOMET	B01	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	METHACR	B02	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113

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SOIL	M136	METHTHI	B03	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	PENTACH	B04	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	1112-TC	B05	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	1122-TC	B06	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	BROMORM	B08	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	TRCMEOL	B09	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	TRCMFLM	B10	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	TRCPANE	B11	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	123-TRP	B12	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	VINYIDE	B13	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	M-XYLE	B14	*	5.00E-03 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	DIETHY	B15	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	ACETILE	B19	*	3.00E+00 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	METACRY	C04	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	FORMALN	C71	*	5.00E-01 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	ETHOXID	H05	*	3.00E+00 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	ETHMETH	H06	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	HEXONE	H68	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	12DCAD4	X07		9.10E+01 %RECOV			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	TOLUD8	X08		9.60E+01 %RECOV			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
SOIL	M136	BFB	X09		9.50E+01 %RECOV			5.00E+00 G	28JUN88	1010	05JUL88	I	341	011113
===> PROCEDURE: 733		REPORTED: 29JUL88												
SOIL	M136	ACETOPH	B20	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	WARFRIN	B21	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	ACEFENE	B22	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	AMINOYL	B23	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	ANIISOX	B24	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	ANITROL	B25	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	ANILINE	B26	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	ARAMITE	B27	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	AURANIN	B28	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	BENZCAC	B29	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	BENZMAN	B30	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	BENDICM	B31	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	BENTHOL	B32	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	BENDINE	B33	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	BENZBFL	B34	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	BENZJFL	B35	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	PBENZGU	B36	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	BENZCHL	B37	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	BISZCHM	B38	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	BISZCHE	B39	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	BISZEPH	B40	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All Results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M136	BROPHEN	B41	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	BUTBENP	B42	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	BUTDINP	B43	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	CHALETH	B44	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	CHLANIL	B45	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	CHLCRES	B46	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	CHLEPOX	B47	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	CHLNAPH	B48	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	CHLPHEN	B49	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	CHRYSEN	B50	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	CRESOLS	B51	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	CYCHDIN	B52	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	DIBAHAC	B53	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	DIBAJAC	B54	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	DIBIHAN	B55	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	DIBCGCA	B56	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	DIBAEPY	B57	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	DIBAHPY	B58	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	DIBAIPY	B59	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	DIBPHTH	B60	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	12-DBEN	B61	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	13-DBEN	B62	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	14-DBEN	B63	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	DICHDEN	B64	*	2.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	24-DCHP	B65	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	26-DCHP	B66	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	DIEPHTH	B67	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	DIHYSAF	B68	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	DIMTHB	B69	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	DIMEAMD	B70	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	DIMBENZ	B71	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	DIMEYLB	B72	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	THIONOX	B73	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	DIMPHAM	B74	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	DIMPHEN	B75	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	DIMPHTH	B76	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	DINBENZ	B77	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	DINCRES	B78	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	DINPHEN	B79	*	5.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	24-DINT	B80	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	26-DINT	B81	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	DIOPHTH	B82	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	DIPHAMI	B83	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	DIPHHYD	B84	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	DIPRNIT	B85	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M136	ETHMINE	B86	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	ETHNETS	B87	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	FLUORAN	B88	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	HEXCBEN	B89	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	HEXCBUT	B90	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	HEXCCYC	B91	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	HEXCETH	B92	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	INDENOP	B93	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	ISOSOLE	B94	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	MALOILE	B95	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	MELPHAL	B96	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	METHAPY	B97	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	METHNYL	B98	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	METAZIR	B99	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	METCHAN	C01	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	METBISC	C02	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	METACTO	C03	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	METMSUL	C05	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	METPROP	C06	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	METHIOU	C07	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	NAPHQUI	C08	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	1-NAPHA	C09	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	2-NAPHA	C10	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	NITRANI	C11	*	5.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	NITBENZ	C12	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	NITPHEN	C13	*	5.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	NNIBUTY	C14	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	NNIDIEA	C15	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	NNIDIEY	C16	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	NNIDIME	C17	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	NNIMETH	C18	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	NNIURET	C19	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	NNIVINY	C20	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	NNIMORP	C21	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	NNIMICO	C22	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	NNIPIPE	C23	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	NITRPYR	C24	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	NITRTOL	C25	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	PENTCHB	C26	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	PENTCHN	C27	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	PENTCHF	C28	*	5.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	PHENTIN	C29	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	PHENINE	C30	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	PHTHEST	C31	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	PICOLIN	C32	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M136	PRONIDE	C33	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	RESERPI	C34	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	RESORCI	C35	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	SAFROL	C36	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	TETRCHB	C37	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	TETRCHP	C39	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	THIURAM	C40	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	TOLUDIA	C41	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	OTOLHYD	C42	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	TRICHLB	C43	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	245-TRP	C44	*	5.00E+00 UG/G			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	246-TRP	C45	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	TRIPHOS	C46	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	SYMTRIN	C47	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	TRISPHO	C48	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	BENZOPY	C49	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	CHLNAPZ	C50	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	BIS2ETH	C51	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	HEXAENE	C52	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	HEXACHL	C54	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	NAPHTHA	C55	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	123TRI	C56	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	PHENOL	C57	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	135TRI	C58	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	1234TE	C59	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	1235TE	C60	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	KEROSEN	C79	*	1.00E+03 UG/G			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	STRYCHN	C91	*	5.00E+00 UG/G			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	MALHYDR	C92	*	5.00E+01 UG/G			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	NICOTIN	C93	*	1.00E+01 UG/G			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	TRIBUTH	I21	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	2FLPHEN	X01		8.37E+01 %RECOV			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	PHEND6	X02		6.79E+01 %RECOV			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	NITBN2	X03		7.46E+01 %RECOV			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	2FLBIPH	X04		7.46E+01 %RECOV			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	246TRI	X05		5.03E+01 %RECOV			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
SOIL	M136	TERD14	X06		8.12E+01 %RECOV			1.00E+01	G	28JUN88	1010	19JUL88	I	341	011113
==> PROCEDURE: 734		REPORTED: 14JUL83													
SOIL	M136	TETEPYR	C61	*	1.00E+00 UG/G			1.01E+01	G	28JUN88	1010	07JUL88	I	341	011113
SOIL	M136	CARBPHT	C63	*	1.00E+00 UG/G			1.01E+01	G	28JUN88	1010	07JUL88	I	341	011113
SOIL	M136	DISULFO	C64	*	1.00E+00 UG/G			1.01E+01	G	28JUN88	1010	07JUL88	I	341	011113
SOIL	M136	DIMETHO	C65	*	2.00E-01 UG/G			1.01E+01	G	28JUN88	1010	07JUL88	I	341	011113
SOIL	M136	METHPAR	C66	*	1.00E+00 UG/G			1.01E+01	G	28JUN88	1010	07JUL88	I	341	011113

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M136	PARATHI	C67	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1010	07JUL88	I	341	011113
===> PROCEDURE: 735		REPORTED: 16AUG88												
SOIL	M136	NITRATE	C72	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	08AUG88	I	341	011113
SOIL	M136	SULFATE	C73		4.60E+00 UG/G			1.00E+01 G	28JUN88	1010	08AUG88	I	341	011113
SOIL	M136	FLOURID	C74	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	08AUG88	I	341	011113
SOIL	M136	CHLORID	C75		2.33E+00 UG/G			1.00E+01 G	28JUN88	1010	08AUG88	I	341	011113
SOIL	M136	PHOSPHA	C76	*	2.00E+00 UG/G			1.00E+01 G	28JUN88	1010	08AUG88	I	341	011113
===> PROCEDURE: 737		REPORTED: 28JUL88												
SOIL	M136	2,4-D	H13	*	1.00E+00 UG/G			2.50E+01 G	28JUN88	1010	20JUL88	I	341	011113
SOIL	M136	2,4,5TP	H14	*	1.00E+00 UG/G			2.50E+01 G	28JUN88	1010	20JUL88	I	341	011113
SOIL	M136	2,4,5-T	H15	*	1.00E+00 UG/G			2.50E+01 G	28JUN88	1010	20JUL88	I	341	011113
===> PROCEDURE: 739		REPORTED: 04AUG88												
SOIL	M136	AR1016	A54	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	23JUL88	I	341	011113
SOIL	M136	AR1221	A55	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	23JUL88	I	341	011113
SOIL	M136	AR1232	A56	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	23JUL88	I	341	011113
SOIL	M136	AR1242	A57	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	23JUL88	I	341	011113
SOIL	M136	AR1248	A58	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	23JUL88	I	341	011113
SOIL	M136	AR1254	A59	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	23JUL88	I	341	011113
SOIL	M136	AR1260	A60	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	23JUL88	I	341	011113
===> PROCEDURE: A20		REPORTED: 12AUG88												
SOIL	M136	ARSENIC	A20		2.60E+00 UG/G			1.01E+00 G	28JUN88	1010	10AUG88	I	341	011113
===> PROCEDURE: A21		REPORTED: 21JUL88												
SOIL	M136	MERCURY	A21	*	2.00E-01 UG/G			2.13E-01 G	28JUN88	1010	14JUL88	I	341	011113
===> PROCEDURE: A22		REPORTED: 12AUG88												
SOIL	M136	SELENUM	A22	*	5.00E-01 UG/G			1.01E+00 G	28JUN88	1010	10AUG88	I	341	011113
===> PROCEDURE: A23		REPORTED: 12AUG88												
SOIL	M136	THALIUM	A23	*	1.00E+00 UG/G			1.01E+00 G	28JUN88	1010	09AUG88	I	341	011113
===> PROCEDURE: A51		REPORTED: 12AUG88												
SOIL	M136	LEAD	A51		4.91E+00 UG/G			1.01E+00 G	28JUN88	1010	09AUG88	I	341	011113

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE	RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: C68		REPORTED: 12AUG88											
SOIL	M136	TOX	C68	3.84E+00 UG/G			1.00E+00 G	28JUN88	1010	09AUG88	I	341	011113
===> PROCEDURE: C69		REPORTED: 16AUG88											
SOIL	M136	TOC	C69	1.96E+01 UG/G			2.01E+01 G	28JUN88	1010	08AUG88	I	341	011113
===> PROCEDURE: C70		REPORTED: 12AUG88											
SOIL	M136	CYANIDE	C70	* 1.00E+00 UG/G			1.00E+01 G	28JUN88	1010	04AUG88	I	341	011113
===> PROCEDURE: C77		REPORTED: 12AUG88											
SOIL	M136	PERCHLO	C77	* 2.00E+00 UG/G			1.00E+01 G	28JUN88	1010	04AUG88	I	341	011113
===> PROCEDURE: C78		REPORTED: 21JUL88											
SOIL	M136	SULFIDE	C78	* 1.00E+01 UG/G			9.39E+00 G	28JUN88	1010	30JUN88	I	341	011113
===> PROCEDURE: C80		REPORTED: 28JUL88											
SOIL	M136	AMMONIU	C80	1.20E+00 UG/G			1.00E+01 G	28JUN88	1010	19JUL88	I	341	011113
===> PROCEDURE: C81		REPORTED: 12AUG88											
SOIL	M136	ETHYGLY	C81	* 1.00E+01 UG/G			5.00E+00 G	28JUN88	1010	04AUG88	I	341	011113
********** <** SAMPLE: M137 **> **********													
===> PROCEDURE: 088		REPORTED: 14JUL88											
SOIL	M137	LSP COND	088	4.60E+01			0.00E+00 G	28JUN88	1040	10JUL88	I	341	011114
===> PROCEDURE: 207		REPORTED: 14JUL88											
SOIL	M137	PH (LAB)	207	7.20E+00			0.00E+00 G	28JUN88	1040	28JUN88	I	341	011114
===> PROCEDURE: 726		REPORTED: 12AUG88											
SOIL	M137	BERYLAM	A01	* 5.00E-01 UG/G			1.00E+00 G	28JUN88	1040	04AUG88	I	341	011114
SOIL	M137	STRONUM	A03	1.72E+01 UG/G			1.00E+00 G	28JUN88	1040	04AUG88	I	341	011114

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UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. D-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M137	ZINC	A04		3.04E+01 UG/G			1.00E+00 G	28JUN88	1040	04AUG88	I	341	011114
SOIL	M137	CALCIUM	A05		2.79E+03 UG/G			1.00E+00 G	28JUN88	1040	04AUG88	I	341	011114
SOIL	M137	BARIUM	A06		9.61E+01 UG/G			1.00E+00 G	28JUN88	1040	04AUG88	I	341	011114
SOIL	M137	CADMIUM	A07	*	2.00E-01 UG/G			1.00E+00 G	28JUN88	1040	04AUG88	I	341	011114
SOIL	M137	CHROMUM	A08		6.80E+00 UG/G			1.00E+00 G	28JUN88	1040	04AUG88	I	341	011114
SOIL	M137	SILVER	A10	*	1.00E+00 UG/G			1.00E+00 G	28JUN88	1040	04AUG88	I	341	011114
SOIL	M137	SODIUM	A11		8.14E+02 UG/G			1.00E+00 G	28JUN88	1040	04AUG88	I	341	011114
SOIL	M137	NICKEL	A12		6.30E+00 UG/G			1.00E+00 G	28JUN88	1040	04AUG88	I	341	011114
SOIL	M137	COPPER	A13	*	1.00E+00 UG/G			1.00E+00 G	28JUN88	1040	04AUG88	I	341	011114
SOIL	M137	VANADUM	A14		3.34E+01 UG/G			1.00E+00 G	28JUN88	1040	04AUG88	I	341	011114
SOIL	M137	ANTIONY	A15	*	1.00E+01 UG/G			1.00E+00 G	28JUN88	1040	04AUG88	I	341	011114
SOIL	M137	ALUMNUM	A16		5.92E+03 UG/G	1		1.00E+00 G	28JUN88	1040	04AUG88	I	341	011114
SOIL	M137	MANGESE	A17		3.83E+02 UG/G			1.00E+00 G	28JUN88	1040	04AUG88	I	341	011114
SOIL	M137	POTASUM	A18		7.23E+02 UG/G			1.00E+00 G	28JUN88	1040	04AUG88	I	341	011114
SOIL	M137	IRON	A19		1.67E+04 UG/G	1		1.00E+00 G	28JUN88	1040	04AUG88	I	341	011114
SOIL	M137	MAGNES	A50		3.99E+03 UG/G	1		1.00E+00 G	28JUN88	1040	04AUG88	I	341	011114
===> PROCEDURE: 727		REPORTED: 19AUG88												
SOIL	M137	THIOURA	A24	*	2.00E+00 UG/G			1.00E+01 G	28JUN88	1040	17AUG88	I	341	011114
SOIL	M137	ACETREA	A25	*	2.00E+00 UG/G			1.00E+01 G	28JUN88	1040	17AUG88	I	341	011114
SOIL	M137	CHLOREA	A26	*	2.00E+00 UG/G			1.00E+01 G	28JUN88	1040	17AUG88	I	341	011114
SOIL	M137	DIETROL	A27	*	2.00E+00 UG/G			1.00E+01 G	28JUN88	1040	17AUG88	I	341	011114
SOIL	M137	ETHYREA	A28	*	2.00E+00 UG/G			1.00E+01 G	28JUN88	1040	17AUG88	I	341	011114
SOIL	M137	NAPHREA	A29	*	2.00E+00 UG/G			1.00E+01 G	28JUN88	1040	17AUG88	I	341	011114
SOIL	M137	PHENREA	A32	*	5.00E+00 UG/G			1.00E+01 G	28JUN88	1040	17AUG88	I	341	011114
===> PROCEDURE: 729		REPORTED: 14JUL88												
SOIL	M137	ENDRIN	A33	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	1040	07JUL88	I	341	011114
SOIL	M137	METHLOR	A34	*	3.00E-01 UG/G			1.00E+01 G	28JUN88	1040	07JUL88	I	341	011114
SOIL	M137	TOXAENE	A35	*	1.00E-01 UG/G			1.00E+01 G	28JUN88	1040	07JUL88	I	341	011114
SOIL	M137	A-BHC	A36	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	1040	07JUL88	I	341	011114
SOIL	M137	B-BHC	A37	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	1040	07JUL88	I	341	011114
SOIL	M137	G-BHC	A38	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	1040	07JUL88	I	341	011114
SOIL	M137	D-BHC	A39	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	1040	07JUL88	I	341	011114
SOIL	M137	DDD	A40	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	1040	07JUL88	I	341	011114
SOIL	M137	DDE	A41	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	1040	07JUL88	I	341	011114
SOIL	M137	DDT	A42	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	1040	07JUL88	I	341	011114
SOIL	M137	HEPTLOR	A43	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	1040	07JUL88	I	341	011114
SOIL	M137	HEPTIDE	A44	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	1040	07JUL88	I	341	011114
SOIL	M137	DIELRIN	A46	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	1040	07JUL88	I	341	011114
SOIL	M137	ALDRIN	A47	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	1040	07JUL88	I	341	011114
SOIL	M137	CHLDANE	A48	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	07JUL88	I	341	011114
SOIL	M137	ENDO1	A49	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	1040	07JUL88	I	341	011114

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M137	ENDO2	A52	*	1.00E-02 UG/G			1.00E+01 G	28JUN88	1040	07JUL88	I	341	011114
SOIL	M137	CHLLATE	C62	*	3.00E+00 UG/G			1.00E+01 G	28JUN88	1040	07JUL88	I	341	011114
SOIL	M137	DBC	X10		9.50E+01 %RECOV			1.00E+01 G	28JUN88	1040	07JUL88	I	341	011114
===> PROCEDURE: 731		REPORTED: 14JUL88												
SOIL	M137	TETRANE	A61	*	5.00E-03 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	BENZENE	A62	*	5.00E-03 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	DIOXANE	A63	*	5.00E-01 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	METHONE	A64	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	PYRIDIN	A65	*	5.00E-01 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	TOLUENE	A66	*	5.00E-03 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	1,1,1-T	A67	*	5.00E-03 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	1,1,2-T	A68	*	5.00E-03 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	TRICENE	A69	*	5.00E-03 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	PERCENE	A70	*	5.00E-03 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	OPXYLEN	A71	*	5.00E-03 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	ACROLIN	A72	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	ACRYILE	A73	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	BISTHER	A74	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	BROMONE	A75	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	METHBRO	A76	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	CARBIDE	A77	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	CHLBENZ	A78	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	CHLTHER	A79	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	CHLFORM	A80	*	5.00E-03 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	METHCHL	A81	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	CHMTHER	A82	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	CROTONA	A83	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	DIBRCHL	A84	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	DIBRETH	A85	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	DIBRMET	A86	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	DIBUTEN	A87	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	DICDIFN	A88	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	1,1-DIC	A89	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	1,2-DIC	A90	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	TRANDCE	A91	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	DICETHY	A92	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	METHYCH	A93	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	DICPANE	A94	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	DICPENE	A95	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	NNDIEHY	A96	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	HYDRSUL	A99	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	ICDDMET	B01	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	METHACR	B02	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M137	METHTHI	B03	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	PENTACH	B04	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	1112-TC	B05	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	1122-TC	B06	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	BROMOFM	B08	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	TRCMEOL	B09	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	TRCMFLM	B10	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	TRCPANE	B11	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	123-TRP	B12	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	VINYIDE	B13	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	M-XYLE	B14	*	5.00E-03 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	DIETHY	B15	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	ACETILE	B19	*	3.00E+00 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	METACRY	C04	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	FORMALN	C71	*	5.00E-01 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	ETHOXID	H05	*	3.00E+00 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	ETHMETH	H06	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	HEXONE	H68	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	12DCAD4	X07		9.40E+01 %RECOV			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	TOLUD8	X08		9.44E+01 %RECOV			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
SOIL	M137	BFB	X09		9.56E+01 %RECOV			5.00E+00 G	28JUN88	1040	05JUL88	I	341	011114
---> PROCEDURE: 733		REPORTED: 28JUL88												
SOIL	M137	ACETOPH	B20	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	WARFRIN	B21	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	ACEFENE	B22	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	AMINOYL	B23	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	AMIISOX	B24	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	AMITROL	B25	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	ANILINE	B26	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	ARAMITE	B27	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	AURAMIN	B28	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	BENZCAC	B29	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	BENZAAN	B30	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	BENDICM	B31	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	BENTHOL	B32	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	BENDINE	B33	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	BENZDFL	B34	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	BENZJFL	B35	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	BENZQU	B36	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	BENZCHL	B37	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	BISZCHM	B38	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	BISZCHE	B39	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	BISZEPH	B40	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M137	DROPHEN	B41	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	BUTBENP	B42	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	BUTDINP	B43	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	CHALETH	B44	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	CHLANIL	B45	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	CHLCRES	B46	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	CHLEPOX	B47	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	CHLNAPH	B48	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	CHLPHEN	B49	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	CHRYSEN	B50	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	CRESOLS	B51	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	CYCHDIN	B52	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	DIBAHAC	B53	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	DIBAJAC	B54	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	DIDIHAN	B55	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	DIDCGCA	B56	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	DIBAEPY	B57	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	DIBAHPY	B58	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	DIBAIPY	B59	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	DIBPHTH	B60	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	12-DBEN	B61	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	13-DBEN	B62	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	14-DBEN	B63	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	DICHDEN	B64	*	2.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	24-DCHP	B65	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	26-DCHP	B66	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	DIEPHTH	B67	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	DIHYSAF	B68	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	DIMTHB	B69	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	DIMEAMB	B70	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	DIMBENZ	B71	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	DIMEYLB	B72	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	THIONOX	B73	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	DIMPHAM	B74	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	DIMPHEN	B75	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	DIMPHTH	B76	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	DINBENZ	B77	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	DINCRES	B78	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	DINPHEN	B79	*	5.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	24-DINT	B80	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	26-DINT	B81	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	DIOPHTH	B82	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	DIPHAMI	B83	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	DIPHHYD	B84	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	DIPRNIT	B85	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1040	19JUL88	I	341	011114

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M137	ETHMINE	B86	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	ETHMETS	B87	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	FLUORAN	B88	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	HEXCBEN	B89	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	HEXCBUT	B90	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	HEXCCYC	B91	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	HEXCETH	B92	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	INDENOP	B93	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	ISOSOLE	B94	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	MALOILE	B95	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	MELPHAL	B96	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	METHAPY	B97	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	METHNYL	B98	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	METAZIR	B99	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	METCHAN	C01	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	METBISC	C02	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	METACTO	C03	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	METMSUL	C05	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	METPROP	C06	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	METHIOU	C07	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	NAPHGUI	C08	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	1-NAPHA	C09	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	2-NAPHA	C10	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	NITRANI	C11	*	5.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	NITBENZ	C12	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	NITPHEN	C13	*	5.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	NNIBUTY	C14	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	NNIDIEA	C15	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	NNIDIEY	C16	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	NNIDINE	C17	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	NNIMETH	C18	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	NNIURET	C19	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	NNIVINY	C20	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	NNIMORP	C21	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	NNINICO	C22	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	NNIPIPE	C23	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	NITRPYR	C24	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	NITRTOL	C25	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	PENTCHB	C26	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	PENTCHN	C27	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	PENTCHP	C28	*	5.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	PHENTIN	C29	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	PHENINE	C30	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	PHTHEST	C31	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	PICOLIN	C32	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE	RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M137	PRONIDE	C33	* 1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	RESERPI	C34	* 1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	RESORCI	C35	* 1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	SAFROL	C36	* 1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	TETRCHB	C37	* 1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	TETRCHP	C39	* 1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	THIURAM	C40	* 1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	TOLUDIA	C41	* 1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	OTOLHYD	C42	* 1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	TRICHLB	C43	* 1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	245-TRP	C44	* 5.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	246-TRP	C45	* 1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	TRIPHOS	C46	* 1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	SYMTRIN	C47	* 1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	TRISPHO	C48	* 1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	BENZOPY	C49	* 1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	CHLNAPZ	C50	* 1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	BIS2ETH	C51	* 1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	HCXAENE	C52	* 1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	HCXACHL	C54	* 1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	NAPHTHA	C55	* 1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	123TRI	C56	* 1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	PHENOL	C57	* 1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	135TRI	C58	* 1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	1234TE	C59	* 1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	1235TE	C60	* 1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	KEROSEN	C79	* 1.00E+03 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	STRYCHN	C91	* 5.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	MALHYDR	C92	* 5.00E+01 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	NICOTIN	C93	* 1.00E+01 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	TRIBUPH	I21	* 1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	2FLPHEN	X01	7.02E+01 %RECOV			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	PHENO5	X02	5.81E+01 %RECOV			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	NITBN2	X03	6.14E+01 %RECOV			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	2FLBIPH	X04	6.26E+01 %RECOV			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	246TRI	X05	5.13E+01 %RECOV			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
SOIL	M137	TERD14	X06	7.66E+01 %RECOV			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
==> PROCEDURE. 734		REPORTED: 14JUL88											
SOIL	M137	TETEPYR	C61	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1040	07JUL88	I	341	011114
SOIL	M137	CARBPHT	C63	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1040	07JUL88	I	341	011114
SOIL	M137	DISULFO	C64	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1040	07JUL88	I	341	011114
SOIL	M137	DIMETHO	C65	* 2.00E-01 UG/G			1.01E+01 G	28JUN88	1040	07JUL88	I	341	011114
SOIL	M137	METHPAR	C66	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1040	07JUL88	I	341	011114

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UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M137	PARATHI	C67	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1040	07JUL88	I	341	011114
===> PROCEDURE: 735		REPORTED: 15AUG88												
SOIL	M137	NITRATE	C72	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	08AUG88	I	341	011114
SOIL	M137	SULFATE	C73		2.32E+00 UG/G			1.00E+01 G	28JUN88	1040	08AUG88	I	341	011114
SOIL	M137	FLOURID	C74	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	08AUG88	I	341	011114
SOIL	M137	CHLORID	C75		1.76E+00 UG/G			1.00E+01 G	28JUN88	1040	08AUG88	I	341	011114
SOIL	M137	PHOSPHA	C76	*	2.00E+00 UG/G			1.00E+01 G	28JUN88	1040	08AUG88	I	341	011114
===> PROCEDURE: 737		REPORTED: 28JUL88												
SOIL	M137	2,4-D	H13	*	1.00E+00 UG/G			2.50E+01 G	28JUN88	1040	20JUL88	I	341	011114
SOIL	M137	2,4,5TP	H14	*	1.00E+00 UG/G			2.50E+01 G	28JUN88	1040	20JUL88	I	341	011114
SOIL	M137	2,4,5-T	H15	*	1.00E+00 UG/G			2.50E+01 G	28JUN88	1040	20JUL88	I	341	011114
===> PROCEDURE: 739		REPORTED: 04AUG88												
SOIL	M137	AR1016	A54	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	23JUL88	I	341	011114
SOIL	M137	AR1221	A55	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	23JUL88	I	341	011114
SOIL	M137	AR1232	A56	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	23JUL88	I	341	011114
SOIL	M137	AR1242	A57	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	23JUL88	I	341	011114
SOIL	M137	AR1248	A58	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	23JUL88	I	341	011114
SOIL	M137	AR1254	A59	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	23JUL88	I	341	011114
SOIL	M137	AR1260	A60	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	23JUL88	I	341	011114
===> PROCEDURE: A20		REPORTED: 12AUG88												
SOIL	M137	ARSENIC	A20		1.30E+00 UG/G			1.01E+00 G	28JUN88	1040	10AUG88	I	341	011114
===> PROCEDURE: A21		REPORTED: 21JUL88												
SOIL	M137	MERCURY	A21	*	2.00E-01 UG/G			2.47E-01 G	28JUN88	1040	14JUL88	I	341	011114
===> PROCEDURE: A22		REPORTED: 12AUG88												
SOIL	M137	SELENUM	A22	*	5.00E-01 UG/G			1.01E+00 G	28JUN88	1040	10AUG88	I	341	011114
===> PROCEDURE: A23		REPORTED: 12AUG88												
SOIL	M137	THALIUM	A23	*	1.00E+00 UG/G			1.01E+00 G	28JUN88	1040	08AUG88	I	341	011114
===> PROCEDURE: A51		REPORTED: 12AUG88												
SOIL	M137	LEAD	A51		3.78E+00 UG/G			1.01E+00 G	28JUN88	1040	09AUG88	I	341	011114

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. D-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE	RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: C68		REPORTED: 12AUG88											
SOIL	M137	TOX	C68	5.79E+00 UG/G			1.00E+00 G	28JUN88	1040	09AUG88	I	341	011114
===> PROCEDURE: C69		REPORTED: 16AUG88											
SOIL	M137	TOC	C69	* 1.00E+01 UG/G			2.00E+01 G	28JUN88	1040	09AUG88	I	341	011114
===> PROCEDURE: C70		REPORTED: 12AUG88											
SOIL	M137	CYANIDE	C70	* 1.00E+00 UG/G			1.00E+01 G	28JUN88	1040	04AUG88	I	341	011114
===> PROCEDURE: C77		REPORTED: 12AUG88											
SOIL	M137	PERCHLO	C77	* 2.00E+00 UG/G			1.00E+01 G	28JUN88	1040	04AUG88	I	341	011114
===> PROCEDURE: C78		REPORTED: 21JUL88											
SOIL	M137	SULFIDE	C78	* 1.00E+01 UG/G			9.64E+00 G	28JUN88	1040	30JUN88	I	341	011114
===> PROCEDURE: C80		REPORTED: 28JUL88											
SOIL	M137	AMMONIU	C80	1.50E+00 UG/G			1.00E+01 G	28JUN88	1040	19JUL88	I	341	011114
===> PROCEDURE: C81		REPORTED: 12AUG88											
SOIL	M137	ETHYGLY	C81	* 1.00E+01 UG/G			5.00E+00 G	28JUN88	1040	30JUL88	I	341	011114
********** <** SAMPLE: M138 **> **********													
===> PROCEDURE: 088		REPORTED: 14JUL89											
SOIL	M138	LSP COND	088	2.22E+02			0.00E+00 G	28JUN88	1105	10JUL88	I	341	011115
===> PROCEDURE: 207		REPORTED: 14JUL89											
SOIL	M138	PH (LAB)	207	7.80E+00			0.00E+00 G	28JUN88	1105	29JUN88	I	341	011115
===> PROCEDURE: 726		REPORTED: 12AUG89											
SOIL	M138	BERYLAM	A01	* 5.00E-01 UG/G			1.01E+00 G	28JUN88	1105	04AUG88	I	341	011115
SOIL	M138	STRONUM	A03	2.69E+01 UG/G			1.01E+00 G	28JUN88	1105	04AUG88	I	341	011115

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-02472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M138	ZINC	A04		2.89E+01 UG/G			1.01E+00	G	28JUN88	1105	04AUG88	I	341	011115
SOIL	M138	CALCIUM	A05		7.04E+03 UG/G	1		1.01E+00	G	28JUN88	1105	04AUG88	I	341	011115
SOIL	M138	BARIUM	A06		8.15E+01 UG/G			1.01E+00	G	28JUN88	1105	04AUG88	I	341	011115
SOIL	M138	CADMIUM	A07	*	2.00E-01 UG/G			1.01E+00	G	28JUN88	1105	04AUG88	I	341	011115
SOIL	M138	CHROMUM	A08		8.60E+00 UG/G			1.01E+00	G	28JUN88	1105	04AUG88	I	341	011115
SOIL	M138	SILVER	A10	*	1.00E+00 UG/G			1.01E+00	G	28JUN88	1105	04AUG88	I	341	011115
SOIL	M138	SODIUM	A11		8.38E+02 UG/G			1.01E+00	G	28JUN88	1105	04AUG88	I	341	011115
SOIL	M138	NICKEL	A12		6.60E+00 UG/G			1.01E+00	G	28JUN88	1105	04AUG88	I	341	011115
SOIL	M138	COPPER	A13		1.50E+00 UG/G			1.01E+00	G	28JUN88	1105	04AUG88	I	341	011115
SOIL	M138	VANADUM	A14		2.46E+01 UG/G			1.01E+00	G	28JUN88	1105	04AUG88	I	341	011115
SOIL	M138	ANTIONY	A15	*	1.(E+01 UG/G			1.01E+00	G	28JUN88	1105	04AUG88	I	341	011115
SOIL	M138	ALUMNUM	A16		6.29E+03 UG/G	1		1.01E+00	G	28JUN88	1105	04AUG88	I	341	011115
SOIL	M138	MANGESE	A17		2.34E+02 UG/G			1.01E+00	G	28JUN88	1105	04AUG88	I	341	011115
SOIL	M138	POTASUM	A18		7.46E+02 UG/G			1.01E+00	G	28JUN88	1105	04AUG88	I	341	011115
SOIL	M138	IRON	A19		1.53E+04 UG/G	1		1.01E+00	G	28JUN88	1105	04AUG88	I	341	011115
SOIL	M136	MAGNES	A50		4.78E+03 UG/G	1		1.01E+00	G	28JUN88	1105	04AUG88	I	341	011115
===> PROCEDURE: 727		REPORTED: 19AUG88													
SOIL	M138	THIOURA	A24	*	2.00E+00 UG/G			1.00E+01	G	28JUN88	1105	17AUG88	I	341	011115
SOIL	M138	ACETREA	A25	*	2.00E+00 UG/G			1.00E+01	G	28JUN88	1105	17AUG88	I	341	011115
SOIL	M138	CHLOREA	A26	*	2.00E+00 UG/G			1.00E+01	G	28JUN88	1105	17AUG88	I	341	011115
SOIL	M138	DIETROL	A27	*	2.00E+00 UG/G			1.00E+01	G	28JUN88	1105	17AUG88	I	341	011115
SOIL	M138	ETHYREA	A28	*	2.00E+00 UG/G			1.00E+01	G	28JUN88	1105	17AUG88	I	341	011115
SOIL	M138	NAPHREA	A29	*	2.00E+00 UG/G			1.00E+01	G	28JUN88	1105	17AUG88	I	341	011115
SOIL	M138	PHENREA	A32	*	5.00E+00 UG/G			1.00E+01	G	28JUN88	1105	17AUG88	I	341	011115
===> PROCEDURE: 729		REPORTED: 14JUL88													
SOIL	M138	ENDRIN	A33	*	1.00E-02 UG/G			1.00E+01	G	28JUN88	1105	07JUL88	I	341	011115
SOIL	M138	METHLOR	A34	*	3.00E-01 UG/G			1.00E+01	G	28JUN88	1105	07JUL88	I	341	011115
SOIL	M138	TOXAENE	A35	*	1.00E-01 UG/G			1.00E+01	G	28JUN88	1105	07JUL88	I	341	011115
SOIL	M138	A-BHC	A36	*	1.00E-02 UG/G			1.00E+01	G	28JUN88	1105	07JUL88	I	341	011115
SOIL	M138	B-BHC	A37	*	1.00E-02 UG/G			1.00E+01	G	28JUN88	1105	07JUL88	I	341	011115
SOIL	M138	G-BHC	A38	*	1.00E-02 UG/G			1.00E+01	G	28JUN88	1105	07JUL88	I	341	011115
SOIL	M138	D-BHC	A39	*	1.00E-02 UG/G			1.00E+01	G	28JUN88	1105	07JUL88	I	341	011115
SOIL	M138	DDD	A40	*	1.00E-02 UG/G			1.00E+01	G	28JUN88	1105	07JUL88	I	341	011115
SOIL	M138	DDE	A41	*	1.00E-02 UG/G			1.00E+01	G	28JUN88	1105	07JUL88	I	341	011115
SOIL	M138	DDT	A42	*	1.00E-02 UG/G			1.00E+01	G	28JUN88	1105	07JUL88	I	341	011115
SOIL	M138	HEPTLOR	A43	*	1.00E-02 UG/G			1.00E+01	G	28JUN88	1105	07JUL88	I	341	011115
SOIL	M138	HEPTIDE	A44	*	1.00E-02 UG/G			1.00E+01	G	28JUN88	1105	07JUL88	I	341	011115
SOIL	M138	DIELRIN	A45	*	1.00E-02 UG/G			1.00E+01	G	28JUN88	1105	07JUL88	I	341	011115
SOIL	M138	ALDRIN	A47	*	1.00E-02 UG/G			1.00E+01	G	28JUN88	1105	07JUL88	I	341	011115
SOIL	M138	CHLDANE	A48	*	1.00E+00 UG/G			1.00E+01	G	28JUN88	1105	07JUL88	I	341	011115
SOIL	M138	ENDDI	A49	*	1.00E-02 UG/G			1.00E+01	G	28JUN88	1105	07JUL88	I	341	011115

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M138	ENDO2	A52	*	1.00E-02 UG/G			1.00E+01	G	28JUN88	1105	07JUL88	I	341	011115
SOIL	M138	CHLLATE	C62	*	3.00E+00 UG/G			1.00E+01	G	28JUN88	1105	07JUL88	I	341	011115
SOIL	M138	DBC	X10		8.60E+01 %RECOV			1.00E+01	G	28JUN88	1105	07JUL88	I	341	011115
===> PROCEDURE: 731		REPORTED: 14JUL88													
SOIL	M138	TETRANE	A61	*	5.00E-03 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	BENZENE	A62	*	5.00E-03 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	DIOXANE	A63	*	5.00E-01 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	METHONE	A64	*	1.00E-02 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	PYRIDIN	A65	*	5.00E-01 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	TOLUENE	A66	*	5.00E-03 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	1,1,1-T	A67	*	5.00E-03 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	1,1,2-T	A68	*	5.00E-03 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	TRICENE	A69	*	5.00E-03 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	PERCENE	A70	*	5.00E-03 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	OPXYLEN	A71	*	5.00E-03 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	ACROLIN	A72	*	1.00E-02 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	ACRYILE	A73	*	1.00E-02 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	BISTHER	A74	*	1.00E-02 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	BROMONE	A75	*	1.00E-02 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	METHBRO	A76	*	1.00E-02 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	CARBIDE	A77	*	1.00E-02 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	CHLBENZ	A78	*	1.00E-02 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	CHLTHER	A79	*	1.00E-02 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	CHLFORM	A80	*	5.00E-03 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	METHCHL	A81	*	1.00E-02 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	CHMTHER	A82	*	1.00E-02 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	CROTONA	A83	*	1.00E-02 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	DIBRCHL	A84	*	1.00E-02 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	DIBRETH	A85	*	1.00E-02 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	DIBRMET	A86	*	1.00E-02 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	DIBUTEN	A87	*	1.00E-02 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	DICDIFN	A88	*	1.00E-02 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	1,1-DIC	A89	*	1.00E-02 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	1,2-DIC	A90	*	1.00E-02 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	TRANDCE	A91	*	1.00E-02 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	DICETHY	A92	*	1.00E-02 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	METHYCH	A93	*	1.00E-02 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	DICPANE	A94	*	1.00E-02 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	DICPENE	A95	*	1.00E-02 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	NNDIEHY	A96	*	1.00E-02 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	HYDRSUL	A99	*	1.00E-02 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	IODOMET	B01	*	1.00E-02 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	METHACR	B02	*	1.00E-02 UG/G			5.00E+00	G	28JUN88	1105	06JUL88	I	341	011115

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M138	METHTHI	B03	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	PENTACH	B04	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	1112-TC	B05	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	1122-TC	B06	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	BROMORM	B08	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	TRCMEDL	B09	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	TRCMFLM	B10	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	TRCPANE	B11	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	123-TRP	B12	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	VINYIDE	B13	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	M-XYLE	B14	*	5.00E-03 UG/G			5.00E+00 G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	DIETHY	B15	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	ACETILE	B19	*	3.00E+00 UG/G			5.00E+00 G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	METACRY	C04	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	FORMALN	C71	*	5.00E-01 UG/G			5.00E+00 G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	ETHOXID	H05	*	3.00E+00 UG/G			5.00E+00 G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	ETHMETH	H06	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	HEXONE	H68	*	1.00E-02 UG/G			5.00E+00 G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	12DCAD4	X07		1.04E+02 %RECOV			5.00E+00 G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	TOLUD8	X08		1.00E+02 %RECOV			5.00E+00 G	28JUN88	1105	06JUL88	I	341	011115
SOIL	M138	BFB	X09		1.05E+02 %RECOV			5.00E+00 G	28JUN88	1105	06JUL88	I	341	011115
===> PROCEDURE: 733		REPORTED: 28JUL88												
SOIL	M138	ACETOPH	B20	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	WARFRIN	B21	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	ACEFENE	B22	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	AMINOYL	B23	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	AMIISOX	B24	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	AMITROL	B25	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	ANILINE	B26	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	ARAMITE	B27	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	AURAMIN	B28	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	BENZCAC	B29	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	BENZAAN	B30	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	BENDICM	B31	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	BENTHOL	B32	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	BENDINE	B33	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	BENZBFL	B34	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	BENZJFL	B35	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	PBENZQU	B36	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	BENZCHL	B37	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	BIS2CHN	B38	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	BIS2CHE	B39	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	BIS2EPH	B40	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115

* Denotes a result less than the detection limit

26-Aug-88

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. D-82472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M138	BROPHEN	B41	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	BUTBENP	B42	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	BUTDINP	B43	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	CHALETH	B44	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	CHLANIL	B45	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	CHLCRES	B46	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	CHLEPOX	B47	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	CHLNAPH	B48	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	CHLPHEN	B49	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	CHRYSEN	B50	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	CRESOLS	B51	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	CYCHDIN	B52	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	DIBAHAC	B53	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	DIBAJAC	B54	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	DIBTHAN	B55	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	DICCGCA	B56	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	DIBAEPY	B57	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	DIBAHPY	B58	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	DIBAIPY	B59	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	DIBPHTH	B60	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	12-DBEN	B61	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	13-DBEN	B62	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	14-DBEN	B63	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	DICHDEN	B64	*	2.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	24-DCHP	B65	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	26-DCHP	B66	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	DIEPHTH	B67	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	DIHYSAF	B68	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	DIMTHB	B69	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	DIMEAMD	B70	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	DIMBENZ	B71	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	DIMEYLB	B72	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	THIONOX	B73	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	DIMPHAM	B74	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	DIMPHEN	B75	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	DIMPHTH	B76	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	DINBENZ	B77	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	DINCRES	B78	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	DINPHEN	B79	*	5.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	24-DINT	B80	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	26-DINT	B81	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	DIOPHTH	B82	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	DIPHAMI	B83	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	DIPHHYD	B84	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	DIPRNIT	B85	*	1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no D-82472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE	RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M138	ETHMINE	B86	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	ETHMETS	B87	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	FLUORAN	B88	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	HEXCDEN	B89	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	HEXCBUT	B90	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	HEXCCYC	B91	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	HEXCETH	B92	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	INDENOP	B93	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	ISOSOLE	B94	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	MALOILE	B95	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	MELPHAL	B96	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	METHAPY	B97	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	METHNYL	B98	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	METAZIR	B99	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	METCHAN	C01	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	METBISC	C02	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	METACTO	C03	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	METMSUL	C05	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	METPROP	C06	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	METHIOU	C07	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	NAPHGUI	C08	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	1-NAPHA	C09	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	2-NAPHA	C10	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	NITRANI	C11	* 5.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	NITBENZ	C12	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	NITPHEN	C13	* 5.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	NNIBUTY	C14	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	NNIDIEA	C15	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	NNIDIEY	C16	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	NNIDIME	C17	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	NNIMETH	C18	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	NNIURET	C19	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	NNIVINY	C20	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	NNIMORP	C21	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	NNINICO	C22	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	NNIPIPE	C23	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	NITRPYR	C24	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	NITRTOL	C25	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	PENTCHB	C26	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	PENTCHN	C27	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	PENTCHP	C28	* 5.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	PHENTIN	C29	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	PHENINE	C30	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	PHTHEST	C31	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	PICOLIN	C32	* 1.00E+00 UG/G			1.01E+01 G	28JUN88	1105	19JUL88	I	341	011115

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. D-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT		DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M138	PRONIDE	C33	*	1.00E+00	UG/G			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	RESERPI	C34	*	1.00E+00	UG/G			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	RESORCI	C35	*	1.00E+00	UG/G			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	SAFROL	C36	*	1.00E+00	UG/G			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	TETRCHB	C37	*	1.00E+00	UG/G			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	TETRCHP	C39	*	1.00E+00	UG/G			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	THIURAM	C40	*	1.00E+00	UG/G			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	TOLUDIA	C41	*	1.00E+00	UG/G			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	OTOLHYD	C42	*	1.00E+00	UG/G			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	TRICHLB	C43	*	1.00E+00	UG/G			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	245-TRP	C44	*	5.00E+00	UG/G			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	246-TRP	C45	*	1.00E+00	UG/G			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	TRIPHOS	C46	*	1.00E+00	UG/G			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	SYMTRIN	C47	*	1.00E+00	UG/G			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	TRISPHO	C48	*	1.00E+00	UG/G			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	BENZDPY	C49	*	1.00E+00	UG/G			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	CHLNAPZ	C50	*	1.00E+00	UG/G			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	BIS2ETH	C51	*	1.00E+00	UG/G			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	HEXAENE	C52	*	1.00E+00	UG/G			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	HEXACHL	C54	*	1.00E+00	UG/G			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	NAPHTHA	C55	*	1.00E+00	UG/G			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	123TRI	C56	*	1.00E+00	UG/G			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	PHENOL	C57	*	1.00E+00	UG/G			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	135TRI	C58	*	1.00E+00	UG/G			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	1234TE	C59	*	1.00E+00	UG/G			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	1235TE	C60	*	1.00E+00	UG/G			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	KEROSEN	C79	*	1.00E+03	UG/G			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	STRYCHN	C91	*	5.00E+00	UG/G			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	MALHYDR	C92	*	5.00E+01	UG/G			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	NICOTIN	C93	*	1.00E+01	UG/G			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	TRIDUPH	I21	*	1.00E+00	UG/G			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	2FLPHEN	X01		9.55E+01	%RECOV			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	PHEND6	X02		7.85E+01	%RECOV			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	NITBN2	X03		8.76E+01	%RECOV			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	2FLBIPH	X04		8.26E+01	%RECOV			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	246TRI	X05		5.[illegible]E+01	%RECOV			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
SOIL	M138	TERD14	X06		8.90E+01	%RECOV			1.01E+01	G	28JUN88	1105	19JUL88	I	341	011115
===> PROCEDURE: 734		REPORTED: 14JUL88														
SOIL	M138	TETEPYR	C61	*	1.00E+00	UG/G			1.02E+01	G	28JUN88	1105	07JUL88	I	341	011115
SOIL	M138	CARBPHT	C63	*	1.00E+00	UG/G			1.02E+01	G	28JUN88	1105	07JUL88	I	341	011115
SOIL	M138	DISULFO	C64	*	1.00E+00	UG/G			1.02E+01	G	28JUN88	1105	07JUL88	I	341	011115
SOIL	M138	DIMETHO	C65	*	2.00E-01	UG/G			1.02E+01	G	28JUN88	1105	07JUL88	I	341	011115
SOIL	M138	METHPAR	C66	*	1.00E+00	UG/G			1.02E+01	G	28JUN88	1105	07JUL88	I	341	011115

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M138	PARATHI	C67	*	1.00E+00 UG/G			1.02E+01 G	28JUN88	1105	07JUL88	I	341	011115
===> PROCEDURE: 735		REPORTED: 16AUG88												
SOIL	M138	NITRATE	C72	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1105	03AUG88	I	341	011115
SOIL	M138	SULFATE	C73		1.32E+00 UG/G			1.00E+01 G	28JUN88	1105	03AUG88	I	341	011115
SOIL	M138	FLOURID	C74	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1105	08AUG88	I	341	011115
SOIL	M138	CHLORID	C75	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1105	08AUG88	I	341	011115
SOIL	M138	PHOSPHA	C76	*	2.00E+00 UG/G			1.00E+01 G	28JUN88	1105	03AUG88	I	341	011115
===> PROCEDURE: 737		REPORTED: 28JUL88												
SOIL	M138	2,4-D	H13	*	1.00E+00 UG/G			2.50E+01 G	28JUN88	1105	20JUL88	I	341	011115
SOIL	M138	2,4,5TP	H14	*	1.00E+00 UG/G			2.50E+01 G	28JUN88	1105	20JUL88	I	341	011115
SOIL	M138	2,4,5-T	H15	*	1.00E+00 UG/G			2.50E+01 G	28JUN88	1105	20JUL88	I	341	011115
===> PROCEDURE: 739		REPORTED: 04AUG88												
SOIL	M138	AR1016	A54	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1105	23JUL88	I	341	011115
SOIL	M138	AR1221	A55	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1105	23JUL88	I	341	011115
SOIL	M138	AR1232	A56	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1105	23JUL88	I	341	011115
SOIL	M138	AR1242	A57	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1105	23JUL88	I	341	011115
SOIL	M138	AR1248	A58	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1105	23JUL88	I	341	011115
SOIL	M138	AR1254	A59	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1105	23JUL88	I	341	011115
SOIL	M138	AR1260	A60	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1105	23JUL88	I	341	011115
===> PROCEDURE: A20		REPORTED: 12AUG88												
SOIL	M138	ARSENIC	A20		1.60E+00 UG/G			1.01E+00 G	28JUN88	1105	10AUG88	I	341	011115
===> PROCEDURE: A21		REPORTED: 21JUL88												
SOIL	M138	MERCURY	A21	*	2.00E-01 UG/G			2.13E-01 G	28JUN88	1105	14JUL88	I	341	011115
===> PROCEDURE: A22		REPORTED: 12AUG88												
SOIL	M138	SELENUM	A22	*	5.00E-01 UG/G			1.01E+00 G	28JUN88	1105	10AUG88	I	341	011115
===> PROCEDURE: A23		REPORTED: 12AUG88												
SOIL	M138	THALIUM	A23	*	1.00E+00 UG/G			1.01E+00 G	28JUN88	1105	08AUG88	I	341	011115
===> PROCEDURE: A51		REPORTED: 12AUG88												
SOIL	M138	LEAD	A51		4.50E+00 UG/G			1.01E+00 G	28JUN88	1105	09AUG88	I	341	011115

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. D-82472-A-I

All results

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===> PROCEDURE: C68		REPORTED: 12AUG88												
SOIL	M138	TOX	C68	*	1.00E+00 UG/G			1.00E+00 G	28JUN88	1105	09AUG88	I	341	011115
===> PROCEDURE: C69		REPORTED: 16AUG88												
SOIL	M138	TOC	C69	*	1.00E+01 UG/G			2.00E+01 G	28JUN88	1105	09AUG88	I	341	011115
===> PROCEDURE: C70		REPORTED: 12AUG88												
SOIL	M138	CYANIDE	C70	*	1.00E+00 UG/G			1.00E+01 G	28JUN88	1105	04AUG88	I	341	011115
===> PROCEDURE: C77		REPORTED: 12AUG88												
SOIL	M138	PERCHLO	C77	*	2.00E+00 UG/G			1.00E+01 G	28JUN88	1105	04AUG88	I	341	011115
===> PROCEDURE: C78		REPORTED: 21JUL88												
SOIL	M138	SULFIDE	C78	*	1.00E+01 UG/G			9.82E+00 G	28JUN88	1105	30JUN88	I	341	011115
===> PROCEDURE: C80		REPORTED: 28JUL88												
SOIL	M138	AMMONIU	C80		2.00E+00 UG/G			1.00E+01 G	28JUN88	1105	19JUL88	I	341	011115
===> PROCEDURE: C81		REPORTED: 12AUG88												
SOIL	M138	ETHYGLY	C81	*	1.00E+01 UG/G			5.00E+00 G	28JUN88	1105	04AUG88	I	341	011115
********** <** SAMPLE: M139 **> **********														
===> PROCEDURE: 088		REPORTED: 14JUL88												
SOIL	M139	LSP COND	088		3.71E+02			0.00E+00 G	29JUN88	0830	10JUL88	I	341	011116
===> PROCEDURE: 207		REPORTED: 14JUL88												
SOIL	M139	PH (LAB)	207		6.10E+00			0.00E+00 G	29JUN88	0830	30JUN88	I	341	011116
===> PROCEDURE: 725		REPORTED: 12AUG88												
SOIL	M139	BERYLAM	A01	*	5.00E-01 UG/G			1.01E+00 G	29JUN88	0830	04AUG88	I	341	011116
SOIL	M139	STRONUM	A03		2.03E+01 UG/G			1.01E+00 G	29JUN88	0830	04AUG88	I	341	011116

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2300 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M139	ZINC	A04		4.47E+01 UG/G			1.01E+00 G	29JUN88	0830	04AUG88	I	341	011116
SOIL	M139	CALCIUM	A05		3.55E+03 UG/G			1.01E+00 G	29JUN88	0830	04AUG88	I	341	011116
SOIL	M139	BARIUM	A06		8.59E+01 UG/G			1.01E+00 G	29JUN88	0830	04AUG88	I	341	011116
SOIL	M139	CADMIUM	A07	*	2.00E-01 UG/G			1.01E+00 G	29JUN88	0830	04AUG88	I	341	011116
SOIL	M139	CHROMUM	A09		8.50E+00 UG/G			1.01E+00 G	29JUN88	0830	04AUG88	I	341	011116
SOIL	M139	SILVER	A10	*	1.00E+00 UG/G			1.01E+00 G	29JUN88	0830	04AUG88	I	341	011116
SOIL	M139	SODIUM	A11		8.27E+02 UG/G			1.01E+00 G	29JUN88	0830	04AUG88	I	341	011116
SOIL	M139	NICKEL	A12		7.80E+00 UG/G			1.01E+00 G	29JUN88	0830	04AUG88	I	341	011116
SOIL	M139	COPPER	A13	*	1.00E+00 UG/G			1.01E+00 G	29JUN88	0830	04AUG88	I	341	011116
SOIL	M139	VANADUM	A14		5.51E+01 UG/G			1.01E+00 G	29JUN88	0830	04AUG88	I	341	011116
SOIL	M139	ANTIONY	A15	*	1.00E+01 UG/G			1.01E+00 G	29JUN88	0830	04AUG88	I	341	011116
SOIL	M139	ALUMNUM	A16		8.56E+03 UG/G	1		1.01E+00 G	29JUN88	0830	04AUG88	I	341	011116
SOIL	M139	MANGESE	A17		3.80E+02 UG/G			1.01E+00 G	29JUN88	0830	04AUG88	I	341	011116
SOIL	M139	POTASUM	A18		1.81E+03 UG/G	1		1.01E+00 G	29JUN88	0830	04AUG88	I	341	011116
SOIL	M139	IRON	A19		2.55E+04 UG/G	1		1.01E+00 G	29JUN88	0830	04AUG88	I	341	011116
SOIL	M139	MAGNES	A50		4.66E+03 UG/G	1		1.01E+00 G	29JUN88	0830	04AUG88	I	341	011116
===> PROCEDURE: 727		REPORTED: 19AUG88												
SOIL	M139	THIOURA	A24	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	0830	17AUG88	I	341	011116
SOIL	M139	ACETREA	A25	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	0830	17AUG88	I	341	011116
SOIL	M139	CHLOREA	A26	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	0830	17AUG88	I	341	011116
SOIL	M139	DIETROL	A27	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	0830	17AUG88	I	341	011116
SOIL	M139	ETHYREA	A28	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	0830	17AUG88	I	341	011116
SOIL	M139	NAPHREA	A29	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	0830	17AUG88	I	341	011116
SOIL	M139	PHENREA	A32	*	5.00E+00 UG/G			1.00E+01 G	29JUN88	0830	17AUG88	I	341	011116
===> PROCEDURE: 729		REPORTED: 04AUG88												
SOIL	M139	ENDRIN	A33	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0830	31JUL88	I	341	011116
SOIL	M139	METHLOR	A34	*	3.00E-01 UG/G			1.00E+01 G	29JUN88	0830	31JUL88	I	341	011116
SOIL	M139	TOXAENE	A35	*	1.00E-01 UG/G			1.00E+01 G	29JUN88	0830	31JUL88	I	341	011116
SOIL	M139	A-BHC	A36	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0830	31JUL88	I	341	011116
SOIL	M139	B-BHC	A37	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0830	31JUL88	I	341	011116
SOIL	M139	G-BHC	A38	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0830	31JUL88	I	341	011116
SOIL	M139	D-BHC	A39	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0830	31JUL88	I	341	011116
SOIL	M139	DDD	A40	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0830	31JUL88	I	341	011116
SOIL	M139	DDE	A41	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0830	31JUL88	I	341	011116
SOIL	M139	DDT	A42	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0830	31JUL88	I	341	011116
SOIL	M139	HEPTLOR	A43	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0830	31JUL88	I	341	011116
SOIL	M139	HEPTIDE	A44	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0830	31JUL88	I	341	011116
SOIL	M139	DIELRIN	A46	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0830	31JUL88	I	341	011116
SOIL	M139	ALDRIN	A47	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0830	31JUL88	I	341	011116
SOIL	M139	CHLDANE	A48	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0830	31JUL88	I	341	011116
SOIL	M139	ENDO1	A49	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0830	31JUL88	I	341	011116

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M139	ENDO2	A52	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0830	31JUL88	I	341	011116
SOIL	M139	CHLLATE	C62	*	3.00E+00 UG/G			1.00E+01 G	29JUN88	0830	31JUL88	I	341	011116
SOIL	M139	DBC	X10		8.39E+01 %RECOV			1.00E+01 G	29JUN88	0830	31JUL88	I	341	011116
===> PROCEDURE: 731		REPORTED: 14JUL88												
SOIL	M139	TETRANE	A61	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	BENZENE	A62	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	DIOXANE	A63	*	5.00E-01 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	METHONE	A64	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	PYRIDIN	A65	*	5.00E-01 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	TOLUENE	A66	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	1,1,1-T	A67	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	1,1,2-T	A68	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	TRICENE	A69	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	PERCENE	A70	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	OPXYLEN	A71	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	ACROLIN	A72	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	ACRYILE	A73	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	BISTHER	A74	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	BROMONE	A75	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	METHBRO	A76	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	CARBIDE	A77	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	CHLBENZ	A78	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	CHLTHER	A79	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	CHLFORM	A80	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	METHCHL	A81	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	CHMTHER	A82	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	CROTONA	A83	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	DIBRCHL	A84	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	DIBRETH	A85	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	DIBRMET	A86	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	DIBUTEN	A87	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	DICDIFN	A88	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	1,1-DIC	A89	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	1,2-DIC	A90	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	TRANDCE	A91	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	DICETHY	A92	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	METHYCH	A93	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	DICPANE	A94	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	DICPENE	A95	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	NNDIEHY	A96	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	HYDRSUL	A99	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	IODOMET	B01	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	METHACR	B02	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M139	METHTHI	B03	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	PENTACH	B04	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	1112-TC	B05	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	1122-TC	B06	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	BROMORM	B08	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	TRCMEOL	B09	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	TRCMFLM	B10	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	TRCPANE	B11	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	123-TRP	B12	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	VINYIDE	B13	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	M-XYLE	B14	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	DIETHY	B15	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	ACETILE	B19	*	3.00E+00 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	METACRY	C04	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	FORMALN	C71	*	5.00E-01 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	ETHOXID	H05	*	3.00E+00 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	ETHMETH	H06	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	HEXONE	H68	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	12DCAD4	X07		1.06E+02 %RECOV			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	TOLUDB	X08		9.96E+01 %RECOV			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
SOIL	M139	BFB	X09		1.03E+02 %RECOV			5.00E+00 G	29JUN88	0830	06JUL88	I	341	011116
===> PROCEDURE: 733		REPORTED: 28JUL88												
SOIL	M139	ACETOPH	B20	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	WARFRIN	B21	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	ACEFENE	B22	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	AMINOYL	B23	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	AMIISOX	B24	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	AMITROL	B25	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	ANILINE	B26	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	ARAMITE	B27	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	AURAMIN	B28	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	BENZCAC	B29	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	BENZAAN	B30	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	BENDICM	B31	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	BENTHOL	B32	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	BENDINE	B33	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	BENZBFL	B34	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	BENZJFL	B35	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	PBENZQU	B36	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	BENZCHL	B37	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	BIS2CHM	B38	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	BIS2CHE	B39	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	BIS2EPH	B40	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2900 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M139	BROPHEN	B41	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	BUTBENP	B42	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	BUTDINP	B43	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	CHALETH	B44	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	CHLANIL	B45	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	CHLCRES	B46	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	CHLEPOX	B47	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	CHLNAPH	B48	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	CHLPHEN	B49	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	CHRYSEN	B50	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	CRESOLS	B51	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	CYCHDIN	B52	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	DIBAHAC	B53	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	DIBAJAC	B54	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	DIBIHAN	B55	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	DIBCGCA	B56	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	DIBAEPY	B57	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	DIBAHPY	B58	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	DIBAIPY	B59	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	DIBPHTH	B60	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	12-DBEN	B61	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	13-DBEN	B62	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	14-DBEN	B63	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	DICHDEN	B64	*	2.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	24-DCHP	B65	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	26-DCHP	B66	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	DIEPHTH	B67	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	DIHYSAF	B68	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	DIMTHB	B69	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	DIMEAMB	B70	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	DIMBENZ	B71	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	DIMEYLB	B72	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	THIONOX	B73	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	DIMPHAM	B74	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	DIMPHEN	B75	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	DIMPHTH	B76	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	DINBENZ	B77	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	DINCRES	B78	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	DINPHEN	B79	*	5.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	24-DINT	B80	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	26-DINT	B81	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	DIOPHTH	B82	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	DIPHAMI	B83	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	DIPHHYD	B84	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	DIPRNIT	B85	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-92472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M139	ETHMINE	B86	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	ETHMETS	B87	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	FLUORAN	B88	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	HEXCDEN	B89	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	HEXCBUT	B90	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	HEXCCYC	B91	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	HEXCETH	B92	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	INDENOP	B93	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	ISOSOLE	B94	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	MALDILE	B95	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	MELPHAL	B96	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	METHAPY	B97	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	METHNYL	B98	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	METAZIR	B99	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	METCRAN	C01	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	METBISC	C02	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	METACTO	C03	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	METMSUL	C05	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	METPROP	C06	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	METHIDU	C07	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	NAPHGUI	C08	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	1-NAPHA	C09	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	2-NAPHA	C10	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	NITRANI	C11	*	5.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	NITBENZ	C12	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	NITPHEN	C13	*	5.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	NNIBUTY	C14	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	NNIDIEA	C15	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	NNIDIEY	C16	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	NNIDIME	C17	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	NNIMETH	C18	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	NNIURET	C19	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	NNIVINY	C20	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	NNIMORP	C21	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	NNINICO	C22	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	NNIPIPE	C23	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	NITRPYR	C24	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	NITRTOL	C25	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	PENTCHB	C26	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	PENTCHN	C27	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	PENTCHP	C28	*	5.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	PHENTIN	C29	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	PHENINE	C30	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	PHTHEST	C31	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	PICOLIN	C32	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0830	19JUL88	I	341	011116

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M139	PRONIDE	C33	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	RESERPI	C34	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	RESORCI	C35	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	SAFROL	C36	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	TETRCHB	C37	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	TETRCHP	C39	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	THIURAM	C40	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	TOLUDIA	C41	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	OTOLHYD	C42	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	TRICHLB	C43	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	245-TRP	C44	*	5.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	246-TRP	C45	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	TRIPHOS	C46	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	SYMTRIN	C47	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	TRISPHO	C48	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	BENZOPY	C49	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	CHLNAPZ	C50	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	BIS2ETH	C51	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	HEXAENE	C52	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	HEXACHL	C54	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	NAPHTHA	C55	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	123TRI	C56	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	PHENOL	C57	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	135TRI	C58	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	1234TE	C59	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	1235TE	C60	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	KEROSEN	C79	*	1.00E+03 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	STRYCHN	C91	*	5.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	MALHYDR	C92	*	5.00E+01 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	NICOTIN	C93	*	1.00E+01 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	TRIBUPH	I21	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	2FLPHEN	X01		9.25E+01 %RECOV			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	PHEND6	X02		7.49E+01 %RECOV			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	NITBN2	X03		8.02E+01 %RECOV			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	2FLBIPH	X04		8.04E+01 %RECOV			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	246TRI	X05		5.55E+01 %RECOV			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
SOIL	M139	TERD14	X06		8.40E+01 %RECOV			1.01E+01 G	29JUN88	0830	19JUL88	I	341	011116
===> PROCEDURE: 734		REPORTED: 14JUL88												
SOIL	M139	TETEPYR	C61	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	07JUL88	I	341	011116
SOIL	M139	CARBPHT	C63	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	07JUL88	I	341	011116
SOIL	M139	DISULFO	C64	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	07JUL88	I	341	011116
SOIL	M139	DIMETHO	C65	*	2.00E-01 UG/G			1.01E+01 G	29JUN88	0830	07JUL88	I	341	011116
SOIL	M139	METHPAR	C66	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	07JUL88	I	341	011116

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M139	PARATHI	C67	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0830	07JUL88	I	341	011116
===> PROCEDURE: 735		REPORTED: 16AUG88												
SOIL	M139	NITRATE	C72	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0830	08AUG88	I	341	011116
SOIL	M139	SULFATE	C73	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0830	08AUG88	I	341	011116
SOIL	M139	FLOURID	C74	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0830	08AUG88	I	341	011116
SOIL	M139	CHLORID	C75		2.83E+01 UG/G	1		1.00E+01 G	29JUN88	0830	08AUG88	I	341	011116
SOIL	M139	PHOSPHA	C76	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	0830	08AUG88	I	341	011116
===> PROCEDURE: 737		REPORTED: 28JUL88												
SOIL	M139	2,4-D	H13	*	1.00E+00 UG/G			2.50E+01 G	29JUN88	0830	20JUL88	I	341	011116
SOIL	M139	2,4,5TP	H14	*	1.00E+00 UG/G			2.50E+01 G	29JUN88	0830	20JUL88	I	341	011116
SOIL	M139	2,4,5-T	H15	*	1.00E+00 UG/G			2.50E+01 G	29JUN88	0830	20JUL88	I	341	011116
===> PROCEDURE: 739		REPORTED: 04AUG88												
SOIL	M139	AR1016	A54	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0830	26JUL88	I	341	011116
SOIL	M139	AR1221	A55	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0830	26JUL88	I	341	011116
SOIL	M139	AR1232	A56	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0830	26JUL88	I	341	011116
SOIL	M139	AR1242	A57	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0830	26JUL88	I	341	011116
SOIL	M139	AR1248	A58	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0830	26JUL88	I	341	011116
SOIL	M139	AR1254	A59	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0830	26JUL88	I	341	011116
SOIL	M139	AR1260	A60	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0830	26JUL88	I	341	011116
===> PROCEDURE: A20		REPORTED: 12AUG88												
SOIL	M139	ARSENIC	A20		1.10E+00 UG/G			1.00E+00 G	29JUN88	0830	10AUG88	I	341	011116
===> PROCEDURE: A21		REPORTED: 21JUL88												
SOIL	M139	MERCURY	A21	*	2.00E-01 UG/G			2.20E-01 G	29JUN88	0830	14JUL88	I	341	011116
===> PROCEDURE: A22		REPORTED: 12AUG88												
SOIL	M139	SELENUM	A22	*	5.00E-01 UG/G			1.00E+00 G	29JUN88	0830	10AUG88	I	341	011116
===> PROCEDURE: A23		REPORTED: 12AUG88												
SOIL	M139	THALIUM	A23	*	1.00E+00 UG/G			1.00E+00 G	29JUN88	0830	08AUG88	I	341	011116
===> PROCEDURE: A51		REPORTED: 12AUG88												
SOIL	M139	LEAD	A51		7.08E+00 UG/G			1.00E+00 G	29JUN88	0830	09AUG88	I	341	011116

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UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: C68		REPORTED: 12AUG88												
SOIL	M139	TOX	C68	*	1.00E+00 UG/G			1.00E+00 G	29JUN88	0830	09AUG88	I	341	011116
===> PROCEDURE: C69		REPORTED: 16AUG88												
SOIL	M139	TOC	C69		5.36E+01 UG/G			2.00E+01 G	29JUN88	0830	09AUG88	I	341	011116
===> PROCEDURE: C70		REPORTED: 12AUG88												
SOIL	M139	CYANIDE	C70	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0830	04AUG88	I	341	011116
===> PROCEDURE: C77		REPORTED: 12AUG88												
SOIL	M139	PERCHLO	C77	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	0830	04AUG88	I	341	011116
===> PROCEDURE: C78		REPORTED: 21JUL88												
SOIL	M139	SULFIDE	C78	*	1.00E+01 UG/G			9.97E+00 G	29JUN88	0830	30JUN88	I	341	011116
===> PROCEDURE: C80		REPORTED: 28JUL88												
SOIL	M139	AMMONIU	C80		1.90E+00 UG/G			1.00E+01 G	29JUN88	0830	19JUL88	I	341	011116
===> PROCEDURE: C81		REPORTED: 12AUG88												
SOIL	M139	ETHYGLY	C81	*	1.00E+01 UG/G			5.00E+00 G	29JUN88	0830	04AUG88	I	341	011116
********** <** SAMPLE: M141 **> **********														
===> PROCEDURE: 088		REPORTED: 14JUL88												
SOIL	M141	LSP COND	088		3.76E+02			0.00E+00 G	29JUN88	0918	10JUL88	I	341	011117
===> PROCEDURE: 207		REPORTED: 14JUL88												
SOIL	M141	PH (LAB)	207		7.00E+00			0.00E+00 G	29JUN88	0918	30JUN88	I	341	011117
===> PROCEDURE: 726		REPORTED: 12AUG88												
SOIL	M141	BERYLAM	A01	*	5.00E-01 UG/G			1.01E+00 G	29JUN88	0918	04AUG88	I	341	011117
SOIL	M141	STRONUM	A03		2.73E+01 UG/G			1.01E+00 G	29JUN88	0918	04AUG88	I	341	011117

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UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	8141	ZINC	A04		4.49E+01 UG/G			1.01E+00 G	29JUN88	0918	04AUG88	I	341	011117
SOIL	8141	CALCIUM	A05		1.40E+04 UG/G	1		1.01E+00 G	29JUN88	0918	04AUG88	I	341	011117
SOIL	8141	BARIUM	A06		9.73E+01 UG/G			1.01E+00 G	29JUN88	0918	04AUG88	I	341	011117
SOIL	8141	CADMIUM	A07	*	2.00E-01 UG/G			1.01E+00 G	29JUN88	0918	04AUG88	I	341	011117
SOIL	8141	CHROMUM	A08		6.60E+00 UG/G			1.01E+00 G	29JUN88	0918	04AUG88	I	341	011117
SOIL	8141	SILVER	A10	*	1.00E+00 UG/G			1.01E+00 G	29JUN88	0918	04AUG88	I	341	011117
SOIL	8141	SODIUM	A11		1.17E+03 UG/G			1.01E+00 G	29JUN88	0918	04AUG88	I	341	011117
SOIL	8141	NICKEL	A12		6.80E+00 UG/G			1.01E+00 G	29JUN88	0918	04AUG88	I	341	011117
SOIL	8141	COPPER	A13	*	1.00E+00 UG/G			1.01E+00 G	29JUN88	0918	04AUG88	I	341	011117
SOIL	8141	VANADUM	A14		6.98E+01 UG/G			1.01E+00 G	29JUN88	0918	04AUG88	I	341	011117
SOIL	8141	ANTIONY	A15	*	1.00E+01 UG/G			1.01E+00 G	29JUN88	0918	04AUG88	I	341	011117
SOIL	8141	ALUMNUM	A16		7.23E+03 UG/G	1		1.01E+00 G	29JUN88	0918	04AUG88	I	341	011117
SOIL	8141	MANGESE	A17		3.93E+02 UG/G			1.01E+00 G	29JUN88	0918	04AUG88	I	341	011117
SOIL	8141	POTASUM	A18		1.12E+03 UG/G	1		1.01E+00 G	29JUN88	0918	04AUG88	I	341	011117
SOIL	8141	IRON	A19		2.92E+04 UG/G	1		1.01E+00 G	29JUN88	0918	04AUG88	I	341	011117
SOIL	8141	MAGNES	A50		5.11E+03 UG/G	1		1.01E+00 G	29JUN88	0918	04AUG88	I	341	011117
===> PROCEDURE: 727		REPORTED: 19AUG88												
SOIL	8141	THIOURA	A24	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	0918	17AUG88	I	341	011117
SOIL	8141	ACETREA	A25	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	0918	17AUG88	I	341	011117
SOIL	8141	CHLOREA	A26	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	0918	17AUG88	I	341	011117
SOIL	8141	DIETROL	A27	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	0918	17AUG88	I	341	011117
SOIL	8141	ETHYREA	A28	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	0918	17AUG88	I	341	011117
SOIL	8141	NAPHREA	A29	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	0918	17AUG88	I	341	011117
SOIL	8141	PHENREA	A32	*	5.00E+00 UG/G			1.00E+01 G	29JUN88	0918	17AUG88	I	341	011117
===> PROCEDURE: 729		REPORTED: 04AUG88												
SOIL	8141	ENDRIN	A33	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0918	31JUL88	I	341	011117
SOIL	8141	METHLOR	A34	*	3.00E-01 UG/G			1.00E+01 G	29JUN88	0918	31JUL88	I	341	011117
SOIL	8141	TOXAENE	A35	*	1.00E-01 UG/G			1.00E+01 G	29JUN88	0918	31JUL88	I	341	011117
SOIL	8141	A-BHC	A36	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0918	31JUL88	I	341	011117
SOIL	8141	B-BHC	A37	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0918	31JUL88	I	341	011117
SOIL	8141	G-BHC	A38	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0918	31JUL88	I	341	011117
SOIL	8141	D-BHC	A39	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0918	31JUL88	I	341	011117
SOIL	8141	DDD	A40	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0918	31JUL88	I	341	011117
SOIL	8141	DDE	A41	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0918	31JUL88	I	341	011117
SOIL	8141	DDT	A42	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0918	31JUL88	I	341	011117
SOIL	8141	HEPTLOR	A43	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0918	31JUL88	I	341	011117
SOIL	8141	HEPTIDE	A44	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0918	31JUL88	I	341	011117
SOIL	8141	DIELRIN	A46	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0918	31JUL88	I	341	011117
SOIL	8141	ALDRIN	A47	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0918	31JUL88	I	341	011117
SOIL	8141	CHLDANE	A48	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0918	31JUL88	I	341	011117
SOIL	8141	ENDO1	A49	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0918	31JUL88	I	341	011117

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. D-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M141	ENDO2	A52	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0918	31JUL88	I	341	011117
SOIL	M141	CHLLATE	C62	*	3.00E+00 UG/G			1.00E+01 G	29JUN88	0918	31JUL88	I	341	011117
SOIL	M141	DBC	X10		8.74E+01 %RECOV			1.00E+01 G	29JUN88	0918	31JUL88	I	341	011117
===> PROCEDURE: 731		REPORTED: 14JUL88												
SOIL	M141	TETRANE	A61	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	BENZENE	A62	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	DIOXANE	A63	*	5.00E-01 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	METHONE	A64	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	PYRIDIN	A65	*	5.00E-01 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	TOLUENE	A66	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	1,1,1-T	A67	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	1,1,2-T	A68	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	TRICENE	A69	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	PERCENE	A70	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	OPXYLEN	A71	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	ACROLIN	A72	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	ACRYLE	A73	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	BISTHER	A74	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	BROMONE	A75	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	METHBRO	A76	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	CARBIDE	A77	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	CHLBENZ	A78	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	CHLTHER	A79	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	CHLFORM	A80	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	METHCHL	A81	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	CHMTHER	A82	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	CROTONA	A83	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	DIBRCHL	A84	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	DIBRETH	A85	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	DIBRMET	A86	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	DIBUTEN	A87	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	DICDIFM	A88	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	1,1-DIC	A89	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	1,2-DIC	A90	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	TRANDCE	A91	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	DICETHY	A92	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	METHYCH	A93	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	DICPANE	A94	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	DICPENE	A95	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	NNDIEHY	A96	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	HYDRSUL	A99	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	IODOMET	B01	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	METHACR	B02	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117

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2800 George Washington Way, Richland, WA
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SOIL	M141	METHTHI	B03	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	PENTACH	B04	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	1112-TC	B05	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	1122-TC	B06	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	BROMORM	B08	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	TRCMEOL	B09	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	TRCMFLM	B10	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	TRCPANE	B11	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	123-TRP	B12	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	VINYIDE	B13	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	M-XYLE	B14	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	DIETHY	B15	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	ACETILE	B19	*	3.00E+00 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	METACRY	C04	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	FORMALN	C71	*	5.00E-01 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	ETHOXID	H05	*	3.00E+00 UG/G			5.00E+00 G	29JUN88	0919	06JUL88	I	341	011117
SOIL	M141	ETHMETH	H06	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	HEXONE	H68	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	12DCAD4	X07		1.08E+02 %RECOV			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	TOLUD8	X08		9.82E+01 %RECOV			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
SOIL	M141	BFB	X09		1.01E+02 %RECOV			5.00E+00 G	29JUN88	0918	06JUL88	I	341	011117
===> PROCEDURE: 733		REPORTED: 28JUL88												
SOIL	M141	ACETOPH	B20	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	WARFRIN	B21	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	ACEFENE	B22	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	AMINOYL	B23	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	AMIISOX	B24	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	AMITROL	B25	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	ANILINE	B26	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	ARAMITE	B27	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	AURAMIN	B28	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	BENZCAC	B29	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	BENZAAN	B30	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	BENDICM	B31	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	BENTHOL	B32	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	BENDINE	B33	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	BENZBFL	B34	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	BENZJFL	B35	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	PBENZQU	B36	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	BENZCHL	B37	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	BIS2CHM	B38	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	BIS2CHE	B39	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	BIS2EPH	B40	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0919	19JUL88	I	341	011117

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. D-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M141	BROPHEN	B41	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	BUTBENP	B42	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	BUTDINP	B43	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	CHALETH	B44	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	CHLANIL	B45	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	CHLCRES	B46	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	CHLEPOX	B47	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	CHLNAPH	B48	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	CHLPHEN	B49	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	CHRYSEN	B50	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	CRESOLS	B51	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	CYCHDIN	B52	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	DIBAHAC	B53	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	DIBAJAC	B54	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	DIBIHAN	B55	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	DIBCQCA	B56	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	DIBAEPY	B57	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	DIBAHPY	B58	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	DIBAIPY	B59	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	DIBPHTH	B60	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	12-DBEN	B61	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	13-DBEN	B62	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	14-DBEN	B63	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	DICHDEN	B64	*	2.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	24-DCHP	B65	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	26-DCHP	B66	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	DIEPHTH	B67	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	DIHYSAF	B68	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	DIMTHB	B69	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	DIMEAMB	B70	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	DIMBENZ	B71	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	DIMEYLB	B72	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	THIONOX	B73	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	DIMPHAM	B74	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	DIMPHEN	B75	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	DIMPHTH	B76	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	DINBENZ	B77	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	DINCRES	B78	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	DINPHEN	B79	*	5.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	24-DINT	B80	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	26-DINT	B81	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	DIOPHTH	B82	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	DIPHAMI	B83	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	DIPHHYD	B84	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	DIPRNIT	B85	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0918	19JUL88	I	341	011117

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. D-82472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M141	ETHMINE	B86	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	ETHMETS	B87	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	FLUORAN	B88	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	HEXCBEN	B89	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	HEXCBUT	B90	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	HEXCCYC	B91	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	HEXCETH	B92	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	INDENOP	B93	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	ISOSOLE	B94	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	MALOILE	B95	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	MELPHAL	B96	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	METHAPY	B97	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	METHNYL	B98	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	METAZIR	B99	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	METCHAN	C01	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	METBISC	C02	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	METACTO	C03	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	METMSUL	C05	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	METPROP	C06	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	METHIOU	C07	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	NAPHGUI	C08	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	1-NAPHA	C09	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	2-NAPHA	C10	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	NITRANI	C11	*	5.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	NITBENZ	C12	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	NITPHEN	C13	*	5.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	NNIBUTY	C14	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	NNIDIEA	C15	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	NNIDIEY	C16	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	NNIDIME	C17	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	NNIMETH	C18	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	NNIURET	C19	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	NNIVINY	C20	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	NNIMORP	C21	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	NNINICO	C22	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	NNIPIPE	C23	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	NITRPYR	C24	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	NITRTOL	C25	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	PENTCHB	C26	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	PENTCHN	C27	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	PENTCHP	C28	*	5.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	PHENTIN	C29	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	PHENINE	C30	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	PHTHEST	C31	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	PICOLIN	C32	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M141	PRONIDE	C33	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	RESERPI	C34	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	RESORCI	C35	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	SAFROL	C36	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	TETRCHB	C37	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	TETRCHP	C39	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	THIURAM	C40	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	TOLUDIA	C41	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	OTOLHYD	C42	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	TRICHLB	C43	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	245-TRP	C44	*	5.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	246-TRP	C45	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	TRIPHOS	C46	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	SYMTRIN	C47	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	TRISPHO	C48	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	BENZOPY	C49	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	CHLNAPZ	C50	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	BIS2ETH	C51	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	HEXAENE	C52	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	HEXACHL	C54	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	NAPHTHA	C55	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	123TRI	C56	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	PHENOL	C57	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	135TRI	C58	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	1234TE	C59	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	1235TE	C60	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	KEROSEN	C79	*	1.00E+03 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	STRYCHN	C91	*	5.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	MALHYDR	C92	*	5.00E+01 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	NICOTIN	C93	*	1.00E+01 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	TRIBUPH	I21	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	2FLPHEN	X01		8.68E+01 %RECOV			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	PHEND6	X02		7.09E+01 %RECOV			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	NITBN2	X03		8.04E+01 %RECOV			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	2FLBIPH	X04		7.82E+01 %RECOV			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	246TRI	X05		5.37E+01 %RECOV			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
SOIL	M141	TERD14	X06		7.86E+01 %RECOV			1.01E+01 G	29JUN88	0918	19JUL88	I	341	011117
===> PROCEDURE: 734		REPORTED: 14JUL88												
SOIL	M141	TETEPYR	C61	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	07JUL88	I	341	011117
SOIL	M141	CARBPHT	C63	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	07JUL88	I	341	011117
SOIL	M141	DISULFO	C64	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	07JUL88	I	341	011117
SOIL	M141	DIMETHO	C65	*	2.00E-01 UG/G			1.01E+01 G	29JUN88	0918	07JUL88	I	341	011117
SOIL	M141	METHPAR	C66	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	07JUL88	I	341	011117

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UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
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SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE	RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M141	PARATHI	C67	* 1.00E+00 UG/G			1.01E+01 G	29JUN88	0918	07JUL88	I	341	011117
===> PROCEDURE: 735		REPORTED: 16AUG88											
SOIL	M141	NITRATE	C72	* 1.00E+00 UG/G			1.00E+01 G	29JUN88	0918	08AUG88	I	341	011117
SOIL	M141	SULFATE	C73	9.57E+00 UG/G			1.00E+01 G	29JUN88	0918	08AUG88	I	341	011117
SOIL	M141	FLOURID	C74	1.36E+00 UG/G			1.00E+01 G	29JUN88	0918	08AUG88	I	341	011117
				COMMENT: MIR									
SOIL	M141	CHLORID	C75	* 1.00E+00 UG/G			1.00E+01 G	29JUN88	0918	08AUG88	I	341	011117
SOIL	M141	PHOSPHA	C76	* 2.00E+00 UG/G			1.00E+01 G	29JUN88	0918	08AUG88	I	341	011117
===> PROCEDURE: 737		REPORTED: 28JUL88											
SOIL	M141	2,4-D	H13	* 1.00E+00 UG/G			2.50E+01 G	29JUN88	0918	20JUL88	I	341	011117
SOIL	M141	2,4,5TP	H14	* 1.00E+00 UG/G			2.50E+01 G	29JUN88	0918	20JUL88	I	341	011117
SOIL	M141	2,4,5-T	H15	* 1.00E+00 UG/G			2.50E+01 G	29JUN88	0918	20JUL88	I	341	011117
===> PROCEDURE: 739		REPORTED: 04AUG88											
SOIL	M141	AR1016	A54	* 1.00E+00 UG/G			1.00E+01 G	29JUN88	0918	26JUL88	I	341	011117
SOIL	M141	AR1221	A55	* 1.00E+00 UG/G			1.00E+01 G	29JUN88	0918	26JUL88	I	341	011117
SOIL	M141	AR1232	A56	* 1.00E+00 UG/G			1.00E+01 G	29JUN88	0918	26JUL88	I	341	011117
SOIL	M141	AR1242	A57	* 1.00E+00 UG/G			1.00E+01 G	29JUN88	0918	26JUL88	I	341	011117
SOIL	M141	AR1248	A58	* 1.00E+00 UG/G			1.00E+01 G	29JUN88	0918	26JUL88	I	341	011117
SOIL	M141	AR1254	A59	* 1.00E+00 UG/G			1.00E+01 G	29JUN88	0918	26JUL88	I	341	011117
SOIL	M141	AR1260	A60	* 1.00E+00 UG/G			1.00E+01 G	29JUN88	0918	26JUL88	I	341	011117
===> PROCEDURE: A20		REPORTED: 12AUG88											
SOIL	M141	ARSENIC	A20	2.10E+00 UG/G			1.00E+00 G	29JUN88	0918	10AUG88	I	341	011117
===> PROCEDURE: A21		REPORTED: 21JUL88											
SOIL	M141	MERCURY	A21	* 2.00E-01 UG/G			2.05E-01 G	29JUN88	0918	15JUL88	I	341	011117
===> PROCEDURE: A22		REPORTED: 12AUG88											
SOIL	M141	SELENUM	A22	* 5.00E-01 UG/G			1.00E+00 G	29JUN88	0918	10AUG88	I	341	011117
===> PROCEDURE: A23		REPORTED: 12AUG88											
SOIL	M141	THALIUM	A23	* 1.00E+00 UG/G			1.00E+00 G	29JUN88	0918	08AUG88	I	341	011117
===> PROCEDURE: A51		REPORTED: 12AUG88											
SOIL	M141	LEAD	A51	6.82E+00 UG/G			1.00E+00 G	29JUN88	0918	09AUG88	I	341	011117

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UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
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===> PROCEDURE: C68		REPORTED: 12AUG88												
SOIL	M141	TOX	C68		2.85E+01 UG/G			1.00E+00 G	29JUN88	0918	09AUG88	I	341	011117
===> PROCEDURE: C69		REPORTED: 16AUG88												
SOIL	M141	TOC	C69		5.87E+01 UG/G			2.00E+01 G	29JUN88	0918	09AUG88	I	341	011117
===> PROCEDURE: C70		REPORTED: 12AUG88												
SOIL	M141	CYANIDE	C70	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0918	04AUG88	I	341	011117
===> PROCEDURE: C77		REPORTED: 12AUG88												
SOIL	M141	PERCHLO	C77	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	0918	04AUG88	I	341	011117
===> PROCEDURE: C78		REPORTED: 21JUL88												
SOIL	M141	SULFIDE	C78	*	1.00E+01 UG/G			9.71E+00 G	29JUN88	0918	30JUN88	I	341	011117
===> PROCEDURE: C80		REPORTED: 28JUL88												
SOIL	M141	AMMONIU	C80		2.00E+00 UG/G			1.00E+01 G	29JUN88	0918	19JUL88	I	341	011117
===> PROCEDURE: C81		REPORTED: 12AUG88												
SOIL	M141	ETHYGLY	C81	*	1.00E+01 UG/G			5.00E+00 G	29JUN88	0918	30JUL88	I	341	011117
********** <** SAMPLE: M142 **> **********														
===> PROCEDURE: 088		REPORTED: 14JUL88												
SOIL	M142	LSP COND	088		3.26E+02			0.00E+00 G	29JUN88	1005	10JUL88	I	341	011118
===> PROCEDURE: 207		REPORTED: 14JUL88												
SOIL	M142	PH (LAB)	207		7.10E+00			0.00E+00 G	29JUN88	1005	30JUN88	I	341	011118
===> PROCEDURE: 726		REPORTED: 12AUG88												
SOIL	M142	BERYLAN	A01	*	5.00E-01 UG/G			1.01E+00 G	29JUN88	1005	04AUG88	I	341	011118
SOIL	M142	STRONUM	A02		3.92E+01 UG/G			1.01E+00 G	29JUN88	1005	04AUG88	I	341	011118

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2800 George Washington Way, Richland, WA
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SOIL	M142	ZINC	A04		3.38E+01 UG/G			1.01E+00 G	29JUN88	1005	04AUG88	I	341	011118
SOIL	M142	CALCIUM	A05		1.06E+04 UG/G	1		1.01E+00 G	29JUN88	1005	04AUG88	I	341	011118
SOIL	M142	BARIUM	A06		6.56E+01 UG/G			1.01E+00 G	29JUN88	1005	04AUG88	I	341	011118
SOIL	M142	CADMIUM	A07	*	2.00E-01 UG/G			1.01E+00 G	29JUN88	1005	04AUG88	I	341	011118
SOIL	M142	CHROMUM	A08		9.00E+00 UG/G			1.01E+00 G	29JUN88	1005	04AUG88	I	341	011118
SOIL	M142	SILVER	A10	*	1.00E+00 UG/G			1.01E+00 G	29JUN88	1005	04AUG88	I	341	011118
SOIL	M142	SODIUM	A11		1.64E+03 UG/G			1.01E+00 G	29JUN88	1005	04AUG88	I	341	011118
SOIL	M142	NICKEL	A12		7.40E+00 UG/G			1.01E+00 G	29JUN88	1005	04AUG88	I	341	011118
SOIL	M142	COPPER	A13	*	1.00E+00 UG/G			1.01E+00 G	29JUN88	1005	04AUG88	I	341	011118
SOIL	M142	VANADUM	A14		4.25E+01 UG/G			1.01E+00 G	29JUN88	1005	04AUG88	I	341	011118
SOIL	M142	ANTIONY	A15	*	1.0 E+01 UG/G			1.01E+00 G	29JUN88	1005	04AUG88	I	341	011118
SOIL	M142	ALUMNUM	A16		7.74E+03 UG/G	1		1.01E+00 G	29JUN88	1005	04AUG88	I	341	011118
SOIL	M142	MANGESE	A17		2.79E+02 UG/G			1.01E+00 G	29JUN88	1005	04AUG88	I	341	011118
SOIL	M142	POTASUM	A18		1.34E+03 UG/G	1		1.01E+00 G	29JUN88	1005	04AUG88	I	341	011118
SOIL	M142	IRON	A19		2.00E+04 UG/G	1		1.01E+00 G	29JUN88	1005	04AUG88	I	341	011118
SOIL	M142	MAGNES	A50		5.86E+03 UG/G	1		1.01E+00 G	29JUN88	1005	04AUG88	I	341	011118
===> PROCEDURE: 727		REPORTED: 19AUG88												
SOIL	M142	THIOURA	A24	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	1005	17AUG88	I	341	011118
SOIL	M142	ACETREA	A25	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	1005	17AUG88	I	341	011118
SOIL	M142	CHLOREA	A26	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	1005	17AUG88	I	341	011118
SOIL	M142	DIETROL	A27	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	1005	17AUG88	I	341	011118
SOIL	M142	ETHYREA	A28	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	1005	17AUG88	I	341	011118
SOIL	M142	NAPHREA	A29	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	1005	17AUG88	I	341	011118
SOIL	M142	PHENREA	A32	*	5.00E+00 UG/G			1.00E+01 G	29JUN88	1005	17AUG88	I	341	011118
===> PROCEDURE: 729		REPORTED: 04AUG88												
SOIL	M142	ENDRIN	A33	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	1005	31JUL88	I	341	011118
SOIL	M142	METHLOR	A34	*	3.00E-01 UG/G			1.00E+01 G	29JUN88	1005	31JUL88	I	341	011118
SOIL	M142	TOXAENE	A35	*	1.00E-01 UG/G			1.00E+01 G	29JUN88	1005	31JUL88	I	341	011118
SOIL	M142	A-BHC	A36	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	1005	31JUL88	I	341	011118
SOIL	M142	B-BHC	A37	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	1005	31JUL88	I	341	011118
SOIL	M142	G-BHC	A38	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	1005	31JUL88	I	341	011118
SOIL	M142	D-BHC	A39	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	1005	31JUL88	I	341	011118
SOIL	M142	DDD	A40	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	1005	31JUL88	I	341	011118
SOIL	M142	DDE	A41	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	1005	31JUL88	I	341	011118
SOIL	M142	DDT	A42	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	1005	31JUL88	I	341	011118
SOIL	M142	HEPTLOR	A43	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	1005	31JUL88	I	341	011118
SOIL	M142	HEPTIDE	A44	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	1005	31JUL88	I	341	011118
SOIL	M142	DIELRIN	A46	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	1005	31JUL88	I	341	011118
SOIL	M142	ALDRIN	A47	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	1005	31JUL88	I	341	011118
SOIL	M142	CHLOANE	A48	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	1005	31JUL88	I	341	011118
SOIL	M142	ENDO1	A49	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	1005	31JUL88	I	341	011118

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SOIL	M142	ENDO2	A52	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	1005	31JUL88	I	341	011118
SOIL	M142	CHLLATE	C62	*	3.00E+00 UG/G			1.00E+01 G	29JUN88	1005	31JUL88	I	341	011118
SOIL	M142	DBC	X10		8.30E+01 %RECOV			1.00E+01 G	29JUN88	1005	31JUL88	I	341	011118
===> PROCEDURE: 731		REPORTED: 14JUL88												
SOIL	M142	TETRANE	A61	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	BENZENE	A62	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	DIOXANE	A63	*	5.00E-01 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	METHONE	A64	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	PYRIDIN	A65	*	5.00E-01 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	TOLUENE	A66	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	1,1,1-T	A67	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	1,1,2-T	A68	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	TRICENE	A69	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	PERCENE	A70	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	ORXYLEN	A71	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	ACROLIN	A72	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	ACRYILE	A73	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	BISTHER	A74	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	BROMONE	A75	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	METHBRO	A76	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	CARBIDE	A77	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	CHLBENZ	A78	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	CHLTHER	A79	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	CHLFORM	A80	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	METHCHL	A81	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	CHMTHER	A82	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	CROTONA	A83	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	DIBRCHL	A84	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	DIBRETH	A85	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	DIBRMET	A86	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	DIBUTEN	A87	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	DICDIFM	A88	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	1,1-DIC	A89	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	1,2-DIC	A90	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	TRANDCE	A91	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	DICETHY	A92	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	METHYCH	A93	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	DICPANE	A94	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	DICPENE	A95	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	NNDIEHY	A96	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	HYDRSUL	A99	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	IODOMET	B01	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	METHACR	B02	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M142	METHTHI	B03	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	PENTACH	B04	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	1112-TC	B05	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	1122-TC	B06	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	BROMORM	B08	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	TRCMEOL	B09	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	TRCMFLM	B10	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	TRCPANE	B11	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	123-TRP	B12	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	VINYIDE	B13	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	M-XYLE	B14	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	DIETHY	B15	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	ACETILE	B19	*	3.00E+00 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	METACRY	C04	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	FORMALN	C71	*	5.00E-01 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	ETHOXID	H05	*	3.00E+00 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	ETHMETH	H06	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	HEXONE	H68	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	12DCAD4	X07		1.17E+02 %RECOV			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	TOLUD8	X08		1.04E+02 %RECOV			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
SOIL	M142	BFB	X09		1.09E+02 %RECOV			5.00E+00 G	29JUN88	1005	06JUL88	I	341	011118
===> PROCEDURE: 733		REPORTED: 04AUG88												
SOIL	M142	ACETOPH	B20	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	WARFRIN	B21	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	ACEFENE	B22	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	AMINOYL	B23	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	ANIISOX	B24	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	AMITROL	B25	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	ANILINE	B26	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	ARAMITE	B27	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	AURAMIN	B28	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	BENZCAC	B29	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	BENZAAN	B30	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	BENDICN	B31	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	BENTHOL	B32	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	BENDINE	B33	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	BENZBFL	B34	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	BENZJFL	B35	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	FBENZGU	B36	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	BENZCHL	B37	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	BIS2CHM	B38	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	BIS2CHE	B39	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	BIS2EPH	B40	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118

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2800 George Washington Way, Richland, WA
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All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M142	BROPHEN	B41	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	BUTBENP	B42	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	BUTDINP	B43	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	CHALETH	B44	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	CHLANIL	B45	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	CHLCRES	B46	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	CHLEPOX	B47	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	CHLNAPH	B48	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	CHLPHEN	B49	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	CHRYSEN	B50	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	CRESOLS	B51	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	CYCHDIN	B52	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	DIBAHAC	B53	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	DIBAJAC	B54	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	DIBIHAN	B55	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	DIBCGCA	B56	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	DIBAEPY	B57	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	DIBAHPY	B58	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	DIBAIPY	B59	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	DIBPHTH	B60	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	12-DBEN	B61	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	13-DBEN	B62	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	14-DBEN	B63	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	DICHDEN	B64	*	2.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	24-DCHP	B65	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	26-DCHP	B66	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	DIEPHTH	B67	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	DIHYSAF	B68	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	DIMTHB	B69	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	DIMEAMB	B70	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	DIMBENZ	B71	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	DIMEYLB	B72	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	THIONOX	B73	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	DIMPHAM	B74	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	DIMPHEN	B75	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	DIMPHTH	B76	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	DINBENZ	B77	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	DINCRES	B78	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	DINPHEN	B79	*	5.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	24-DINT	B80	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	26-DINT	B81	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	DIOPHTH	B82	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	DIPHAMI	B83	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	DIPHHYD	B84	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	DIPRNIT	B85	*	1.00E+00 UG/G			1.02E+01 G	29JUN88	1005	26JUL88	I	341	011118

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All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M142	ETHMINE	B86	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	ETHMETS	B87	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	FLUORAN	B88	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	HEXCBEN	B89	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	HEXCBUT	B90	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	HEXCCYC	B91	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	HEXCETH	B92	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	INDENOP	B93	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	ISOSOLE	B94	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	MALOILE	B95	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	MELPHAL	B96	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	METHAPY	B97	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	METHNYL	B98	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	METAZIR	B99	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	METCHAN	C01	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	METBISC	C02	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	METACTO	C03	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	METMSUL	C05	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	METPROP	C06	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	METHIOU	C07	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	NAPHGUI	C08	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	1-NAPHA	C09	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	2-NAPHA	C10	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	NITRANI	C11	*	5.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	NITBENZ	C12	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	NITPHEN	C13	*	5.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	NNIBUTY	C14	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	NNIDIEA	C15	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	NNIDIEY	C16	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	NNIDIME	C17	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	NNIMETH	C18	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	NNIURET	C19	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	NNIVINY	C20	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	NNIMORP	C21	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	NNINICO	C22	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	NNIPIPE	C23	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	NITRPYR	C24	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	NITRTOL	C25	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	PENTCHD	C26	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	PENTCHN	C27	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	PENTCHP	C28	*	5.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	PHENTIN	C29	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	PHENINE	C30	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	PHTHEST	C31	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	PICOLIN	C32	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118

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UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M142	PRONIDE	C33	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	RESERPI	C34	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	RESORCI	C35	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	SAFROL	C36	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	TETRCHD	C37	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	TETRCHP	C39	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	THIURAM	C40	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	TOLUDIA	C41	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	OTOLHYD	C42	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	TRICHLB	C43	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	245-TRP	C44	*	5.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	246-TRP	C45	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	TRIPHOS	C46	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	SYMTRIN	C47	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	TRISPHO	C48	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	BENZOPY	C49	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	CHLNAPI	C50	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	BIS2ETH	C51	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	HEXAENE	C52	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	HEXACHL	C54	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	NAPHTHA	C55	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	123TRI	C56	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	PHENOL	C57	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	135TRI	C58	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	1234TE	C59	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	1235TE	C60	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	KEROSEN	C79	*	1.00E+03 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	STRYCHN	C91	*	5.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	MALHYDR	C92	*	5.00E+01 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	NICOTIN	C93	*	1.00E+01 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	TRIBUPH	I21	*	1.00E+00 UG/G			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	2FLPHEN	X01		7.18E+01 %RECOV			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	PHEND6	X02		5.01E+01 %RECOV			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	NITBN2	X03		4.84E+01 %RECOV			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	2FLBIPH	X04		6.[illegible]E+01 %RECOV			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	246TRI	X05		5.83E+01 %RECOV			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	TERD14	X06		9.02E+01 %RECOV			1.02E+01	G	29JUN88	1005	26JUL88	I	341	011118
===> PROCEDURE: 734		REPORTED: 14JUL88													
SOIL	M142	TETEPYR	C61	*	1.00E+00 UG/G			9.80E+00	G	29JUN88	1005	07JUL88	I	341	011118
SOIL	M142	CARBPHT	C63	*	1.00E+00 UG/G			9.80E+00	G	29JUN88	1005	07JUL88	I	341	011118
SOIL	M142	DISULFO	C64	*	1.00E+00 UG/G			9.80E+00	G	29JUN88	1005	07JUL88	I	341	011118
SOIL	M142	DIMETHO	C65	*	2.00E-01 UG/G			9.80E+00	G	29JUN88	1005	07JUL88	I	341	011118
SOIL	M142	METHPAR	C66	*	1.00E+00 UG/G			9.80E+00	G	29JUN88	1005	07JUL88	I	341	011118

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UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
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SOIL	M142	PARATHI	C67	*	1.00E+00 UG/G			9.80E+00 G	29JUN88	1005	07JUL88	I	341	011118
===> PROCEDURE: 735		REPORTED: 16AUG88												
SOIL	M142	NITRATE	C72	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	1005	08AUG88	I	341	011118
SOIL	M142	SULFATE	C73		5.02E+00 UG/G			1.00E+01 G	29JUN88	1005	08AUG88	I	341	011118
SOIL	M142	FLOURID	C74		1.14E+00 UG/G			1.00E+01 G	29JUN88	1005	08AUG88	I	341	011118
					COMMENT: MIR									
SOIL	M142	CHLORID	C75	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	1005	08AUG88	I	341	011118
SOIL	M142	PHOSPHA	C76	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	1005	08AUG88	I	341	011118
===> PROCEDURE: 737		REPORTED: 28JUL88												
SOIL	M142	2,4-D	H13	*	1.00E+00 UG/G			2.50E+01 G	29JUN88	1005	20JUL88	I	341	011118
SOIL	M142	2,4,5TP	H14	*	1.00E+00 UG/G			2.50E+01 G	29JUN88	1005	20JUL88	I	341	011118
SOIL	M142	2,4,5-T	H15	*	1.00E+00 UG/G			2.50E+01 G	29JUN88	1005	20JUL88	I	341	011118
===> PROCEDURE: 739		REPORTED: 04AUG88												
SOIL	M142	AR1016	A54	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	AR1221	A55	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	AR1232	A56	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	AR1242	A57	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	AR1248	A58	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	AR1254	A59	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	1005	26JUL88	I	341	011118
SOIL	M142	AR1260	A60	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	1005	26JUL88	I	341	011118
===> PROCEDURE: A20		REPORTED: 12AUG88												
SOIL	M142	ARSENIC	A20		1.70E+00 UG/G			1.00E+00 G	29JUN88	1005	10AUG88	I	341	011118
===> PROCEDURE: A21		REPORTED: 21JUL88												
SOIL	M142	MERCURY	A21	*	2.00E-01 UG/G			2.02E-01 G	29JUN88	1005	15JUL88	I	341	011118
===> PROCEDURE: A22		REPORTED: 12AUG88												
SOIL	M142	SELENUM	A22	*	5.00E-01 UG/G			1.00E+00 G	29JUN88	1005	10AUG88	I	341	011118
===> PROCEDURE: A23		REPORTED: 12AUG88												
SOIL	M142	THALIUM	A23	*	1.00E+00 UG/G			1.00E+00 G	29JUN88	1005	08AUG88	I	341	011118
===> PROCEDURE: A51		REPORTED: 12AUG88												
SOIL	M142	LEAD	A51		3.87E+00 UG/G			1.00E+00 G	29JUN88	1005	09AUG88	I	341	011118

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UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. D-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: C68		REPORTED: 12AUG88												
SOIL	M142	TOX	C68		1.01E+01 UG/G			1.00E+00 G	29JUN88	1005	09AUG88	I	341	011118
===> PROCEDURE: C69		REPORTED: 16AUG88												
SOIL	M142	TOC	C69	*	1.00E+01 UG/G			2.00E+01 G	29JUN88	1005	09AUG88	I	341	011118
===> PROCEDURE: C70		REPORTED: 12AUG88												
SOIL	M142	CYANIDE	C70	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	1005	04AUG88	I	341	011118
===> PROCEDURE: C77		REPORTED: 12AUG88												
SOIL	M142	PERCHLO	C77	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	1005	04AUG88	I	341	011118
===> PROCEDURE: C78		REPORTED: 21JUL88												
SOIL	M142	SULFIDE	C78	*	1.00E+01 UG/G			9.99E+00 G	29JUN88	1005	30JUN88	I	341	011118
===> PROCEDURE: C80		REPORTED: 28JUL88												
SOIL	M142	AMMONIU	C80		2.00E+00 UG/G			1.00E+01 G	29JUN88	1005	19JUL88	I	341	011118
===> PROCEDURE: C81		REPORTED: 12AUG88												
SOIL	M142	ETHYGLY	C81	*	1.00E+01 UG/G			5.00E+00 G	29JUN88	1005	04AUG88	I	341	011118
********** <** SAMPLE: M143 **> **********														
===> PROCEDURE: 088		REPORTED: 14JUL88												
SOIL	M143	LSP COND	088		2.54E+02			0.00E+00 G	29JUN88	1155	10JUL88	I	341	011119
===> PROCEDURE: 207		REPORTED: 14JUL88												
SOIL	M143	PH (LAB)	207		8.20E+00			0.00E+00 G	29JUN88	1155	30JUN88	I	341	011119
===> PROCEDURE: 726		REPORTED: 12AUG88												
SOIL	M143	BERYLAM	A01	*	5.00E-01 UG/G			1.00E+00 G	29JUN88	1155	04AUG88	I	341	011119
SOIL	M143	STRONUM	A03		2.93E+01 UG/G			1.00E+00 G	29JUN88	1155	04AUG88	I	341	011119

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UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
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SOIL	M143	ZINC	A04		3.97E+01 UG/G			1.00E+00 G	29JUN88	1155	04AUG88	I	341	011119
SOIL	M143	CALCIUM	A05		8.44E+03 UG/G	1		1.00E+00 G	29JUN88	1155	04AUG88	I	341	011119
SOIL	M143	BARIUM	A06		1.17E+02 UG/G			1.00E+00 G	29JUN88	1155	04AUG88	I	341	011119
					COMMENT: DD/D									
SOIL	M143	CADMIUM	A07	*	2.00E-01 UG/G			1.00E+00 G	29JUN88	1155	04AUG88	I	341	011119
SOIL	M143	CHROMUM	A08		8.30E+00 UG/G			1.00E+00 G	29JUN88	1155	04AUG88	I	341	011119
SOIL	M143	SILVER	A10	*	1.00E+00 UG/G			1.00E+00 G	29JUN88	1155	04AUG88	I	341	011119
SOIL	M143	SODIUM	A11		1.62E+03 UG/G			1.00E+00 G	29JUN88	1155	04AUG88	I	341	011119
SOIL	M143	NICKEL	A12		7.10E+00 UG/G			1.00E+00 G	29JUN88	1155	04AUG88	I	341	011119
					COMMENT: DD/D									
SOIL	M143	COPPER	A13	*	1.00E+00 UG/G			1.00E+00 G	29JUN88	1155	04AUG88	I	341	011119
SOIL	M143	VANADUM	A14		5.38E+01 UG/G			1.00E+00 G	29JUN88	1155	04AUG88	I	341	011119
SOIL	M143	ANTIONY	A15	*	1.00E+01 UG/G			1.00E+00 G	29JUN88	1155	04AUG88	I	341	011119
SOIL	M143	ALUMNUM	A16		7.26E+03 UG/G	1		1.00E+00 G	29JUN88	1155	04AUG88	I	341	011119
SOIL	M143	MANGESE	A17		5.33E+02 UG/G			1.00E+00 G	29JUN88	1155	04AUG88	I	341	011119
					COMMENT: DD/D									
SOIL	M143	POTASUM	A18		9.24E+02 UG/G			1.00E+00 G	29JUN88	1155	04AUG88	I	341	011119
SOIL	M143	IRON	A19		2.36E+04 UG/G	1		1.00E+00 G	29JUN88	1155	04AUG88	I	341	011119
SOIL	M143	MAGNES	A50		4.98E+03 UG/G	1		1.00E+00 G	29JUN88	1155	04AUG88	I	341	011119
===> PROCEDURE: 727		REPORTED: 19AUG88												
SOIL	M143	THIOURA	A24	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	1155	17AUG88	I	341	011119
SOIL	M143	ACETREA	A25	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	1155	17AUG88	I	341	011119
SOIL	M143	CHLOREA	A26	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	1155	17AUG88	I	341	011119
SOIL	M143	DIETROL	A27	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	1155	17AUG88	I	341	011119
SOIL	M143	ETHYREA	A28	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	1155	17AUG88	I	341	011119
SOIL	M143	NAPHREA	A29	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	1155	17AUG88	I	341	011119
SOIL	M143	PHENREA	A32	*	5.00E+00 UG/G			1.00E+01 G	29JUN88	1155	17AUG88	I	341	011119
===> PROCEDURE: 729		REPORTED: 04AUG88												
SOIL	M143	ENDRIN	A33	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	1155	31JUL88	I	341	011119
SOIL	M143	METHLOR	A34	*	3.00E-01 UG/G			1.00E+01 G	29JUN88	1155	31JUL88	I	341	011119
SOIL	M143	TOXAENE	A35	*	1.00E-01 UG/G			1.00E+01 G	29JUN88	1155	31JUL88	I	341	011119
SOIL	M143	A-BHC	A36	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	1155	31JUL88	I	341	011119
SOIL	M143	B-BHC	A37	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	1155	31JUL88	I	341	011119
SOIL	M143	G-BHC	A38	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	1155	31JUL88	I	341	011119
SOIL	M143	D-BHC	A39	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	1155	31JUL88	I	341	011119
SOIL	M143	DDD	A40	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	1155	31JUL88	I	341	011119
SOIL	M143	DDE	A41	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	1155	31JUL88	I	341	011119
SOIL	M143	DDT	A42	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	1155	31JUL88	I	341	011119
SOIL	M143	HEPTLOR	A43	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	1155	31JUL88	I	341	011119
SOIL	M143	HEPTIDE	A44	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	1155	31JUL88	I	341	011119
SOIL	M143	DIELRIN	A46	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	1155	31JUL88	I	341	011119

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M143	ALDRIN	A47	*	1.00E-02 UG/G			1.00E+01	G	29JUN88	1155	31JUL88	I	341	011119
SOIL	M143	CHLDANE	A48	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	1155	31JUL88	I	341	011119
SOIL	M143	ENDO1	A49	*	1.00E-02 UG/G			1.00E+01	G	29JUN88	1155	31JUL88	I	341	011119
SOIL	M143	ENDO2	A52	*	1.00E-02 UG/G			1.00E+01	G	29JUN88	1155	31JUL88	I	341	011119
SOIL	M143	CHLLATE	C62	*	3.00E+00 UG/G			1.00E+01	G	29JUN88	1155	31JUL88	I	341	011119
SOIL	M143	DBC	X10		7.80E+01 %RECOV			1.00E+01	G	29JUN88	1155	31JUL88	I	341	011119
===> PROCEDURE: 731		REPORTED: 14JUL88													
SOIL	M143	TETRANE	A61	*	5.00E-03 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	BENZENE	A62	*	5.00E-03 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	DIOXANE	A63	*	5.00E-01 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	METHONE	A64	*	1.00E-02 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	PYRIDIN	A65	*	5.00E-01 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	TOLUENE	A66	*	5.00E-03 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	1,1,1-T	A67	*	5.00E-03 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	1,1,2-T	A68	*	5.00E-03 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	TRICENE	A69	*	5.00E-03 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	PERCENE	A70	*	5.00E-03 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	OPXYLEN	A71	*	5.00E-03 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	ACROLIN	A72	*	1.00E-02 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	ACRYILE	A73	*	1.00E-02 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	BISTHER	A74	*	1.00E-02 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	BROMONE	A75	*	1.00E-02 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	METHBRO	A76	*	1.00E-02 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	CARBIDE	A77	*	1.00E-02 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	CHLBENZ	A78	*	1.00E-02 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	CHLTHER	A79	*	1.00E-02 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	CHLFORM	A80	*	5.00E-03 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	METHCHL	A81	*	1.00E-02 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	CHMTHER	A82	*	1.00E-02 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	CROTONA	A83	*	1.00E-02 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	DIBRCHL	A84	*	1.00E-02 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	DIBRETH	A85	*	1.00E-02 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	DIBRMET	A86	*	1.00E-02 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	DIBUTEN	A87	*	1.00E-02 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	DICDIFN	A88	*	1.00E-02 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	1,1-DIC	A89	*	1.00E-02 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	1,2-DIC	A90	*	1.00E-02 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	TRANDCE	A91	*	1.00E-02 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	DICETHY	A92	*	1.00E-02 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	METHYCH	A93	*	1.00E-02 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	DICPANE	A94	*	1.00E-02 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	DICPENE	A95	*	1.00E-02 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	NNDIEHY	A96	*	1.00E-02 UG/G			5.00E+00	G	29JUN88	1155	06JUL88	I	341	011119

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M143	HYDRSUL	A99	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	IODOMET	B01	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	METHACR	B02	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	METHTHI	B03	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	PENTACH	B04	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	1112-TC	B05	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	1122-TC	B06	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	BROMORM	B08	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	TRCMEDL	B09	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	TRCMFLM	B10	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	TRCPANE	B11	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	123-TRP	B12	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	VINYIDE	B13	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	M-XYLE	B14	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	DIETHY	B15	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	ACETILE	B19	*	3.00E+00 UG/G			5.00E+00 G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	METACRY	C04	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	FORMALN	C71	*	5.00E-01 UG/G			5.00E+00 G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	ETHOXID	H05	*	3.00E+00 UG/G			5.00E+00 G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	ETHMETH	H06	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	HEXONE	H68	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	12DCAD4	X07		1.23E+02 %RECOV			5.00E+00 G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	TOLUD8	X08		1.02E+02 %RECOV			5.00E+00 G	29JUN88	1155	06JUL88	I	341	011119
SOIL	M143	BFB	X09		1.49E+02 %RECOV			5.00E+00 G	29JUN88	1155	06JUL88	I	341	011119
===> PROCEDURE: 733		REPORTED: 04AUG88												
SOIL	M143	ACETOPH	B20	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	WARFRIN	B21	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	ACEFENE	B22	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	AMINOYL	B23	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	AMIISOX	B24	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	AMITROL	B25	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	ANILINE	B26	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	ARAMITE	B27	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	AURAMIN	B28	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	BENZCAC	B29	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	BENZAAN	B30	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	BENDICM	B31	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	BENTHOL	B32	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	BENDINE	B33	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	BENZDFL	B34	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	BENZJFL	B35	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	PBENZQU	B36	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	BENZCHL	B37	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119

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UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M143	BIS2CHM	B38	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	BIS2CHE	B39	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	BIS2EPH	B40	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	BROPHEN	B41	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	BUTBENP	B42	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	BUTDINP	B43	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	CHALETH	B44	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	CHLANIL	B45	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	CHLCRES	B46	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	CHLEPOX	B47	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	CHLNAPH	B48	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	CHLPHEN	B49	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	CHRYSEN	B50	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	CRESOLS	B51	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	CYCHDIN	B52	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	DIBAHAC	B53	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	DIBAJAC	B54	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	DIBIHAN	B55	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	DIBCGCA	B56	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	DIBAEPY	B57	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	DIBAHPY	B58	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	DIBAIPY	B59	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	DIBPHTH	B60	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	12-DBEN	B61	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	13-DBEN	B62	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	14-DBEN	B63	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	DICHDEN	B64	*	2.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	24-DCHP	B65	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	26-DCHP	B66	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	DIEPHTH	B67	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	DIHYSAF	B68	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	DIMTHB	B69	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	DIMEAMB	B70	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	DIMBENZ	B71	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	DIMEYLB	B72	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	THIONOX	B73	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	DIMPHAM	B74	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	DIMPHEN	B75	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	DIMPHTH	B76	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	DINBENZ	B77	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	DINCRES	B78	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	DINPHEN	B79	*	5.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	24-DINT	B80	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	26-DINT	B81	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	DIOPHTH	B82	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M143	DIPHAMI	B83	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	DIPHHYD	B84	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	DIPRNIT	B85	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	ETHMINE	B86	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	ETHMETS	B87	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	FLUORAN	B88	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	HCXCBEN	B89	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	HEXCBUT	B90	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	HEXCCYC	B91	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	HEXCETH	B92	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	INDENOP	B93	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	ISOSOLE	B94	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	MALOILE	B95	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	MELPHAL	B96	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	METHAPY	B97	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	METHNYL	B98	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	METAZIR	B99	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	METCHAN	C01	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	METBISC	C02	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	METACTO	C03	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	METMSUL	C05	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	METPROP	C06	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	METHIOU	C07	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	NAPHQUI	C08	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	1-NAPHA	C09	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	2-NAPHA	C10	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	NITRANI	C11	*	5.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	NITBENZ	C12	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	NITPHEN	C13	*	5.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	NNIBUTY	C14	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	NNIDIEA	C15	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	NNIDIEY	C16	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	NNIDIME	C17	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	NNIMETH	C18	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	NNIURET	C19	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	NNIVINY	C20	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	NNIMORP	C21	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	NNINICO	C22	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	NNIPIPE	C23	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	NITRPYR	C24	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	NITRTOL	C25	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	PENTCHB	C26	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	PENTCHN	C27	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	PENTCHP	C28	*	5.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	PHENTIN	C29	*	1.00E+00 UG/G			9.88E+00 G	29JUN88	1155	26JUL88	I	341	011119

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B247Z-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M143	PHENINE	C30	*	1.00E+00 UG/G			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	PHTHEST	C31	*	1.00E+00 UG/G			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	PICOLIN	C32	*	1.00E+00 UG/G			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	PRONIDE	C33	*	1.00E+00 UG/G			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	RESERPI	C34	*	1.00E+00 UG/G			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	RESORCI	C35	*	1.00E+00 UG/G			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	SAFROL	C36	*	1.00E+00 UG/G			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	TETRCHB	C37	*	1.00E+00 UG/G			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	TETRCHP	C39	*	1.00E+00 UG/G			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	THIURAM	C40	*	1.00E+00 UG/G			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	TOLUDIA	C41	*	1.00E+00 UG/G			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	OTOLHYD	C42	*	1.00E+00 UG/G			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	TRICHLB	C43	*	1.00E+00 UG/G			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	245-TRP	C44	*	5.00E+00 UG/G			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	246-TRP	C45	*	1.00E+00 UG/G			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	TRIPHOS	C46	*	1.00E+00 UG/G			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	SYMTRIN	C47	*	1.00E+00 UG/G			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	TRISPHO	C48	*	1.00E+00 UG/G			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	BENZOPY	C49	*	1.00E+00 UG/G			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	CHLNAPT	C50	*	1.00E+00 UG/G			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	BIS2ETH	C51	*	1.00E+00 UG/G			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	HEXAENE	C52	*	1.00E+00 UG/G			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	HEXACHL	C54	*	1.00E+00 UG/G			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	NAPHTHA	C55	*	1.00E+00 UG/G			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	123TRI	C56	*	1.00E+00 UG/G			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	PHENOL	C57	*	1.00E+00 UG/G			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	135TRI	C58	*	1.00E+00 UG/G			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	1234TE	C59	*	1.00E+00 UG/G			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	1235TE	C60	*	1.00E+00 UG/G			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	MERDSEN	C79	*	1.00E+03 UG/G			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	STRYCHN	C91	*	5.00E+00 UG/G			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	MALHYDR	C92	*	5.00E+01 UG/G			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	NICOTIN	C93	*	1.00E+01 UG/G			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	TRIBUPH	I21	*	1.00E+00 UG/G			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	2FLPHEN	X01		9.19E+01 %RECOV			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	PHEND6	X02		7.10E+01 %RECOV			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	NITBN2	X03		6.54E+01 %RECOV			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	2FLB1PH	X04		8.52E+01 %RECOV			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	246TRI	X05		6.25E+01 %RECOV			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	TERD14	X06		9.56E+01 %RECOV			9.88E+00	G	29JUN88	1155	26JUL88	I	341	011119
===> PROCEDURE: 734		REPORTED: 14JUL89													
SOIL	M143	TETEPYR	C61	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	1155	07JUL88	I	341	011119
SOIL	M143	CARBPHT	C53	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	1155	07JUL88	I	341	011119

* Denotes a result less than the detection limit

2600 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. D-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M143	DISULFO	C64	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	1155	07JUL88	I	341	011119
SOIL	M143	DIMETHO	C65	*	2.00E-01 UG/G			1.01E+01 G	29JUN88	1155	07JUL88	I	341	011119
SOIL	M143	METHPAR	C66	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	1155	07JUL88	I	341	011119
SOIL	M143	PARATHI	C67	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	1155	07JUL88	I	341	011119
===> PROCEDURE: 735		REPORTED: 16AUG88												
SOIL	M143	NITRATE	C72	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	1155	08AUG88	I	341	011119
SOIL	M143	SULFATE	C73		1.46E+00 UG/G			1.00E+01 G	29JUN88	1155	08AUG88	I	341	011119
SOIL	M143	FLOURID	C74	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	1155	08AUG88	I	341	011119
SOIL	M143	CHLORID	C75	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	1155	08AUG88	I	341	011119
SOIL	M143	PHOSPHA	C76	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	1155	08AUG88	I	341	011119
===> PROCEDURE: 737		REPORTED: 28JUL88												
SOIL	M143	2,4-D	H13	*	1.00E+00 UG/G			2.50E+01 G	29JUN88	1155	20JUL88	I	341	011119
SOIL	M143	2,4,5TP	H14	*	1.00E+00 UG/G			2.50E+01 G	29JUN88	1155	20JUL88	I	341	011119
SOIL	M143	2,4,5-T	H15	*	1.00E+00 UG/G			2.50E+01 G	29JUN88	1155	20JUL88	I	341	011119
===> PROCEDURE: 739		REPORTED: 04AUG88												
SOIL	M143	AR1016	A54	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	AR1221	A55	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	AR1232	A56	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	AR1242	A57	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	AR1248	A58	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	AR1254	A59	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	1155	26JUL88	I	341	011119
SOIL	M143	AR1260	A60	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	1155	26JUL88	I	341	011119
===> PROCEDURE: A20		REPORTED: 12AUG88												
SOIL	M143	ARSENIC	A20		1.10E+00 UG/G			1.01E+00 G	29JUN88	1155	10AUG88	I	341	011119
===> PROCEDURE: A21		REPORTED: 21JUL88												
SOIL	M143	MERCURY	A21	*	2.00E-01 UG/G			2.08E-01 G	29JUN88	1155	15JUL88	I	341	011119
===> PROCEDURE: A22		REPORTED: 12AUG88												
SOIL	M143	SELENUM	A22	*	5.00E-01 UG/G			1.01E+00 G	29JUN88	1155	10AUG88	I	341	011119
===> PROCEDURE: A23		REPORTED: 12AUG88												
SOIL	M143	THALIUM	A23	*	1.00E+00 UG/G			1.01E+00 G	29JUN88	1155	08AUG88	I	341	011119
===> PROCEDURE: A51		REPORTED: 12AUG88												
SOIL	M143	LEAD	A51		3.64E+00 UG/G			1.01E+00 G	29JUN88	1155	09AUG88	I	341	011119

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2600 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: C68		REPORTED: 12AUG88												
SOIL	M143	TOX	C68	*	1.00E+00 UG/G			1.00E+00 G	29JUN88	1155	09AUG88	I	341	011119
===> PROCEDURE: C69		REPORTED: 16AUG88												
SOIL	M143	TOC	C69	*	1.00E+01 UG/G			2.00E+01 G	29JUN88	1155	09AUG88	I	341	011119
===> PROCEDURE: C70		REPORTED: 12AUG88												
SOIL	M143	CYANIDE	C70	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	1155	04AUG88	I	341	011119
===> PROCEDURE: C77		REPORTED: 12AUG88												
SOIL	M143	PERCHLO	C77	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	1155	04AUG88	I	341	011119
===> PROCEDURE: C78		REPORTED: 21JUL88												
SOIL	M143	SULFIDE	C78	*	1.00E+01 UG/G			9.96E+00 G	29JUN88	1155	30JUN88	I	341	011119
===> PROCEDURE: C80		REPORTED: 28JUL88												
SOIL	M143	AMMONIU	C80		2.00E+00 UG/G			1.00E+01 G	29JUN88	1155	19JUL88	I	341	011119
===> PROCEDURE: C81		REPORTED: 12AUG88												
SOIL	M143	ETHYGLY	C81	*	1.00E+01 UG/G			5.00E+00 G	29JUN88	1155	30JUL88	I	341	011119
********** <** SAMPLE: M140 **> **********														
===> PROCEDURE: 088		REPORTED: 14JUL88												
SOIL	M140	LSP COND	088		2.58E+02			0.00E+00 G	29JUN88	0855	10JUL88	I	341	011120
===> PROCEDURE: 207		REPORTED: 14JUL88												
SOIL	M140	PH (LAB)	207		6.80E+00			0.00E+00 G	29JUN88	0855	30JUN88	I	341	011120
===> PROCEDURE: 726		REPORTED: 12AUG88												
SOIL	M140	BERYLAM	A01	*	5.00E-01 UG/G			1.03E+00 G	29JUN88	0855	04AUG88	I	341	011120
SOIL	M140	STRONUM	A03		2.27E+01 UG/G			1.03E+00 G	29JUN88	0855	04AUG88	I	341	011120

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M140	ZINC	A04		3.23E+01 UG/G			1.03E+00 G	29JUN88	0855	04AUG88	I	341	011120
SOIL	M140	CALCIUM	A05		8.34E+03 UG/G	1		1.03E+00 G	29JUN88	0855	04AUG88	I	341	011120
SOIL	M140	BARIUM	A06		4.63E+01 UG/G			1.03E+00 G	29JUN88	0855	04AUG88	I	341	011120
SOIL	M140	CADMIUM	A07	*	2.00E-01 UG/G			1.03E+00 G	29JUN88	0855	04AUG88	I	341	011120
SOIL	M140	CHROMUM	A08		8.30E+00 UG/G			1.03E+00 G	29JUN88	0855	04AUG88	I	341	011120
SOIL	M140	SILVER	A10	*	1.00E+00 UG/G			1.03E+00 G	29JUN88	0855	04AUG88	I	341	011120
SOIL	M140	SODIUM	A11		1.43E+03 UG/G			1.03E+00 G	29JUN88	0855	04AUG88	I	341	011120
SOIL	M140	NICKEL	A12		6.20E+00 UG/G			1.03E+00 G	29JUN88	0855	04AUG88	I	341	011120
SOIL	M140	COPPER	A13	*	1.00E+00 UG/G			1.03E+00 G	29JUN88	0855	04AUG88	I	341	011120
SOIL	M140	VANADUM	A14		4.22E+01 UG/G			1.03E+00 G	29JUN88	0855	04AUG88	I	341	011120
SOIL	M140	ANTIONY	A15	*	1.00E+01 UG/G			1.03E+00 G	29JUN88	0855	04AUG88	I	341	011120
SOIL	M140	ALUMNUM	A16		5.05E+03 UG/G	1		1.03E+00 G	29JUN88	0855	04AUG88	I	341	011120
SOIL	M140	MANGESE	A17		2.52E+02 UG/G			1.03E+00 G	29JUN88	0855	04AUG88	I	341	011120
SOIL	M140	POTASUM	A18		8.33E+02 UG/G			1.03E+00 G	29JUN88	0855	04AUG88	I	341	011120
SOIL	M140	IRON	A19		1.68E+04 UG/G	1		1.03E+00 G	29JUN88	0855	04AUG88	I	341	011120
SOIL	M140	MAGNES	A50		4.43E+03 UG/G	1		1.03E+00 G	29JUN88	0855	04AUG88	I	341	011120
===> PROCEDURE: 727		REPORTED: 19AUG88												
SOIL	M140	THIOURA	A24	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	0855	17AUG88	I	341	011120
SOIL	M140	ACETREA	A25	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	0855	17AUG88	I	341	011120
SOIL	M140	CHLOREA	A26	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	0855	17AUG88	I	341	011120
SOIL	M140	DIETRDL	A27	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	0855	17AUG88	I	341	011120
SOIL	M140	ETHYREA	A28	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	0855	17AUG88	I	341	011120
SOIL	M140	NAPHREA	A29	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	0855	17AUG88	I	341	011120
SOIL	M140	PHENREA	A32	*	5.00E+00 UG/G			1.00E+01 G	29JUN88	0855	17AUG88	I	341	011120
===> PROCEDURE: 729		REPORTED: 04AUG88												
SOIL	M140	ENDRIN	A33	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0855	31JUL88	I	341	011120
SOIL	M140	METHLOR	A34	*	3.00E-01 UG/G			1.00E+01 G	29JUN88	0855	31JUL88	I	341	011120
SOIL	M140	TOXAENE	A35	*	1.00E-01 UG/G			1.00E+01 G	29JUN88	0855	31JUL88	I	341	011120
SOIL	M140	A-BHC	A36	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0855	31JUL88	I	341	011120
SOIL	M140	B-BHC	A37	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0855	31JUL88	I	341	011120
SOIL	M140	G-BHC	A38	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0855	31JUL88	I	341	011120
SOIL	M140	D-BHC	A39	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0855	31JUL88	I	341	011120
SOIL	M140	DDD	A40	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0855	31JUL88	I	341	011120
SOIL	M140	DDE	A41	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0855	31JUL88	I	341	011120
SOIL	M140	DDT	A42	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0855	31JUL88	I	341	011120
SOIL	M140	HEPTLOR	A43	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0855	31JUL88	I	341	011120
SOIL	M140	HEPTIDE	A44	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0855	31JUL88	I	341	011120
SOIL	M140	DIELRIN	A46	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0855	31JUL88	I	341	011120
SOIL	M140	ALDRIN	A47	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0855	31JUL88	I	341	011120
SOIL	M140	CHLDANE	A48	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	31JUL88	I	341	011120
SOIL	M140	ENDO1	A49	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0855	31JUL88	I	341	011120

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. D-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M140	ENDO2	A52	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0855	31JUL88	I	341	011120
SOIL	M140	CHLLATE	C62	*	3.00E+00 UG/G			1.00E+01 G	29JUN88	0855	31JUL88	I	341	011120
SOIL	M140	DBC	X10		8.80E+01 %RECOV			1.00E+01 G	29JUN88	0855	31JUL88	I	341	011120
===> PROCEDURE: 731		REPORTED: 14JUL88												
SOIL	M140	TETRANE	A61	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	BENZENE	A62	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	DIOXANE	A63	*	5.00E-01 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	METHONE	A64	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	PYRIDIN	A65	*	5.00E-01 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	TOLUENE	A66	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	1,1,1-T	A67	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	1,1,2-T	A68	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	TRICENE	A69	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	PERCENE	A70	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	OPXYLEN	A71	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	ACROLIN	A72	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	ACRYILE	A73	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	BISTHER	A74	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	BROMONE	A75	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	METHBRO	A76	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	CARBIDE	A77	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	CHLBENZ	A78	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	CHLTHER	A79	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	CHLFORM	A80	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	METHCHL	A81	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	CHNTHER	A82	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	CROTONA	A83	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	DIBRCHL	A84	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	DIBRETH	A85	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	DIBRMCT	A86	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	DIBUTEN	A87	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	DICDIFN	A88	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	1,1-DIC	A89	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	1,2-DIC	A90	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	TRANDCE	A91	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	DICETHY	A92	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	METHYCH	A93	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	DICPANE	A94	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	DICPENE	A95	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	NNDIEHY	A96	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	HYDRSUL	A99	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	IODOMET	B01	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	METHACR	B02	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M140	METHTHI	B03	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	PENTACH	B04	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	1112-TC	B05	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	1122-TC	B06	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	BROMORM	B08	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	TRCMEDL	B09	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	TRCMFLM	B10	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	TRCPANE	B11	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	123-TRP	B12	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	VINYIDE	B13	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	M-XYLE	B14	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	DIETHY	B15	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	ACETILE	B19	*	3.00E+00 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	METACRY	C04	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	FORMALN	C71	*	5.00E-01 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	ETHOXID	H05	*	3.00E+00 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	ETHMETH	H06	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	HEXONE	H68	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	12DCAD4	X07		1.17E+02 %RECOV			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	TOLUD8	X08		1.02E+02 %RECOV			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
SOIL	M140	BFB	X09		1.09E+02 %RECOV			5.00E+00 G	29JUN88	0855	06JUL88	I	341	011120
===> PROCEDURE: 733		REPORTED: 28JUL88												
SOIL	M140	ACETOPH	B20	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	WARFRIN	B21	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	ACEFENE	B22	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	AMINDYL	B23	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	AMIISOX	B24	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	AMITROL	B25	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	ANILINE	B26	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	ARAMITE	B27	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	AURAMIN	B28	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	BENZCAC	B29	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	BENZAAN	B30	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	BENDICN	B31	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	BENTHOL	B32	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	BENDINE	B33	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	BENZDFL	B34	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	BENZJFL	B35	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	PBENZQU	B36	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	BENZCHL	B37	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	BIS2CHM	B38	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	BIS2CHE	B39	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	BIS2EPH	B40	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120

* Denotes a result less than the detection limit

2300 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M140	BROPHEN	B41	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	BUTBENP	B42	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	BUTDINP	B43	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	CHALETH	B44	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	CHLANIL	B45	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	CHLCRES	B46	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	CHLEPOX	B47	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	CHLNAPH	B48	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	CHLPHEN	B49	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	CHRYSEN	B50	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	CRESOLS	B51	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	CYCHDIN	B52	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	DIBAHAC	B53	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	DIBAJAC	B54	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	DIBIHAN	B55	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	DIBCQCA	B56	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	DIBAEPY	B57	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	DIBAHPY	B58	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	DIBAIPY	B59	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	DIBPHTH	B60	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	12-DBEN	B61	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	13-DBEN	B62	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	14-DBEN	B63	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	DICHDEN	B64	*	2.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	24-DCHP	B65	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	26-DCHP	B66	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	DIEPHTH	B67	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	DIHYBAF	B68	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	DIMTHB	B69	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	DIMEAMB	B70	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	DIMBENZ	B71	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	DIMEYLB	B72	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	THIONOX	B73	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	DIMPHAM	B74	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	DIMPHEN	B75	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	DIMPHTH	B76	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	DINBENZ	B77	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	DINCRES	B78	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	DINPHEN	B79	*	5.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	24-DINT	B80	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	26-DINT	B81	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	DIOPHTH	B82	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	DIPHAMI	B83	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	DIPHHYD	B84	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	DIPRNIT	B85	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M140	ETHMINE	B86	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	ETHMETS	B87	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	FLUORAN	B88	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	HEXCDEN	B89	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	HEXCBUT	B90	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	HEXCCYC	B91	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	HEXCETH	B92	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	INDENOP	B93	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	ISOSOLE	B94	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	MALOILE	B95	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	MELPHAL	B96	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	METHAPY	B97	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	METHNYL	B98	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	METAZIR	B99	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	METCHAN	C01	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	METBISC	C02	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	METACTO	C03	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	METMSUL	C05	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	METPROP	C06	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	METHIOU	C07	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	NAPHGUI	C08	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	1-NAPHA	C09	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	2-NAPHA	C10	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	NITRANI	C11	*	5.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	NITBENZ	C12	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	NITPHEN	C13	*	5.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	NNIBUTY	C14	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	NNIDIEA	C15	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	NNIDIEY	C16	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	NNIDIME	C17	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	NNIMETH	C18	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	NNIURET	C19	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	NNIVINY	C20	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	NNIMORP	C21	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	NNINICO	C22	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	NNIPIPE	C23	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	NITRPYR	C24	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	NITRTOL	C25	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	PENTCHB	C26	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	PENTCHN	C27	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	PENTCHP	C28	*	5.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	PHENTIN	C29	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	PHENINE	C30	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	PHTHEST	C31	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	PICOLIN	C32	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	20JUL88	I	341	011120

* Denotes a result less than the detection limit

2300 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT		DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M140	PRONIDE	C33	*	1.00E+00	UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	RESERPI	C34	*	1.00E+00	UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	RESORCI	C35	*	1.00E+00	UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	SAFROL	C36	*	1.00E+00	UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	TETRCHB	C37	*	1.00E+00	UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	TETRCHP	C39	*	1.00E+00	UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	THIURAM	C40	*	1.00E+00	UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	TOLUDIA	C41	*	1.00E+00	UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	OTOLHYD	C42	*	1.00E+00	UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	TRICHLB	C43	*	1.00E+00	UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	245-TRP	C44	*	5.00E+00	UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	246-TRP	C45	*	1.00E+00	UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	TRIPHOS	C46	*	1.00E+00	UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	SYMTRIN	C47	*	1.00E+00	UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	TRISPHO	C48	*	1.00E+00	UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	BENZOPY	C49	*	1.00E+00	UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	CHLNAPZ	C50	*	1.00E+00	UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	BIS2ETH	C51	*	1.00E+00	UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	HEXAENE	C52	*	1.00E+00	UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	HEXACHL	C54	*	1.00E+00	UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	NAPHTHA	C55	*	1.00E+00	UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	123TRI	C56	*	1.00E+00	UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	PHENOL	C57	*	1.00E+00	UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	135TRI	C58	*	1.00E+00	UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	1234TE	C59	*	1.00E+00	UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	1235TE	C60	*	1.00E+00	UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	KERDSEN	C79	*	1.00E+03	UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	STRYCHN	C91	*	5.00E+00	UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	MALHYDR	C92	*	5.00E+01	UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	NICOTIN	C93	*	1.00E+01	UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	TRIBUPH	I21	*	1.00E+00	UG/G			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	2FLPHEN	X01		2.44E+01	%RECOV			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	PHENOS	X02		4.89E+01	%RECOV			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	NITBN2	X03		1.14E+02	%RECOV			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	2FLBIPH	X04		7.78E+01	%RECOV			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	246TRI	X05		5.26E+01	%RECOV			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	TERD14	X06		9.84E+01	%RECOV			1.00E+01	G	29JUN88	0855	20JUL88	I	341	011120
===> PROCEDURE. 734		REPORTED 14JUL88														
SOIL	M140	TETEPYR	C61	*	1.00E+00	UG/G			1.01E+01	G	29JUN88	0855	07JUL88	I	341	011120
SOIL	M140	CARBPHT	C63	*	1.00E+00	UG/G			1.01E+01	G	29JUN88	0855	07JUL88	I	341	011120
SOIL	M140	DISULFO	C64	*	1.00E+00	UG/G			1.01E+01	G	29JUN88	0855	07JUL88	I	341	011120
SOIL	M140	DIMETHO	C65	*	2.00E-01	UG/G			1.01E+01	G	29JUN88	0855	07JUL88	I	341	011120
SOIL	M140	METHPAR	C66	*	1.00E+00	UG/G			1.01E+01	G	29JUN88	0855	07JUL88	I	341	011120

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M140	PARATHI	C67	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0855	07JUL88	I	341	011120
===> PROCEDURE: 735		REPORTED: 16AUG88													
SOIL	M140	NITRATE	C72	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	08AUG88	I	341	011120
SOIL	M140	SULFATE	C73		1.15E+00 UG/G			1.00E+01	G	29JUN88	0855	08AUG88	I	341	011120
SOIL	M140	FLOURID	C74		1.17E+00 UG/G			1.00E+01	G	29JUN88	0855	08AUG88	I	341	011120
					COMMENT: MIR										
SOIL	M140	CHLORID	C75	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	08AUG88	I	341	011120
SOIL	M140	PHOSPHA	C76	*	2.00E+00 UG/G			1.00E+01	G	29JUN88	0855	08AUG88	I	341	011120
===> PROCEDURE: 737		REPORTED: 28JUL88													
SOIL	M140	2,4-D	H13	*	1.00E+00 UG/G			2.50E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	2,4,5TP	H14	*	1.00E+00 UG/G			2.50E+01	G	29JUN88	0855	20JUL88	I	341	011120
SOIL	M140	2,4,5-T	H15	*	1.00E+00 UG/G			2.50E+01	G	29JUN88	0855	20JUL88	I	341	011120
===> PROCEDURE: 739		REPORTED: 04AUG88													
SOIL	M140	AR1016	A54	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	26JUL88	I	341	011120
SOIL	M140	AR1221	A55	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	26JUL88	I	341	011120
SOIL	M140	AR1232	A56	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	26JUL88	I	341	011120
SOIL	M140	AR1242	A57	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	26JUL88	I	341	011120
SOIL	M140	AR1248	A58	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	26JUL88	I	341	011120
SOIL	M140	AR1254	A59	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	26JUL88	I	341	011120
SOIL	M140	AR1260	A60	*	1.00E+00 UG/G			1.00E+01	G	29JUN88	0855	26JUL88	I	341	011120
===> PROCEDURE: A20		REPORTED: 12AUG88													
SOIL	M140	ARSENIC	A20		1.90E+00 UG/G			1.00E+00	G	29JUN88	0855	10AUG88	I	341	011120
===> PROCEDURE: A21		REPORTED: 21JUL88													
SOIL	M140	MERCURY	A21	*	2.00E-01 UG/G			2.03E-01	G	29JUN88	0855	15JUL88	I	341	011120
===> PROCEDURE: A22		REPORTED: 12AUG88													
SOIL	M140	SELENUM	A22	*	5.00E-01 UG/G			1.00E+00	G	29JUN88	0855	10AUG88	I	341	011120
===> PROCEDURE: A23		REPORTED: 12AUG88													
SOIL	M140	THALIUM	A23	*	1.00E+00 UG/G			1.00E+00	G	29JUN88	0855	08AUG88	I	341	011120
===> PROCEDURE: A51		REPORTED: 12AUG88													
SOIL	M140	LEAD	A51		4.99E+00 UG/G			1.00E+00	G	29JUN88	0855	09AUG88	I	341	011120

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE	RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: C68		REPORTED: 12AUG88											
SOIL	M140	TOX	C68	* 1.00E+00 UG/G			1.00E+00 G	29JUN88	0855	09AUG88	I	341	011120
===> PROCEDURE: C69		REPORTED: 16AUG88											
SOIL	M140	TOC	C69	4.87E+01 UG/G			2.00E+01 G	29JUN88	0855	09AUG88	I	341	011120
===> PROCEDURE: C70		REPORTED: 12AUG88											
SOIL	M140	CYANIDE	C70	* 1.00E+00 UG/G			1.00E+01 G	29JUN88	0855	04AUG88	I	341	011120
===> PROCEDURE: C77		REPORTED: 12AUG88											
SOIL	M140	PERCHLO	C77	* 2.00E+00 UG/G			1.00E+01 G	29JUN88	0855	04AUG88	I	341	011120
===> PROCEDURE: C78		REPORTED: 21JUL88											
SOIL	M140	SULFIDE	C78	* 1.00E+01 UG/G			9.41E+00 G	29JUN88	0855	30JUN88	I	341	011120
===> PROCEDURE: C80		REPORTED: 28JUL88											
SOIL	M140	AMMONIU	C80	1.90E+00 UG/G			1.00E+01 G	29JUN88	0855	19JUL88	I	341	011120
===> PROCEDURE: C81		REPORTED: 12AUG88											
SOIL	M140	ETHYGLY	C81	* 1.00E+01 UG/G			5.00E+00 G	29JUN88	0855	30JUL88	I	341	011120
********** <** SAMPLE: M144 **> **********													
===> PROCEDURE: 088		REPORTED: 14JUL88											
SOIL	M144	LSP COND	088	5.87E+02			0.00E+00 G	29JUN88	0925	10JUL88	I	341	011121
===> PROCEDURE: 207		REPORTED: 14JUL88											
SOIL	M144	PH (LAB)	207	7.30E+00			0.00E+00 G	29JUN88	0925	30JUN88	I	341	011121
===> PROCEDURE: 726		REPORTED: 12AUG88											
SOIL	M144	BERYLAM	A01	* 5.00E-01 UG/G			1.03E+00 G	29JUN88	0925	04AUG88	I	341	011121
SOIL	M144	STRONUM	A03	3.69E+01 UG/G			1.03E+00 G	29JUN88	0925	04AUG88	I	341	011121

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UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M144	ZINC	A04		4.34E+01 UG/G			1.03E+00 G	29JUN88	0925	04AUG88	I	341	011121
SOIL	M144	CALCIUM	A05		1.07E+04 UG/G	1		1.03E+00 G	29JUN88	0925	04AUG88	I	341	011121
SOIL	M144	BARIUM	A06		8.04E+01 UG/G			1.03E+00 G	29JUN88	0925	04AUG88	I	341	011121
SOIL	M144	CADMIUM	A07	*	2.00E-01 UG/G			1.03E+00 G	29JUN88	0925	04AUG88	I	341	011121
SOIL	M144	CHROMUM	A08		8.10E+00 UG/G			1.03E+00 G	29JUN88	0925	04AUG88	I	341	011121
SOIL	M144	SILVER	A10	*	1.00E+00 UG/G			1.03E+00 G	29JUN88	0925	04AUG88	I	341	011121
SOIL	M144	SODIUM	A11		1.71E+03 UG/G			1.03E+00 G	29JUN88	0925	04AUG88	I	341	011121
SOIL	M144	NICKEL	A12		7.20E+00 UG/G			1.03E+00 G	29JUN88	0925	04AUG88	I	341	011121
SOIL	M144	COPPER	A13	*	1.00E+00 UG/G			1.03E+00 G	29JUN88	0925	04AUG88	I	341	011121
SOIL	M144	VANADUM	A14		6.63E+01 UG/G			1.03E+00 G	29JUN88	0925	04AUG88	I	341	011121
SOIL	M144	ANTIONY	A15	*	1.00E+01 UG/G			1.03E+00 G	29JUN88	0925	04AUG88	I	341	011121
SOIL	M144	ALUMNUM	A16		8.91E+03 UG/G	1		1.03E+00 G	29JUN88	0925	04AUG88	I	341	011121
SOIL	M144	MANGESE	A17		3.92E+02 UG/G			1.03E+00 G	29JUN88	0925	04AUG88	I	341	011121
SOIL	M144	POTASUM	A18		9.16E+02 UG/G			1.03E+00 G	29JUN88	0925	04AUG88	I	341	011121
SOIL	M144	IRON	A19		2.83E+04 UG/G	1		1.03E+00 G	29JUN88	0925	04AUG88	I	341	011121
SOIL	M144	MAGNES	A50		5.98E+03 UG/G	1		1.03E+00 G	29JUN88	0925	04AUG88	I	341	011121
===> PROCEDURE: 727		REPORTED: 19AUG88												
SOIL	M144	THIOURA	A24	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	0925	17AUG88	I	341	011121
SOIL	M144	ACETREA	A25	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	0925	17AUG88	I	341	011121
SOIL	M144	CHLOREA	A26	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	0925	17AUG88	I	341	011121
SOIL	M144	DIETROL	A27	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	0925	17AUG88	I	341	011121
SOIL	M144	ETHYREA	A28	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	0925	17AUG88	I	341	011121
SOIL	M144	NAPHREA	A29	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	0925	17AUG88	I	341	011121
SOIL	M144	PHENREA	A32	*	5.00E+00 UG/G			1.00E+01 G	29JUN88	0925	17AUG88	I	341	011121
===> PROCEDURE: 729		REPORTED: 04AUG88												
SOIL	M144	ENDRIN	A33	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0925	31JUL88	I	341	011121
SOIL	M144	METHLOR	A34	*	3.00E-01 UG/G			1.00E+01 G	29JUN88	0925	31JUL88	I	341	011121
SOIL	M144	TOXAENE	A35	*	1.00E-01 UG/G			1.00E+01 G	29JUN88	0925	31JUL88	I	341	011121
SOIL	M144	A-BHC	A36	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0925	31JUL88	I	341	011121
SOIL	M144	B-BHC	A37	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0925	31JUL88	I	341	011121
SOIL	M144	G-BHC	A38	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0925	31JUL88	I	341	011121
SOIL	M144	D-BHC	A39	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0925	31JUL88	I	341	011121
SOIL	M144	DDD	A40	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0925	31JUL88	I	341	011121
SOIL	M144	DDE	A41	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0925	31JUL88	I	341	011121
SOIL	M144	DDT	A42	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0925	31JUL88	I	341	011121
SOIL	M144	HEPTLOR	A43	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0925	31JUL88	I	341	011121
SOIL	M144	HEPTIDE	A44	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0925	31JUL88	I	341	011121
SOIL	M144	DIELRIN	A46	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0925	31JUL88	I	341	011121
SOIL	M144	ALDRIN	A47	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0925	31JUL88	I	341	011121
SOIL	M144	CHLDANE	A48	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0925	31JUL88	I	341	011121
SOIL	M144	ENDO1	A49	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0925	31JUL88	I	341	011121

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HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

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SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M144	ENDO2	A52	*	1.00E-02 UG/G			1.00E+01 G	29JUN88	0925	31JUL88	I	341	011121
SOIL	M144	CHLLATE	C62	*	3.00E+00 UG/G			1.00E+01 G	29JUN88	0925	31JUL88	I	341	011121
SOIL	M144	DBC	X10		8.30E+01 %RECOV			1.00E+01 G	29JUN88	0925	31JUL88	I	341	011121
===> PROCEDURE: 731		REPORTED: 14JUL88												
SOIL	M144	TETRANE	A61	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	BENZENE	A62	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	DIOXANE	A63	*	5.00E-01 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	METHONE	A64	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	PYRIDIN	A65	*	5.00E-01 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	TOLUENE	A66	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	1,1,1-T	A67	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	1,1,2-T	A68	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	TRICENE	A69	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	PERCENE	A70	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	OPXYLEN	A71	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	ACROLIN	A72	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	ACRYILE	A73	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	BISTHER	A74	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	BROMONE	A75	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	METHBRO	A76	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	CARBIDE	A77	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	CHLBENZ	A78	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	CHLTHER	A79	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	CHLFORM	A80	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	METHCHL	A81	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	CHMTHER	A82	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	CROTONA	A83	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	DIBRCHL	A84	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	DIBRETH	A85	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	DIBRMET	A86	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	DIBUTEN	A87	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	DICDIFM	A88	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	1,1-DIC	A89	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	1,2-DIC	A90	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	TRANDCE	A91	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	DICETHY	A92	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	METHYCH	A93	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	DICPANE	A94	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	DICPENE	A95	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	NNDIEHY	A96	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	HYDRSUL	A99	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	IODOMET	B01	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	METHACR	B02	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121

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2800 George Washington Way, Richland, WA
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All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M144	METHTHI	B03	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	PENTACH	B04	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	1112-TC	B05	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	1122-TC	B06	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	BROMORM	B08	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	TRCMEDL	B09	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	TRCMFLM	B10	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	TRCPANE	B11	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	123-TRP	B12	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	VINYIDE	B13	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	M-XYLE	B14	*	5.00E-03 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	DIETHY	B15	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	ACETILE	B19	*	3.00E+00 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	METACRY	C04	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	FORMALN	C71	*	5.00E-01 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	ETHOXID	H05	*	3.00E+00 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	ETHMETH	H06	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	HEXONE	H68	*	1.00E-02 UG/G			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	12DCAD4	X07		1.57E+02 %RECOV			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	TOLUD8	X08		1.06E+02 %RECOV			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
SOIL	M144	SFB	X09		1.08E+02 %RECOV			5.00E+00 G	29JUN88	0925	06JUL88	I	341	011121
===> PROCEDURE: 733		REPORTED: 28JUL88												
SOIL	M144	ACETOPH	B20	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	WARFRIN	B21	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	ACEFENE	B22	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	AMINOYL	B23	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	AMIISOX	B24	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	AMITROL	B25	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	ANILINE	B26	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	ARAMITE	B27	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	AURAMIN	B28	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	BENZCAC	B29	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	BENZAAN	B30	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	BENDICM	B31	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	BENTHOL	B32	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	BENDINE	B33	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	BENZBFL	B34	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	BENZJFL	B35	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	PBENZGU	B36	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	BENZCHL	B37	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	BIS2CHN	B38	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	BIS2CHE	B39	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	BIS2EPH	B40	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M144	BROPHEN	B41	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	BUTBENP	B42	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	BUTDINP	B43	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	CHALETH	B44	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	CHLANIL	B45	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	CHLCRES	B46	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	CHLEPOX	B47	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	CHLNAPH	B48	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	CHLPHEN	B49	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	CHRYSEN	B50	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	CRESOLS	B51	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	CYCHDIN	B52	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	DIBAHAC	B53	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	DIBAJAC	B54	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	DIBIHAN	B55	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	DIBCGCA	B56	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	DIBAEPY	B57	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	DIBAHPY	B58	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	DIBAIPY	B59	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	DIBPHTH	B60	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	12-DBEN	B61	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	13-DBEN	B62	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	14-DBEN	B63	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	DICHDEN	B64	*	2.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	24-DCHP	B65	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	26-DCHP	B66	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	DIEPHTH	B67	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	DIHYSAF	B68	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	DIMTHB	B69	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	DIMEAMB	B70	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	DIMBENZ	B71	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	DIMEYLB	B72	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	THIONOX	B73	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	DIMPHAM	B74	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	DIMPHEN	B75	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	DIMPHTH	B76	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	DINBENZ	B77	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	DINCRES	B78	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	DINPHEN	B79	*	5.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	24-DINT	B80	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	26-DINT	B81	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	DIOPHTH	B82	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	DIPHAMI	B83	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	DIPHHYD	B84	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	DIPRNIT	B85	*	1.00E+00 UG/G			9.87E+00 G	29JUN88	0925	20JUL88	I	341	011121

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C °C	ANALYSIS SIZE		SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M144	ETHMINE	B86	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	ETHNETS	B87	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	FLUORAN	B88	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	HEXCDEN	B89	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	HEXCBUT	B90	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	HEXCCYC	B91	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	HEXCETH	B92	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	INDENOP	B93	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	ISOSOLE	B94	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	MALOILE	B95	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	MELPHAL	B96	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	METHAPY	B97	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	METHNYL	B98	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	METAZIR	B99	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	METCHAN	C01	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	METBISC	C02	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	METACTO	C03	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	METMSUL	C05	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	METPROP	C06	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	METHIOU	C07	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	NAPHQUI	C08	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	1-NAPHA	C09	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	2-NAPHA	C10	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	NITRANI	C11	*	5.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	NITBENZ	C12	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	NITPHEN	C13	*	5.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	NNIBUTY	C14	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	NNIDIEA	C15	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	NNIDIEY	C16	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	NNIDIME	C17	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	NNIMETH	C18	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	NNIURET	C19	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	NNIVINY	C20	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	NNIMORP	C21	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	NNINICO	C22	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	NNIPIPE	C23	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	NITRPYR	C24	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	NITRTOL	C25	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	PENTCHB	C26	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	PENTCHN	C27	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	PENTCHP	C28	*	5.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	PHENTIN	C29	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	PHENINE	C30	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	PHTHEST	C31	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	PICOLIN	C32	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121

* Denotes a result less than the detection limit

2300 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M144	PRONIDE	C33	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	RESERPI	C34	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	RESORCI	C35	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	SAFROL	C36	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	TETRCHB	C37	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	TETRCHP	C39	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	THIURAM	C40	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	TOLUDIA	C41	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	OTOLHYD	C42	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	TRICHLB	C43	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	245-TRP	C44	*	5.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	246-TRP	C45	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	TRIPHOS	C46	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	SYMTRIN	C47	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	TRISPHO	C48	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	BENZOPY	C49	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	CHLNAPZ	C50	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	BIS2ETH	C51	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	HEXAENE	C52	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	HEXACHL	C54	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	NAPHTHA	C55	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	123TRI	C56	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	PHENOL	C57	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	135TRI	C58	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	1234TE	C59	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	1235TE	C60	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	KEROSEN	C79	*	1.00E+03 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	STRYCHN	C91	*	5.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	MALHYDR	C92	*	5.00E+01 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	NICOTIN	C93	*	1.00E+01 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	TRIBUPH	I21	*	1.00E+00 UG/G			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	2FLPHEN	X01		6.44E+01 %RECOV			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	PHEND6	X02		9.57E+01 %RECOV			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	NITBN2	X03		5.24E+01 %RECOV			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	2FLDIPH	X04		6.58E+01 %RECOV			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	246TRI	X05		4.87E+01 %RECOV			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	TERD14	X06		8.54E+01 %RECOV			9.87E+00	G	29JUN88	0925	20JUL88	I	341	011121
===> PROCEDURE: 734		REPORTED: 14JUL88													
SOIL	M144	TETEPYR	C61	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0925	08JUL88	I	341	011121
SOIL	M144	CARBPHT	C63	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0925	08JUL88	I	341	011121
SOIL	M144	DISULFO	C64	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0925	08JUL88	I	341	011121
SOIL	M144	DIMETHO	C65	*	2.00E-01 UG/G			1.01E+01	G	29JUN88	0925	08JUL88	I	341	011121
SOIL	M144	METHPAR	C66	*	1.00E+00 UG/G			1.01E+01	G	29JUN88	0925	08JUL88	I	341	011121

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M144	PARATHI	C67	*	1.00E+00 UG/G			1.01E+01 G	29JUN88	0925	08JUL88	I	341	011121
===> PROCEDURE: 735		REPORTED: 16AUG88												
SOIL	M144	NITRATE	C72	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0925	08AUG88	I	341	011121
SOIL	M144	SULFATE	C73		3.45E+01 UG/G			1.00E+01 G	29JUN88	0925	08AUG88	I	341	011121
SOIL	M144	FLOURID	C74		1.44E+00 UG/G			1.00E+01 G	29JUN88	0925	08AUG88	I	341	011121
					COMMENT: MIR									
SOIL	M144	CHLORID	C75		7.09E+00 UG/G			1.00E+01 G	29JUN88	0925	08AUG88	I	341	011121
SOIL	M144	PHOSPHA	C76	*	2.00E+00 UG/G			1.00E+01 G	29JUN88	0925	08AUG88	I	341	011121
===> PROCEDURE: 737		REPORTED: 08JUL88												
SOIL	M144	2,4-D	H13	*	1.00E+00 UG/G			2.50E+01 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	2,4,5TP	H14	*	1.00E+00 UG/G			2.50E+01 G	29JUN88	0925	20JUL88	I	341	011121
SOIL	M144	2,4,5-T	H15	*	1.00E+00 UG/G			2.50E+01 G	29JUN88	0925	20JUL88	I	341	011121
===> PROCEDURE: 739		REPORTED: 04AUG88												
SOIL	M144	AR1016	A54	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0925	26JUL88	I	341	011121
SOIL	M144	AR1221	A55	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0925	26JUL88	I	341	011121
SOIL	M144	AR1232	A56	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0925	26JUL88	I	341	011121
SOIL	M144	AR1242	A57	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0925	26JUL88	I	341	011121
SOIL	M144	AR1248	A58	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0925	26JUL88	I	341	011121
SOIL	M144	AR1254	A59	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0925	26JUL88	I	341	011121
SOIL	M144	AR1260	A60	*	1.00E+00 UG/G			1.00E+01 G	29JUN88	0925	26JUL88	I	341	011121
===> PROCEDURE: A20		REPORTED: 12AUG88												
SOIL	M144	ARSENIC	A20		1.60E+00 UG/G			1.00E+00 G	29JUN88	0925	10AUG88	I	341	011121
===> PROCEDURE: A21		REPORTED: 12AUG88												
SOIL	M144	MERCURY	A21	*	2.00E-01 UG/G			2.18E-01 G	29JUN88	0925	02AUG88	I	341	011121
===> PROCEDURE: A22		REPORTED: 12AUG88												
SOIL	M144	SELENUM	A22	*	5.00E-01 UG/G			1.00E+00 G	29JUN88	0925	10AUG88	I	341	011121
===> PROCEDURE: A23		REPORTED: 12AUG88												
SOIL	M144	THALIUM	A23	*	1.00E+00 UG/G			1.00E+00 G	29JUN88	0925	08AUG88	I	341	011121
===> PROCEDURE: A51		REPORTED: 12AUG88												
SOIL	M144	LEAD	A51		4.75E+00 UG/G			1.00E+00 G	29JUN88	0925	09AUG88	I	341	011121

* Denotes a result less than the detection limit

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. D-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE	RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: C68		REPORTED: 12AUG88											
SOIL	M144	TOX	C68	* -6.04E+00 UG/G			1.00E+00 G	29JUN88	0925	09AUG88	I	341	011121
===> PROCEDURE: C69		REPORTED: 16AUG88											
SOIL	M144	TOC	C69	3.97E+01 UG/G			2.00E+01 G	29JUN88	0925	09AUG88	I	341	011121
===> PROCEDURE: C70		REPORTED: 12AUG88											
SOIL	M144	CYANIDE	C70	* 1.00E+00 UG/G			1.00E+01 G	29JUN88	0925	04AUG88	I	341	011121
===> PROCEDURE: C77		REPORTED: 12AUG88											
SOIL	M144	PERCHLO	C77	* 2.00E+00 UG/G			1.00E+01 G	29JUN88	0925	04AUG88	I	341	011121
===> PROCEDURE: C78		REPORTED: 04AUG88											
SOIL	M144	SULFIDE	C78	* 1.00E+01 UG/G			9.63E+00 G	29JUN88	0925	25JUL88	I	341	011121
===> PROCEDURE: C80		REPORTED: 29JUL88											
SOIL	M144	AMMONIU	C80	1.60E+00 UG/G			1.00E+01 G	29JUN88	0925	19JUL88	I	341	011121
===> PROCEDURE: C81		REPORTED: 12AUG88											
SOIL	M144	ETHYGLY	C81	* 1.00E+01 UG/G			5.00E+00 G	29JUN88	0925	30JUL88	I	341	011121
********** <** SAMPLE: M145 **> **********													
===> PROCEDURE: 088		REPORTED: 14JUL88											
SOIL	M145	LSP COND	088	2.90E+02			0.00E+00 G	30JUN88	1000	10JUL88	I	341	011122
===> PROCEDURE: 207		REPORTED: 14JUL88											
SOIL	M145	PH (LAB)	207	8.00E+00			0.00E+00 G	30JUN88	1000	30JUN88	I	341	011122
===> PROCEDURE: 726		REPORTED: 12AUG88											
SOIL	M145	BERYLAM	A01	* 5.00E-01 UG/G			1.00E+00 G	30JUN88	1000	04AUG88	I	341	011122
SOIL	M145	STRONUM	A03	2.58E+01 UG/G			1.00E+00 G	30JUN88	1000	04AUG88	I	341	011122

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UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. D-82472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M145	ZINC	A04		3.72E+01 UG/G			1.00E+00	G	30JUN88	1000	04AUG88	I	341	011122
SOIL	M145	CALCIUM	A05		5.89E+03 UG/G			1.00E+00	G	30JUN88	1000	04AUG88	I	341	011122
SOIL	M145	BARIUM	A06		5.79E+01 UG/G			1.00E+00	G	30JUN88	1000	04AUG88	I	341	011122
SOIL	M145	CADMIUM	A07	*	2.00E-01 UG/G			1.00E+00	G	30JUN88	1000	04AUG88	I	341	011122
SOIL	M145	CHROMUM	A08		8.60E+00 UG/G			1.00E+00	G	30JUN88	1000	04AUG88	I	341	011122
SOIL	M145	SILVER	A10	*	1.00E+00 UG/G			1.00E+00	G	30JUN88	1000	04AUG88	I	341	011122
SOIL	M145	SODIUM	A11		1.28E+03 UG/G			1.00E+00	G	30JUN88	1000	04AUG88	I	341	011122
SOIL	M145	NICKEL	A12		7.20E+00 UG/G			1.00E+00	G	30JUN88	1000	04AUG88	I	341	011122
SOIL	M145	COPPER	A13	*	1.00E+00 UG/G			1.00E+00	G	30JUN88	1000	04AUG88	I	341	011122
SOIL	M145	VANADUM	A14		4.70E+01 UG/G			1.00E+00	G	30JUN88	1000	04AUG88	I	341	011122
SOIL	M145	ANTIONY	A15	*	1.00E+01 UG/G			1.00E+00	G	30JUN88	1000	04AUG88	I	341	011122
SOIL	M145	ALUMNUM	A16		7.95E+03 UG/G	1		1.00E+00	G	30JUN88	1000	04AUG88	I	341	011122
SOIL	M145	MANGESE	A17		2.72E+02 UG/G			1.00E+00	G	30JUN88	1000	04AUG88	I	341	011122
SOIL	M145	POTASUM	A18		1.25E+03 UG/G	1		1.00E+00	G	30JUN88	1000	04AUG88	I	341	011122
SOIL	M145	IRON	A19		2.18E+04 UG/G	1		1.00E+00	G	30JUN88	1000	04AUG88	I	341	011122
SOIL	M145	MAGNES	A50		5.42E+03 UG/G	1		1.00E+00	G	30JUN88	1000	04AUG88	I	341	011122
===> PROCEDURE: 727		REPORTED: 19AUG88													
SOIL	M145	THIOURA	A24	*	2.00E+00 UG/G			1.00E+01	G	30JUN88	1000	17AUG88	I	341	011122
SOIL	M145	ACETREA	A25	*	2.00E+00 UG/G			1.00E+01	G	30JUN88	1000	17AUG88	I	341	011122
SOIL	M145	CHLOREA	A26	*	2.00E+00 UG/G			1.00E+01	G	30JUN88	1000	17AUG88	I	341	011122
SOIL	M145	DIETROL	A27	*	2.00E+00 UG/G			1.00E+01	G	30JUN88	1000	17AUG88	I	341	011122
SOIL	M145	ETHYREA	A28	*	2.00E+00 UG/G			1.00E+01	G	30JUN88	1000	17AUG88	I	341	011122
SOIL	M145	NAPHREA	A29	*	2.00E+00 UG/G			1.00E+01	G	30JUN88	1000	17AUG88	I	341	011122
SOIL	M145	PHENREA	A32	*	5.00E+00 UG/G			1.00E+01	G	30JUN88	1000	17AUG88	I	341	011122
===> PROCEDURE: 729		REPORTED: 04AUG88													
SOIL	M145	ENDRIN	A33	*	1.00E-02 UG/G			1.00E+01	G	30JUN88	1000	31JUL88	I	341	011122
SOIL	M145	METHLOR	A34	*	3.00E-01 UG/G			1.00E+01	G	30JUN88	1000	31JUL88	I	341	011122
SOIL	M145	TOXAENE	A35	*	1.00E-01 UG/G			1.00E+01	G	30JUN88	1000	31JUL88	I	341	011122
SOIL	M145	A-BHC	A36	*	1.00E-02 UG/G			1.00E+01	G	30JUN88	1000	31JUL88	I	341	011122
SOIL	M145	B-BHC	A37	*	1.00E-02 UG/G			1.00E+01	G	30JUN88	1000	31JUL88	I	341	011122
SOIL	M145	G-BHC	A38	*	1.00E-02 UG/G			1.00E+01	G	30JUN88	1000	31JUL88	I	341	011122
SOIL	M145	D-BHC	A39	*	1.00E-02 UG/G			1.00E+01	G	30JUN88	1000	31JUL88	I	341	011122
SOIL	M145	DDD	A40	*	1.00E-02 UG/G			1.00E+01	G	30JUN88	1000	31JUL88	I	341	011122
SOIL	M145	DDE	A41	*	1.00E-02 UG/G			1.00E+01	G	30JUN88	1000	31JUL88	I	341	011122
SOIL	M145	DDT	A42	*	1.00E-02 UG/G			1.00E+01	G	30JUN88	1000	31JUL88	I	341	011122
SOIL	M145	HEPTLOR	A43	*	1.00E-02 UG/G			1.00E+01	G	30JUN88	1000	31JUL88	I	341	011122
SOIL	M145	HEPTIDE	A44	*	1.00E-02 UG/G			1.00E+01	G	30JUN88	1000	31JUL88	I	341	011122
SOIL	M145	DIELRIN	A46	*	1.00E-02 UG/G			1.00E+01	G	30JUN88	1000	31JUL88	I	341	011122
SOIL	M145	ALDRIN	A47	*	1.00E-02 UG/G			1.00E+01	G	30JUN88	1000	31JUL88	I	341	011122
SOIL	M145	CHLDANE	A48	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	31JUL88	I	341	011122
SOIL	M145	ENDO1	A49	*	1.00E-02 UG/G			1.00E+01	G	30JUN88	1000	31JUL88	I	341	011122

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2300 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-02472-A-1
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M145	ENDO2	A52	*	1.00E-02 UG/G			1.00E+01 G	30JUN88	1000	31JUL88	I	341	011122
SOIL	M145	CHLLATE	C62	*	3.00E+00 UG/G			1.00E+01 G	30JUN88	1000	31JUL88	I	341	011122
SOIL	M145	DDC	X10		8.90E+01 %RECOV			1.00E+01 G	30JUN88	1000	31JUL88	I	341	011122
===> PROCEDURE: 731		REPORTED: 14JUL88												
SOIL	M145	TETRANE	A61	*	5.00E-03 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	BENZENE	A62	*	5.00E-03 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	DIOXANE	A63	*	5.00E-01 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	METHONE	A64	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	PYRIDIN	A65	*	5.00E-01 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	TOLUENE	A66	*	5.00E-03 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	1,1,1-T	A67	*	5.00E-03 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	1,1,2-T	A68	*	5.00E-03 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	TRICENE	A69	*	5.00E-03 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	PERCENE	A70	*	5.00E-03 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	OPXYLEN	A71	*	5.00E-03 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	ACROLIN	A72	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	ACRYILE	A73	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	BISTHER	A74	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	BROMONE	A75	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	METHBRO	A76	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	CARBIDE	A77	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	CHLBENZ	A78	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	CHLTHER	A79	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	CHLFORM	A80	*	5.00E-03 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	METHCHL	A81	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	CHMTHER	A82	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	CROTONA	A83	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	DIBRCHL	A84	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	DIBRETH	A85	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	DIBRMET	A86	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	DIBUTEN	A87	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	DICDIFM	A88	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	1,1-DIC	A89	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	1,2-DIC	A90	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	TRANDCE	A91	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	DICETHY	A92	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	METHYCH	A93	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	DICPANE	A94	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	DICPENE	A95	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	MNDIEHY	A96	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	HYDRSUL	A99	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	IODOMET	B01	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	METHACR	B02	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M145	METHTHI	B03	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	PENTACH	B04	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	1112-TC	B05	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	1122-TC	B06	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	BROMGRM	B08	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	TRCMEOL	B09	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	TRCMFLM	B10	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	TRCPANE	B11	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	123-TRP	B12	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	VINYIDE	B13	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	M-XYLE	B14	*	5.00E-03 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	DIETHY	B15	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	ACETILE	B19	*	3.00E+00 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	METACRY	C04	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	FORMALN	C71	*	5.00E-01 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	ETHOXID	H05	*	3.00E+00 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	ETHMETH	H06	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	HEXONE	H68	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	12DCAD4	X07		1.17E+02 %RECOV			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	TOLUD8	X08		1.00E+02 %RECOV			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
SOIL	M145	BFB	X09		1.08E+02 %RECOV			5.00E+00 G	30JUN88	1000	06JUL88	I	341	011122
===> PROCEDURE: 733		REPORTED: 28JUL88												
SOIL	M145	ACETOPH	B20	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	WARFRIN	B21	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	ACEFENE	B22	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	ANINOYL	B23	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	ANIISOX	B24	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	ANITROL	B25	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	ANILINE	B26	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	ARAMITE	B27	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	AURAMIN	B28	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	BENZCAC	B29	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	BENZAAN	B30	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	BENDICN	B31	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	BENTHOL	B32	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	BENDINE	B33	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	BENZDFL	B34	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	BENZJFL	B35	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	PBENZGU	B36	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	BENZCHL	B37	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	BISZCHN	B38	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	BISZCHE	B39	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	BISZEPH	B40	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M145	BROPHEN	B41	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	BUTBENP	B42	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	BUTDINP	B43	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	CHALETH	B44	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	CHLANIL	B45	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	CHLCRES	B46	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	CHLEPOX	B47	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	CHLNAPH	B48	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	CHLPHEN	B49	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	CHRYSEN	B50	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	CRESOLS	B51	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	CYCHDIN	B52	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	DIBAHAC	B53	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	DIBAJAC	B54	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	DIBIHAN	B55	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	DIBCGCA	B56	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	DIBAEPY	B57	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	DIBAHPY	B58	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	DIBAIPY	B59	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	DIBPHTH	B60	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	12-DBEN	B61	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	13-DBEN	B62	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	14-DBEN	B63	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	DICHDEN	B64	*	2.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	24-DCHP	B65	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	26-DCHP	B66	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	DIEPHTH	B67	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	DIHYSAF	B68	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	DIMTHB	B69	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	DIMEAMB	B70	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	DIMBENZ	B71	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	DINEYLB	B72	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	THIONOX	B73	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	DIMPHAN	B74	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	DIMPHEN	B75	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	DIMPHTH	B76	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	DINBENZ	B77	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	DINCRES	B78	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	DINPHEN	B79	*	5.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	24-DINT	B80	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	26-DINT	B81	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	DIOPHTH	B82	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	DIPHAMI	B83	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	DIPHHYD	B84	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	DIPRNIT	B85	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122

* Denotes a result less than the detection limit

2600 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M175	ETHMINE	B86	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	ETHNETS	B87	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	FLUORAN	B88	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	HEXCBEN	B89	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	HEXCBUT	B90	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	HEXCCYC	B91	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	HEXCETH	B92	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	INDENOP	B93	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	ISOSOLE	B94	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	MALOILE	B95	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	MELPHAL	B96	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	METHAPY	B97	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	METHNYL	B98	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	METAZIR	B99	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	METCHAN	C01	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	METBISC	C02	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	METACTO	C03	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	METMSUL	C05	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	METPROP	C06	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	METHIOU	C07	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	NAPHQUI	C08	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	1-NAPHA	C09	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	2-NAPHA	C10	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	NITRANI	C11	*	5.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	NITBENZ	C12	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	NITPHEN	C13	*	5.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	NNIBUTY	C14	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	NNIDIEA	C15	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	NNIDIEY	C16	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	NNIDIME	C17	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	NNIMETH	C18	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	NNIURET	C19	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	NNIVINY	C20	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	NNIMORP	C21	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	NNINICO	C22	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	NNIPIPE	C23	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	NITRPYR	C24	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	NITRTOL	C25	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	PENTCHB	C26	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	PENTCHN	C27	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	PENTCHP	C28	*	5.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	PHENTIN	C29	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	PHENINE	C30	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	PHTHEST	C31	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M175	PICOLIN	C32	*	1.00E+00 UG/G			1.00E+01	G	30JUN88	1000	21JUL88	I	341	011122

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M145	PRONIDE	C33	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	RESERPI	C34	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	RESORCI	C35	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	SAFROL	C36	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	TETRCHB	C37	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	TETRCHP	C39	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	THIURAM	C40	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	TOLUDIA	C41	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	OTOLHYD	C42	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	TRICHLB	C43	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	245-TRP	C44	*	5.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	246-TRP	C45	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	TRIPHOS	C46	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	SYMTRIN	C47	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	TRISPHO	C48	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	BENZOPY	C49	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	CHLNAPZ	C50	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	BIS2ETH	C51	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	HCXAENE	C52	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	HEXACHL	C54	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	NAPHTHA	C55	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	123TRI	C56	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	PHENOL	C57	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	135TRI	C58	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	1234TE	C59	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	1235TE	C60	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	KEROSEN	C79	*	1.00E+03 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	STRYCHN	C91	*	5.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	MALHYDR	C92	*	5.00E+01 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	NICOTIN	C93	*	1.00E+01 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	TRIBUPH	I21	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	2FLPHEN	X01		8.49E+01 %RECOV			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	PHENO6	X02		6.30E+01 %RECOV			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	NITBN2	X03		6.16E+01 %RECOV			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	2FLBIPH	X04		7.96E+01 %RECOV			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	246TRI	X05		8.77E+01 %RECOV			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
SOIL	M145	TERD14	X06		9.44E+01 %RECOV			1.00E+01 G	30JUN88	1000	21JUL88	I	341	011122
==> PROCEDURE. 734		REPORTED: 14JUL88												
SOIL	M145	TETEPYR	C61	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	08JUL88	I	341	011122
SOIL	M145	CARBPHT	C63	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	08JUL88	I	341	011122
SOIL	M145	DISULFO	C64	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	08JUL88	I	341	011122
SOIL	M145	DIMETHO	C65	*	2.00E-01 UG/G			1.00E+01 G	30JUN88	1000	08JUL88	I	341	011122
SOIL	M145	METHPAR	C66	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	08JUL88	I	341	011122

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UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-52472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M145	PARATHI	C67	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	08JUL88	I	341	011122
===> PROCEDURE: 735		REPORTED: 15AUG88												
SOIL	M145	NITRATE	C72	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	08AUG88	I	341	011122
SOIL	M145	SULFATE	C73		2.55E+01 UG/G			1.00E+01 G	30JUN88	1000	08AUG88	I	341	011122
SOIL	M145	FLOURID	C74	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	08AUG88	I	341	011122
SOIL	M145	CHLORID	C75		9.87E+00 UG/G			1.00E+01 G	30JUN88	1000	08AUG88	I	341	011122
SOIL	M145	PHOSPHA	C76	*	2.00E+00 UG/G			1.00E+01 G	30JUN88	1000	08AUG88	I	341	011122
===> PROCEDURE: 737		REPORTED: 26JUL88												
SOIL	M145	2,4-D	H13	*	1.00E+00 UG/G			2.50E+01 G	30JUN88	1000	20JUL88	I	341	011122
SOIL	M145	2,4,5TP	H14	*	1.00E+00 UG/G			2.50E+01 G	30JUN88	1000	20JUL88	I	341	011122
SOIL	M145	2,4,5-T	H15	*	1.00E+00 UG/G			2.50E+01 G	30JUN88	1000	20JUL88	I	341	011122
===> PROCEDURE: 739		REPORTED: 04AUG88												
SOIL	M145	AR1016	A54	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	26JUL88	I	341	011122
SOIL	M145	AR1221	A55	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	26JUL88	I	341	011122
SOIL	M145	AR1232	A56	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	26JUL88	I	341	011122
SOIL	M145	AR1242	A57	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	26JUL88	I	341	011122
SOIL	M145	AR1248	A58	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	26JUL88	I	341	011122
SOIL	M145	AR1254	A59	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	26JUL88	I	341	011122
SOIL	M145	AR1260	A60	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	26JUL88	I	341	011122
===> PROCEDURE: A20		REPORTED: 12AUG88												
SOIL	M145	ARSENIC	A20		3.60E+00 UG/G			1.01E+00 G	30JUN88	1000	10AUG88	I	341	011122
===> PROCEDURE: A21		REPORTED: 12AUG88												
SOIL	M145	MERCURY	A21	*	2.00E-01 UG/G			2.19E-01 G	30JUN88	1000	02AUG88	I	341	011122
===> PROCEDURE: A22		REPORTED: 12AUG88												
SOIL	M145	SELENUM	A22	*	5.00E-01 UG/G			1.01E+00 G	30JUN88	1000	10AUG88	I	341	011122
===> PROCEDURE: A23		REPORTED: 12AUG88												
SOIL	M145	THALIUM	A23	*	1.00E+00 UG/G			1.01E+00 G	30JUN88	1000	08AUG88	I	341	011122
===> PROCEDURE: A51		REPORTED: 12AUG88												
SOIL	M145	LEAD	A51		3.26E+00 UG/G			1.01E+00 G	30JUN88	1000	09AUG88	I	341	011122

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HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-52472-A-I

All results

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===> PROCEDURE: C68		REPORTED: 12AUG88											
SOIL	M145	TOX	C68	1.68E+01 UG/G			1.00E+00 G	30JUN88	1000	09AUG88	I	341	011122
===> PROCEDURE: C69		REPORTED: 16AUG88											
SOIL	M145	TOC	C69	* 1.00E+01 UG/G			2.00E+01 G	30JUN88	1000	09AUG88	I	341	011122
===> PROCEDURE: C70		REPORTED: 12AUG88											
SOIL	M145	CYANIDE	C70	* 1.00E+00 UG/G			1.00E+01 G	30JUN88	1000	04AUG88	I	341	011122
===> PROCEDURE: C77		REPORTED: 12AUG88											
SOIL	M145	PERCHLO	C77	* 2.00E+00 UG/G			1.00E+01 G	30JUN88	1000	04AUG88	I	341	011122
===> PROCEDURE: C78		REPORTED: 04AUG88											
SOIL	M145	SULFIDE	C78	* 1.00E+01 UG/G			9.56E+00 G	30JUN88	1000	25JUL88	I	341	011122
===> PROCEDURE: C80		REPORTED: 28JUL88											
SOIL	M145	AMMONIU	C80	1.40E+00 UG/G			1.00E+01 G	30JUN88	1000	19JUL88	I	341	011122
===> PROCEDURE: C81		REPORTED: 12AUG88											
SOIL	M145	ETHYGLY	C81	* 1.00E+01 UG/G			5.00E+00 G	30JUN88	1000	30JUL88	I	341	011122
********** <** SAMPLE: M146 **> **********													
===> PROCEDURE: 088		REPORTED: 14JUL88											
SOIL	M146	LSP COND	089	6.74E+02			0.00E+00 G	30JUN88	1035	10JUL88	I	341	011123
===> PROCEDURE: 207		REPORTED: 14JUL88											
SOIL	M146	PH (LAB)	207	7.20E+00			0.00E+00 G	30JUN88	1035	30JUN88	I	341	011123
===> PROCEDURE: 726		REPORTED: 12AUG88											
SOIL	M146	BERYLAM	A01	* 5.00E-01 UG/G			1.06E+00 G	30JUN88	1035	04AUG88	I	341	011123
SOIL	M146	STRONUM	A03	2.87E+01 UG/G			1.06E+00 G	30JUN88	1035	04AUG88	I	341	011123

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SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M146	ZINC	A04		3.44E+01 UG/G			1.06E+00 G	30JUN88	1035	04AUG88	I	341	011123
SOIL	M146	CALCIUM	A05		9.70E+03 UG/G	1		1.06E+00 G	30JUN88	1035	04AUG88	I	341	011123
SOIL	M146	BARIUM	A06		4.66E+01 UG/G			1.06E+00 G	30JUN88	1035	04AUG88	I	341	011123
SOIL	M146	CADMIUM	A07	*	2.00E-01 UG/G			1.06E+00 G	30JUN88	1035	04AUG88	I	341	011123
SOIL	M146	CHROMUM	A08		1.01E+01 UG/G			1.06E+00 G	30JUN88	1035	04AUG88	I	341	011123
SOIL	M146	SILVER	A10	*	1.00E+00 UG/G			1.06E+00 G	30JUN88	1035	04AUG88	I	341	011123
SOIL	M146	SODIUM	A11		1.13E+03 UG/G			1.06E+00 G	30JUN88	1035	04AUG88	I	341	011123
SOIL	M146	NICKEL	A12		6.70E+00 UG/G			1.06E+00 G	30JUN88	1035	04AUG88	I	341	011123
SOIL	M146	COPPER	A13	*	1.00E+00 UG/G			1.06E+00 G	30JUN88	1035	04AUG88	I	341	011123
SOIL	M146	VANADUM	A14		3.62E+01 UG/G			1.06E+00 G	30JUN88	1035	04AUG88	I	341	011123
SOIL	M146	ANTIONY	A15	*	1.00E+01 UG/G			1.06E+00 G	30JUN88	1035	04AUG88	I	341	011123
SOIL	M146	ALUMNUM	A16		8.71E+03 UG/G	1		1.06E+00 G	30JUN88	1035	04AUG88	I	341	011123
SOIL	M146	MANGESE	A17		2.43E+02 UG/G			1.06E+00 G	30JUN88	1035	04AUG88	I	341	011123
SOIL	M146	POTASUM	A18		1.67E+03 UG/G	1		1.06E+00 G	30JUN88	1035	04AUG88	I	341	011123
SOIL	M146	IRON	A19		2.32E+04 UG/G	1		1.06E+00 G	30JUN88	1035	04AUG88	I	341	011123
SOIL	M146	MAGNES	A50		6.91E+03 UG/G	1		1.06E+00 G	30JUN88	1035	04AUG88	I	341	011123
===> PROCEDURE: 727		REPORTED: 19AUG88												
SOIL	M146	THIOURA	A24	*	2.00E+00 UG/G			1.00E+01 G	30JUN88	1035	17AUG88	I	341	011123
SOIL	M146	ACETREA	A25	*	2.00E+00 UG/G			1.00E+01 G	30JUN88	1035	17AUG88	I	341	011123
SOIL	M146	CHLOREA	A26	*	2.00E+00 UG/G			1.00E+01 G	30JUN88	1035	17AUG88	I	341	011123
SOIL	M146	DIETROL	A27	*	2.00E+00 UG/G			1.00E+01 G	30JUN88	1035	17AUG88	I	341	011123
SOIL	M146	ETHYREA	A28	*	2.00E+00 UG/G			1.00E+01 G	30JUN88	1035	17AUG88	I	341	011123
SOIL	M146	NAPHREA	A29	*	2.00E+00 UG/G			1.00E+01 G	30JUN88	1035	17AUG88	I	341	011123
SOIL	M146	PHENREA	A32	*	5.00E+00 UG/G			1.00E+01 G	30JUN88	1035	17AUG88	I	341	011123
===> PROCEDURE: 729		REPORTED: 04AUG88												
SOIL	M146	ENDRIN	A33	*	1.00E-02 UG/G			1.00E+01 G	30JUN88	1035	31JUL88	I	341	011123
SOIL	M146	METHLOR	A34	*	3.00E-01 UG/G			1.00E+01 G	30JUN88	1035	31JUL88	I	341	011123
SOIL	M146	TOXAENE	A35	*	1.00E-01 UG/G			1.00E+01 G	30JUN88	1035	31JUL88	I	341	011123
SOIL	M146	A-BHC	A36	*	1.00E-02 UG/G			1.00E+01 G	30JUN88	1035	31JUL88	I	341	011123
SOIL	M146	B-BHC	A37	*	1.00E-02 UG/G			1.00E+01 G	30JUN88	1035	31JUL88	I	341	011123
SOIL	M146	G-BHC	A38	*	1.00E-02 UG/G			1.00E+01 G	30JUN88	1035	31JUL88	I	341	011123
SOIL	M146	D-BHC	A39	*	1.00E-02 UG/G			1.00E+01 G	30JUN88	1035	31JUL88	I	341	011123
SOIL	M146	DDD	A40	*	1.00E-02 UG/G			1.00E+01 G	30JUN88	1035	31JUL88	I	341	011123
SOIL	M146	DDE	A41	*	1.00E-02 UG/G			1.00E+01 G	30JUN88	1035	31JUL88	I	341	011123
SOIL	M146	DDT	A42	*	1.00E-02 UG/G			1.00E+01 G	30JUN88	1035	31JUL88	I	341	011123
SOIL	M146	HEPTLOR	A43	*	1.00E-02 UG/G			1.00E+01 G	30JUN88	1035	31JUL88	I	341	011123
SOIL	M146	HEPTIDE	A44	*	1.00E-02 UG/G			1.00E+01 G	30JUN88	1035	31JUL88	I	341	011123
SOIL	M146	DIELRIN	A46	*	1.00E-02 UG/G			1.00E+01 G	30JUN88	1035	31JUL88	I	341	011123
SOIL	M146	ALDRIN	A47	*	1.00E-02 UG/G			1.00E+01 G	30JUN88	1035	31JUL88	I	341	011123
SOIL	M146	CHLDANE	A48	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1035	31JUL88	I	341	011123
SOIL	M146	ENDO1	A49	*	1.00E-02 UG/G			1.00E+01 G	30JUN88	1035	31JUL88	I	341	011123

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2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
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SOIL	M146	ENDO2	A52	*	1.00E-02 UG/G			1.00E+01	G	30JUN88	1035	31JUL88	I	341	011123
SOIL	M146	CHLLATE	C62	*	3.00E+00 UG/G			1.00E+01	G	30JUN88	1035	31JUL88	I	341	011123
SOIL	M146	DBC	X10		8.50E+01 %RECOV			1.00E+01	G	30JUN88	1035	31JUL88	I	341	011123
===> PROCEDURE: 731		REPORTED: 14JUL88													
SOIL	M146	TETRANE	A61	*	5.00E-03 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	BENZENE	A62	*	5.00E-03 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	DIOXANE	A63	*	5.00E-01 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	METHONE	A64	*	1.00E-02 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	PYRIDIN	A65	*	5.00E-01 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	TOLUENE	A66	*	5.00E-03 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	1,1,1-T	A67	*	5.00E-03 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	1,1,2-T	A68	*	5.00E-03 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	TRICENE	A69	*	5.00E-03 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	PERCENE	A70	*	5.00E-03 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	OPXYLEN	A71	*	5.00E-03 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	ACROLIN	A72	*	1.00E-02 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	ACRYILE	A73	*	1.00E-02 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	BISTHER	A74	*	1.00E-02 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	BROMONE	A75	*	1.00E-02 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	METHBRO	A76	*	1.00E-02 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	CARBIDE	A77	*	1.00E-02 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	CHLBENZ	A78	*	1.00E-02 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	CHLTHER	A79	*	1.00E-02 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	CHLFORM	A80	*	5.00E-03 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	METHCHL	A81	*	1.00E-02 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	CHMTHER	A82	*	1.00E-02 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	CROTONA	A83	*	1.00E-02 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	DIBRCHL	A84	*	1.00E-02 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	DIBRETH	A85	*	1.00E-02 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	DIBRMET	A86	*	1.00E-02 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	DIBUTEN	A87	*	1.00E-02 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	DICDIFM	A88	*	1.00E-02 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	1,1-DIC	A89	*	1.00E-02 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	1,2-DIC	A90	*	1.00E-02 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	TRANDCE	A91	*	1.00E-02 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	DICETHY	A92	*	1.00E-02 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	METHYCH	A93	*	1.00E-02 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	DICPANE	A94	*	1.00E-02 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	DICPENE	A95	*	1.00E-02 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	NNDIEHY	A96	*	1.00E-02 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	HYDRSUL	A99	*	1.00E-02 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	IODOMET	B01	*	1.00E-02 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	METHACR	B02	*	1.00E-02 UG/G			5.00E+00	G	30JUN88	1035	06JUL88	I	341	011123

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M146	METHTHI	B03	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	PENTACH	B04	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	1112-TC	B05	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	1122-TC	B06	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	BROMORM	B08	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	TRCMEOL	B09	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	TRCMFLM	B10	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	TRCPANE	B11	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	123-TRP	B12	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	VINYIDE	B13	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	M-XYLE	B14	*	5.00E-03 UG/G			5.00E+00 G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	DIETHY	B15	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	ACETILE	B19	*	3.00E+00 UG/G			5.00E+00 G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	METACRY	C04	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	FORMALN	C71	*	5.00E-01 UG/G			5.00E+00 G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	ETHOXID	H05	*	3.00E+00 UG/G			5.00E+00 G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	ETHMETH	H06	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	HEXONE	H68	*	1.00E-02 UG/G			5.00E+00 G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	12DCAD4	X07		1.18E+02 %RECOV			5.00E+00 G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	TOLUD8	X08		1.04E+02 %RECOV			5.00E+00 G	30JUN88	1035	06JUL88	I	341	011123
SOIL	M146	BFB	X09		1.10E+02 %RECOV			5.00E+00 G	30JUN88	1035	06JUL88	I	341	011123
---> PROCEDURE: 733		REPORTED: 28JUL88												
SOIL	M146	ACETOPH	B20	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	WARFRIN	B21	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	ACEFENE	B22	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	ANINDYL	B23	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	ANIISOX	B24	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	AMITROL	B25	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	ANILINE	B26	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	ARAMITE	B27	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	AURAMIN	B28	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	BENZCAC	B29	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	BENZAAN	B30	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	BEND1CM	B31	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	BENTHOL	B32	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	BENDINE	B33	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	BENZBFL	B34	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	BENZJFL	B35	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	PBENZQU	B36	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	BENZCHL	B37	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	BIS2CHM	B38	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	BIS2CHE	B39	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	BIS2EPH	B40	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123

* Denotes a result less than the detection limit

2500 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE	RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M146	BROPHEN	B41	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	BUTBENP	B42	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	BUTDINP	B43	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	CHALETH	B44	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	CHLANIL	B45	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	CHLCRES	B46	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	CHLEPOX	B47	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	CHLNAPH	B48	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	CHLPHEN	B49	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	CHRYSEN	B50	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	CRESOLS	B51	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	CYCHDIN	B52	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	DIBAHAC	B53	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	DIBAJAC	B54	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	DIBTHAN	B55	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	DIBCGCA	B56	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	DIBAEPY	B57	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	DIBAHPY	B58	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	DIBAIPY	B59	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	DIBPHTH	B60	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	12-DBEN	B61	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	13-DBEN	B62	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	14-DBEN	B63	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	DICHDEN	B64	* 2.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	24-DCHP	B65	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	26-DCHP	B66	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	DIEPHTH	B67	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	DIHYSAF	B68	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	DIMTHO	B69	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	DIMEAMD	B70	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	DIMBENZ	B71	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	DIMEYLB	B72	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	THIONOX	B73	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	DIMPHAM	B74	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	DIMPHEN	B75	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	DINPHTH	B76	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	DINBENZ	B77	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	DINCRES	B78	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	DINPHEN	B79	* 5.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	24-DINT	B80	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	26-DINT	B81	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	DIOPHTH	B82	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	DIPHAMI	B83	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	DIPHHYD	B84	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	DIPRNIT	B85	* 1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123

* Denotes a result less than the detection limit

2600 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M146	ETHMINE	B86	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	ETHMETS	B87	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	FLUORAN	B88	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	HEXCDEN	B89	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	HEXCBUT	B90	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	HEXCCYC	B91	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	HEXCETH	B92	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	INDENOP	B93	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	ISOSOLE	B94	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	MALOILE	B95	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	MELPHAL	B96	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	METHAPY	B97	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	METHNYL	B98	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	METAZIR	B99	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	METCHAN	C01	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	METBISC	C02	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	METACTO	C03	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	METMSUL	C05	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	METPROP	C06	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	METHIOU	C07	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	NAPHQUI	C08	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	1-NAPHA	C09	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	2-NAPHA	C10	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	NITRANI	C11	*	5.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	NITBENZ	C12	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	NITPHEN	C13	*	5.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	NNIBUTY	C14	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	NNIDIEA	C15	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	NNIDIEY	C16	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	NNIDINE	C17	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	NNIMETH	C18	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	NNIURET	C19	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	NNIVINY	C20	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	NNIMORP	C21	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	NNINICO	C22	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	NNIPIPE	C23	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	NITRPYR	C24	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	NITRTOL	C25	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	PENTCHB	C26	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	PENTCHN	C27	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	PENTCHP	C28	*	5.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	PHENTIN	C29	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	PHENINE	C30	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	PHTHEST	C31	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	PICOLIN	C32	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123

* Denotes a result less than the detection limit

2300 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-D2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M146	PRONIDE	C33	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	RESERPI	C34	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	RESORCI	C35	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	SAFROL	C36	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	TETRCHD	C37	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	TETRCHP	C39	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	THIURAM	C40	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	TOLUDIA	C41	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	DTOLHYD	C42	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	TRICHLB	C43	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	245-TRP	C44	*	5.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	246-TRP	C45	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	TRIPHOS	C46	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	SYMTRIN	C47	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	TRISPHO	C48	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	BENZOPY	C49	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	CHLNAPZ	C50	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	BIS2ETH	C51	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	HEXAENE	C52	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	HEXACHL	C54	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	NAPHTHA	C55	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	123TRI	C56	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	PHENOL	C57	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	135TRI	C58	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	1234TE	C59	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	12351E	C60	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	MERCSEN	C79	*	1.00E+03 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	STRYCHN	C91	*	5.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	MALHYDR	C92	*	5.00E+01 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	NICOTIN	C93	*	1.00E+01 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	TRIBUPH	I21	*	1.00E+00 UG/G			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	2FLPHEN	X01		5.05E+01 %RECOV			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	PHEND6	X02		7.26E+01 %RECOV			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	NITBN2	X03		7.12E+01 %RECOV			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	2FLBIPH	X04		7.98E+01 %RECOV			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	246TRI	X05		6.42E+01 %RECOV			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
SOIL	M146	TERD14	X06		1.01E+02 %RECOV			1.01E+01 G	30JUN88	1035	21JUL88	I	341	011123
===> PROCEDURE: 734		REPORTED: 14JUL86												
SOIL	M146	TETEPYR	C61	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1035	08JUL88	I	341	011123
SOIL	M146	CARBPHT	C63	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1035	08JUL88	I	341	011123
SOIL	M146	DISULFO	C64	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1035	08JUL88	I	341	011123
SOIL	M146	DIMETHO	C65	*	2.00E-01 UG/G			1.00E+01 G	30JUN88	1035	08JUL88	I	341	011123
SOIL	M146	METHPAR	C66	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1035	08JUL88	I	341	011123

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M146	PARATHI	C67	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1035	08JUL88	I	341	011123
===> PROCEDURE: 735		REPORTED: 16AUG88												
SOIL	M146	NITRATE	C72	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1035	08AUG88	I	341	011123
SOIL	M146	SULFATE	C73		1.73E+01 UG/G			1.00E+01 G	30JUN88	1035	08AUG88	I	341	011123
SOIL	M146	FLOURID	C74	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1035	08AUG88	I	341	011123
SOIL	M146	CHLORID	C75		3.71E+01 UG/G			1.00E+01 G	30JUN88	1035	08AUG88	I	341	011123
SOIL	M146	PHOSPHA	C76	*	2.00E+00 UG/G			1.00E+01 G	30JUN88	1035	09AUG88	I	341	011123
===> PROCEDURE: 737		REPORTED: 28JUL88												
SOIL	M146	2,4-D	H13	*	1.00E+00 UG/G			2.50E+01 G	30JUN88	1035	20JUL88	I	341	011123
SOIL	M146	2,4,5TP	H14	*	1.00E+00 UG/G			2.50E+01 G	30JUN88	1035	20JUL88	I	341	011123
SOIL	M146	2,4,5-T	H15	*	1.00E+00 UG/G			2.50E+01 G	30JUN88	1035	20JUL88	I	341	011123
===> PROCEDURE: 739		REPORTED: 04AUG88												
SOIL	M146	AR1016	A54	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1035	26JUL88	I	341	011123
SOIL	M146	AR1221	A55	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1035	26JUL88	I	341	011123
SOIL	M146	AR1232	A56	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1035	26JUL88	I	341	011123
SOIL	M146	AR1242	A57	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1035	26JUL88	I	341	011123
SOIL	M146	AR1248	A58	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1035	26JUL88	I	341	011123
SOIL	M146	AR1254	A59	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1035	26JUL88	I	341	011123
SOIL	M146	AR1260	A60	*	1.00E+00 UG/G			1.00E+01 G	30JUN88	1035	26JUL88	I	341	011123
===> PROCEDURE: A20		REPORTED: 12AUG88												
SOIL	M146	ARSENIC	A20		1.30E+00 UG/G			1.00E+00 G	30JUN88	1035	10AUG88	I	341	011123
===> PROCEDURE: A21		REPORTED: 12AUG88												
SOIL	M146	MERCURY	A21	*	2.00E-01 UG/G			2.45E-01 G	30JUN88	1035	02AUG88	I	341	011123
===> PROCEDURE: A22		REPORTED: 12AUG88												
SOIL	M146	SELENUM	A22	*	5.00E-01 UG/G			1.00E+00 G	30JUN88	1035	10AUG88	I	341	011123
===> PROCEDURE: A23		REPORTED: 12AUG88												
SOIL	M146	THALIUM	A23	*	1.00E+00 UG/G			1.00E+00 G	30JUN88	1035	09AUG88	I	341	011123
===> PROCEDURE: A51		REPORTED: 12AUG88												
SOIL	M146	LEAD	A51		4.18E+00 UG/G			1.00E+00 G	30JUN88	1035	09AUG88	I	341	011123

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2600 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE	RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: C68		REPORTED: 12AUG88											
SOIL	M146	TOX	C68	* 1.00E+00 UG/G			1.00E+00 G	30JUN88	1035	09AUG88	I	341	011123
===> PROCEDURE: C69		REPORTED: 16AUG88											
SOIL	M146	TOC	C69	* 1.00E+01 UG/G			2.01E+01 G	30JUN88	1035	09AUG88	I	341	011123
===> PROCEDURE: C70		REPORTED: 12AUG88											
SOIL	M146	CYANIDE	C70	* 1.00E+00 UG/G			1.00E+01 G	30JUN88	1035	04AUG88	I	341	011123
===> PROCEDURE: C77		REPORTED: 12AUG88											
SOIL	M146	PERCHLO	C77	* 2.00E+00 UG/G			1.00E+01 G	30JUN88	1035	04AUG88	I	341	011123
===> PROCEDURE: C78		REPORTED: 04AUG88											
SOIL	M146	SULFIDE	C78	* 1.00E+01 UG/G			9.58E+00 G	30JUN88	1035	25JUL88	I	341	011123
===> PROCEDURE: C80		REPORTED: 28JUL88											
SOIL	M146	AMMONIU	C80	2.20E+00 UG/G			1.00E+01 G	30JUN88	1035	19JUL88	I	341	011123
===> PROCEDURE: C81		REPORTED: 12AUG88											
SOIL	M146	ETHYGLY	C81	* 1.00E+01 UG/G			5.00E+00 G	30JUN88	1035	04AUG88	I	341	011123
*********** (** SAMPLE: M147 **) **********													
===> PROCEDURE: 088		REPORTED: 04AUG88											
SOIL	M147	LSP COND	088	6.41E+02			1.00E+01 G	27JUL88	0910	28JUL88	I	341	011124
===> PROCEDURE: 207		REPORTED: 04AUG88											
SOIL	M147	PH (LAB)	207	7.40E+00			0.00E+00 G	27JUL88	0910	28JUL88	I	341	011124
===> PROCEDURE: 726		REPORTED: 12AUG88											
SOIL	M147	BERYLAM	A01	* 5.00E-01 UG/G			1.06E+00 G	27JUL88	0910	04AUG88	I	341	011124
SOIL	M147	STRONUM	A03	2.41E+01 UG/G			1.06E+00 G	27JUL88	0910	04AUG88	I	341	011124

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M147	ZINC	A04		1.04E+02 UG/G			1.06E+00	G	27JUL88	0910	04AUG88	I	341	011124
SOIL	M147	CALCIUM	A05		7.71E+03 UG/G	1		1.06E+00	G	27JUL88	0910	04AUG88	I	341	011124
SOIL	M147	BARIUM	A06		1.02E+02 UG/G			1.06E+00	G	27JUL88	0910	04AUG88	I	341	011124
SOIL	M147	CADMIUM	A07	*	2.00E-01 UG/G			1.06E+00	G	27JUL88	0910	04AUG88	I	341	011124
SOIL	M147	CHROMUM	A08		9.40E+00 UG/G			1.06E+00	G	27JUL88	0910	04AUG88	I	341	011124
SOIL	M147	SILVER	A10	*	1.00E+00 UG/G			1.06E+00	G	27JUL88	0910	04AUG88	I	341	011124
SOIL	M147	SODIUM	A11		1.28E+03 UG/G			1.06E+00	G	27JUL88	0910	04AUG88	I	341	011124
SOIL	M147	NICKEL	A12		8.10E+00 UG/G			1.06E+00	G	27JUL88	0910	04AUG88	I	341	011124
SOIL	M147	COPPER	A13		1.90E+01 UG/G			1.06E+00	G	27JUL88	0910	04AUG88	I	341	011124
SOIL	M147	VANADUM	A14		7.10E+01 UG/G			1.06E+00	G	27JUL88	0910	04AUG88	I	341	011124
SOIL	M147	ANTIONY	A15	*	1.00E+01 UG/G			1.06E+00	G	27JUL88	0910	04AUG88	I	341	011124
SOIL	M147	ALUMNUM	A16		9.74E+03 UG/G	1		1.06E+00	G	27JUL88	0910	04AUG88	I	341	011124
SOIL	M147	MANGESE	A17		4.18E+02 UG/G			1.06E+00	G	27JUL88	0910	04AUG88	I	341	011124
SOIL	M147	POTASUM	A18		1.40E+03 UG/G	1		1.06E+00	G	27JUL88	0910	04AUG88	I	341	011124
SOIL	M147	IRON	A19		3.29E+04 UG/G	1		1.06E+00	G	27JUL88	0910	04AUG88	I	341	011124
SOIL	M147	MAGNES	A50		6.09E+03 UG/G	1		1.06E+00	G	27JUL88	0910	04AUG88	I	341	011124
===> PROCEDURE: 727		REPORTED: 16AUG88													
SOIL	M147	THIOURA	A24	*	2.00E+00 UG/G			1.00E+01	G	27JUL88	0910	14AUG88	I	341	011124
SOIL	M147	ACETREA	A25	*	2.00E+00 UG/G			1.00E+01	G	27JUL88	0910	14AUG88	I	341	011124
SOIL	M147	CHLOREA	A26	*	2.00E+00 UG/G			1.00E+01	G	27JUL88	0910	14AUG88	I	341	011124
SOIL	M147	DIETROL	A27	*	2.00E+00 UG/G			1.00E+01	G	27JUL88	0910	14AUG88	I	341	011124
SOIL	M147	ETHYREA	A28	*	2.00E+00 UG/G			1.00E+01	G	27JUL88	0910	14AUG88	I	341	011124
SOIL	M147	NAPHREA	A29	*	2.00E+00 UG/G			1.00E+01	G	27JUL88	0910	14AUG88	I	341	011124
SOIL	M147	PHENREA	A32	*	5.00E+00 UG/G			1.00E+01	G	27JUL88	0910	14AUG88	I	341	011124
===> PROCEDURE: 729		REPORTED: 12AUG88													
SOIL	M147	ENDRIN	A33	*	1.00E-02 UG/G			1.01E+01	G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	METHLOR	A34	*	3.00E-01 UG/G			1.01E+01	G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	TOXAENE	A35	*	1.00E-01 UG/G			1.01E+01	G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	A-BHC	A36	*	1.00E-02 UG/G			1.01E+01	G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	B-BHC	A37	*	1.00E-02 UG/G			1.01E+01	G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	G-BHC	A38	*	1.00E-02 UG/G			1.01E+01	G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	D-BHC	A39	*	1.00E-02 UG/G			1.01E+01	G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	DDD	A40	*	1.00E-02 UG/G			1.01E+01	G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	DDE	A41	*	1.00E-02 UG/G			1.01E+01	G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	DDT	A42	*	1.00E-02 UG/G			1.01E+01	G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	HEPTLOR	A43	*	1.00E-02 UG/G			1.01E+01	G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	HEPTIDE	A44	*	1.00E-02 UG/G			1.01E+01	G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	DIELRIN	A46	*	1.00E-02 UG/G			1.01E+01	G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	ALDRIN	A47	*	1.00E-02 UG/G			1.01E+01	G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	CHLDANE	A48	*	1.00E+00 UG/G			1.01E+01	G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	ENDO1	A49	*	1.00E-02 UG/G			1.01E+01	G	27JUL88	0910	09AUG88	I	341	011124

* Denotes a result less than the detection limit

2300 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M147	ENDO2	A52	*	1.00E-02 UG/G			1.01E+01 G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	CHLLATE	C62	*	3.00E+00 UG/G			1.01E+01 G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	DBC	X10		8.70E+01 %RECOV			1.01E+01 G	27JUL88	0910	09AUG88	I	341	011124
===> PROCEDURE: 731		REPORTED: 12AUG88												
SOIL	M147	TETRANE	A61	*	5.00E-03 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	BENZENE	A62	*	5.00E-03 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	DIOXANE	A63	*	5.00E-01 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	METHONE	A64	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	PYRIDIN	A65	*	5.00E-01 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	TOLUENE	A66	*	5.00E-03 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	1,1,1-T	A67	*	5.00E-03 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	1,1,2-T	A68	*	5.00E-03 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	TRICENE	A69	*	5.00E-03 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	PERCENE	A70	*	5.00E-03 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	OPXYLEN	A71	*	5.00E-03 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	ACROLIN	A72	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	ACRYILE	A73	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	BISTHER	A74	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	BROMONE	A75	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	METHBRO	A76	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	CARBIDE	A77	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	CHLBENZ	A78	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	CHLTHER	A79	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	CHLFORM	A80	*	5.00E-03 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	METHCHL	A81	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	CHMTHER	A82	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	CROTONA	A83	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	DIBRCHL	A84	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	DIBRETH	A85	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	DIBRMET	A86	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	DIBUTEN	A87	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	DICDIFM	A88	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	1,1-DIC	A89	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	1,2-DIC	A90	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	TRANDCE	A91	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	DICETHY	A92	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	METHYCH	A93		2.20E-02 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	DICPANE	A94	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	DICPENE	A95	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	NNDIEHY	A96	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	HYDRSUL	A99	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	IODOMET	B01	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	METHACR	B02	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	0910	03AUG88	I	341	011124

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. D-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M147	METHTHI	B03	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	PENTACH	B04	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	1112-TC	B05	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	1122-TC	B06	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	BRONORM	B08	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	TRCMEOL	B09	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	TRCNFLM	B10	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	TRCPANE	B11	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	123-TRP	B12	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	VINYIDE	B13	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	M-XYLE	B14	*	5.00E-03 UG/G			5.00E+00	G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	DIETHY	B15	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	ACETILE	B19	*	3.00E+00 UG/G			5.00E+00	G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	METACRY	C04	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	FORMALN	C71	*	5.00E-01 UG/G			5.00E+00	G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	ETHOXID	H05	*	3.00E+00 UG/G			5.00E+00	G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	ETHMETH	H06	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	HEXONE	H68	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	12DCAD4	X07		8.94E+01 %RECOV			5.00E+00	G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	TOLUDB	X08		1.17E+02 %RECOV			5.00E+00	G	27JUL88	0910	03AUG88	I	341	011124
SOIL	M147	BFB	X09		1.04E+02 %RECOV			5.00E+00	G	27JUL88	0910	03AUG88	I	341	011124
===> PROCEDURE: 733		REPORTED: 12AUG88													
SOIL	M147	ACETOPH	B20	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	WARFRIN	B21	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	ACEFENE	B22	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	ANINOYL	B23	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	AMIISOX	B24	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	AMITROL	B25	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	ANILINE	B26	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	ARAMITE	B27	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	AURAMIN	B28	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	BENZCAC	B29	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	BENZAAN	B30	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	BENDICN	B31	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	BENTHOL	B32	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	BENDINE	B33	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	BENZBFL	B34	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	BENZJFL	B35	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	PBENZQU	B36	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	BENZCHL	B37	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	BIS2CHM	B38	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	BIS2CHE	B39	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	09AUG88	I	341	011124
SOIL	M147	BIS2EPH	B40	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	09AUG88	I	341	011124

* Denotes a result less than the detection limit

9513319.1758

2600 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M147	BROPHEN	B41	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	BUTBENP	B42	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	BUTDINP	B43	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	CHALETH	B44	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	CHLANIL	B45	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	CHLCRES	B46	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	CHLEPOX	B47	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	CHLNAPH	B48	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	CHLPHEN	B49	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	CHRYSEN	B50	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	CRESOLS	B51	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	CYCHDIN	B52	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	DIBAHAC	B53	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	DIBAJAC	B54	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	DIBIHAN	B55	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	DIBCGCA	B56	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	DIBAEPY	B57	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	DIBAHPY	B58	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	DIBAIPY	B59	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	DIBPHTH	B60	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	12-DBEN	B61	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	13-DBEN	B62	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	14-DBEN	B63	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	DICHDEN	B64	*	2.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	24-DCHP	B65	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	26-DCHP	B66	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	DIEPHTH	B67	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	DIHYSAF	B68	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	DIMTHB	B69	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	DIMEAMB	B70	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	DIMBENZ	B71	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	DIMEYLB	B72	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	THIONOX	B73	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	DIMPHAM	B74	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	DIMPHEN	B75	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	DINPHTH	B76	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	DINBENZ	B77	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	DINCRES	B78	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	DINPHEN	B79	*	5.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	24-DINT	B80	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	26-DINT	B81	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	DIOPHTH	B82	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	DIPHAMI	B83	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	DIPHHYD	B84	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	DIPRNIT	B85	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M147	ETHMINE	B86	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	ETHMETS	B87	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	FLUORAN	B88	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	HEXCBEN	B89	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	HEXCBUT	B90	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	HEXCCYC	B91	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	HEXCETH	B92	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	INDENOP	B93	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	ISOSOLE	B94	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	MALOILE	B95	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	MELPHAL	B96	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	METHAPY	B97	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	METHNYL	B98	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	METAZIR	B99	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	METCHAN	C01	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	METBISC	C02	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	METACTO	C03	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	METMSUL	C05	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	METPROP	C06	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	METHIOU	C07	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	NAPHQUI	C08	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	1-NAPHA	C09	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	2-NAPHA	C10	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	NITRANI	C11	*	5.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	NITBENZ	C12	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	NITPHEN	C13	*	5.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	NNIBUTY	C14	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	NNIDIEA	C15	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	NNIDIEY	C16	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	NNIDIME	C17	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	NNIMETH	C18	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	NNIURET	C19	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	NNIVINY	C20	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	NNIMORP	C21	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	NNINICO	C22	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	NNIPIPE	C23	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	NITRPYR	C24	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	NITRTOL	C25	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	PENTCHB	C26	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	PENTCHN	C27	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	PENTCHP	C28	*	5.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	PHENTIN	C29	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	PHENINE	C30	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	PHTHEST	C31	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	PICOLIN	C32	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	0910	08AUG88	I	341	011124

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UNITED STATES TESTING COMPANY, INC.
2SCO George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M147	PRONIDE	C33	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	RESERPI	C34	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	RESORCI	C35	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	SAFROL	C36	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	TETRCHB	C37	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	TETRCHP	C39	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	THIURAM	C40	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	TOLUDIA	C41	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	OTOLHYD	C42	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	TRICHLB	C43	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	245-TRP	C44	*	5.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	246-TRP	C45	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	TRIPHOS	C46	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	SYMTRIN	C47	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	TRISPHO	C48	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	BENZOPY	C49	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	CHLNAPZ	C50	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	BIS2ETH	C51	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	HEXAENE	C52	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	HEXACHL	C54	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	NAPHTHA	C55	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	123TRI	C56	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	PHENOL	C57	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	135TRI	C58	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	1234TE	C59	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	1235TE	C60	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	KEROSEN	C79	*	1.00E+03 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	STRYCHN	C91	*	5.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	NALHYDR	C92	*	5.00E+01 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	NICOTIN	C93	*	1.00E+01 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	TRIBUPH	I21	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	2FLPHEN	X01		7.71E+01 %RECOV			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	PHEND6	X02		7.15E+01 %RECOV			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	NITBN2	X03		7.70E+01 %RECOV			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	2FLBIPH	X04		8.36E+01 %RECOV			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	246TRI	X05		6.87E+01 %RECOV			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	TERD14	X06		8.14E+01 %RECOV			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
===> PROCEDURE: 734		REPORTED: 12AUG88												
SOIL	M147	TETEPYR	C61	*	1.00E+00 UG/G			1.01E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	CARBPHT	C63	*	1.00E+00 UG/G			1.01E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	DISULFO	C64	*	1.00E+00 UG/G			1.01E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	DIMETHO	C65	*	2.00E-01 UG/G			1.01E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	METHPAR	C66	*	1.00E+00 UG/G			1.01E+01 G	27JUL88	0910	08AUG88	I	341	011124

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M147	PARATHI	C67	*	1.00E+00 UG/G			1.01E+01 G	27JUL88	0910	08AUG88	I	341	011124
===> PROCEDURE: 735		REPORTED: 12AUG88												
SOIL	M147	NITRATE	C72	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	SULFATE	C73		3.95E+01 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	FLOURID	C74	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	CHLORID	C75		1.45E+01 UG/G	1		1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
SOIL	M147	PHOSPHA	C76	*	2.00E+00 UG/G			1.00E+01 G	27JUL88	0910	08AUG88	I	341	011124
===> PROCEDURE: 737		REPORTED: 12AUG88												
SOIL	M147	2,4-D	H13	*	1.00E+00 UG/G			2.50E+01 G	27JUL88	0910	10AUG88	I	341	011124
SOIL	M147	2,4,5TP	H14	*	1.00E+00 UG/G			2.50E+01 G	27JUL88	0910	10AUG88	I	341	011124
SOIL	M147	2,4,5-T	H15	*	1.00E+00 UG/G			2.50E+01 G	27JUL88	0910	10AUG88	I	341	011124
===> PROCEDURE: 739		REPORTED: 12AUG88												
SOIL	M147	AR1016	A54	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	12AUG88	I	341	011124
SOIL	M147	AR1221	A55	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	12AUG88	I	341	011124
SOIL	M147	AR1232	A56	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	12AUG88	I	341	011124
SOIL	M147	AR1242	A57	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	12AUG88	I	341	011124
SOIL	M147	AR1248	A58	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	12AUG88	I	341	011124
SOIL	M147	AR1254	A59	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	12AUG88	I	341	011124
SOIL	M147	AR1260	A60	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	12AUG88	I	341	011124
===> PROCEDURE: A20		REPORTED: 12AUG88												
SOIL	M147	ARSENIC	A20		1.80E+00 UG/G			1.01E+00 G	27JUL88	0910	10AUG88	I	341	011124
===> PROCEDURE: A21		REPORTED: 12AUG88												
SOIL	M147	MERCURY	A21	*	2.00E-01 UG/G			2.16E-01 G	27JUL88	0910	02AUG88	I	341	011124
===> PROCEDURE: A22		REPORTED: 12AUG88												
SOIL	M147	SELENUM	A22	*	5.00E-01 UG/G			1.01E+00 G	27JUL88	0910	10AUG88	I	341	011124
===> PROCEDURE: A23		REPORTED: 12AUG88												
SOIL	M147	THALIUM	A23	*	1.00E+00 UG/G			1.01E+00 G	27JUL88	0910	08AUG88	I	341	011124
===> PROCEDURE: A51		REPORTED: 12AUG88												
SOIL	M147	LEAD	A51		7.83E+00 UG/G			1.01E+00 G	27JUL88	0910	09AUG88	I	341	011124

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2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

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===> PROCEDURE: C68		REPORTED: 12AUG88											
SOIL	M147	TOX	C68	1.56E+01 UG/G			1.00E+00 G	27JUL88	0910	04AUG88	I	341	011124
===> PROCEDURE: C69		REPORTED: 12AUG88											
SOIL	M147	TOC	C69	1.12E+02 UG/G			1.82E+01 G	27JUL88	0910	02AUG88	I	341	011124
===> PROCEDURE: C70		REPORTED: 12AUG88											
SOIL	M147	CYANIDE	C70	* 1.00E+00 UG/G			1.00E+01 G	27JUL88	0910	04AUG88	I	341	011124
===> PROCEDURE: C77		REPORTED: 12AUG88											
SOIL	M147	PERCHLO	C77	* 2.00E+00 UG/G			1.00E+01 G	27JUL88	0910	04AUG88	I	341	011124
===> PROCEDURE: C78		REPORTED: 12AUG88											
SOIL	M147	SULFIDE	C78	* 1.00E+01 UG/G			4.83E+01 G	27JUL88	0910	03AUG88	I	341	011124
===> PROCEDURE: C80		REPORTED: 12AUG88											
SOIL	M147	AMMONIU	C80	1.70E+00 UG/G			1.00E+01 G	27JUL88	0910	10AUG88	I	341	011124
===> PROCEDURE: C81		REPORTED: 12AUG88											
SOIL	M147	ETHYGLY	C81	* 1.00E+01 UG/G			5.00E+00 G	27JUL88	0910	30JUL88	I	341	011124
********** <** SAMPLE: M148 **> **********													
===> PROCEDURE: 088		REPORTED: 04AUG88											
SOIL	M148	LSP COND	088	1.24E+02			1.00E+01 G	27JUL88	0945	28JUL88	I	341	011125
===> PROCEDURE: 207		REPORTED: 04AUG88											
SOIL	M148	PH (LAB)	207	7.00E+00			0.00E+00 G	27JUL88	0945	28JUL88	I	341	011125
===> PROCEDURE: 726		REPORTED: 12AUG88											
SOIL	M148	BERYLAM	A01	* 5.00E-01 UG/G			1.01E+00 G	27JUL88	0945	04AUG88	I	341	011125
SOIL	M148	STRONUM	A03	2.27E+01 UG/G			1.01E+00 G	27JUL88	0945	04AUG88	I	341	011125

* Denotes a result less than the detection limit

2300 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M148	ZINC	A04		7.01E+01 UG/G			1.01E+00 G	27JUL88	0945	04AUG88	I	341	011125
SOIL	M148	CALCIUM	A05		5.21E+03 UG/G			1.01E+00 G	27JUL88	0945	04AUG88	I	341	011125
SOIL	M148	BARIUM	A06		1.04E+02 UG/G			1.01E+00 G	27JUL88	0945	04AUG88	I	341	011125
SOIL	M148	CADMIUM	A07	*	2.00E-01 UG/G			1.01E+00 G	27JUL88	0945	04AUG88	I	341	011125
SOIL	M148	CHROMUM	A08		9.10E+00 UG/G			1.01E+00 G	27JUL88	0945	04AUG88	I	341	011125
SOIL	M148	SILVER	A10	*	1.00E+00 UG/G			1.01E+00 G	27JUL88	0945	04AUG88	I	341	011125
SOIL	M148	SODIUM	A11		1.31E+03 UG/G			1.01E+00 G	27JUL88	0945	04AUG88	I	341	011125
SOIL	M148	NICKEL	A12		7.30E+00 UG/G			1.01E+00 G	27JUL88	0945	04AUG88	I	341	011125
SOIL	M148	COPPER	A13	*	1.00E+00 UG/G			1.01E+00 G	27JUL88	0945	04AUG88	I	341	011125
SOIL	M148	VANADUM	A14		8.68E+01 UG/G			1.01E+00 G	27JUL88	0945	04AUG88	I	341	011125
SOIL	M148	ANTIONY	A15	*	1.00E+01 UG/G			1.01E+00 G	27JUL88	0945	04AUG88	I	341	011125
SOIL	M148	ALUMNUM	A16		9.89E+03 UG/G	1		1.01E+00 G	27JUL88	0945	04AUG88	I	341	011125
SOIL	M148	MANGESE	A17		4.81E+02 UG/G			1.01E+00 G	27JUL88	0945	04AUG88	I	341	011125
SOIL	M148	POTASUM	A18		8.43E+02 UG/G			1.01E+00 G	27JUL88	0945	04AUG88	I	341	011125
SOIL	M148	IRON	A19		3.88E+04 UG/G	1		1.01E+00 G	27JUL88	0945	04AUG88	I	341	011125
SOIL	M148	MAGNES	A50		6.13E+03 UG/G	1		1.01E+00 G	27JUL88	0945	04AUG88	I	341	011125
===> PROCEDURE: A20		REPORTED: 12AUG88												
SOIL	M148	ARSENIC	A20		1.80E+00 UG/G			1.01E+00 G	27JUL88	0945	10AUG88	I	341	011125
===> PROCEDURE: A51		REPORTED: 12AUG88												
SOIL	M148	LEAD	A51		5.64E+00 UG/G			1.01E+00 G	27JUL88	0945	09AUG88	I	341	011125
===> PROCEDURE: C68		REPORTED: 12AUG88												
SOIL	M148	TOX	C68	*	1.00E+00 UG/G			1.00E+00 G	27JUL88	0945	04AUG88	I	341	011125
===> PROCEDURE: C69		REPORTED: 12AUG88												
SOIL	M148	TOC	C69		1.84E+01 UG/G			1.82E+01 G	27JUL88	0945	02AUG88	I	341	011125
<** SAMPLE: M149 **>														
===> PROCEDURE: 088		REPORTED: 04AUG88												
SOIL	M149	LSP COND	089		1.97E+02			1.00E+01 G	27JUL88	1014	28JUL88	I	341	011126
===> PROCEDURE: 207		REPORTED: 04AUG88												
SOIL	M149	PH (LAB)	207		7.80E+00			0.00E+00 G	27JUL88	1014	28JUL88	I	341	011126
===> PROCEDURE: 726		REPORTED: 12AUG88												
SOIL	M149	BERYLAM	A01	*	5.00E-01 UG/G			1.05E+00 G	27JUL88	1014	04AUG88	I	341	011126

* Denotes a result less than the detection limit

9513319.1761

DOE/RL 88-41
Revision 2

UNITED STATES TESTING COMPANY, INC.
2200 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M149	STRONUM	A03		2.44E+01 UG/G			1.05E+00 G	27JUL88	1014	04AUG88	I	341	011126
SOIL	M149	ZINC	A04		3.77E+01 UG/G			1.05E+00 G	27JUL88	1014	04AUG88	I	341	011126
SOIL	M149	CALCIUM	A05		6.86E+03 UG/G	1		1.05E+00 G	27JUL88	1014	04AUG88	I	341	011126
SOIL	M149	BARIUM	A06		7.22E+01 UG/G			1.05E+00 G	27JUL88	1014	04AUG88	I	341	011126
SOIL	M149	CADMIUM	A07	*	2.00E-01 UG/G			1.05E+00 G	27JUL88	1014	04AUG88	I	341	011126
SOIL	M149	CHROMUM	A08		8.20E+00 UG/G			1.05E+00 G	27JUL88	1014	04AUG88	I	341	011126
SOIL	M149	SILVER	A10	*	1.00E+00 UG/G			1.05E+00 G	27JUL88	1014	04AUG88	I	341	011126
SOIL	M149	SODIUM	A11		1.06E+03 UG/G			1.05E+00 G	27JUL88	1014	04AUG88	I	341	011126
SOIL	M149	NICKEL	A12		7.20E+00 UG/G			1.05E+00 G	27JUL88	1014	04AUG88	I	341	011126
SOIL	M149	COPPER	A13	*	1.00E+00 UG/G			1.05E+00 G	27JUL88	1014	04AUG88	I	341	011126
SOIL	M149	VANADUM	A14		5.07E+01 UG/G			1.05E+00 G	27JUL88	1014	04AUG88	I	341	011126
SOIL	M149	ANTIONY	A15	*	1.00E+01 UG/G			1.05E+00 G	27JUL88	1014	04AUG88	I	341	011126
SOIL	M149	ALUMNUM	A16		7.69E+03 UG/G	1		1.05E+00 G	27JUL88	1014	04AUG88	I	341	011126
SOIL	M149	MANGESE	A17		3.64E+02 UG/G			1.05E+00 G	27JUL88	1014	04AUG88	I	341	011126
SOIL	M149	POTASUM	A18		8.56E+02 UG/G			1.05E+00 G	27JUL88	1014	04AUG88	I	341	011126
SOIL	M149	IRON	A19		2.30E+04 UG/G	1		1.05E+00 G	27JUL88	1014	04AUG88	I	341	011126
SOIL	M149	MAGNES	A30		4.86E+03 UG/G	1		1.05E+00 G	27JUL88	1014	04AUG88	I	341	011126
===> PROCEDURE: 727		REPORTED: 16AUG88												
SOIL	M149	THIOURA	A24	*	2.00E+00 UG/G			1.00E+01 G	27JUL88	1014	14AUG88	I	341	011126
SOIL	M149	ACETREA	A25	*	2.00E+00 UG/G			1.00E+01 G	27JUL88	1014	14AUG88	I	341	011126
SOIL	M149	CHLOREA	A26	*	2.00E+00 UG/G			1.00E+01 G	27JUL88	1014	14AUG88	I	341	011126
SOIL	M149	DIETROL	A27	*	2.00E+00 UG/G			1.00E+01 G	27JUL88	1014	14AUG88	I	341	011126
SOIL	M149	ETHYREA	A28	*	2.00E+00 UG/G			1.00E+01 G	27JUL88	1014	14AUG88	I	341	011126
SOIL	M149	NAPHREA	A29	*	2.00E+00 UG/G			1.00E+01 G	27JUL88	1014	14AUG88	I	341	011126
SOIL	M149	PHENREA	A32	*	5.00E+00 UG/G			1.00E+01 G	27JUL88	1014	14AUG88	I	341	011126
===> PROCEDURE: 729		REPORTED: 12AUG88												
SOIL	M149	ENDRIN	A33	*	1.00E-02 UG/G			1.00E+01 G	27JUL88	1014	09AUG88	I	341	011126
SOIL	M149	METHLOR	A34	*	3.00E-01 UG/G			1.00E+01 G	27JUL88	1014	09AUG88	I	341	011126
SOIL	M149	TOXAENE	A35	*	1.00E-01 UG/G			1.00E+01 G	27JUL88	1014	09AUG88	I	341	011126
SOIL	M149	A-BHC	A36	*	1.00E-02 UG/G			1.00E+01 G	27JUL88	1014	09AUG88	I	341	011126
SOIL	M149	B-BHC	A37	*	1.00E-02 UG/G			1.00E+01 G	27JUL88	1014	09AUG88	I	341	011126
SOIL	M149	G-BHC	A38	*	1.00E-02 UG/G			1.00E+01 G	27JUL88	1014	09AUG88	I	341	011126
SOIL	M149	D-BHC	A39	*	1.00E-02 UG/G			1.00E+01 G	27JUL88	1014	09AUG88	I	341	011126
SOIL	M149	DDD	A40	*	1.00E-02 UG/G			1.00E+01 G	27JUL88	1014	09AUG88	I	341	011126
SOIL	M149	DDE	A41	*	1.00E-02 UG/G			1.00E+01 G	27JUL88	1014	09AUG88	I	341	011126
SOIL	M149	DDT	A42	*	1.00E-02 UG/G			1.00E+01 G	27JUL88	1014	09AUG88	I	341	011126
SOIL	M149	HEPTLOR	A43	*	1.00E-02 UG/G			1.00E+01 G	27JUL88	1014	09AUG88	I	341	011126
SOIL	M149	HEPTIDE	A44	*	1.00E-02 UG/G			1.00E+01 G	27JUL88	1014	09AUG88	I	341	011126
SOIL	M149	DIELRIN	A46	*	1.00E-02 UG/G			1.00E+01 G	27JUL88	1014	09AUG88	I	341	011126
SOIL	M149	ALDRIN	A47	*	1.00E-02 UG/G			1.00E+01 G	27JUL88	1014	09AUG88	I	341	011126
SOIL	M149	CHLDANE	A48	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1014	09AUG88	I	341	011126

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M149	ENDO1	A49	*	1.00E-02 UG/G			1.00E+01	G	27JUL88	1014	09AUG88	I	341	011126
SOIL	M149	ENDO2	A52	*	1.00E-02 UG/G			1.00E+01	G	27JUL88	1014	09AUG88	I	341	011126
SOIL	M149	CHLLATE	C62	*	3.00E+00 UG/G			1.00E+01	G	27JUL88	1014	09AUG88	I	341	011126
SOIL	M149	DBC	X10		8.48E+01 %RECOV			1.00E+01	G	27JUL88	1014	09AUG88	I	341	011126
===> PROCEDURE: 731		REPORTED: 12AUG88													
SOIL	M149	TETRANE	A61	*	5.00E-03 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	BENZENE	A62	*	5.00E-03 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	DIOXANE	A63	*	5.00E-01 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	METHONE	A64	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	PYRIDIN	A65	*	5.00E-01 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	TOLUENE	A66	*	5.00E-03 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	1,1,1-T	A67	*	5.00E-03 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	1,1,2-T	A68	*	5.00E-03 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	TRICENE	A69	*	5.00E-03 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	PERCENE	A70	*	5.00E-03 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	OPXYLEN	A71	*	5.00E-03 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	ACROLIN	A72	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	ACRYILE	A73	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	BISTHER	A74	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	BROMONE	A75	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	METHDRO	A76	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	CARBIDE	A77	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	CHLBENZ	A78	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	CHLTHER	A79	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	CHLFORM	A80	*	5.00E-03 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	METHCHL	A81	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	CHMTHER	A82	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	CROTONA	A83	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	DIBRCHL	A84	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	DIBRETH	A85	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	DIBRMET	A86	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	DIBUTEN	A87	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	DICDIFM	A88	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	1,1-DIC	A89	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	1,2-DIC	A90	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	TRANDCE	A91	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	DICETHY	A92	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	METHYCH	A93		1.00E-02 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	DICPANE	A94	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	DICPENE	A95	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	NNDIEHY	A96	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	HYDRSUL	A99	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	IODOMET	B01	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1014	03AUG88	I	341	011126

* Denotes a result less than the detection limit

2600 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M149	METHACR	B02	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	METHTHI	B03	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	PENTACH	B04	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	1112-TC	B05	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	1122-TC	B06	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	BROMORM	B08	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	TRCMEOL	B09	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	TRCMFLM	B10	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	TRCPANE	B11	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	123-TRP	B12	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	VINYIDE	B13	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	M-XYLE	B14	*	5.00E-03 UG/G			5.00E+00 G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	DIETHY	B15	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	ACETILE	B19	*	3.00E+00 UG/G			5.00E+00 G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	METACRY	C04	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	FORMALN	C71	*	5.00E-01 UG/G			5.00E+00 G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	ETHOXID	H05	*	3.00E+00 UG/G			5.00E+00 G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	ETHMETH	H06	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	HEXONE	H68	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	12DCAD4	X07		9.70E+01 %RECOV			5.00E+00 G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	TOLUD8	X08		1.04E+02 %RECOV			5.00E+00 G	27JUL88	1014	03AUG88	I	341	011126
SOIL	M149	BFB	X09		7.86E+01 %RECOV			5.00E+00 G	27JUL88	1014	03AUG88	I	341	011126
===> PROCEDURE: 733		REPORTED: 12AUG88												
SOIL	M149	ACETOPH	B20	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	WARFRIN	B21	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	ACEFENE	B22	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	AMINOYL	B23	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	AMIISOX	B24	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	AMITROL	B25	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	ANILINE	B26	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	ARAMITE	B27	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	AURAMIN	B28	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	BENZCAC	B29	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	BENZAAN	B30	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	BENDICM	B31	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	BENTHOL	B32	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	BENDINE	B33	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	BENZBFL	B34	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	BENZJFL	B35	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	PBENZQU	B36	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	BENZCHL	B37	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	BIS2CHM	B38	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	BIS2CHE	B39	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1014	08AUG88	I	341	011126

* Denotes a result less than the detection limit

2300 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. D-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M149	BIS2EPH	B40	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	3ROPHEN	B41	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	BUT3ENP	B42	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	BUTDINP	B43	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	CHALETH	B44	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	CHLANIL	B45	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	CHLCRES	B46	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	CHLEPOX	B47	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	CHLNAPH	B48	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	CHLPHEN	B49	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	CHRYSEN	B50	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	CRESOLS	B51	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	CYCHDIN	B52	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	DIBAHAC	B53	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	DIBAJAC	B54	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	DIBIHAN	B55	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	DIBCGCA	B56	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	DIBAEPY	B57	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	DIBAHPY	B58	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	DIBAIPY	B59	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	DIBPHTH	B60	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	12-DBEN	B61	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	13-DBEN	B62	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	14-DBEN	B63	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	DICHDEN	B64	*	2.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	24-DCHP	B65	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	26-DCHP	B66	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	DIEPHTH	B67	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	DIHYSAF	B68	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	DIMTHB	B69	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	DIMEAMB	B70	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	DIMBENZ	B71	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	DINEYLD	B72	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	THIONOX	B73	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	DINPHAN	B74	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	DINPHEN	B75	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	DIMPHTH	B76	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	DINBENZ	B77	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	DINCRES	B78	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	DINPHEN	B79	*	5.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	24-DINT	B80	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	26-DINT	B81	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	DIOPHTH	B82	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	DIPHAMI	B83	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	DIPHHYD	B84	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2500 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M149	DIPRNIT	B85	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	ETHMINE	B86	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	ETHMETS	B87	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	FLUORAN	B88	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	HEXCDEN	B89	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	HEXCBUT	B90	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	HEXCCYC	B91	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	HEXCETH	B92	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	INDENOP	B93	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	ISOSOLE	B94	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	MALOILE	B95	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	MELPHAL	B96	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	METHAPY	B97	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	METHNYL	B98	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	METAZIR	B99	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	METCHAN	C01	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	METBISC	C02	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	METACTO	C03	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	METMSUL	C05	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	METPROP	C06	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	METHIOU	C07	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	NAPHQUI	C08	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	1-NAPHA	C09	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	2-NAPHA	C10	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	NITRANI	C11	*	5.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	NITBENZ	C12	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	NITPHEN	C13	*	5.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	NNIBUTY	C14	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	NNIDIEA	C15	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	NNIDIEY	C16	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	NNIDIME	C17	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	NNIMETH	C18	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	NNIURET	C19	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	NNIVINY	C20	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	NNIMORP	C21	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	NNINICO	C22	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	NNIPIPE	C23	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	NITRPYR	C24	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	NITRTOL	C25	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	PENTCHB	C26	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	PENTCHN	C27	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	PENTCHP	C28	*	5.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	PHENTIN	C29	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	PHENINE	C30	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	PHTHEST	C31	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. D-82472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M149	PICOLIN	C32	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	PRONIDE	C33	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	RESERPI	C34	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	RESORCI	C35	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	SAFROL	C36	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	TETRCHB	C37	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	TETRCHP	C39	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	THIURAM	C40	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	TOLUDIA	C41	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	OTOLHYD	C42	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	TRICHLB	C43	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	245-TRP	C44	*	5.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	246-TRP	C45	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	TRIPHOS	C46	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	SYMTRIN	C47	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	TRISPHO	C48	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	BENZOPY	C49	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	CHLNAPZ	C50	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	BIS2ETH	C51	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	HEXAENE	C52	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	HCXACHL	C54	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	NAPHTHA	C55	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	123TRI	C56	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	PHENOL	C57	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	135TRI	C58	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	1234TE	C59	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	1235TE	C60	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	KEROSEN	C79	*	1.00E+03 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	STRYCHN	C91	*	5.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	MALHYDR	C92	*	5.00E+01 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	NICOTIN	C93	*	1.00E+01 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	TRIDUPH	I21	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	2FLPHEN	X01		6.90E+01 %RECOV			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	PHEND6	X02		6.42E+01 %RECOV			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	NITBN2	X03		6.92E+01 %RECOV			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	2FLBIPH	X04		7.22E+01 %RECOV			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	246TRI	X05		5.74E+01 %RECOV			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	TERD14	X06		6.76E+01 %RECOV			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126

===> PROCEDURE: 734 REPORTED: 12AUG88

SOIL	M149	TETEPYR	C61	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	CARBPHT	C63	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	DISULFO	C64	*	1.00E+00 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	DIMETHO	C65	*	2.00E-01 UG/G			1.00E+01	G	27JUL88	1014	08AUG88	I	341	011126

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M149	METHPAR	C66	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	PARATHI	C67	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1014	08AUG88	I	341	011126
===> PROCEDURE: 735		REPORTED: 12AUG88												
SOIL	M149	NITRATE	C72	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	SULFATE	C73		2.69E+00 UG/G			1.00E+01 G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	FLOURID	C74	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	CHLORID	C75	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1014	08AUG88	I	341	011126
SOIL	M149	PHOSPHA	C76	*	2.00E+00 UG/G			1.00E+01 G	27JUL88	1014	08AUG88	I	341	011126
===> PROCEDURE: 737		REPORTED: 12AUG88												
SOIL	M149	2,4-D	H13	*	1.00E+00 UG/G			2.50E+01 G	27JUL88	1014	10AUG88	I	341	011126
SOIL	M149	2,4,5TP	H14	*	1.00E+00 UG/G			2.50E+01 G	27JUL88	1014	10AUG88	I	341	011126
SOIL	M149	2,4,5-T	H15	*	1.00E+00 UG/G			2.50E+01 G	27JUL88	1014	10AUG88	I	341	011126
===> PROCEDURE: 739		REPORTED: 12AUG88												
SOIL	M149	AR1016	A54	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1014	12AUG88	I	341	011126
SOIL	M149	AR1221	A55	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1014	12AUG88	I	341	011126
SOIL	M149	AR1232	A56	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1014	12AUG88	I	341	011126
SOIL	M149	AR1242	A57	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1014	12AUG88	I	341	011126
SOIL	M149	AR1248	A58	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1014	12AUG88	I	341	011126
SOIL	M149	AR1254	A59	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1014	12AUG88	I	341	011126
SOIL	M149	AR1260	A60	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1014	12AUG88	I	341	011126
===> PROCEDURE: A20		REPORTED: 12AUG88												
SOIL	M149	ARSENIC	A20		1.20E+00 UG/G			1.01E+00 G	27JUL88	1014	10AUG88	I	341	011126
===> PROCEDURE: A21		REPORTED: 12AUG88												
SOIL	M149	MERCURY	A21	*	2.00E-01 UG/G			2.03E-01 G	27JUL88	1014	02AUG88	I	341	011126
===> PROCEDURE: A22		REPORTED: 12AUG88												
SOIL	M149	SELENUM	A22	*	5.00E-01 UG/G			1.01E+00 G	27JUL88	1014	10AUG88	I	341	011126
===> PROCEDURE: A23		REPORTED: 12AUG88												
SOIL	M149	THALIUM	A23	*	1.00E+00 UG/G			1.01E+00 G	27JUL88	1014	08AUG88	I	341	011126
===> PROCEDURE: A51		REPORTED: 12AUG88												
SOIL	M149	LEAD	A51		4.72E+00 UG/G			1.01E+00 G	27JUL88	1014	07AUG88	I	341	011126

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE	RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: C68		REPORTED: 12AUG88											
SOIL	M149	TOX	C68	2.15E+00 UG/G			1.00E+00 G	27JUL88	1014	04AUG88	I	341	011126
===> PROCEDURE: C69		REPORTED: 12AUG88											
SOIL	M149	TOC	C69	* 1.00E+01 UG/G			1.88E+01 G	27JUL88	1014	02AUG88	I	341	011126
===> PROCEDURE: C70		REPORTED: 12AUG88											
SOIL	M149	CYANIDE	C70	* 1.00E+00 UG/G			1.00E+01 G	27JUL88	1014	04AUG88	I	341	011126
===> PROCEDURE: C77		REPORTED: 12AUG88											
SOIL	M149	PERCHLO	C77	* 2.00E+00 UG/G			1.00E+01 G	27JUL88	1014	04AUG88	I	341	011126
===> PROCEDURE: C78		REPORTED: 12AUG88											
SOIL	M149	SULFIDE	C78	* 1.00E+01 UG/G			4.77E+01 G	27JUL88	1014	03AUG88	I	341	011126
===> PROCEDURE: C80		REPORTED: 12AUG88											
SOIL	M149	AMMONIU	C80	1.60E+00 UG/G			1.00E+01 G	27JUL88	1014	10AUG88	I	341	011126
===> PROCEDURE: C81		REPORTED: 12AUG88											
SOIL	M149	ETHYGLY	C81	* 1.00E+01 UG/G			5.00E+00 G	27JUL88	1014	30JUL88	I	341	011126
********** <** SAMPLE: M150 **> **********													
===> PROCEDURE: 088		REPORTED: 04AUG88											
SOIL	M150	LSP COND	088	1.97E+02			1.00E+01 G	27JUL88	1117	28JUL88	I	341	011127
===> PROCEDURE: 207		REPORTED: 04AUG88											
SOIL	M150	PH (LAB)	207	8.10E+00			0.00E+00 G	27JUL88	1117	28JUL88	I	341	011127
===> PROCEDURE: 726		REPORTED: 12AUG88											
SOIL	M150	BERYLAN	A01	* 5.00E-01 UG/G			1.01E+00 G	27JUL88	1117	04AUG88	I	341	011127
SOIL	M150	STRONUM	A03	2.98E+01 UG/G			1.01E+00 G	27JUL88	1117	04AUG88	I	341	011127

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. D-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M150	ZINC	A04		5.10E+01 UG/G			1.01E+00 G	27JUL88	1117	04AUG88	I	341	011127
SOIL	M150	CALCIUM	A05		8.45E+03 UG/G	1		1.01E+00 G	27JUL88	1117	04AUG88	I	341	011127
SOIL	M150	BARIUM	A06		5.33E+01 UG/G			1.01E+00 G	27JUL88	1117	04AUG88	I	341	011127
SOIL	M150	CADMIUM	A07	*	2.00E-01 UG/G			1.01E+00 G	27JUL88	1117	04AUG88	I	341	011127
SOIL	M150	CHROMUM	A08		9.00E+00 UG/G			1.01E+00 G	27JUL88	1117	04AUG88	I	341	011127
SOIL	M150	SILVER	A10	*	1.00E+00 UG/G			1.01E+00 G	27JUL88	1117	04AUG88	I	341	011127
SOIL	M150	SODIUM	A11		1.18E+03 UG/G			1.01E+00 G	27JUL88	1117	04AUG88	I	341	011127
SOIL	M150	NICKEL	A12		7.20E+00 UG/G			1.01E+00 G	27JUL88	1117	04AUG88	I	341	011127
SOIL	M150	COPPER	A13		5.40E+00 UG/G			1.01E+00 G	27JUL88	1117	04AUG88	I	341	011127
SOIL	M150	VANADUM	A14		4.09E+01 UG/G			1.01E+00 G	27JUL88	1117	04AUG88	I	341	011127
SOIL	M150	ANTIONY	A15	*	1.00E+01 UG/G			1.01E+00 G	27JUL88	1117	04AUG88	I	341	011127
SOIL	M150	ALUMNUM	A16		7.02E+03 UG/G	1		1.01E+00 G	27JUL88	1117	04AUG88	I	341	011127
SOIL	M150	MANGESE	A17		2.53E+02 UG/G			1.01E+00 G	27JUL88	1117	04AUG88	I	341	011127
SOIL	M150	POTASUM	A18		7.70E+02 UG/G			1.01E+00 G	27JUL88	1117	04AUG88	I	341	011127
SOIL	M150	IRON	A19		1.96E+04 UG/G	1		1.01E+00 G	27JUL88	1117	04AUG88	I	341	011127
SOIL	M150	MAGNES	A50		4.59E+03 UG/G	1		1.01E+00 G	27JUL88	1117	04AUG88	I	341	011127
===> PROCEDURE: A20		REPORTED: 12AUG88												
SOIL	M150	ARSENIC	A20		8.00E-01 UG/G			1.01E+00 G	27JUL88	1117	10AUG88	I	341	011127
===> PROCEDURE: A51		REPORTED: 12AUG88												
SOIL	M150	LEAD	A51		4.16E+00 UG/G			1.01E+00 G	27JUL88	1117	09AUG88	I	341	011127
===> PROCEDURE: C68		REPORTED: 12AUG88												
SOIL	M150	TOX	C68	*	1.00E+00 UG/G			1.00E+00 G	27JUL88	1117	04AUG88	I	341	011127
===> PROCEDURE: C69		REPORTED: 12AUG88												
SOIL	M150	TOC	C69	*	1.00E+01 UG/G			1.95E+01 G	27JUL88	1117	02AUG88	I	341	011127
********** <** SAMPLE: M151 **> **********														
===> PROCEDURE: 088		REPORTED: 04AUG88												
SOIL	M151	LSP COND	088		1.97E+02			1.00E+01 G	27JUL88	1208	28JUL88	I	341	011128
===> PROCEDURE: 207		REPORTED: 04AUG88												
SOIL	M151	PH (LAB)	207		8.20E+00			0.00E+00 G	27JUL88	1208	28JUL88	I	341	011128
===> PROCEDURE: 726		REPORTED: 12AUG88												
SOIL	M151	BERYLAM	A01	*	5.00E-01 UG/G			1.01E+00 G	27JUL88	1208	04AUG88	I	341	011128

* Denotes a result less than the detection limit

2600 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M151	STRONUM	A03		2.58E+01 UG/G			1.01E+00 G	27JUL88	1208	04AUG88	I	341	011128
SOIL	M151	ZINC	A04		1.37E+02 UG/G			1.01E+00 G	27JUL88	1208	04AUG88	I	341	011128
SOIL	M151	CALCIUM	A05		6.21E+03 UG/G	1		1.01E+00 G	27JUL88	1208	04AUG88	I	341	011128
SOIL	M151	BARIUM	A06		4.86E+01 UG/G			1.01E+00 G	27JUL88	1208	04AUG88	I	341	011128
SOIL	M151	CADMIUM	A07	*	2.00E-01 UG/G			1.01E+00 G	27JUL88	1208	04AUG88	I	341	011128
SOIL	M151	CHROMUM	A08		1.16E+01 UG/G			1.01E+00 G	27JUL88	1208	04AUG88	I	341	011128
SOIL	M151	SILVER	A10	*	1.00E+00 UG/G			1.01E+00 G	27JUL88	1208	04AUG88	I	341	011128
SOIL	M151	SODIUM	A11		1.21E+03 UG/G			1.01E+00 G	27JUL88	1208	04AUG88	I	341	011128
SOIL	M151	NICKEL	A12		8.70E+00 UG/G			1.01E+00 G	27JUL88	1208	04AUG88	I	341	011128
SOIL	M151	COPPER	A13	*	1.00E+00 UG/G			1.01E+00 G	27JUL88	1208	04AUG88	I	341	011128
SOIL	M151	VANADUM	A14		3.69E+01 UG/G			1.01E+00 G	27JUL88	1208	04AUG88	I	341	011128
SOIL	M151	ANTIONY	A15	*	1.00E+01 UG/G			1.01E+00 G	27JUL88	1208	04AUG88	I	341	011128
SOIL	M151	ALUMNUM	A16		7.15E+03 UG/G	1		1.01E+00 G	27JUL88	1208	04AUG88	I	341	011128
SOIL	M151	MANGESE	A17		2.55E+02 UG/G			1.01E+00 G	27JUL88	1208	04AUG88	I	341	011128
SOIL	M151	POTASUM	A18		8.86E+02 UG/G			1.01E+00 G	27JUL88	1208	04AUG88	I	341	011128
SOIL	M151	IRON	A19		1.68E+04 UG/G	1		1.01E+00 G	27JUL88	1208	04AUG88	I	341	011128
SOIL	M151	MAGNES	A50		5.10E+03 UG/G	1		1.01E+00 G	27JUL88	1208	04AUG88	I	341	011128
===> PROCEDURE: 727		REPORTED: 16AUG88												
SOIL	M151	THIOURA	A24	*	2.00E+00 UG/G			1.00E+01 G	27JUL88	1208	14AUG88	I	341	011128
SOIL	M151	ACETREA	A25	*	2.00E+00 UG/G			1.00E+01 G	27JUL88	1208	14AUG88	I	341	011128
SOIL	M151	CHLOREA	A26	*	2.00E+00 UG/G			1.00E+01 G	27JUL88	1208	14AUG88	I	341	011128
SOIL	M151	DIETROL	A27	*	2.00E+00 UG/G			1.00E+01 G	27JUL88	1208	14AUG88	I	341	011128
SOIL	M151	ETHYREA	A28	*	2.00E+00 UG/G			1.00E+01 G	27JUL88	1208	14AUG88	I	341	011128
SOIL	M151	NAPHREA	A29	*	2.00E+00 UG/G			1.00E+01 G	27JUL88	1208	14AUG88	I	341	011128
SOIL	M151	PHENREA	A32	*	5.00E+00 UG/G			1.00E+01 G	27JUL88	1208	14AUG88	I	341	011128
===> PROCEDURE: 729		REPORTED: 12AUG88												
SOIL	M151	ENDRIN	A33	*	1.00E-02 UG/G			1.01E+01 G	27JUL88	1208	09AUG88	I	341	011128
SOIL	M151	METHLOR	A34	*	3.00E-01 UG/G			1.01E+01 G	27JUL88	1208	09AUG88	I	341	011128
SOIL	M151	TOXAENE	A35	*	1.00E-01 UG/G			1.01E+01 G	27JUL88	1208	09AUG88	I	341	011128
SOIL	M151	A-BHC	A36	*	1.00E-02 UG/G			1.01E+01 G	27JUL88	1208	09AUG88	I	341	011128
SOIL	M151	B-BHC	A37	*	1.00E-02 UG/G			1.01E+01 G	27JUL88	1208	09AUG88	I	341	011128
SOIL	M151	G-BHC	A38	*	1.00E-02 UG/G			1.01E+01 G	27JUL88	1208	09AUG88	I	341	011128
SOIL	M151	D-BHC	A39	*	1.00E-02 UG/G			1.01E+01 G	27JUL88	1208	09AUG88	I	341	011128
SOIL	M151	DDD	A40	*	1.00E-02 UG/G			1.01E+01 G	27JUL88	1208	09AUG88	I	341	011128
SOIL	M151	DDE	A41	*	1.00E-02 UG/G			1.01E+01 G	27JUL88	1208	09AUG88	I	341	011128
SOIL	M151	DDT	A42	*	1.00E-02 UG/G			1.01E+01 G	27JUL88	1208	09AUG88	I	341	011128
SOIL	M151	HEPTLOR	A43	*	1.00E-02 UG/G			1.01E+01 G	27JUL88	1208	09AUG88	I	341	011128
SOIL	M151	HEPTIDE	A44	*	1.00E-02 UG/G			1.01E+01 G	27JUL88	1208	09AUG88	I	341	011128
SOIL	M151	DIELRIN	A46	*	1.00E-02 UG/G			1.01E+01 G	27JUL88	1208	09AUG88	I	341	011128
SOIL	M151	ALDRIN	A47	*	1.00E-02 UG/G			1.01E+01 G	27JUL88	1208	09AUG88	I	341	011128
SOIL	M151	CHLDANE	A48	*	1.00E+00 UG/G			1.01E+01 G	27JUL88	1208	09AUG88	I	341	011128

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2500 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. D-82472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M151	ENDO1	A49	*	1.00E-02 UG/G			1.01E+01	G	27JUL88	1208	09AUG88	I	341	011128
SOIL	M151	ENDO2	A52	*	1.00E-02 UG/G			1.01E+01	G	27JUL88	1208	09AUG88	I	341	011128
SOIL	M151	CHLLATE	C62	*	3.00E+00 UG/G			1.01E+01	G	27JUL88	1208	09AUG88	I	341	011128
SOIL	M151	DSC	X10		8.38E+01 %RECOV			1.01E+01	G	27JUL88	1208	09AUG88	I	341	011128
***) PROCEDURE: 731		REPORTED: 12AUG88													
SOIL	M151	TETRANE	A61	*	5.00E-03 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	BENZENE	A62	*	5.00E-03 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	DIOXANE	A63	*	5.00E-01 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	METHONE	A64	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	PYRIDIN	A65	*	5.00E-01 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	TOLUENE	A66	*	5.00E-03 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	1,1,1-T	A67	*	5.00E-03 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	1,1,2-T	A68	*	5.00E-03 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	TRICENE	A69	*	5.00E-03 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	PERCENE	A70	*	5.00E-03 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	OPXYLEN	A71	*	5.00E-03 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	ACROLIN	A72	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	ACRYLE	A73	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	BISTHER	A74	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	BROMONE	A75	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	METHBRO	A76	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	CARBIDE	A77	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	CHLBENZ	A78	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	CHLTHER	A79	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	CHLFORM	A80	*	5.00E-03 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	METHCHL	A81	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	CHMTHER	A82	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	CROTONA	A83	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	DIBRCHL	A84	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	DIBRETH	A85	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	DIBRMET	A86	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	DIBUTEN	A87	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	DICDIFN	A88	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	1,1-DIC	A89	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	1,2-DIC	A90	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	TRANDCE	A91	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	DICETHY	A92	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	METHYCH	A93	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	DICPANE	A94	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	DICPENE	A95	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	NNDIEHY	A96	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	HYDRSUL	A99	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	IODOMET	B01	*	1.00E-02 UG/G			5.00E+00	G	27JUL88	1208	03AUG88	I	341	011128

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M151	METHACR	B02	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	METHTHI	B03	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	PENTACH	B04	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	1112-TC	B05	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	1122-TC	B06	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	BROMORM	B08	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	TRCMEDL	B09	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	TRCMFLM	B10	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	TRCPANE	B11	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	123-TRP	B12	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	VINYIDE	B13	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	M-XYLE	B14	*	5.00E-03 UG/G			5.00E+00 G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	DIETHY	B15	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	ACETILE	B19	*	3.00E+00 UG/G			5.00E+00 G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	METACRY	C04	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	FORMALN	C71	*	5.00E-01 UG/G			5.00E+00 G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	ETHOXID	H05	*	3.00E+00 UG/G			5.00E+00 G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	ETHMETH	H06	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	HEXONE	H68	*	1.00E-02 UG/G			5.00E+00 G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	ACETONE	I01		3.60E-02 UG/G			5.00E+00 G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	12DCAD4	X07		9.08E+01 %RECOV			5.00E+00 G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	TOLUD8	X08		1.07E+02 %RECOV			5.00E+00 G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	BFB	X09		9.64E+01 %RECOV			5.00E+00 G	27JUL88	1208	03AUG88	I	341	011128
===> PROCEDURE: 733		REPORTED: 12AUG88												
SOIL	M151	ACETOPH	B20	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	WARFRIN	B21	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	ACEFENE	B22	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	AMINOYL	B23	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	AMIISOX	B24	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	AMITROL	B25	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	ANILINE	B26	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	ARAMITE	B27	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	AURAMIN	B28	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	BENZCAC	B29	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	BENZAAN	B30	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	BENDICM	B31	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	BENTHOL	B32	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	BENDINE	B33	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	BENZDFL	B34	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	BENZJFL	B35	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	PBENZGU	B36	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	BENZCHL	B37	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	BISECHM	B38	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128

* Denotes a result less than the detection limit

2500 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M151	BIS2CHE	B39	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	BIS2EPH	B40	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	BROPHEN	B41	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	BUTSENP	B42	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	BUTDINP	B43	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	CHALETH	B44	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	CHLANIL	B45	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	CHLCRES	B46	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	CHLEFOX	B47	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	CHLNAPH	B48	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	CHLPHEN	B49	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	CHRYSEN	B50	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	CRESOLS	B51	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	CYCHDIN	B52	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	DIBAHAC	B53	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	DIBAJAC	B54	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	DIBIHAN	B55	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	DIBCGCA	B56	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	DIBAEPY	B57	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	DIBAHPY	B58	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	DIBAIPY	B59	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	DIBPHTH	B60	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	12-DBEN	B61	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	13-DBEN	B62	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	14-DBEN	B63	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	DICHDEN	B64	*	2.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	24-DCHP	B65	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	26-DCHP	B66	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	DIEPHTH	B67	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	DIHYSAF	B68	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	DIMTHB	B69	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	DIMEAMB	B70	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	DIMBENZ	B71	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	DIMEYLB	B72	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	THIONOX	B73	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	DIMPHAM	B74	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	DIMPHEN	B75	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	DIMPHTH	B76	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	DINBENZ	B77	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	DINCRES	B78	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	DINPHEN	B79	*	5.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	24-DINT	B80	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	26-DINT	B81	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	DIOPHTH	B82	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	DIPHANI	B83	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M151	DIPHHYD	B84	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	DIPRNIT	B85	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	ETHMINE	B86	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	ETHMETS	B87	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	FLUORAN	B88	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	HEXCBEN	B89	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	HEXCBUT	B90	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	HEXCCYC	B91	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	HEXCETH	B92	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	INDENOP	B93	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	ISOSOLE	B94	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	MALDICE	B95	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	MELPHAL	B96	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	METHAPY	B97	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	METHNYL	B98	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	METAZIR	B99	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	METCHAN	C01	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	METBISC	C02	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	METACTO	C03	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	METMSUL	C05	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	METPROP	C06	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	METHIOU	C07	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	NAPHQUI	C08	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	1-NAPHA	C09	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	2-NAPHA	C10	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	NITRANI	C11	*	5.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	NITBENZ	C12	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	NITPHEN	C13	*	5.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	NNIBUTY	C14	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	NNIDIEA	C15	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	NNIDIEY	C16	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	NNIDIME	C17	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	NNIMETH	C18	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	NNIURET	C19	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	NNIVINY	C20	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	NNINORP	C21	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	NNINICO	C22	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	NNIPIPE	C23	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	NITRPYR	C24	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	NITRTOL	C25	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	PENTCHB	C26	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	PENTCHN	C27	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	PENTCHP	C28	*	5.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	PHENTIN	C29	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	PHENINE	C30	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-92472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M151	PHTHEST	C31	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	PICOLIN	C32	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	PRONIDE	C33	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	RESERPI	C34	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	RESORCI	C35	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	SAFROL	C36	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	TETRCHB	C37	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	TETRCHP	C39	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	THIURAM	C40	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	TOLUDIA	C41	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	OTOLHYD	C42	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	TRICHLB	C43	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	245-TRP	C44	*	5.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	246-TRP	C45	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	TRIPHOS	C46	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	SYMTRIN	C47	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	TRISPHO	C48	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	BENZOPY	C49	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	CHLNAPI	C50	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	BIS2ETH	C51	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	HEXAENE	C52	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	HEXACHL	C54	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	NAPHTHA	C55	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	123TRI	C56	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	PHENOL	C57	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	135TRI	C58	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	1234TE	C59	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	1235TE	C60	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	KEROSEN	C79	*	1.00E+03 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	STRYCHN	C91	*	5.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	MALHYDR	C92	*	5.00E+01 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	NICOTIN	C93	*	1.00E+01 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	TRIBUPH	I21	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	2FLPHCN	X01		7.03E+01 %RECOV			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	PHENO6	X02		6.14E+01 %RECOV			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	NITBN2	X03		6.84E+01 %RECOV			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	2FLBIPH	X04		7.40E+01 %RECOV			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	246TRI	X05		5.12E+01 %RECOV			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	TERD14	X06		7.42E+01 %RECOV			1.00E+01 G	27JUL88	1208	08AUG88	I	341	011128
===> PROCEDURE: 734		REPORTED: 12AUG88												
SOIL	M151	TETEPYR	C61	*	1.00E+00 UG/G			1.01E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	CARBPHT	C63	*	1.00E+00 UG/G			1.01E+01 G	27JUL88	1208	08AUG88	I	341	011128
SOIL	M151	DISULFO	C64	*	1.00E+00 UG/G			1.01E+01 G	27JUL88	1208	08AUG88	I	341	011128

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. D-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M151	DIMETHO	C65	*	2.00E-01 UG/G			1.01E+01 G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	METHPAR	C66	*	1.00E+00 UG/G			1.01E+01 G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	PARATHI	C67	*	1.00E+00 UG/G			1.01E+01 G	27JUL88	1208	03AUG88	I	341	011128
===> PROCEDURE: 735		REPORTED: 12AUG88												
SOIL	M151	NITRATE	C72	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	SULFATE	C73		2.10E+00 UG/G			1.00E+01 G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	FLOURID	C74	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	CHLORID	C75	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	03AUG88	I	341	011128
SOIL	M151	PHOSPHA	C76	*	2.00E+00 UG/G			1.00E+01 G	27JUL88	1208	03AUG88	I	341	011128
===> PROCEDURE: 737		REPORTED: 12AUG88												
SOIL	M151	2,4-D	H13	*	1.00E+00 UG/G			2.50E+01 G	27JUL88	1208	10AUG88	I	341	011128
SOIL	M151	2,4,5TP	H14	*	1.00E+00 UG/G			2.50E+01 G	27JUL88	1208	10AUG88	I	341	011128
SOIL	M151	2,4,5-T	H15	*	1.00E+00 UG/G			2.50E+01 G	27JUL88	1208	10AUG88	I	341	011128
===> PROCEDURE: 739		REPORTED: 12AUG88												
SOIL	M151	AR1016	A54	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	12AUG88	I	341	011128
SOIL	M151	AR1221	A55	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	12AUG88	I	341	011128
SOIL	M151	AR1232	A56	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	12AUG88	I	341	011128
SOIL	M151	AR1242	A57	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	12AUG88	I	341	011128
SOIL	M151	AR1248	A58	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	12AUG88	I	341	011128
SOIL	M151	AR1254	A59	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	12AUG88	I	341	011128
SOIL	M151	AR1260	A60	*	1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	12AUG88	I	341	011128
===> PROCEDURE: A20		REPORTED: 12AUG88												
SOIL	M151	ARSENIC	A20		3.60E+00 UG/G			1.01E+00 G	27JUL88	1208	10AUG88	I	341	011128
===> PROCEDURE: A21		REPORTED: 12AUG88												
SOIL	M151	MERCURY	A21	*	2.00E-01 UG/G			2.67E-01 G	27JUL88	1208	02AUG88	I	341	011128
===> PROCEDURE: A22		REPORTED: 12AUG88												
SOIL	M151	SELENUM	A22	*	5.00E-01 UG/G			1.01E+00 G	27JUL88	1208	10AUG88	I	341	011128
===> PROCEDURE: A23		REPORTED: 12AUG88												
SOIL	M151	THALIUM	A23	*	1.00E+00 UG/G			1.01E+00 G	27JUL88	1208	08AUG88	I	341	011128
===> PROCEDURE: A51		REPORTED: 12AUG88												
SOIL	M151	LEAD	A51		4.18E+00 UG/G			1.01E+00 G	27JUL88	1208	07AUG88	I	341	011128

* Denotes a result less than the detection limit

2900 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE	RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: C68		REPORTED: 12AUG88											
SOIL	M151	TOX	C68	3.99E+00 UG/G			1.00E+00 G	27JUL88	1208	04AUG88	I	341	011128
===> PROCEDURE: C69		REPORTED: 12AUG88											
SOIL	M151	TOC	C69	* 1.00E+01 UG/G			1.94E+01 G	27JUL88	1208	02AUG88	I	341	011128
===> PROCEDURE: C70		REPORTED: 12AUG88											
SOIL	M151	CYANIDE	C70	* 1.00E+00 UG/G			1.00E+01 G	27JUL88	1208	04AUG88	I	341	011128
===> PROCEDURE: C77		REPORTED: 12AUG88											
SOIL	M151	PERCHLO	C77	* 2.00E+00 UG/G			1.00E+01 G	27JUL88	1208	04AUG88	I	341	011128
===> PROCEDURE: C78		REPORTED: 12AUG88											
SOIL	M151	SULFIDE	C78	* 1.00E+01 UG/G			4.76E+01 G	27JUL88	1208	03AUG88	I	341	011128
===> PROCEDURE: C80		REPORTED: 12AUG88											
SOIL	M151	AMMONIU	C80	1.60E+00 UG/G			1.00E+01 G	27JUL88	1208	10AUG88	I	341	011128
===> PROCEDURE: C81		REPORTED: 12AUG88											
SOIL	M151	ETHYGLY	C81	* 1.00E+01 UG/G			5.00E+00 G	27JUL88	1208	30JUL88	I	341	011128
*********** <** SAMPLE: M152 **> **********													
===> PROCEDURE: 088		REPORTED: 04AUG88											
SOIL	M152	LSP COND	088	1.41E+02			1.00E+01 G	29JUL88	0835	01AUG88	I	341	011129
===> PROCEDURE: 207		REPORTED: 04AUG88											
SOIL	M152	PH (LAB)	207	7.60E+00			0.00E+00 G	29JUL88	0835	29JUL88	I	341	011129
===> PROCEDURE: 726		REPORTED: 12AUG88											
SOIL	M152	BERYLAM	A01	* 5.00E-01 UG/G			1.04E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	STRONUM	A03	3.18E+01 UG/G			1.04E+00 G	29JUL88	0835	05AUG88	I	341	011129

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. D-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M152	ZINC	A04		4.32E+01 UG/G			1.04E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	CALCIUM	A05		4.57E+03 UG/G			1.04E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	BARIUM	A06		9.38E+01 UG/G			1.04E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	CADMIUM	A07	*	2.00E-01 UG/G			1.04E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	CHROMUM	A08		1.13E+01 UG/G			1.04E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	SILVER	A10	*	1.00E+00 UG/G			1.04E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	SODIUM	A11		1.25E+03 UG/G			1.04E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	NICKEL	A12		7.80E+00 UG/G			1.04E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	COPPER	A13	*	1.00E+00 UG/G			1.04E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	VANADUM	A14		5.59E+01 UG/G			1.04E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	ANTIONY	A15	*	1.00E+01 UG/G			1.04E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	ALUMNUM	A16		8.79E+03 UG/G	1		1.04E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	MANGESE	A17		3.33E+02 UG/G			1.04E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	POTASUM	A18		1.29E+03 UG/G	1		1.04E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	IRON	A19		2.47E+04 UG/G	1		1.04E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	MAGNES	A50		5.05E+03 UG/G	1		1.04E+00 G	29JUL88	0835	04AUG88	I	341	011129
===> PROCEDURE: 727		REPORTED: 16AUG88												
SOIL	M152	THIOURA	A24	*	2.00E+00 UG/G			1.00E+01 G	29JUL88	0835	14AUG88	I	341	011129
SOIL	M152	ACETREA	A25	*	2.00E+00 UG/G			1.00E+01 G	29JUL88	0835	14AUG88	I	341	011129
SOIL	M152	CHLOREA	A26	*	2.00E+00 UG/G			1.00E+01 G	29JUL88	0835	14AUG88	I	341	011129
SOIL	M152	DIETROL	A27	*	2.00E+00 UG/G			1.00E+01 G	29JUL88	0835	14AUG88	I	341	011129
SOIL	M152	ETHYREA	A28	*	2.00E+00 UG/G			1.00E+01 G	29JUL88	0835	14AUG88	I	341	011129
SOIL	M152	NAPHREA	A29	*	2.00E+00 UG/G			1.00E+01 G	29JUL88	0835	14AUG88	I	341	011129
SOIL	M152	PHENREA	A32	*	5.00E+00 UG/G			1.00E+01 G	29JUL88	0835	14AUG88	I	341	011129
===> PROCEDURE: 729		REPORTED: 12AUG88												
SOIL	M152	ENDRIN	A33	*	1.00E-02 UG/G			1.01E+01 G	29JUL88	0835	09AUG88	I	341	011129
SOIL	M152	METHLOR	A34	*	3.00E-01 UG/G			1.01E+01 G	29JUL88	0835	09AUG88	I	341	011129
SOIL	M152	TOXAENE	A35	*	1.00E-01 UG/G			1.01E+01 G	29JUL88	0835	09AUG88	I	341	011129
SOIL	M152	A-BHC	A36	*	1.00E-02 UG/G			1.01E+01 G	29JUL88	0835	09AUG88	I	341	011129
SOIL	M152	B-BHC	A37	*	1.00E-02 UG/G			1.01E+01 G	29JUL88	0835	09AUG88	I	341	011129
SOIL	M152	G-BHC	A38	*	1.00E-02 UG/G			1.01E+01 G	29JUL88	0835	09AUG88	I	341	011129
SOIL	M152	D-BHC	A39	*	1.00E-02 UG/G			1.01E+01 G	29JUL88	0835	09AUG88	I	341	011129
SOIL	M152	DDD	A40	*	1.00E-02 UG/G			1.01E+01 G	29JUL88	0835	09AUG88	I	341	011129
SOIL	M152	DDE	A41	*	1.00E-02 UG/G			1.01E+01 G	29JUL88	0835	09AUG88	I	341	011129
SOIL	M152	DDT	A42	*	1.00E-02 UG/G			1.01E+01 G	29JUL88	0835	09AUG88	I	341	011129
SOIL	M152	HEPTLOR	A43	*	1.00E-02 UG/G			1.01E+01 G	29JUL88	0835	09AUG88	I	341	011129
SOIL	M152	HEPTIDE	A44	*	1.00E-02 UG/G			1.01E+01 G	29JUL88	0835	09AUG88	I	341	011129
SOIL	M152	DIELRIN	A46	*	1.00E-02 UG/G			1.01E+01 G	29JUL88	0835	09AUG88	I	341	011129
SOIL	M152	ALDRIN	A47	*	1.00E-02 UG/G			1.01E+01 G	29JUL88	0835	09AUG88	I	341	011129
SOIL	M152	CHLDANE	A48	*	1.00E+00 UG/G			1.01E+01 G	29JUL88	0835	09AUG88	I	341	011129
SOIL	M152	ENDO1	A49	*	1.00E-02 UG/G			1.01E+01 G	29JUL88	0835	09AUG88	I	341	011129

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no D-82472-A-I

All Results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M152	ENDO2	A52	*	1.00E-02 UG/G			1.01E+01 G	29JUL88	0835	09AUG88	I	341	011129
SOIL	M152	CHLLATE	C62	*	3.00E+00 UG/G			1.01E+01 G	29JUL88	0835	09AUG88	I	341	011129
SOIL	M152	DBC	X10		8.60E+01 %RECOV			1.01E+01 G	29JUL88	0835	09AUG88	I	341	011129
===> PROCEDURE: 731		REPORTED: 12AUG88												
SOIL	M152	TETRANE	A61	*	5.00E-03 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	BENZENE	A62	*	5.00E-03 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	DIOXANE	A63	*	5.00E-01 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	METHONE	A64	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	PYRIDIN	A65	*	5.00E-01 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	TOLUENE	A66	*	5.00E-03 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	1,1,1-T	A67	*	5.00E-03 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	1,1,2-T	A68	*	5.00E-03 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	TRICENE	A69	*	5.00E-03 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	PERCENE	A70	*	5.00E-03 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	OPXYLEN	A71	*	5.00E-03 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	ACROLIN	A72	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	ACRYILE	A73	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	DISTHER	A74	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	BROMONE	A75	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	METHBRO	A76	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	CARBIDE	A77	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	CHLBENZ	A78	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	CHLTHER	A79	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	CHLFORM	A80	*	5.00E-03 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	METHCHL	A81	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	CHMTHER	A82	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	CROTONA	A83	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	DIBRCHL	A84	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	DIBRETH	A85	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	DIBRMET	A86	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	DIBUTEN	A87	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	DICDIFM	A88	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	1,1-DIC	A89	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	1,2-DIC	A90	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	TRANDCE	A91	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	DICETHY	A92	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	METHYCH	A93	*	3.00E-03 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	DICPANE	A94	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	DICPENE	A95	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	NNDIEHY	A96	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	HYDRSUL	A99	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	IODOMET	B01	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	METHACR	B02	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE	RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: A51		REPORTED: 16AUG85											
SOIL	M154	LEAD	A51	5.55E+00 UG/G			1.01E+00 G	02AUG88	0745	10AUG88	I	341	011131
===> PROCEDURE: C68		REPORTED: 12AUG88											
SOIL	M154	TOX	C68	2.28E+00 UG/G			1.00E+00 G	02AUG88	0745	04AUG88	I	341	011131
===> PROCEDURE: C69		REPORTED: 16AUG88											
SOIL	M154	TOC	C69	1.16E+02 UG/G			2.01E+01 G	02AUG88	0745	08AUG88	I	341	011131
===> PROCEDURE: C70		REPORTED: 12AUG88											
SOIL	M154	CYANIDE	C70	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	0745	04AUG88	I	341	011131
===> PROCEDURE: C77		REPORTED: 12AUG88											
SOIL	M154	PERCHLO	C77	* 2.00E+00 UG/G			1.00E+01 G	02AUG88	0745	04AUG88	I	341	011131
===> PROCEDURE: C78		REPORTED: 12AUG88											
SOIL	M154	SULFIDE	C78	* 1.00E+01 UG/G			4.60E+01 G	02AUG88	0745	03AUG88	I	341	011131
===> PROCEDURE: C80		REPORTED: 12AUG89											
SOIL	M154	AMMONIU	C90	2.00E+00 UG/G			1.00E+01 G	02AUG88	0745	10AUG88	I	341	011131
===> PROCEDURE: C81		REPORTED: 12AUG88											
SOIL	M154	ETHYGLY	C81	* 1.00E+01 UG/G			5.00E+00 G	02AUG88	0745	04AUG88	I	341	011131
********** <<< SAMPLE: M155 >>> **********													
===> PROCEDURE: 088		REPORTED: 12AUG88											
SOIL	M155	LSP COND	083	3.54E+02			1.00E+01 G	02AUG88	0835	03AUG88	I	341	011132
===> PROCEDURE: 207		REPORTED: 12AUG88											
SOIL	M155	PH (LAB)	207	7.10E+00			0.00E+00 G	02AUG88	0835	03AUG88	I	341	011132
===> PROCEDURE: 726		REPORTED: 12AUG88											
SOIL	M155	BERYLAM	A01	* 5.00E-01 UG/G			1.01E+00 G	02AUG88	0835	09AUG88	I	341	011132

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE	RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M155	STRONUM	A03	2.36E+01 UG/G			1.01E+00 G	02AUG88	0835	09AUG88	I	341	011132
SOIL	M155	ZINC	A04	5.22E+01 UG/G			1.01E+00 G	02AUG88	0835	09AUG88	I	341	011132
SOIL	M155	CALCIUM	A05	4.48E+03 UG/G			1.01E+00 G	02AUG88	0835	09AUG88	I	341	011132
SOIL	M155	BARIUM	A06	7.56E+01 UG/G			1.01E+00 G	02AUG88	0835	09AUG88	I	341	011132
SOIL	M155	CADMIUM	A07	* 2.00E-01 UG/G			1.01E+00 G	02AUG88	0835	09AUG88	I	341	011132
SOIL	M155	CHROMUM	A08	1.02E+01 UG/G			1.01E+00 G	02AUG88	0835	09AUG88	I	341	011132
SOIL	M155	SILVER	A10	* 1.00E+00 UG/G			1.01E+00 G	02AUG88	0835	09AUG88	I	341	011132
SOIL	M155	SODIUM	A11	2.41E+02 UG/G			1.01E+00 G	02AUG88	0835	09AUG88	I	341	011132
SOIL	M155	NICKEL	A12	8.10E+00 UG/G			1.01E+00 G	02AUG88	0835	09AUG88	I	341	011132
SOIL	M155	COPPER	A13	4.29E+01 UG/G			1.01E+00 G	02AUG88	0835	09AUG88	I	341	011132
SOIL	M155	VANADUM	A14	6.76E+01 UG/G			1.01E+00 G	02AUG88	0835	09AUG88	I	341	011132
SOIL	M155	ANTIONY	A15	* 1.00E+01 UG/G			1.01E+00 G	02AUG88	0835	09AUG88	I	341	011132
SOIL	M155	ALUMNUM	A16	7.06E+03 UG/G	1		1.01E+00 G	02AUG88	0835	09AUG88	I	341	011132
SOIL	M155	MANGESE	A17	2.78E+02 UG/G			1.01E+00 G	02AUG88	0835	09AUG88	I	341	011132
SOIL	M155	POTASUM	A18	9.46E+02 UG/G			1.01E+00 G	02AUG88	0835	09AUG88	I	341	011132
SOIL	M155	IRON	A19	2.41E+04 UG/G	1		1.01E+00 G	02AUG88	0835	09AUG88	I	341	011132
SOIL	M155	MAGNES	A50	4.20E+03 UG/G	1		1.01E+00 G	02AUG88	0835	09AUG88	I	341	011132
===> PROCEDURE: A20		REPORTED: 16AUG88											
SOIL	M155	ARSENIC	A20	5.00E-01 UG/G			1.02E+00 G	02AUG88	0835	11AUG88	I	341	011132
===> PROCEDURE: A51		REPORTED: 16AUG88											
SOIL	M155	LEAD	A51	5.65E+00 UG/G			1.02E+00 G	02AUG88	0835	10AUG88	I	341	011132
===> PROCEDURE: C68		REPORTED: 12AUG88											
SOIL	M155	TOX	C68	1.93E+01 UG/G			1.00E+00 G	02AUG88	0835	04AUG88	I	341	011132
===> PROCEDURE: C69		REPORTED: 16AUG88											
SOIL	M155	TOC	C69	9.87E+01 UG/G			2.00E+01 G	02AUG88	0835	08AUG88	I	341	011132
**********													
** SAMPLE: M156 **													
**********													
===> PROCEDURE: 088		REPORTED: 12AUG88											
SOIL	M156	LSP COND	088	1.99E+02			1.00E+01 G	02AUG88	0930	03AUG88	I	341	011133
===> PROCEDURE: 207		REPORTED: 12AUG88											
SOIL	M155	PH (LAB)	207	8.00E+00			0.00E+00 G	02AUG88	0930	03AUG88	I	341	011133

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE 726		REPORTED: 12AUG88												
SOIL	M56	BERYLAM	A01	*	5.00E-01 UG/G			1.03E+00 G	02AUG88	0930	09AUG88	I	341	011133
SOIL	M56	STRONUM	A03		2.83E+01 UG/G			1.03E+00 G	02AUG88	0930	09AUG88	I	341	011133
SOIL	M56	ZINC	A04		3.17E+01 UG/G			1.03E+00 G	02AUG88	0930	09AUG88	I	341	011133
SOIL	M56	CALCIUM	A05		5.01E+03 UG/G			1.03E+00 G	02AUG88	0930	09AUG88	I	341	011133
SOIL	M56	BARIUM	A06		7.16E+01 UG/G			1.03E+00 G	02AUG88	0930	09AUG88	I	341	011133
SOIL	M56	CADMIUM	A07	*	2.00E-01 UG/G			1.03E+00 G	02AUG88	0930	09AUG88	I	341	011133
SOIL	M56	CHRONUM	A08		8.30E+00 UG/G			1.03E+00 G	02AUG88	0930	09AUG88	I	341	011133
SOIL	M56	SILVER	A10	*	1.00E+00 UG/G			1.03E+00 G	02AUG88	0930	09AUG88	I	341	011133
SOIL	M56	SODIUM	A11		2.92E+02 UG/G			1.03E+00 G	02AUG88	0930	09AUG88	I	341	011133
SOIL	M56	NICKEL	A12		7.30E+00 UG/G			1.03E+00 G	02AUG88	0930	09AUG88	I	341	011133
SOIL	M56	COPPER	A13		1.60E+00 UG/G			1.03E+00 G	02AUG88	0930	09AUG88	I	341	011133
SOIL	M56	VANADUM	A14		3.94E+01 UG/G			1.03E+00 G	02AUG88	0930	09AUG88	I	341	011133
SOIL	M56	ANTIONY	A15	*	1.00E+01 UG/G			1.03E+00 G	02AUG88	0930	09AUG88	I	341	011133
SOIL	M56	ALUMNUM	A16		7.04E+03 UG/G	1		1.03E+00 G	02AUG88	0930	09AUG88	I	341	011133
SOIL	M56	MANGESE	A17		2.35E+02 UG/G			1.03E+00 G	02AUG88	0930	09AUG88	I	341	011133
SOIL	M56	POTASUM	A18		5.96E+02 UG/G			1.03E+00 G	02AUG88	0930	09AUG88	I	341	011133
SOIL	M56	IRON	A19		2.03E+04 UG/G	1		1.03E+00 G	02AUG88	0930	09AUG88	I	341	011133
SOIL	M56	MAGNES	A50		4.72E+03 UG/G	1		1.03E+00 G	02AUG88	0930	09AUG88	I	341	011133
===> PROCEDURE 727		REPORTED: 16AUG88												
SOIL	M56	THIOURA	A24	*	2.00E+00 UG/G			1.00E+01 G	02AUG88	0930	14AUG88	I	341	011133
SOIL	M56	ACETREA	A25	*	2.00E+00 UG/G			1.00E+01 G	02AUG88	0930	14AUG88	I	341	011133
SOIL	M56	CHLOREA	A26	*	2.00E+00 UG/G			1.00E+01 G	02AUG88	0930	14AUG88	I	341	011133
SOIL	M56	DIETROL	A27	*	2.00E+00 UG/G			1.00E+01 G	02AUG88	0930	14AUG88	I	341	011133
SOIL	M56	ETHYREA	A28	*	2.00E+00 UG/G			1.00E+01 G	02AUG88	0930	14AUG88	I	341	011133
SOIL	M56	NAPHREA	A29	*	2.00E+00 UG/G			1.00E+01 G	02AUG88	0930	14AUG88	I	341	011133
SOIL	M56	PHENREA	A32	*	5.00E+00 UG/G			1.00E+01 G	02AUG88	0930	14AUG88	I	341	011133
===> PROCEDURE 729		REPORTED: 18AUG88												
SOIL	M56	ENDRIN	A33	*	1.00E-02 UG/G			1.00E+01 G	02AUG88	0930	10AUG88	I	341	011133
SOIL	M56	METHLOR	A34	*	3.00E-01 UG/G			1.00E+01 G	02AUG88	0930	10AUG88	I	341	011133
SOIL	M56	TOXAENE	A35	*	1.00E-01 UG/G			1.00E+01 G	02AUG88	0930	10AUG88	I	341	011133
SOIL	M56	A-BHC	A36	*	1.00E-02 UG/G			1.00E+01 G	02AUG88	0930	10AUG88	I	341	011133
SOIL	M56	B-BHC	A37	*	1.00E-02 UG/G			1.00E+01 G	02AUG88	0930	10AUG88	I	341	011133
SOIL	M56	G-BHC	A38	*	1.00E-02 UG/G			1.00E+01 G	02AUG88	0930	10AUG88	I	341	011133
SOIL	M56	D-BHC	A39	*	1.00E-02 UG/G			1.00E+01 G	02AUG88	0930	10AUG88	I	341	011133
SOIL	M56	DDD	A40	*	1.00E-02 UG/G			1.00E+01 G	02AUG88	0930	10AUG88	I	341	011133
SOIL	M56	DDE	A41	*	1.00E-02 UG/G			1.00E+01 G	02AUG88	0930	10AUG88	I	341	011133
SOIL	M56	DDT	A42	*	1.00E-02 UG/G			1.00E+01 G	02AUG88	0930	10AUG88	I	341	011133
SOIL	M56	HEPTLOR	A43	*	1.00E-02 UG/G			1.00E+01 G	02AUG88	0930	10AUG88	I	341	011133

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M156	HEPTIDE	A44	*	1.00E-02 UG/G			1.00E+01 G	02AUG88	0930	10AUG88	I	341	011133
SOIL	M156	DIELRIN	A46	*	1.00E-02 UG/G			1.00E+01 G	02AUG88	0930	10AUG88	I	341	011133
SOIL	M156	ALDRIN	A47	*	1.00E-02 UG/G			1.00E+01 G	02AUG88	0930	10AUG88	I	341	011133
SOIL	M156	CHLDANE	A48	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	10AUG88	I	341	011133
SOIL	M156	ENDO1	A49	*	1.00E-02 UG/G			1.00E+01 G	02AUG88	0930	10AUG88	I	341	011133
SOIL	M156	ENDO2	A52	*	1.00E-02 UG/G			1.00E+01 G	02AUG88	0930	10AUG88	I	341	011133
SOIL	M156	CHLLATE	C62	*	3.00E+00 UG/G			1.00E+01 G	02AUG88	0930	10AUG88	I	341	011133
SOIL	M156	DBC	X10		8.80E+01 %RECOV			1.00E+01 G	02AUG88	0930	10AUG88	I	341	011133
===> PROCEDURE: 731		REPORTED: 12AUG88												
SOIL	M156	TETRANE	A61	*	5.00E-03 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	BENZENE	A62	*	5.00E-03 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	DIOXANE	A63	*	5.00E-01 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	METHONE	A64	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	PYRIDIN	A65	*	5.00E-01 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	TOLUENE	A66	*	5.00E-03 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	1,1,1-T	A67	*	5.00E-03 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	1,1,2-T	A68	*	5.00E-03 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	TRICENE	A69	*	5.00E-03 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	PERCENE	A70	*	5.00E-03 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	OPXYLEN	A71	*	5.00E-03 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	ACROLIN	A72	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	ACRYILE	A73	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	BISTHER	A74	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	BROMONE	A75	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	METHBRO	A76	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	CARBIDE	A77	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	CHLBENZ	A78	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	CHLTHER	A79	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	CHLFORM	A80	*	5.00E-03 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	METHCHL	A81	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	CHMTHER	A82	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	CROTONA	A83	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	DIBRCHL	A84	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	DIBRETH	A85	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	DIBRMET	A86	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	DIBUTEN	A87	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	DICDIFM	A88	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	1,1-DIC	A89	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	1,2-DIC	A90	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	TRANDCE	A91	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	DICETHY	A92	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	METHYCH	A93	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	DICPANE	A94	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-62472-A-1

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M156	DICPENE	A95	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	NNDIEHY	A96	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	HYDRSUL	A99	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	IODOMET	B01	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	METHACR	B02	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	METHTHI	B03	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	PENTACH	B04	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	1112-TC	B05	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	1122-TC	B06	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	BROMORM	B08	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	TRCMEDL	B09	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	TRCMFLN	B10	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	TRCPANE	B11	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	123-TRP	B12	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	VINYIDE	B13	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	M-XYLE	B14	*	5.00E-03 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	DIETHY	B15	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	ACETILE	B19	*	3.00E+00 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	METACRY	C04	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	FORMALN	C71	*	5.00E-01 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	ETHOXID	H05	*	3.00E+00 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	ETHMETH	H06	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	HEXONE	H88	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	12DCAD4	X07		1.17E+02 %RECOV			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	TOLUDS	X08		1.03E+02 %RECOV			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
SOIL	M156	BFB	X09		8.78E+01 %RECOV			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
===> PROCEDURE: 733		REPORTED: 12AUG88												
SOIL	M156	ACETOPH	B20	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	WARFRIN	B21	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	ACEFENE	B22	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	AMINOYL	B23	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	AMIISOX	B24	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	AMITROL	B25	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	ANILINE	B26	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	ARAMITE	B27	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	AURAMIN	B28	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	BENZOAC	B29	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	BENZAAN	B30	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	BENDICN	B31	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	DENTHOL	B32	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	BENDINE	B33	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	BENZBFL	B34	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	BENZJFL	B35	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M156	FBENZQU	B36	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	BENZCHL	B37	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	BIS2CHN	B38	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	BIS2CHE	B39	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	BIS2EPH	B40	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	BROPHEN	B41	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	BUTBENP	B42	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	BUTDINP	B43	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	CHALETH	B44	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	CHLANIL	B45	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	CHLCRES	B46	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	CHLEPOX	B47	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	CHLNAPH	B48	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	CHLPHEN	B49	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	CHRYSEN	B50	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	CRESOLS	B51	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	CYCHDIN	B52	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	DIBAHAC	B53	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	DIBAJAC	B54	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	DIBIHAN	B55	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	DIBCGCA	B56	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	DIBAEPY	B57	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	DIBAHPY	B58	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	DIBAIPY	B59	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	DIBPHTH	B60	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	12-DBEN	B61	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	13-DBEN	B62	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	14-DBEN	B63	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	DICHDEN	B64	*	2.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	24-DCHP	B65	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	26-DCHP	B66	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	DIEPHTH	B67	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	DIHYSAF	B68	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	DIMTHB	B69	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	DIMEAMB	B70	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	DIMBENZ	B71	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	DIMEYLB	B72	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	THIONOX	B73	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	DIMPHAM	B74	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	DINPHEN	B75	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	DINPHTH	B76	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	DINBENZ	B77	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	DINCRES	B78	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	DINPHEN	B79	*	5.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	24-DINT	B80	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0930	11AUG88	I	341	011133

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M156	26-DINT	B81	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	DIOPHTH	B82	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	DIPHAMI	B83	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	DIPHHYD	B84	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	DIPRNIT	B85	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	ETHMINE	B86	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	ETHMETS	B87	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	FLUORAN	B88	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	HEXCBEN	B89	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	HEXCBUT	B90	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	HEXCCYC	B91	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	HEXCETH	B92	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	INDENOP	B93	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	ISOSOLE	B94	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	MALOILE	B95	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	MELPHAL	B96	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	METHAPY	B97	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	METHNYL	B98	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	METAZIR	B99	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	METCHAN	C01	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	METBISC	C02	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	METACTO	C03	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	METMSUL	C05	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	METPROP	C06	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	METHIOU	C07	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	NAPHQUI	C09	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	1-NAPHA	C09	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	2-NAPHA	C10	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	NITRANI	C11	*	5.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	NITBENZ	C12	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	NITPHEN	C13	*	5.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	NNIBUTY	C14	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	NNIDIEA	C15	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	NNIDIEY	C16	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	NNIDINE	C17	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	NNIMETH	C18	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	NNIURET	C19	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	NNIVINY	C20	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	NNIMORP	C21	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	NNINICO	C22	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	NNIPIPE	C23	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	NITRPYR	C24	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	NITRTOL	C25	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	PENTCHO	C26	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	PENTCHN	C27	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133

* Denotes a result less than the detection limit

2600 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M156	PENTCHP	C28	*	5.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	PHENTIN	C29	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	PHENINE	C30	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	PHTHEST	C31	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	PICOLIN	C32	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	PRONIDE	C33	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	RESERPI	C34	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	RESORCI	C35	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	SAFROL	C36	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	TETRCHD	C37	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	TETRCHP	C39	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	THIURAM	C40	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	TOLUDIA	C41	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	OTOLHYD	C42	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	TRICHLD	C43	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	245-TRP	C44	*	5.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	246-TRP	C45	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	TRIPHOS	C46	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	SYMTRIN	C47	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	TRISPHO	C48	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	BENZOPY	C49	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	CHLNAPZ	C50	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	BIS2ETH	C51	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	HEXAENE	C52	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	HEXACHL	C54	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	NAPHTHA	C55	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	120TRI	C56	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	PHENOL	C57	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	135TRI	C58	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	1234TE	C59	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	1235TE	C60	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	KEROSEN	C79	*	1.00E+03 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	STRYCHN	C91	*	5.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	MALHYDR	C92	*	5.00E+01 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	NICOTIN	C93	*	1.00E+01 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	TRIBUPH	121	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	2FLPHEN	X01		6.81E+01 %RECOV			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	PHEND6	X02		6.13E+01 %RECOV			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	NITBN2	X03		6.08E+01 %RECOV			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	2FLBIPH	X04		6.22E+01 %RECOV			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	245TRI	X05		5.66E+01 %RECOV			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	TERD14	X06		8.08E+01 %RECOV			1.00E+01 G	02AUG88	0930	11AUG88	I	341	011133
===> PROCEDURE: 734		REPORTED: 12AUG88												
SOIL	M156	TETEPYR	C61	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	08AUG88	I	341	011133

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UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M156	CARBPHT	C63	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	08AUG88	I	341	011133
SOIL	M156	DISULFO	C64	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	08AUG88	I	341	011133
SOIL	M156	DIMETHO	C65	*	2.00E-01 UG/G			1.00E+01 G	02AUG88	0930	08AUG88	I	341	011133
SOIL	M156	METHPAR	C66	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	08AUG88	I	341	011133
SOIL	M156	PARATHI	C67	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	08AUG88	I	341	011133
===> PROCEDURE: 735		REPORTED: 12AUG88												
SOIL	M156	NITRATE	C72	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	08AUG88	I	341	011133
SOIL	M156	SULFATE	C73		1.67E+00 UG/G			1.00E+01 G	02AUG88	0930	08AUG88	I	341	011133
SOIL	M156	FLOURID	C74	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	08AUG88	I	341	011133
SOIL	M156	CHLORID	C75		1.31E+00 UG/G			1.00E+01 G	02AUG88	0930	08AUG88	I	341	011133
SOIL	M156	PHOSPHA	C76	*	2.00E+00 UG/G			1.00E+01 G	02AUG88	0930	08AUG88	I	341	011133
===> PROCEDURE: 737		REPORTED: 16AUG88												
SOIL	M156	2,4-D	H13	*	1.00E+00 UG/G			2.50E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	2,4,5TP	H14	*	1.00E+00 UG/G			2.50E+01 G	02AUG88	0930	11AUG88	I	341	011133
SOIL	M156	2,4,5-T	H15	*	1.00E+00 UG/G			2.50E+01 G	02AUG88	0930	11AUG88	I	341	011133
===> PROCEDURE: 739		REPORTED: 16AUG88												
SOIL	M156	AR1016	A54	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	10AUG88	I	341	011133
SOIL	M156	AR1221	A55	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	10AUG88	I	341	011133
SOIL	M156	AR1232	A56	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	10AUG88	I	341	011133
SOIL	M156	AR1242	A57	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	10AUG88	I	341	011133
SOIL	M156	AR1248	A58	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	10AUG88	I	341	011133
SOIL	M156	AR1254	A59	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	10AUG88	I	341	011133
SOIL	M156	AR1260	A60	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	10AUG88	I	341	011133
===> PROCEDURE: A20		REPORTED: 16AUG88												
SOIL	M156	ARSENIC	A20	*	5.00E-01 UG/G			1.01E+00 G	02AUG88	0930	11AUG88	I	341	011133
===> PROCEDURE: A21		REPORTED: 12AUG88												
SOIL	M156	MERCURY	A21	*	2.00E-01 UG/G			2.19E-01 G	02AUG88	0930	03AUG88	I	341	011133
===> PROCEDURE: A22		REPORTED: 16AUG88												
SOIL	M156	SELENUM	A22	*	5.00E-01 UG/G			1.01E+00 G	02AUG88	0930	11AUG88	I	341	011133
===> PROCEDURE: A23		REPORTED: 16AUG88												
SOIL	M156	THALIUM	A23	*	1.00E+00 UG/G			1.01E+00 G	02AUG88	0930	10AUG88	I	341	011133

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2600 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. D-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE	RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: A51		REPORTED: 16AUG88											
SOIL	M156	LEAD	A51	3.89E+00 UG/G			1.01E+00 G	02AUG88	0930	10AUG88	I	341	011133
===> PROCEDURE: C68		REPORTED: 12AUG88											
SOIL	M156	TOX	C68	2.08E+00 UG/G			1.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
===> PROCEDURE: C69		REPORTED: 16AUG88											
SOIL	M156	TOC	C69	1.78E+01 UG/G			2.00E+01 G	02AUG88	0930	03AUG88	I	341	011133
===> PROCEDURE: C70		REPORTED: 12AUG88											
SOIL	M156	CYANIDE	C70	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	0930	04AUG88	I	341	011133
===> PROCEDURE: C77		REPORTED: 12AUG88											
SOIL	M156	PERCHLO	C77	* 2.00E+00 UG/G			1.00E+01 G	02AUG88	0930	04AUG88	I	341	011133
===> PROCEDURE: C78		REPORTED: 12AUG88											
SOIL	M156	SULFIDE	C78	* 1.00E+01 UG/G			4.76E+01 G	02AUG88	0930	03AUG88	I	341	011133
===> PROCEDURE: C80		REPORTED: 12AUG88											
SOIL	M156	AMMONIU	C80	2.60E+00 UG/G			1.00E+01 G	02AUG88	0930	10AUG88	I	341	011133
===> PROCEDURE: C81		REPORTED: 12AUG88											
SOIL	M156	ETHYGLY	C81	* 1.00E+01 UG/G			5.00E+00 G	02AUG88	0930	04AUG88	I	341	011133
********** <** SAMPLE: M157 **> **********													
===> PROCEDURE: 088		REPORTED: 12AUG88											
SOIL	M157	LSP COND	088	1.90E+02			1.00E+01 G	02AUG88	1000	03AUG88	I	341	011134
===> PROCEDURE: 207		REPORTED: 12AUG88											
SOIL	M157	PH (LAB)	207	8.20E+00			0.00E+00 G	02AUG88	1000	03AUG88	I	341	011134
===> PROCEDURE: 726		REPORTED: 12AUG88											
SOIL	M157	BERYLAM	A01	* 5.00E-01 UG/G			1.01E+00 G	02AUG88	1000	09AUG88	I	341	011134

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE	RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M157	STRONUM	A03	2.75E+01 UG/G			1.01E+00 G	02AUG88	1000	09AUG88	I	341	011134
SOIL	M157	ZINC	A04	3.16E+01 UG/G			1.01E+00 G	02AUG88	1000	09AUG88	I	341	011134
SOIL	M157	CALCIUM	A05	5.54E+03 UG/G			1.01E+00 G	02AUG88	1000	09AUG88	I	341	011134
SOIL	M157	BARIUM	A06	5.91E+01 UG/G			1.01E+00 G	02AUG88	1000	09AUG88	I	341	011134
SOIL	M157	CADMIUM	A07	* 2.00E-01 UG/G			1.01E+00 G	02AUG88	1000	09AUG88	I	341	011134
SOIL	M157	CHROMUM	A08	7.50E+00 UG/G			1.01E+00 G	02AUG88	1000	09AUG88	I	341	011134
SOIL	M157	SILVER	A10	* 1.00E+00 UG/G			1.01E+00 G	02AUG88	1000	09AUG88	I	341	011134
SOIL	M157	SODIUM	A11	1.54E+02 UG/G			1.01E+00 G	02AUG88	1000	09AUG88	I	341	011134
SOIL	M157	NICKEL	A12	6.10E+00 UG/G			1.01E+00 G	02AUG88	1000	09AUG88	I	341	011134
SOIL	M157	COPPER	A13	* 1.00E+00 UG/G			1.01E+00 G	02AUG88	1000	09AUG88	I	341	011134
SOIL	M157	VANADUM	A14	3.81E+01 UG/G			1.01E+00 G	02AUG88	1000	09AUG88	I	341	011134
SOIL	M157	ANTIONY	A15	* 1.00E+01 UG/G			1.01E+00 G	02AUG88	1000	09AUG88	I	341	011134
SOIL	M157	ALUMNUM	A16	7.83E+03 UG/G	1		1.01E+00 G	02AUG88	1000	09AUG88	I	341	011134
SOIL	M157	MANGESE	A17	2.61E+02 UG/G			1.01E+00 G	02AUG88	1000	09AUG88	I	341	011134
SOIL	M157	POTASUM	A18	9.58E+02 UG/G			1.01E+00 G	02AUG88	1000	09AUG88	I	341	011134
SOIL	M157	IRON	A19	2.14E+04 UG/G	1		1.01E+00 G	02AUG88	1000	09AUG88	I	341	011134
SOIL	M157	MAGNES	A50	5.61E+03 UG/G	1		1.01E+00 G	02AUG88	1000	09AUG88	I	341	011134
===> PROCEDURE: A20		REPORTED: 16AUG88											
SOIL	M157	ARSENIC	A20	1.00E+00 UG/G			1.01E+00 G	02AUG88	1000	11AUG88	I	341	011134
===> PROCEDURE: A51		REPORTED: 16AUG88											
SOIL	M157	LEAD	A51	4.74E+00 UG/G			1.01E+00 G	02AUG88	1000	10AUG88	I	341	011134
===> PROCEDURE: C68		REPORTED: 12AUG88											
SOIL	M157	TOX	C68	1.01E+01 UG/G			1.00E+00 G	02AUG88	1000	04AUG88	I	341	011134
===> PROCEDURE: C69		REPORTED: 16AUG88											
SOIL	M157	TOC	C69	* 1.00E+01 UG/G			2.00E+01 G	02AUG88	1000	03AUG88	I	341	011134
**********													
<** SAMPLE: M158 **>													
**********													
===> PROCEDURE: 083		REPORTED: 12AUG88											
SOIL	M158	LSP COND	083	1.47E+02			1.00E+01 G	02AUG88	1050	03AUG88	I	341	011135
===> PROCEDURE: 207		REPORTED: 12AUG88											
SOIL	M158	PH (LAB)	207	8.50E+00			0.00E+00 G	02AUG88	1050	03AUG88	I	341	011135

* Denotes a result less than the detection limit

2600 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no D-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: 726		REPORTED: 12AUG88													
SOIL	M158	BERYLAM	A01	*	5.00E-01 UG/G			1.01E+00	G	02AUG88	1050	09AUG88	I	341	011135
SOIL	M158	STRONUM	A03		2.15E+01 UG/G			1.01E+00	G	02AUG88	1050	09AUG88	I	341	011135
SOIL	M158	ZINC	A04		2.87E+01 UG/G			1.01E+00	G	02AUG88	1050	09AUG88	I	341	011135
SOIL	M158	CALCIUM	A05		8.37E+03 UG/G	1		1.01E+00	G	02AUG88	1050	09AUG88	I	341	011135
SOIL	M158	BARIUM	A06		5.39E+01 UG/G			1.01E+00	G	02AUG88	1050	09AUG88	I	341	011135
SOIL	M158	CADMIUM	A07	*	2.00E-01 UG/G			1.01E+00	G	02AUG88	1050	09AUG88	I	341	011135
SOIL	M158	CHRONUM	A09		9.50E+00 UG/G			1.01E+00	G	02AUG88	1050	09AUG88	I	341	011135
SOIL	M158	SILVER	A10	*	1.00E+00 UG/G			1.01E+00	G	02AUG88	1050	09AUG88	I	341	011135
SOIL	M158	SODIUM	A11		1.20E+02 UG/G			1.01E+00	G	02AUG88	1050	09AUG88	I	341	011135
SOIL	M158	NICKEL	A12		8.00E+00 UG/G			1.01E+00	G	02AUG88	1050	09AUG88	I	341	011135
SOIL	M158	COPPER	A13		1.20E+00 UG/G			1.01E+00	G	02AUG88	1050	09AUG88	I	341	011135
SOIL	M158	VANADUM	A14		2.84E+01 UG/G			1.01E+00	G	02AUG88	1050	09AUG88	I	341	011135
SOIL	M158	ANTIONY	A15	*	1.00E+01 UG/G			1.01E+00	G	02AUG88	1050	09AUG88	I	341	011135
SOIL	M158	ALUMNUM	A16		7.30E+03 UG/G	1		1.01E+00	G	02AUG88	1050	09AUG88	I	341	011135
SOIL	M158	MANGESE	A17		2.26E+02 UG/G			1.01E+00	G	02AUG88	1050	09AUG88	I	341	011135
SOIL	M158	POTASUM	A18		1.28E+03 UG/G	1		1.01E+00	G	02AUG88	1050	09AUG88	I	341	011135
SOIL	M158	IRON	A19		1.79E+04 UG/G	1		1.01E+00	G	02AUG88	1050	09AUG88	I	341	011135
SOIL	M158	MAGNES	A50		5.77E+03 UG/G	1		1.01E+00	G	02AUG88	1050	09AUG88	I	341	011135
===> PROCEDURE: 727		REPORTED: 16AUG88													
SOIL	M158	THIOURA	A24	*	2.00E+00 UG/G			1.00E+01	G	02AUG88	1050	14AUG88	I	341	011135
SOIL	M158	ACETREA	A25	*	2.00E+00 UG/G			1.00E+01	G	02AUG88	1050	14AUG88	I	341	011135
SOIL	M158	CHLOREA	A26	*	2.00E+00 UG/G			1.00E+01	G	02AUG88	1050	14AUG88	I	341	011135
SOIL	M158	DIETROL	A27	*	2.00E+00 UG/G			1.00E+01	G	02AUG88	1050	14AUG88	I	341	011135
SOIL	M158	ETHYREA	A28	*	2.00E+00 UG/G			1.00E+01	G	02AUG88	1050	14AUG88	I	341	011135
SOIL	M158	NAPHREA	A29	*	2.00E+00 UG/G			1.00E+01	G	02AUG88	1050	14AUG88	I	341	011135
SOIL	M158	PHENREA	A32	*	5.00E+00 UG/G			1.00E+01	G	02AUG88	1050	14AUG88	I	341	011135
===> PROCEDURE: 729		REPORTED: 16AUG88													
SOIL	M158	ENDRIN	A33	*	1.00E-02 UG/G			1.00E+01	G	02AUG88	1050	10AUG88	I	341	011135
SOIL	M158	METHLOR	A34	*	3.00E-01 UG/G			1.00E+01	G	02AUG88	1050	10AUG88	I	341	011135
SOIL	M158	TOXAENE	A35	*	1.00E-01 UG/G			1.00E+01	G	02AUG88	1050	10AUG88	I	341	011135
SOIL	M158	A-BHC	A36	*	1.00E-02 UG/G			1.00E+01	G	02AUG88	1050	10AUG88	I	341	011135
SOIL	M158	B-BHC	A37	*	1.00E-02 UG/G			1.00E+01	G	02AUG88	1050	10AUG88	I	341	011135
SOIL	M158	G-BHC	A38	*	1.00E-02 UG/G			1.00E+01	G	02AUG88	1050	10AUG88	I	341	011135
SOIL	M158	D-BHC	A39	*	1.00E-02 UG/G			1.00E+01	G	02AUG88	1050	10AUG88	I	341	011135
SOIL	M158	DDD	A40	*	1.00E-02 UG/G			1.00E+01	G	02AUG88	1050	10AUG88	I	341	011135
SOIL	M158	DDE	A41	*	1.00E-02 UG/G			1.00E+01	G	02AUG88	1050	10AUG88	I	341	011135
SOIL	M158	DDT	A42	*	1.00E-02 UG/G			1.00E+01	G	02AUG88	1050	10AUG88	I	341	011135
SOIL	M158	HEPTLOR	A43	*	1.00E-02 UG/G			1.00E+01	G	02AUG88	1050	10AUG88	I	341	011135

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UNITED STATES TESTING COMPANY, INC.
2500 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M158	HEPTIDE	A44	*	1.00E-02 UG/G			1.00E+01 G	02AUG88	1050	10AUG88	I	341	011135
SOIL	M158	DIELRIN	A46	*	1.00E-02 UG/G			1.00E+01 G	02AUG88	1050	10AUG88	I	341	011135
SOIL	M158	ALDRIN	A47	*	1.00E-02 UG/G			1.00E+01 G	02AUG88	1050	10AUG88	I	341	011135
SOIL	M158	CHLDANE	A48	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	10AUG88	I	341	011135
SOIL	M158	ENDO1	A49	*	1.00E-02 UG/G			1.00E+01 G	02AUG88	1050	10AUG88	I	341	011135
SOIL	M158	ENDO2	A52	*	1.00E-02 UG/G			1.00E+01 G	02AUG88	1050	10AUG88	I	341	011135
SOIL	M158	CHLLATE	C62	*	3.00E+00 UG/G			1.00E+01 G	02AUG88	1050	10AUG88	I	341	011135
SOIL	M158	DBC	X10		9.20E+01 %RECOV			1.00E+01 G	02AUG88	1050	10AUG88	I	341	011135
===> PROCEDURE: 731		REPORTED: 12AUG88												
SOIL	M158	TETRANE	A61	*	5.00E-03 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	BENZENE	A62	*	5.00E-03 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	DIOXANE	A63	*	5.00E-01 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	METHONE	A64	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	PYRIDIN	A65	*	5.00E-01 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	TOLUENE	A66	*	5.00E-03 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	1,1,1-T	A67	*	5.00E-03 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	1,1,2-T	A68	*	5.00E-03 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	TRICENE	A69	*	5.00E-03 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	PERCENE	A70	*	5.00E-03 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	OPXYLEN	A71	*	5.00E-03 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	ACROLIN	A72	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	ACRYILE	A73	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	BISTHER	A74	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	BROMONE	A75	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	METHBRO	A76	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	CARBIDE	A77	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	CHLBENZ	A78	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	CHLTHER	A79	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	CHLFORM	A80	*	5.00E-03 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	METHCHL	A81	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	CHNTHER	A82	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	CROTONA	A83	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	DIBRCHL	A84	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	DIBRETH	A85	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	DIBRMET	A86	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	DIBUTEN	A87	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	DICDIFN	A88	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	1,1-DIC	A89	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	1,2-DIC	A90	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	TRANDCE	A91	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	DICETHY	A92	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	METHYCH	A93	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	DICPANE	A94	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135

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UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

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SOIL	M158	DICPENE	A95	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	NNDIEHY	A96	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	HYDRSUL	A99	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	IODOMET	B01	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	METHACR	B02	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	METHTHI	B03	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	PENTACH	B04	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	1112-TC	B05	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	1122-TC	B06	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	BROMORM	B08	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	TRCMEDL	B09	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	TRCMFLM	B10	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	TRCPANE	B11	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	123-TRP	B12	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	VINYIDE	B13	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	M-XYLE	B14	*	5.00E-03 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	DIETHY	B15	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	ACETILE	B19	*	3.00E+00 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	METACRY	C04	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	FORMALN	C71	*	5.00E-01 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	ETHOXID	H05	*	3.00E+00 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	ETHMETH	H06	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	HEXONE	H68	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	12DCAD4	X07		1.04E+02 %RECOV			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	TOLUDB	X08		1.04E+02 %RECOV			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
SOIL	M158	BFB	X09		1.08E+02 %RECOV			5.00E+00 G	02AUG88	1050	05AUG88	I	341	011135
===> PROCEDURE: 733		REPORTED: 12AUG88												
SOIL	M158	ACETOPH	B20	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	WARFRIN	B21	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	ACEFENE	B22	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	AMINOYL	B23	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	AMIISOX	B24	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	AMITROL	B25	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	ANILINE	B26	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	ARAMITE	B27	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	AURAMIN	B28	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	BENZCAC	B29	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	BENZAAN	B30	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	BENDICN	B31	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	BENTHOL	B32	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	BENDINE	B33	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	BENZDFL	B34	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	BENZJFL	B35	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE	RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M158	PBENZGU	B36	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	BENZCHL	B37	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	BIS2CHM	B38	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	BIS2CHE	B39	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	BIS2EPH	B40	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	BROPHEN	B41	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	BUTBENP	B42	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	BUTDINP	B43	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	CHLETH	B44	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	CHLANIL	B45	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	CHLCRES	B46	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	CHLEPOX	B47	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	CHLNAPH	B48	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	CHLPHEN	B49	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	CHRYSEN	B50	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	CRESOLS	B51	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	CYCHDIN	B52	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	DIBAHAC	B53	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	DIBAJAC	B54	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	DIBIHAN	B55	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	DIBCGCA	B56	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	DIBAEPY	B57	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	DIBAHPY	B58	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	DIBAIPY	B59	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	DIBPHTH	B60	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	12-DBEN	B61	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	13-DBEN	B62	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	14-DBEN	B63	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	DICHDEN	B64	* 2.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	24-DCHP	B65	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	26-DCHP	B66	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	DIEPHTH	B67	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	DIHYSAF	B68	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	DIMTHB	B69	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	DINEAND	B70	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	DIMBENZ	B71	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	DIMEYLB	B72	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	THIONOX	B73	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	DIMPHAM	B74	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	DIMPHEN	B75	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	DIMPHTH	B76	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	DINBENZ	B77	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	DINCRES	B78	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	DINPHEN	B79	* 5.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	24-DINT	B80	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135

* Denotes a result less than the detection limit

2600 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M158	26-DINT	B81	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	DIOPHTH	B82	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	DIPHAMI	B83	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	DIPHHYD	B84	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	DIPRNIT	B85	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	ETHMINE	B86	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	ETHMETS	B87	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	FLUORAN	B88	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	HEXCBEN	B89	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	HEXCBUT	B90	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	HEXCCYC	B91	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	HEXCETH	B92	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	INDENOP	B93	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	ISOSOLE	B94	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	MALOILE	B95	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	MELPHAL	B96	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	METHAPY	B97	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	METHNYL	B98	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	METAZIR	B99	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	METCHAN	C01	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	METBISC	C02	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	METACTO	C03	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	METMSUL	C05	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	METPROP	C06	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	METHIOU	C07	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	NAPHQUI	C08	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	1-NAPHA	C09	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	2-NAPHA	C10	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	NITRANI	C11	*	5.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	NITBENZ	C12	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	NITPHEN	C13	*	5.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	NNIBUTY	C14	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	NNIDIEA	C15	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	NNIDIEY	C16	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	NNIDIME	C17	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	NNIMETH	C18	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	NNIURET	C19	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	NNIVINY	C20	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	NNIMORP	C21	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	NNINICO	C22	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	NNIPIPE	C23	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	NITRPYR	C24	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	NITRTOL	C25	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	PENTCHB	C26	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	PENTCHN	C27	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135

* Denotes a result less than the detection limit

2900 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M158	PENTCHP	C28	*	5.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	PHENTIN	C29	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	PHENINE	C30	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	PHTHEST	C31	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	PICOLIN	C32	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	PRONIDE	C33	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	RESERPI	C34	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	RESORCI	C35	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	SAFROL	C36	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	TETRCHB	C37	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	TETRCHP	C39	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	THIURAN	C40	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	TOLUDIA	C41	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	OTOLHYD	C42	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	TRICHLB	C43	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	245-TRP	C44	*	5.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	246-TRP	C45	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	TRIPHOS	C46	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	SYMTRIN	C47	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	TRISPHO	C48	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	BENZOPY	C49	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	CHLNAPZ	C50	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	BIS2ETH	C51	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	HEXAENE	C52	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	HEXACHL	C54	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	NAPHTHA	C55	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	123TRI	C56	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	PHENOL	C57	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	135TRI	C58	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	1234TE	C59	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	1235TE	C60	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	KEROSEN	C79	*	1.00E+03 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	STRYCHN	C91	*	5.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	MALHYDR	C92	*	5.00E+01 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	NICOTIN	C93	*	1.00E+01 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	TRIBUPH	I21	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	2FLPHEN	X01		7.02E+01 %RECOV			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	PHEND6	X02		6.15E+01 %RECOV			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	NITBN2	X03		6.12E+01 %RECOV			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	2FLBIPH	X04		6.32E+01 %RECOV			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	246TRI	X05		5.49E+01 %RECOV			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	TERD14	X06		7.64E+01 %RECOV			1.00E+01 G	02AUG88	1050	11AUG88	I	341	011135
*** PROCEDURE 734		REPORTED: 12AUG88												
SOIL	M158	TETEPYR	C61	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	08AUG88	I	341	011135

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M158	CARBPHT	C63	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	1050	08AUG88	I	341	011135
SOIL	M158	DISULFO	C64	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	1050	08AUG88	I	341	011135
SOIL	M158	DIMETHO	C65	*	2.00E-01 UG/G			1.00E+01	G	02AUG88	1050	08AUG88	I	341	011135
SOIL	M158	METHPAR	C66	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	1050	08AUG88	I	341	011135
SOIL	M158	PARATHI	C67	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	1050	08AUG88	I	341	011135
===> PROCEDURE: 735		REPORTED: 12AUG88													
SOIL	M158	NITRATE	C72	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	1050	08AUG88	I	341	011135
SOIL	M158	SULFATE	C73	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	1050	08AUG88	I	341	011135
SOIL	M158	FLOURID	C74	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	1050	08AUG88	I	341	011135
SOIL	M158	CHLORID	C75	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	1050	08AUG88	I	341	011135
SOIL	M158	PHOSPHA	C76	*	2.00E+00 UG/G			1.00E+01	G	02AUG88	1050	08AUG88	I	341	011135
===> PROCEDURE: 737		REPORTED: 16AUG88													
SOIL	M158	2,4-D	H13	*	1.00E+00 UG/G			2.50E+01	G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	2,4,5TP	H14	*	1.00E+00 UG/G			2.50E+01	G	02AUG88	1050	11AUG88	I	341	011135
SOIL	M158	2,4,5-T	H15	*	1.00E+00 UG/G			2.50E+01	G	02AUG88	1050	11AUG88	I	341	011135
===> PROCEDURE: 739		REPORTED: 16AUG88													
SOIL	M158	AR1016	A54	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	1050	10AUG88	I	341	011135
SOIL	M158	AR1221	A55	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	1050	10AUG88	I	341	011135
SOIL	M158	AR1232	A56	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	1050	10AUG88	I	341	011135
SOIL	M158	AR1242	A57	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	1050	10AUG88	I	341	011135
SOIL	M158	AR1248	A58	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	1050	10AUG88	I	341	011135
SOIL	M158	AR1254	A59	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	1050	10AUG88	I	341	011135
SOIL	M158	AR1260	A60	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	1050	10AUG88	I	341	011135
===> PROCEDURE: A20		REPORTED: 16AUG88													
SOIL	M158	ARSENIC	A20		2.50E+00 UG/G			1.01E+00	G	02AUG88	1050	11AUG88	I	341	011135
===> PROCEDURE: A21		REPORTED: 12AUG88													
SOIL	M158	MERCURY	A21	*	2.00E-01 UG/G			2.26E-01	G	02AUG88	1050	03AUG88	I	341	011135
===> PROCEDURE: A22		REPORTED: 16AUG88													
SOIL	M158	SELENUM	A22	*	5.00E-01 UG/G			1.01E+00	G	02AUG88	1050	11AUG88	I	341	011135
===> PROCEDURE: A23		REPORTED: 16AUG88													
SOIL	M158	THALIUM	A23	*	1.00E+00 UG/G			1.01E+00	G	02AUG88	1050	10AUG88	I	341	011135

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE	RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: A51		REPORTED: 16AUG88											
SOIL	M158	LEAD	A51	6.35E+00 UG/G			1.01E+00 G	02AUG88	1050	10AUG88	I	341	011135
===> PROCEDURE: C68		REPORTED: 12AUG88											
SOIL	M158	TOX	C68	* -4.12E+00 UG/G			1.00E+00 G	02AUG88	1050	04AUG88	I	341	011135
===> PROCEDURE: C69		REPORTED: 16AUG88											
SOIL	M158	TOC	C69	* 1.00E+01 UG/G			2.01E+01 G	02AUG88	1050	08AUG88	I	341	011135
===> PROCEDURE: C70		REPORTED: 12AUG88											
SOIL	M158	CYANIDE	C70	* 1.00E+00 UG/G			1.00E+01 G	02AUG88	1050	04AUG88	I	341	011135
===> PROCEDURE: C77		REPORTED: 12AUG88											
SOIL	M158	PERCHLO	C77	* 2.00E+00 UG/G			1.00E+01 G	02AUG88	1050	04AUG88	I	341	011135
===> PROCEDURE: C78		REPORTED: 12AUG88											
SOIL	M158	SULFIDE	C78	* 1.00E+01 UG/G			4.75E+01 G	02AUG88	1050	09AUG88	I	341	011135
===> PROCEDURE: C80		REPORTED: 12AUG88											
SOIL	M158	AMMONIU	C80	1.70E+00 UG/G			1.00E+01 G	02AUG88	1050	10AUG88	I	341	011135
===> PROCEDURE: C81		REPORTED: 12AUG88											
SOIL	M158	ETHYGLY	C81	* 1.00E+01 UG/G			5.00E+00 G	02AUG88	1050	04AUG88	I	341	011135
********** <** SAMPLE: M159 **> **********													
===> PROCEDURE: 088		REPORTED: 12AUG88											
SOIL	M159	LSP COND	088	3.95E+02			1.00E+01 G	03AUG88	0855	04AUG88	I	341	011136
===> PROCEDURE: 207		REPORTED: 12AUG88											
SOIL	M159	PH (LAB)	207	6.90E+00			0.00E+00 G	03AUG88	0855	04AUG88	I	341	011136
===> PROCEDURE: 726		REPORTED: 12AUG88											
SOIL	M159	BERYLAM	A01	* 5.00E-01 UG/G			1.01E+00 G	03AUG88	0855	09AUG88	I	341	011136

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. D-B2472-A-1

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M159	STRONUM	A03		3.07E+01 UG/G			1.01E+00 G	03AUG88	0655	09AUG88	I	341	011136
SOIL	M159	ZINC	A04		2.20E+02 UG/G			1.01E+00 G	03AUG88	0655	09AUG88	I	341	011136
SOIL	M159	CALCIUM	A05		5.52E+03 UG/G			1.01E+00 G	03AUG88	0655	09AUG88	I	341	011136
SOIL	M159	BARIUM	A06		1.51E+02 UG/G			1.01E+00 G	03AUG88	0655	09AUG88	I	341	011136
SOIL	M159	CADMIUM	A07	*	2.00E-01 UG/G			1.01E+00 G	03AUG88	0655	09AUG88	I	341	011136
SOIL	M159	CHROMUM	A08		1.57E+01 UG/G			1.01E+00 G	03AUG88	0655	09AUG88	I	341	011136
SOIL	M159	SILVER	A10		2.20E+00 UG/G			1.01E+00 G	03AUG88	0655	09AUG88	I	341	011136
SOIL	M159	SODIUM	A11		3.12E+02 UG/G			1.01E+00 G	03AUG88	0655	09AUG88	I	341	011136
SOIL	M159	NICKEL	A12		1.30E+01 UG/G			1.01E+00 G	03AUG88	0655	09AUG88	I	341	011136
SOIL	M159	COPPER	A13		1.34E+03 UG/G	1		1.01E+00 G	03AUG88	0655	09AUG88	I	341	011136
SOIL	M159	VANADUM	A14		7.41E+01 UG/G			1.01E+00 G	03AUG88	0655	09AUG88	I	341	011136
SOIL	M159	ANTIONY	A15	*	1.00E+01 UG/G			1.01E+00 G	03AUG88	0655	09AUG88	I	341	011136
SOIL	M159	ALUMNUM	A16		1.40E+04 UG/G	1		1.01E+00 G	03AUG88	0655	09AUG88	I	341	011136
SOIL	M159	MANGESE	A17		4.75E+02 UG/G			1.01E+00 G	03AUG88	0655	09AUG88	I	341	011136
SOIL	M159	POTASUM	A18		1.68E+03 UG/G	1		1.01E+00 G	03AUG88	0655	09AUG88	I	341	011136
SOIL	M159	IRON	A19		3.92E+04 UG/G	1		1.01E+00 G	03AUG88	0655	09AUG88	I	341	011136
SOIL	M159	MAGNES	A20		7.45E+03 UG/G	1		1.01E+00 G	03AUG88	0655	09AUG88	I	341	011136
===> PROCEDURE: 727		REPORTED: 17AUG88												
SOIL	M159	THIOURA	A24	*	2.00E+00 UG/G			1.00E+01 G	03AUG88	0655	17AUG88	I	341	011136
SOIL	M159	ACETREA	A25	*	2.00E+00 UG/G			1.00E+01 G	03AUG88	0655	17AUG88	I	341	011136
SOIL	M159	CHLOREA	A26	*	2.00E+00 UG/G			1.00E+01 G	03AUG88	0655	17AUG88	I	341	011136
SOIL	M159	DIETROL	A27	*	2.00E+00 UG/G			1.00E+01 G	03AUG88	0655	17AUG88	I	341	011136
SOIL	M159	ETHYREA	A28	*	2.00E+00 UG/G			1.00E+01 G	03AUG88	0655	17AUG88	I	341	011136
SOIL	M159	NAPHREA	A29	*	2.00E+00 UG/G			1.00E+01 G	03AUG88	0655	17AUG88	I	341	011136
SOIL	M159	PHENREA	A32	*	5.00E+00 UG/G			1.00E+01 G	03AUG88	0655	17AUG88	I	341	011136
===> PROCEDURE: 729		REPORTED: 17AUG88												
SOIL	M159	ENDRIN	A33	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	METHLOR	A34	*	3.00E-01 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	TOXAENE	A35	*	1.00E-01 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	A-BHC	A36	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	B-BHC	A37	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	G-BHC	A38	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	D-BHC	A39	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	DDD	A40	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	DDE	A41	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	DDT	A42	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	HEPTLOR	A43	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	HEPTIDE	A44	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	DIELRIN	A46	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	ALDRIN	A47	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	CHLDANE	A48	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M159	ENDO1	A49	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	ENDO2	A52	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	CHLLATE	C82	*	3.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	DBC	X10		1.17E+02 %RECOV			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
===> PROCEDURE: 731		REPORTED: 12AUG88												
SOIL	M159	TETRANE	A61	*	5.00E-03 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	BENZENE	A62	*	5.00E-03 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	DIOXANE	A63	*	5.00E-01 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	METHONE	A64	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	PYRIDIN	A65	*	5.00E-01 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	TOLUENE	A66	*	5.00E-03 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	1,1,1-T	A67	*	5.00E-03 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	1,1,2-T	A68	*	5.00E-03 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	TRICENE	A69	*	5.00E-03 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	PERCENE	A70	*	5.00E-03 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	OPXYLEN	A71	*	5.00E-03 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	ACROLIN	A72	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	ACRYLIE	A73	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	BISTHER	A74	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	BROMONE	A75	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	METHBRO	A76	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	CARBIDE	A77	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	CHLBENZ	A78	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	CHLTHER	A79	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	CHLFORM	A80	*	5.00E-03 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	METHCHL	A81	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	CHMTHER	A82	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	CROTONA	A83	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	DIBRCHL	A84	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	DIBRETH	A85	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	DIBRMET	A86	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	DIBUTEN	A87	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	DICDIFN	A88	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	1,1-DIC	A89	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	1,2-DIC	A90	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	TRANDCE	A91	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	DICETHY	A92	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	METHYCH	A93	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	DICPANE	A94	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	DICPENE	A95	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	NNDIEHY	A96	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	HYDRSUL	A99	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	IODOMET	B01	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-1

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M159	METHACR	B02	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	METHTHI	B03	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	PENTACH	B04	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	1112-TC	B05	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	1122-TC	B06	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	BROMORM	B08	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	TRCMEOL	B09	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	TRCMFLM	B10	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	TRCPANE	B11	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	123-TRP	B12	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	VINYIDE	B13	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	M-XYLE	B14	*	5.00E-03 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	DIETHY	B15	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	ACETILE	B19	*	3.00E+00 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	METACRY	C04	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	FORMALN	C71	*	5.00E-01 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	ETHOXID	H05	*	3.00E+00 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	ETHMETH	H06	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	HEXONE	H68	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	ACETONE	I01		2.70E-01 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	PROPANOL	I10		6.00E-03 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	ETHANOL	I67		2.70E-02 UG/G			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	12DCAD4	X07		1.03E+02 %RECOV			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	TOLUD8	X08		1.02E+02 %RECOV			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
SOIL	M159	BFB	X09		1.32E+02 %RECOV			5.00E+00 G	03AUG88	0655	05AUG88	I	341	011136
***> PROCEDURE: 730		REPORTED: 16AUG88												
SOIL	M159	ACETOPH	B20	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	WARFRIN	B21	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	ACEFENE	B22	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	AMINOYL	B23	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	ANIISOX	B24	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	ANITROL	B25	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	ANILINE	B26	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	ARAMITE	B27	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	AURAMIN	B28	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	BENZCAC	B29	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	BENZAAN	B30	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	BENDICN	B31	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	BENTHOL	B32	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	BENDINE	B33	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	BENZBFL	B34	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	BENZJFL	B35	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	BENZGU	B36	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M159	BENZCHL	B37	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	BIS2CHN	B38	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	BIS2CHE	B39	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	BIS2EPH	B40	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	BROPHEN	B41	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	BUTBENP	B42	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	BUTDINP	B43	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	CHALETH	B44	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	CHLANIL	B45	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	CHLCRES	B46	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	CHLEFOX	B47	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	CHLNAPH	B48	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	CHLPHEN	B49	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	CHRYSEN	B50	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	CRESOLS	B51	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	CYCHDIN	B52	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	DIBAHAC	B53	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	DIBAJAC	B54	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	DIBIHAN	B55	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	DIBCGCA	B56	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	DIBAEPY	B57	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	DIBAHPY	B58	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	DIBAIPY	B59	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	DIBPHTH	B60	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	12-DBEN	B61	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	13-DBEN	B62	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	14-DBEN	B63	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	DICHDCN	B64	*	2.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	24-DCHP	B65	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	26-DCHP	B66	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	DIEPHTH	B67	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	DIHYSAF	B68	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	DIMTHB	B69	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	DIMEAMB	B70	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	DINBENZ	B71	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	DIMEYLD	B72	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	THIONOX	B73	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	DIMPHAM	B74	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	DIMPHEN	B75	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	DIMPHTH	B76	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	DINBENZ	B77	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	DINCRES	B78	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	DINPHEN	B79	*	5.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	24-DINT	B80	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	26-DINT	B81	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-D2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M159	DIOPHTH	B82	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	DIPHAMI	B83	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	DIPHHYD	B84	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	DIPRNIT	B85	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	ETHMINE	B86	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	ETHMETS	B87	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	FLUORAN	B88	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	HEXCBEN	B89	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	HEXCBUT	B90	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	HEXCCYC	B91	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	HEXCETH	B92	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	INDENOP	B93	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	ISOSOLE	B94	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	MALDILE	B95	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	MELPHAL	B96	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	METHAPY	B97	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	METHNYL	B98	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	METAZIR	B99	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	METCHAN	C01	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	METBISC	C02	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	METACTO	C03	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	METMSUL	C05	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	METPROP	C06	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	METHIOU	C07	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	NAPHGUI	C08	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	1-NAPHA	C09	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	2-NAPHA	C10	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	NITRANI	C11	*	5.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	NITBENZ	C12	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	NITPHEN	C13	*	5.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	NNIBUTY	C14	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	NNIDIEA	C15	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	NNIDIEY	C16	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	NNIDIME	C17	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	NNINETH	C18	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	NNIURET	C19	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	NNIVINY	C20	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	NNIMORP	C21	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	NNINICO	C22	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	NNIPIPE	C23	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	NITRPYR	C24	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	NITRTOL	C25	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	PENTCHB	C26	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	PENTCHN	C27	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	PENTCHP	C28	*	5.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. D-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M159	PHENTIN	C29	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	PHENINE	C30	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	PHTHEST	C31	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	PICOLIN	C32	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	PRONIDE	C33	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	RESERPI	C34	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	RESORCI	C35	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	SAFROL	C36	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	TETRCHD	C37	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	TETRCHP	C39	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	THIURAM	C40	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	TOLUDIA	C41	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	OTOLHYD	C42	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	TRICHLB	C43	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	245-TRP	C44	*	5.00E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	246-TRP	C45	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	TRIPHOS	C46	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	SYMTRIN	C47	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	TRISPHO	C48	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	BENZOPY	C49	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	CHLNAPI	C50	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	BISZETH	C51	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	HCXAENE	C52	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	HEXACHL	C54	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	NAPHTHA	C55	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	123TRI	C56	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	PHENOL	C57	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	135TRI	C58	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	1234TE	C59	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	1235TE	C60	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	KEROSEN	C79	*	1.00E+03 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	STRYCHN	C91	*	5.00E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	MALHYDR	C92	*	5.00E+01 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	NICOTIN	C93	*	1.00E+01 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	TRIBUPH	I21	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	UNKALI	I98		1.70E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	UNKNWN	I99		1.40E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	UNKNWN	I9901		1.20E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	UNKNWN	I9902		1.00E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	BUTANAC	L09		2.30E+00 UG/G			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	2FLPHEN	X01		5.40E+01 %RECOV			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	PHENOL	X02		4.75E+01 %RECOV			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	NITBN2	X03		4.98E+01 %RECOV			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	2FLBIPH	X04		5.36E+01 %RECOV			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	246TRI	X05		3.59E+01 %RECOV			1.00E+01	G	03AUG88	0655	12AUG88	I	341	011136

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. D-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M159	TERD14	X06		5.98E+01 %RECOV			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
===> PROCEDURE: 734		REPORTED: 12AUG88												
SOIL	M159	TETEPYR	C61	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	08AUG88	I	341	011136
SOIL	M159	CARBPHT	C63	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	08AUG88	I	341	011136
SOIL	M159	DISULFO	C64	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	08AUG88	I	341	011136
SOIL	M159	DIMETHO	C65	*	2.00E-01 UG/G			1.00E+01 G	03AUG88	0655	08AUG88	I	341	011136
SOIL	M159	METHPAR	C66	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	08AUG88	I	341	011136
SOIL	M159	PARATHI	C67	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	08AUG88	I	341	011136
===> PROCEDURE: 735		REPORTED: 16AUG88												
SOIL	M159	NITRATE	C72	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	08AUG88	I	341	011136
SOIL	M159	SULFATE	C73		1.23E+01 UG/G			1.00E+01 G	03AUG88	0655	08AUG88	I	341	011136
SOIL	M159	FLOURID	C74		1.52E+01 UG/G	1		1.00E+01 G	03AUG88	0655	08AUG88	I	341	011136
					COMMENT: MIR									
SOIL	M159	CHLORID	C75		1.33E+01 UG/G			1.00E+01 G	03AUG88	0655	08AUG88	I	341	011136
SOIL	M159	PHOSPHA	C76	*	2.00E+00 UG/G			1.00E+01 G	03AUG88	0655	08AUG88	I	341	011136
===> PROCEDURE: 737		REPORTED: 15AUG88												
SOIL	M159	2,4-D	H13	*	1.00E+00 UG/G			2.50E+01 G	03AUG88	0655	11AUG88	I	341	011136
SOIL	M159	2,4,5TP	H14	*	1.00E+00 UG/G			2.50E+01 G	03AUG88	0655	11AUG88	I	341	011136
SOIL	M159	2,4,5-T	H15	*	1.00E+00 UG/G			2.50E+01 G	03AUG88	0655	11AUG88	I	341	011136
===> PROCEDURE: 739		REPORTED: 17AUG88												
SOIL	M159	AR1016	A54	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	AR1221	A55	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	AR1232	A56	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	AR1242	A57	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	AR1248	A58	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	AR1254	A59	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
SOIL	M159	AR1260	A60	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	12AUG88	I	341	011136
===> PROCEDURE: A20		REPORTED: 16AUG88												
SOIL	M159	ARSENIC	A20		2.70E+00 UG/G			1.00E+00 G	03AUG88	0655	11AUG88	I	341	011136
===> PROCEDURE: A21		REPORTED: 12AUG88												
SOIL	M159	MERCURY	A21	*	2.00E-01 UG/G			2.27E-01 G	03AUG88	0655	03AUG88	I	341	011136
===> PROCEDURE: A22		REPORTED: 16AUG88												
SOIL	M159	SELENUM	A22	*	5.00E-01 UG/G			1.00E+00 G	03AUG88	0655	11AUG88	I	341	011136

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HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

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===> PROCEDURE: A23		REPORTED: 16AUG88											
SOIL	M159	THALIUM	A23	* 1.00E+00 UG/G			1.00E+00 G	03AUG88	0655	10AUG88	I	341	011136
===> PROCEDURE: A51		REPORTED: 16AUG88											
SOIL	M159	LEAD	A51	3.52E+01 UG/G	1		1.00E+00 G	03AUG88	0655	10AUG88	I	341	011136
===> PROCEDURE: C68		REPORTED: 12AUG88											
SOIL	M159	TOX	C68	8.53E+00 UG/G			1.00E+00 G	03AUG88	0655	09AUG88	I	341	011136
===> PROCEDURE: C69		REPORTED: 16AUG88											
SOIL	M159	TOC	C69	3.18E+02 UG/G			2.00E+01 G	03AUG88	0655	08AUG88	I	341	011136
===> PROCEDURE: C70		REPORTED: 12AUG88											
SOIL	M159	CYANIDE	C70	* 1.00E+00 UG/G			1.00E+01 G	03AUG88	0655	04AUG88	I	341	011136
===> PROCEDURE: C77		REPORTED: 12AUG88											
SOIL	M159	PERCHLO	C77	* 2.00E+00 UG/G			1.00E+01 G	03AUG88	0655	04AUG89	I	341	011136
===> PROCEDURE: C78		REPORTED: 16AUG88											
SOIL	M159	SULFIDE	C78	* 1.00E+01 UG/G			8.73E+00 G	03AUG88	0655	09AUG88	I	341	011136
===> PROCEDURE: C80		REPORTED: 12AUG88											
SOIL	M159	AMMONIU	C80	2.30E+00 UG/G			1.00E+01 G	03AUG88	0655	10AUG88	I	341	011136
===> PROCEDURE: C81		REPORTED: 12AUG88											
SOIL	M159	ETHYGLY	C81	* 1.00E+01 UG/G			5.00E+00 G	03AUG88	0655	04AUG88	I	341	011136
********** ===> SAMPLE: M160 ===> **********													
===> PROCEDURE: C88		REPORTED: 12AUG88											
SOIL	M160	LSP COND	C88	6.77E+01			1.00E+01 G	03AUG88	0740	04AUG88	I	341	011137
===> PROCEDURE: 207		REPORTED: 12AUG88											
SOIL	M160	PH (LAB)	207	7.10E+00			0.00E+00 G	03AUG88	0740	04AUG88	I	341	011137

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2800 George Washington Way, Richland, WA

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All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: 726		REPORTED: 12AUG88													
SOIL	M160	BERYLAM	A01	*	5.00E-01 UG/G			1.03E+00	G	03AUG88	0740	09AUG88	I	341	011137
SOIL	M160	STRONUM	A03		2.22E+01 UG/G			1.03E+00	G	03AUG88	0740	09AUG88	I	341	011137
SOIL	M160	ZINC	A04		3.93E+01 UG/G			1.03E+00	G	03AUG88	0740	09AUG88	I	341	011137
SOIL	M160	CALCIUM	A05		3.36E+03 UG/G			1.03E+00	G	03AUG88	0740	09AUG88	I	341	011137
SOIL	M160	BARIUM	A06		7.53E+01 UG/G			1.03E+00	G	03AUG88	0740	09AUG88	I	341	011137
SOIL	M160	CADMIUM	A07	*	2.00E-01 UG/G			1.03E+00	G	03AUG88	0740	09AUG88	I	341	011137
SOIL	M160	CHROMUM	A08		9.40E+00 UG/G			1.03E+00	G	03AUG88	0740	09AUG88	I	341	011137
SOIL	M160	SILVER	A10	*	1.00E+00 UG/G			1.03E+00	G	03AUG88	0740	09AUG88	I	341	011137
SOIL	M160	SODIUM	A11		1.65E+02 UG/G			1.03E+00	G	03AUG88	0740	09AUG88	I	341	011137
SOIL	M160	NICKEL	A12		6.40E+00 UG/G			1.03E+00	G	03AUG88	0740	09AUG88	I	341	011137
SOIL	M160	COPPER	A13		9.30E+00 UG/G			1.03E+00	G	03AUG88	0740	09AUG88	I	341	011137
SOIL	M160	VANADUM	A14		4.76E+01 UG/G			1.03E+00	G	03AUG88	0740	09AUG88	I	341	011137
SOIL	M160	ANTIONY	A15	*	1.00E+01 UG/G			1.03E+00	G	03AUG88	0740	09AUG88	I	341	011137
SOIL	M160	ALUMNUM	A16		7.78E+03 UG/G	1		1.03E+00	G	03AUG88	0740	09AUG88	I	341	011137
SOIL	M160	MANGESE	A17		3.07E+02 UG/G			1.03E+00	G	03AUG88	0740	09AUG88	I	341	011137
SOIL	M160	POTASUM	A18		9.37E+02 UG/G			1.03E+00	G	03AUG88	0740	09AUG88	I	341	011137
SOIL	M160	IRON	A19		2.28E+04 UG/G	1		1.03E+00	G	03AUG88	0740	09AUG88	I	341	011137
SOIL	M160	MAGNES	A30		5.04E+03 UG/G	1		1.03E+00	G	03AUG88	0740	09AUG88	I	341	011137
===> PROCEDURE: A20		REPORTED: 16AUG88													
SOIL	M160	ARSENIC	A20		8.00E-01 UG/G			1.02E+00	G	03AUG88	0740	11AUG88	I	341	011137
===> PROCEDURE: A51		REPORTED: 16AUG88													
SOIL	M160	LEAD	A51		5.83E+00 UG/G			1.02E+00	G	03AUG88	0740	10AUG88	I	341	011137
===> PROCEDURE: C68		REPORTED: 12AUG88													
SOIL	M160	TOX	C68		4.24E+00 UG/G			1.00E+00	G	03AUG88	0740	09AUG88	I	341	011137
===> PROCEDURE: C69		REPORTED: 16AUG88													
SOIL	M160	TOC	C69		1.68E+01 UG/G			2.00E+01	G	03AUG88	0740	08AUG88	I	341	011137
********** <** SAMPLE: M161 **> **********															
===> PROCEDURE: 088		REPORTED: 12AUG88													
SOIL	M161	LSP COND	088		1.69E+02			1.00E+01	G	03AUG88	0825	04AUG88	I	341	011138

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-1

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: 207		REPORTED: 12AUG88													
SOIL	M161	PH (LAB)	207		7.70E+00			0.00E+00	G	03AUG88	0825	04AUG88	I	341	011138
===> PROCEDURE: 726		REPORTED: 12AUG88													
SOIL	M161	BERYLAM	A01	*	5.00E-01 UG/G			1.01E+00	G	03AUG88	0825	09AUG88	I	341	011138
SOIL	M161	STRONUM	A03		1.88E+01 UG/G			1.01E+00	G	03AUG88	0825	09AUG88	I	341	011138
SOIL	M161	ZINC	A04		3.09E+01 UG/G			1.01E+00	G	03AUG88	0825	09AUG88	I	341	011138
SOIL	M161	CALCIUM	A05		5.04E+03 UG/G			1.01E+00	G	03AUG88	0825	09AUG88	I	341	011138
SOIL	M161	BARIUM	A06		6.95E+01 UG/G			1.01E+00	G	03AUG88	0825	09AUG88	I	341	011138
SOIL	M161	CADMIUM	A07	*	2.00E-01 UG/G			1.01E+00	G	03AUG88	0825	09AUG88	I	341	011138
SOIL	M161	CHROMUM	A08		1.01E+01 UG/G			1.01E+00	G	03AUG88	0825	09AUG88	I	341	011138
SOIL	M161	SILVER	A10	*	1.00E+00 UG/G			1.01E+00	G	03AUG88	0825	09AUG88	I	341	011138
SOIL	M161	SODIUM	A11		2.00E+02 UG/G			1.01E+00	G	03AUG88	0825	09AUG88	I	341	011138
SOIL	M161	NICKEL	A12		7.10E+00 UG/G			1.01E+00	G	03AUG88	0825	09AUG88	I	341	011138
SOIL	M161	COPPER	A13	*	1.00E+00 UG/G			1.01E+00	G	03AUG88	0825	09AUG88	I	341	011138
SOIL	M161	VANADUM	A14		4.28E+01 UG/G			1.01E+00	G	03AUG88	0825	09AUG88	I	341	011138
SOIL	M161	ANTIONY	A15	*	1.00E+01 UG/G			1.01E+00	G	03AUG88	0825	09AUG88	I	341	011138
SOIL	M161	ALUMNUM	A16		5.66E+03 UG/G	1		1.01E+00	G	03AUG88	0825	09AUG88	I	341	011138
SOIL	M161	MANGESE	A17		2.45E+02 UG/G			1.01E+00	G	03AUG88	0825	09AUG88	I	341	011138
SOIL	M161	POTASUM	A18		7.32E+02 UG/G			1.01E+00	G	03AUG88	0825	09AUG88	I	341	011138
SOIL	M161	IRON	A19		1.85E+04 UG/G	1		1.01E+00	G	03AUG88	0825	09AUG88	I	341	011138
SOIL	M161	MAGNES	A50		4.37E+03 UG/G	1		1.01E+00	G	03AUG88	0825	09AUG88	I	341	011138
===> PROCEDURE: 727		REPORTED: 17AUG88													
SOIL	M161	THIOURA	A24	*	2.00E+00 UG/G			1.00E+01	G	03AUG88	0825	17AUG88	I	341	011138
SOIL	M161	ACETREA	A25	*	2.00E+00 UG/G			1.00E+01	G	03AUG88	0825	17AUG88	I	341	011138
SOIL	M161	CHLOREA	A26	*	2.00E+00 UG/G			1.00E+01	G	03AUG88	0825	17AUG88	I	341	011138
SOIL	M161	DIETROL	A27	*	2.00E+00 UG/G			1.00E+01	G	03AUG88	0825	17AUG88	I	341	011138
SOIL	M161	ETHYREA	A28	*	2.00E+00 UG/G			1.00E+01	G	03AUG88	0825	17AUG88	I	341	011138
SOIL	M161	NAPHREA	A29	*	2.00E+00 UG/G			1.00E+01	G	03AUG88	0825	17AUG88	I	341	011138
SOIL	M161	PHENREA	A32	*	5.00E+00 UG/G			1.00E+01	G	03AUG88	0825	17AUG88	I	341	011138
===> PROCEDURE: 729		REPORTED: 17AUG88													
SOIL	M161	ENDRIN	A33	*	1.00E-02 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	METHLOR	A34	*	3.00E-01 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	TOXAENE	A35	*	1.00E-01 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	A-BHC	A36	*	1.00E-02 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	B-BHC	A37	*	1.00E-02 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	G-BHC	A38	*	1.00E-02 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	D-BHC	A39	*	1.00E-02 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M161	DDD	A40	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	DDE	A41	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	DDT	A42	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	HEPTLOR	A43	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	HEPTIDE	A44	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	DIELRIN	A45	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	ALDRIN	A47	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	CHLDANE	A48	*	1.00E+00 UG/G			1.00E+01 C	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	ENDO1	A49	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	ENDO2	A52	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	CHLLATE	C62	*	3.00E+00 UG/G			1.00E+01 G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	DBC	X10		9.40E+01 %RECOV			1.00E+01 G	03AUG88	0825	12AUG88	I	341	011138
===> PROCEDURE: 731		REPORTED: 12AUG88												
SOIL	M161	TETRANE	A61	*	5.00E-03 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	BENZENE	A62	*	5.00E-03 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	DIOXANE	A63	*	5.00E-01 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	METHONE	A64	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	PYRIDIN	A65	*	5.00E-01 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	TOLUENE	A66	*	5.00E-03 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	1,1,1-T	A67	*	5.00E-03 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	1,1,2-T	A68	*	5.00E-03 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	TRICENE	A69	*	5.00E-03 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	PERCENE	A70	*	5.00E-03 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	OPXYLEN	A71	*	5.00E-03 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	ACROLIN	A72	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	ACRYILE	A73	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	BISTHER	A74	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	BROMONE	A75	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	METHBRO	A76	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	CARBIDE	A77	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	CHLBENZ	A78	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	CHLTHER	A79	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	CHLFORM	A80	*	5.00E-03 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	METHCHL	A81	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	CHMTHER	A82	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	CROTONA	A83	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	DIBRCHL	A84	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	DIBRETH	A85	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	DIBRMET	A86	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	DIBUTEN	A87	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	DICDIFM	A88	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	1,1-DIC	A89	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	1,2-DIC	A90	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2500 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M161	TRANDCE	A91	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	DICETHY	A92	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	METHYCH	A93		2.70E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	DICPANE	A94	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	DICPENE	A95	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	NNDIEHY	A96	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	HYDRSUL	A99	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	IODOMET	B01	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	METHACR	B02	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	METHTHI	B03	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	PENTACH	B04	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	1112-TC	B05	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	1122-TC	B06	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	BROMORM	B08	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	TRCNEOL	B09	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	TRCMFLN	B10	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	TRCPANE	B11	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	123-TRP	B12	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	VINYIDE	B13	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	M-XYLE	B14	*	5.00E-03 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	DIETHY	B15	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	ACETILE	B19	*	3.00E+00 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	METACRY	C04	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	FORMALN	C71	*	5.00E-01 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	ETHOXID	H05	*	3.00E+00 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	ETHMETH	H06	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	HEXONE	H56	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	ACETONE	I01		3.90E-02 UG/G			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	12DCAD4	X07		1.05E+02 %RECOV			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	TOLUDB	X08		1.02E+02 %RECOV			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
SOIL	M161	BFB	X09		1.03E+02 %RECOV			5.00E+00 G	03AUG88	0825	05AUG88	I	341	011138
==> PROCEDURE: 733		REPORTED: 16AUG88												
SOIL	M161	ACETOPH	B20	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	WARFRIN	B21	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	ACEFENE	B22	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	AMINOYL	B23	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	AMITSOX	B24	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	AMITROL	B25	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	ANILINE	B26	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	ARAMITE	B27	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	AURAMIN	B28	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	BENZOAC	B29	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	BENZAAN	B30	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0825	12AUG88	I	341	011138

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M161	BENDICN	B31	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	BENTHOL	B32	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	BENDINE	B33	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	BENZDFL	B34	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	BENZJFL	B35	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	PBENZQU	B36	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	BENZCHL	B37	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	BIS2CHM	B38	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	BIS2CHE	B39	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	BIS2EPH	B40	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	BROPHEN	B41	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	BUTBENP	B42	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	BUTDINP	B43	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	CHALETH	B44	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	CHLANIL	B45	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	CHLCRES	B46	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	CHLEPOX	B47	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	CHLNAPH	B48	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	CHLPHEN	B49	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	CHRYSEN	B50	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	CRESOLS	B51	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	CYCHDIN	B52	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	DIBAHAC	B53	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	DIBAJAC	B54	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	DIBIHAN	B55	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	DIBCGCA	B56	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	DIBAEPY	B57	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	DIBAHPY	B58	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	DIBAIPY	B59	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	DIBPHTH	B60	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	12-DBEN	B61	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	13-DBEN	B62	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	14-DBEN	B63	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	DICHDEN	B64	*	2.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	24-DCHP	B65	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	26-DCHP	B66	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	DIEPHTH	B67	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	DIHYSAF	B68	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	DIMTHB	B69	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	DIMEAMB	B70	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	DIMBENZ	B71	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	DIMEYLB	B72	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	THIONOX	B73	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	DIMPHAM	B74	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	DIMPHEN	B75	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M161	DIMPHTH	B76	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	DINBENZ	B77	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	DINCRES	B78	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	DINPHEN	B79	*	5.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	24-DINT	B80	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	26-DINT	B81	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	DIOPHTH	B82	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	DIPHAMI	B83	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	DIPHHYD	B84	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	DIPRNIT	B85	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	ETHMINE	B86	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	ETHMETS	B87	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	FLUORAN	B88	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	HEXCDEN	B89	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	HEXCBUT	B90	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	HEXCCYC	B91	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	HEXCETH	B92	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	INDENOP	B93	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	ISOSOLE	B94	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	MALOILE	B95	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	MELPHAL	B96	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	METHAPY	B97	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	METHNYL	B98	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	METAZIR	B99	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	METCHAN	C01	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	METBISC	C02	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	METACTO	C03	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	METMSUL	C05	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	METPROP	C06	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	METHIOU	C07	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	NAPHQUI	C08	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	1-NAPHA	C09	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	2-NAPHA	C10	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	NITRANI	C11	*	5.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	NITBENZ	C12	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	NITPHEN	C13	*	5.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	NNIBUTY	C14	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	NNIDIEA	C15	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	NNIDIEY	C16	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	NNIDINE	C17	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	NNIMETH	C18	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	NNIURET	C19	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	NNIVINY	C20	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	NNIMORP	C21	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	NNINICO	C22	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138

* Denotes a result less than the detection limit

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2900 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M161	NITRPIPE	C23	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	NITRPYR	C24	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	NITRTOL	C25	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	PENTCHB	C26	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	PENTCHN	C27	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	PENTCHP	C28	*	5.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	PHENTIN	C29	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	PHENINE	C30	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	PHTHEST	C31	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	PICOLIN	C32	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	PRONIDE	C33	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	RESERPI	C34	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	RESORCI	C35	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	SAFROL	C36	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	TETRCHB	C37	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	TETRCHP	C39	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	THIURAM	C40	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	TOLUDIA	C41	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	OTOLHYD	C42	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	TRICHLB	C43	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	245-TRP	C44	*	5.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	246-TRP	C45	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	TRIPHOS	C46	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	SYMTRIN	C47	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	TRISPHO	C48	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	BENZOPY	C49	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	CHLNAPZ	C50	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	BISEETH	C51	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	HEXAENE	C52	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	HEXACHL	C54	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	NAPHTHA	C55	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	123TRI	C56	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	PHENOL	C57	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	135TRI	C58	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	1234TE	C59	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	1235TE	C60	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	KERGEEN	C79	*	1.00E+03 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	STRYCHN	C91	*	5.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	MALHYDR	C92	*	5.00E+01 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	NICOTIN	C93	*	1.00E+01 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	TRIBUPH	I21	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	UNKNOWN	I99		2.90E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	UNKNOWN	I9901		4.50E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	2FLPHEN	X01		6.64E+01 %RECOV			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	PHENOL	X02		5.98E+01 %RECOV			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M161	NITBN2	X03		6.46E+01 %RECOV			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	2FLBIPH	X04		6.38E+01 %RECOV			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	246TRI	X05		5.00E+01 %RECOV			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	TERD14	X06		9.62E+01 %RECOV			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
===> PROCEDURE: 734		REPORTED: 12AUG88													
SOIL	M161	TETEPYR	C61	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	08AUG88	I	341	011138
SOIL	M161	CARBPHT	C63	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	08AUG88	I	341	011138
SOIL	M161	DISULFO	C64	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	08AUG88	I	341	011138
SOIL	M161	DIMETHO	C65	*	2.00E-01 UG/G			1.00E+01	G	03AUG88	0825	08AUG88	I	341	011138
SOIL	M161	METHPAR	C66	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	08AUG88	I	341	011138
SOIL	M161	PARATHI	C67	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	08AUG88	I	341	011138
===> PROCEDURE: 735		REPORTED: 16AUG88													
SOIL	M161	NITRATE	C72	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	08AUG88	I	341	011138
SOIL	M161	SULFATE	C73		1.71E+00 UG/G			1.00E+01	G	03AUG88	0825	08AUG88	I	341	011138
SOIL	M161	FLOURID	C74	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	08AUG88	I	341	011138
SOIL	M161	CHLORID	C75	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	08AUG88	I	341	011138
SOIL	M161	PHOSPHA	C76	*	2.00E+00 UG/G			1.00E+01	G	03AUG88	0825	08AUG88	I	341	011138
===> PROCEDURE: 737		REPORTED: 16AUG88													
SOIL	M161	2,4-D	H13	*	1.00E+00 UG/G			2.50E+01	G	03AUG88	0825	11AUG88	I	341	011138
SOIL	M161	2,4,5TP	H14	*	1.00E+00 UG/G			2.50E+01	G	03AUG88	0825	11AUG88	I	341	011138
SOIL	M161	2,4,5-T	H15	*	1.00E+00 UG/G			2.50E+01	G	03AUG88	0825	11AUG88	I	341	011138
===> PROCEDURE: 739		REPORTED: 17AUG88													
SOIL	M161	AR1016	A54	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	AR1221	A55	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	AR1232	A56	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	AR1242	A57	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	AR1248	A58	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	AR1254	A59	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
SOIL	M161	AR1260	A60	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	0825	12AUG88	I	341	011138
===> PROCEDURE A20		REPORTED: 16AUG88													
SOIL	M161	ARSENIC	A20		7.00E-01 UG/G			1.02E+00	G	03AUG88	0825	11AUG88	I	341	011138
===> PROCEDURE: A21		REPORTED: 12AUG88													
SOIL	M161	MERCURY	A21	*	2.00E-01 UG/G			2.38E-01	G	03AUG88	0825	03AUG89	I	341	011138

* Denotes a result less than the detection limit

2600 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I

All Results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: A22		REPORTED: 16AUG88												
SOIL	M161	SELENUM	A22	*	5.00E-01 UG/G			1.02E+00 G	03AUG88	0825	11AUG88	I	341	011138
===> PROCEDURE: A23		REPORTED: 16AUG88												
SOIL	M161	THALIUM	A23	*	1.00E+00 UG/G			1.02E+00 G	03AUG88	0825	10AUG88	I	341	011138
===> PROCEDURE: A51		REPORTED: 16AUG88												
SOIL	M161	LEAD	A51		3.02E+00 UG/G			1.02E+00 G	03AUG88	0825	10AUG88	I	341	011138
===> PROCEDURE: C68		REPORTED: 12AUG88												
SOIL	M161	TOX	C68		7.54E+00 UG/G			1.00E+00 G	03AUG88	0825	09AUG88	I	341	011138
===> PROCEDURE: C69		REPORTED: 16AUG88												
SOIL	M161	TOC	C69	*	1.00E+01 UG/G			2.00E+01 G	03AUG88	0825	08AUG88	I	341	011138
===> PROCEDURE: C70		REPORTED: 12AUG88												
SOIL	M161	CYANIDE	C70	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	0825	04AUG88	I	341	011138
===> PROCEDURE: C77		REPORTED: 12AUG88												
SOIL	M161	PERCHLO	C77	*	2.00E+00 UG/G			1.00E+01 G	03AUG88	0825	04AUG88	I	341	011138
===> PROCEDURE: C78		REPORTED: 16AUG88												
SOIL	M161	SULFIDE	C78	*	1.00E+01 UG/G			9.97E+00 G	03AUG88	0825	09AUG88	I	341	011138
===> PROCEDURE: C80		REPORTED: 12AUG88												
SOIL	M161	AMMONIU	C80		1.70E+00 UG/G			1.00E+01 G	03AUG88	0825	10AUG88	I	341	011138
===> PROCEDURE: C81		REPORTED: 12AUG88												
SOIL	M161	ETHYGLY	C81	*	1.00E+01 UG/G			5.00E+00 G	03AUG88	0825	04AUG88	I	341	011138
**********														
<** SAMPLE: M162 **>														
**********														
===> PROCEDURE: C88		REPORTED: 12AUG88												
SOIL	M162	LSP COND	C88		1.64E+02			1.00E+01 G	03AUG88	0910	04AUG88	I	341	011139

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2ECO George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: 207		REPORTED: 12AUG88												
SOIL	M162	PH (LAB)	207		8.00E+00			0.00E+00 G	03AUG88	0910	04AUG88	I	341	011139
===> PROCEDURE: 726		REPORTED: 12AUG88												
SOIL	M162	BERYLAM	A01	*	5.00E-01 UG/G			1.01E+00 G	03AUG88	0910	09AUG88	I	341	011139
SOIL	M162	STRONUM	A03		2.80E+01 UG/G			1.01E+00 G	03AUG88	0910	09AUG88	I	341	011139
SOIL	M162	ZINC	A04		3.00E+01 UG/G			1.01E+00 G	03AUG88	0910	09AUG88	I	341	011139
SOIL	M162	CALCIUM	A05		1.20E+04 UG/G	1		1.01E+00 G	03AUG88	0910	09AUG88	I	341	011139
SOIL	M162	BARIUM	A06		6.55E+01 UG/G			1.01E+00 G	03AUG88	0910	09AUG88	I	341	011139
SOIL	M162	CADMIUM	A07	*	2.00E-01 UG/G			1.01E+00 G	03AUG88	0910	09AUG88	I	341	011139
SOIL	M162	CHROMUM	A08		7.30E+00 UG/G			1.01E+00 G	03AUG88	0910	09AUG88	I	341	011139
SOIL	M162	SILVER	A10	*	1.00E+00 UG/G			1.01E+00 G	03AUG88	0910	09AUG88	I	341	011139
SOIL	M162	SODIUM	A11		1.60E+02 UG/G			1.01E+00 G	03AUG88	0910	09AUG88	I	341	011139
SOIL	M162	NICKEL	A12		6.60E+00 UG/G			1.01E+00 G	03AUG88	0910	09AUG88	I	341	011139
SOIL	M162	COPPER	A13	*	1.00E+00 UG/G			1.01E+00 G	03AUG88	0910	09AUG88	I	341	011139
SOIL	M162	VANADUM	A14		3.59E+01 UG/G			1.01E+00 G	03AUG88	0910	09AUG88	I	341	011139
SOIL	M162	ANTIONY	A15	*	1.00E+01 UG/G			1.01E+00 G	03AUG88	0910	09AUG88	I	341	011139
SOIL	M162	ALUMNUM	A16		7.45E+03 UG/G	1		1.01E+00 G	03AUG88	0910	09AUG88	I	341	011139
SOIL	M162	MANGESE	A17		2.71E+02 UG/G			1.01E+00 G	03AUG88	0910	09AUG88	I	341	011139
SOIL	M162	POTASUM	A18		8.95E+02 UG/G			1.01E+00 G	03AUG88	0910	09AUG88	I	341	011139
SOIL	M162	IRON	A19		2.00E+04 UG/G	1		1.01E+00 G	03AUG88	0910	09AUG88	I	341	011139
SOIL	M162	MAGNES	A50		5.51E+03 UG/G	1		1.01E+00 G	03AUG88	0910	09AUG88	I	341	011139
===> PROCEDURE: A20		REPORTED: 16AUG88												
SOIL	M162	ARSENIC	A20		1.30E+00 UG/G			1.00E+00 G	03AUG88	0910	11AUG88	I	341	011139
===> PROCEDURE: A51		REPORTED: 16AUG88												
SOIL	M162	LEAD	A51		4.85E+00 UG/G			1.00E+00 G	03AUG88	0910	10AUG88	I	341	011139
===> PROCEDURE: C68		REPORTED: 12AUG88												
SOIL	M162	TOX	C68		2.15E+01 UG/G			1.00E+00 G	03AUG88	0910	09AUG88	I	341	011139
===> PROCEDURE: C69		REPORTED: 16AUG88												
SOIL	M162	TOC	C69	*	1.00E+01 UG/G			2.00E+01 G	03AUG88	0910	08AUG88	I	341	011139
**********														
==> SAMPLE: M163 ==>														
**********														
===> PROCEDURE: 088		REPORTED: 12AUG88												
SOIL	M163	LEP COND	088		1.87E+02			1.00E+01 G	03AUG88	1005	04AUG88	I	341	011140

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2600 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: 207		REPORTED: 12AUG88												
SOIL	M163	PH (LAB)	207		8.00E+00			0.00E+00 G	03AUG88	1005	04AUG88	I	341	011140
===> PROCEDURE: 726		REPORTED: 12AUG88												
SOIL	M163	BERYLAM	A01	*	5.00E-01 UG/G			1.01E+00 G	03AUG88	1005	09AUG88	I	341	011140
SOIL	M163	STRONUM	A03		2.46E+01 UG/G			1.01E+00 G	03AUG88	1005	09AUG88	I	341	011140
SOIL	M163	ZINC	A04		2.80E+01 UG/G			1.01E+00 G	03AUG88	1005	09AUG88	I	341	011140
SOIL	M163	CALCIUM	A05		8.89E+03 UG/G	1		1.01E+00 G	03AUG88	1005	09AUG88	I	341	011140
SOIL	M163	BARIUM	A06		4.44E+01 UG/G			1.01E+00 G	03AUG88	1005	09AUG88	I	341	011140
SOIL	M163	CADMIUM	A07	*	2.00E-01 UG/G			1.01E+00 G	03AUG88	1005	09AUG88	I	341	011140
SOIL	M163	CHROMUM	A08		1.10E+01 UG/G			1.01E+00 G	03AUG88	1005	09AUG88	I	341	011140
SOIL	M163	SILVER	A10	*	1.00E+00 UG/G			1.01E+00 G	03AUG88	1005	09AUG88	I	341	011140
SOIL	M163	SODIUM	A11		1.68E+02 UG/G			1.01E+00 G	03AUG88	1005	09AUG88	I	341	011140
SOIL	M163	NICKEL	A12		7.70E+00 UG/G			1.01E+00 G	03AUG88	1005	09AUG88	I	341	011140
SOIL	M163	COPPER	A13		1.80E+00 UG/G			1.01E+00 G	03AUG88	1005	09AUG88	I	341	011140
SOIL	M163	VANADUM	A14		2.58E+01 UG/G			1.01E+00 G	03AUG88	1005	09AUG88	I	341	011140
SOIL	M163	ANTIONY	A15	*	1.00E+01 UG/G			1.01E+00 G	03AUG88	1005	09AUG88	I	341	011140
SOIL	M163	ALUMNUM	A16		6.01E+03 UG/G	1		1.01E+00 G	03AUG88	1005	09AUG88	I	341	011140
SOIL	M163	MANGESE	A17		2.29E+02 UG/G			1.01E+00 G	03AUG88	1005	09AUG88	I	341	011140
SOIL	M163	POTASUM	A18		1.00E+03 UG/G	1		1.01E+00 G	03AUG88	1005	09AUG88	I	341	011140
SOIL	M163	IRON	A19		1.36E+04 UG/G	1		1.01E+00 G	03AUG88	1005	09AUG88	I	341	011140
SOIL	M163	MAGNES	A50		5.00E+03 UG/G	1		1.01E+00 G	03AUG88	1005	09AUG88	I	341	011140
===> PROCEDURE: 727		REPORTED: 17AUG88												
SOIL	M163	THIOURA	A24	*	2.00E+00 UG/G			1.00E+01 G	03AUG88	1005	17AUG88	I	341	011140
SOIL	M163	ACETREA	A25	*	2.00E+00 UG/G			1.00E+01 G	03AUG88	1005	17AUG88	I	341	011140
SOIL	M163	CHLOREA	A26	*	2.00E+00 UG/G			1.00E+01 G	03AUG88	1005	17AUG88	I	341	011140
SOIL	M163	DIETROL	A27	*	2.00E+00 UG/G			1.00E+01 G	03AUG88	1005	17AUG88	I	341	011140
SOIL	M163	ETHYREA	A28	*	2.00E+00 UG/G			1.00E+01 G	03AUG88	1005	17AUG88	I	341	011140
SOIL	M163	NAPHREA	A29	*	2.00E+00 UG/G			1.00E+01 G	03AUG88	1005	17AUG88	I	341	011140
SOIL	M163	PHENREA	A32	*	5.00E+00 UG/G			1.00E+01 G	03AUG88	1005	17AUG88	I	341	011140
===> PROCEDURE: 729		REPORTED: 17AUG88												
SOIL	M163	ENDRIN	A33	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	METHLOR	A34	*	3.00E-01 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	TOXAENE	A35	*	1.00E-01 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	A-BHC	A36	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	B-BHC	A37	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	G-BHC	A38	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	D-BHC	A39	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M163	DDD	A40	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	DDE	A41	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	DDT	A42	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	HEPTLOR	A43	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	HEPTIDE	A44	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	DIELRIN	A46	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	ALDRIN	A47	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	CHLDANE	A48	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	ENDO1	A49	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	ENDO2	A52	*	1.00E-02 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	CHLLATE	C62	*	3.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	DDC	X10		8.50E+01 %RECOV			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
===> PROCEDURE: 731		REPORTED: 12AUG88												
SOIL	M163	TETRANE	A61	*	5.00E-03 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	BENZENE	A62	*	5.00E-03 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	DIOXANE	A63	*	5.00E-01 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	METHONE	A64	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	PYRIDIN	A65	*	5.00E-01 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	TOLUENE	A66	*	5.00E-03 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	1,1,1-T	A67	*	5.00E-03 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	1,1,2-T	A68	*	5.00E-03 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	TRICENE	A69	*	5.00E-03 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	PERCENE	A70	*	5.00E-03 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	OPXYLEN	A71	*	5.00E-03 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	ACROLIN	A72	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	ACRYILE	A73	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	BISTHER	A74	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	BROMONE	A75	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	METHBRO	A76	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	CARBIDE	A77	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	CHLBENZ	A78	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	CHLTHER	A79	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	CHLFORM	A80	*	5.00E-03 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	METHCHL	A81	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	CHMTHER	A82	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	CROTONA	A83	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	DIBRCHL	A84	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	DIBRETH	A85	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	DIBRMET	A86	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	DIBUTEN	A87	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	DICDIFN	A88	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	1,1-DIC	A89	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	1,2-DIC	A90	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M163	TRANDCE	A91	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	DICETHY	A92	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	METHYCH	A93	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	DICPANE	A94	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	DICPENE	A95	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	NNDIEHY	A96	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	HYDRSUL	A99	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	IODOMET	B01	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	METHACR	B02	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	METHTHI	B03	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	PENTACH	B04	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	1112-TC	B05	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	1122-TC	B06	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	BROMORM	B08	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	TRCMEOL	B09	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	TRCMFLM	B10	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	TRCPANE	B11	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	123-TRP	B12	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	VINYIDE	B13	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	M-XYLE	B14	*	5.00E-03 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	DIETHY	B15	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	ACETILE	B19	*	3.00E+00 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	METACRY	C04	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	FORMALN	C71	*	5.00E-01 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	ETHOXID	H05	*	3.00E+00 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	ETHMETH	H06	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	HEXONE	H68	*	1.00E-02 UG/G			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	12DCAD4	X07		9.96E+01 %RECOV			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	TOLUDB	X08		1.02E+02 %RECOV			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
SOIL	M163	BFB	X09		1.22E+02 %RECOV			5.00E+00 G	03AUG88	1005	05AUG88	I	341	011140
===> PROCEDURE: 733		REPORTED: 16AUG88												
SOIL	M163	ACETOPH	B20	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	WARFRIN	B21	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	ACEFENE	B22	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	ANINDYL	B23	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	AMIISDX	B24	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	ANITROL	B25	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	ANILINE	B26	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	ARAMITE	B27	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	AURAMIN	B28	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	BENZCAC	B29	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	BENZAAN	B30	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	BENDICN	B31	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M163	BENTHOL	B32	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	BENDINE	B33	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	BENZBFL	B34	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	BENZJFL	B35	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	PBENZQU	B36	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	BENZCHL	B37	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	BIS2CHM	B38	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	BIS2CHE	B39	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	BIS2EPH	B40	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	BROPHEN	B41	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	BUTBENP	B42	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	BUTDINP	B43	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	CHALETH	B44	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	CHLANIL	B45	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	CHLCRES	B46	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	CHLEPOX	B47	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	CHLNAPH	B48	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	CHLPHEN	B49	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	CHRYSEN	B50	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	CRESOLS	B51	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	CYCHDIN	B52	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	DIBAHAC	B53	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	DIBAJAC	B54	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	DIBIHAN	B55	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	DIBCGCA	B56	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	DIBAEPY	B57	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	DIBAHPY	B58	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	DIBAIPY	B59	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	DIBPHTH	B60	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	12-DBEN	B61	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	13-DBEN	B62	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	14-DBEN	B63	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	DICHDEN	B64	*	2.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	24-DCHP	B65	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	26-DCHP	B66	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	DIEPHTH	B67	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	DIHYSAF	B68	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	DIMTHB	B69	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	DINEAMD	B70	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	DINBENZ	B71	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	DIMEYLB	B72	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	THIONOX	B73	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	DINPHAM	B74	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	DINPHEN	B75	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	DINPHTH	B76	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M163	DINBENZ	B77	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	DINCRES	B78	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	DINPHEN	B79	*	5.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	24-DINT	B80	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	26-DINT	B81	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	DIOPHTH	B82	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	DIPHAMI	B83	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	DIPHHYD	B84	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	DIPRNIT	B85	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	ETHMINE	B86	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	ETHMETS	B87	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	FLUORAN	B88	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	HEXCDEN	B89	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	HEXCBUT	B90	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	HEXCCYC	B91	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	HEXCETH	B92	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	INDENOP	B93	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	ISOSOLE	B94	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	MALDILE	B95	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	MELPHAL	B96	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	METHAPY	B97	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	METHNYL	B98	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	METAZIR	B99	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	METCHAN	C01	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	METBISC	C02	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	METACTO	C03	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	METMSUL	C05	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	METPROP	C06	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	METHIDU	C07	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	NAPHQUI	C08	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	1-NAPHA	C09	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	2-NAPHA	C10	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	NITRANI	C11	*	5.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	NITBENZ	C12	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	NITPHEN	C13	*	5.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	NNIBUTY	C14	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	NNIDIEA	C15	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	NNIDIEY	C16	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	NNIDIME	C17	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	NNIMETH	C18	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	NNIURET	C19	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	NNIVINY	C20	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	NNIMORP	C21	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	NNINICO	C22	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	NNIPIPE	C23	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140

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UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M163	NITRPYR	C24	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	NITRTOL	C25	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	PENTCHB	C26	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	PENTCHN	C27	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	PENTCHP	C28	*	5.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	PHENTIN	C29	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	PHENINE	C30	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	PHTHEST	C31	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	PICOLIN	C32	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	PRONIDE	C33	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	RESERPI	C34	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	RESORCI	C35	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	SAFROL	C36	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	TETRCHB	C37	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	TETRCHP	C39	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	THIURAM	C40	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	TOLUDIA	C41	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	OTOLHYD	C42	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	TRICHLB	C43	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	245-TRP	C44	*	5.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	246-TRP	C45	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	TRIPHOS	C46	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	SYMTRIN	C47	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	TRISPHO	C48	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	BENZOPY	C49	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	CHLNAPZ	C50	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	BIS2ETH	C51	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	HEXAENE	C52	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	HEXACHL	C54	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	NAPHTHA	C55	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	123TRI	C56	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	PHENOL	C57	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	135TRI	C58	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	1234TE	C59	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	1235TE	C60	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	KEROSEN	C79	*	1.00E+03 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	STRYCHN	C91	*	5.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	MALHYDR	C92	*	5.00E+01 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	NICOTIN	C93	*	1.00E+01 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	TRIBUPH	I21	*	1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	UNKNWN	I99		1.40E+00 UG/G			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	2FLPHEN	X01		6.39E+01 %RECOV			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	PHEND6	X02		5.53E+01 %RECOV			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	NITBN2	X03		5.94E+01 %RECOV			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	2FLBIPH	X04		5.24E+01 %RECOV			1.00E+01 G	03AUG88	1005	12AUG88	I	341	011140

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-1
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M163	246TRI	X05		5.13E+01 %RECOV			1.00E+01	G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	TERD14	X06		7.86E+01 %RECOV			1.00E+01	G	03AUG88	1005	12AUG88	I	341	011140
===> PROCEDURE: 734		REPORTED: 12AUG88													
SOIL	M163	TETEPYR	C61	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	1005	09AUG88	I	341	011140
SOIL	M163	CARBPHT	C63	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	1005	09AUG88	I	341	011140
SOIL	M163	DISULFO	C64	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	1005	09AUG88	I	341	011140
SOIL	M163	DIMETHO	C65	*	2.00E-01 UG/G			1.00E+01	G	03AUG88	1005	09AUG88	I	341	011140
SOIL	M163	METHPAR	C66	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	1005	09AUG88	I	341	011140
SOIL	M163	PARATHI	C67	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	1005	09AUG88	I	341	011140
===> PROCEDURE: 735		REPORTED: 16AUG88													
SOIL	M163	NITRATE	C72	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	1005	09AUG88	I	341	011140
SOIL	M163	SULFATE	C73		2.84E+00 UG/G			1.00E+01	G	03AUG88	1005	09AUG88	I	341	011140
SOIL	M163	FLOURID	C74	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	1005	09AUG88	I	341	011140
SOIL	M163	CHLORID	C75	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	1005	09AUG88	I	341	011140
SOIL	M163	PHOSPHA	C76	*	2.00E+00 UG/G			1.00E+01	G	03AUG88	1005	09AUG88	I	341	011140
===> PROCEDURE: 737		REPORTED: 16AUG88													
SOIL	M163	2,4-D	H13	*	1.00E+00 UG/G			2.50E+01	G	03AUG88	1005	11AUG88	I	341	011140
SOIL	M163	2,4,5TP	H14	*	1.00E+00 UG/G			2.50E+01	G	03AUG88	1005	11AUG88	I	341	011140
SOIL	M163	2,4,5-T	H15	*	1.00E+00 UG/G			2.50E+01	G	03AUG88	1005	11AUG88	I	341	011140
===> PROCEDURE: 739		REPORTED: 17AUG88													
SOIL	M163	AR1016	A54	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	AR1221	A55	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	AR1232	A56	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	AR1242	A57	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	AR1248	A58	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	AR1254	A59	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	1005	12AUG88	I	341	011140
SOIL	M163	AR1260	A60	*	1.00E+00 UG/G			1.00E+01	G	03AUG88	1005	12AUG88	I	341	011140
===> PROCEDURE: A20		REPORTED: 16AUG88													
SOIL	M163	ARSENIC	A20		2.70E+00 UG/G			1.02E+00	G	03AUG88	1005	11AUG88	I	341	011140
===> PROCEDURE: A21		REPORTED: 12AUG88													
SOIL	M163	MERCURY	A21	*	2.00E-01 UG/G			2.41E-01	G	03AUG88	1005	03AUG88	I	341	011140
===> PROCEDURE: A22		REPORTED: 16AUG88													
SOIL	M163	SELENUM	A22	*	5.00E-01 UG/G			1.02E+00	G	03AUG88	1005	11AUG88	I	341	011140

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE	RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: A23		REPORTED: 16AUG88											
SOIL	M163	THALIUM	A23	* 1.00E+00 UG/G			1.02E+00 G	03AUG88	1005	10AUG88	I	341	011140
===> PROCEDURE: A51		REPORTED: 16AUG88											
SOIL	M163	LEAD	A51	6.62E+00 UG/G			1.02E+00 G	03AUG88	1005	10AUG88	I	341	011140
===> PROCEDURE: C68		REPORTED: 12AUG88											
SOIL	M163	TOX	C68	* 1.00E+00 UG/G			1.00E+00 G	03AUG88	1005	09AUG88	I	341	011140
===> PROCEDURE: C69		REPORTED: 16AUG88											
SOIL	M163	TOC	C69	* 1.00E+01 UG/G			2.01E+01 G	03AUG88	1005	08AUG88	I	341	011140
===> PROCEDURE: C70		REPORTED: 12AUG88											
SOIL	M163	CYANIDE	C70	* 1.00E+00 UG/G			1.00E+01 G	03AUG88	1005	04AUG88	I	341	011140
===> PROCEDURE: C77		REPORTED: 12AUG88											
SOIL	M163	PERCHLO	C77	* 2.00E+00 UG/G			1.00E+01 G	03AUG88	1005	04AUG88	I	341	011140
===> PROCEDURE: C78		REPORTED: 16AUG88											
SOIL	M163	SULFIDE	C78	* 1.00E+01 UG/G			1.06E+01 G	03AUG88	1005	09AUG88	I	341	011140
===> PROCEDURE: C80		REPORTED: 12AUG88											
SOIL	M163	AMMONIU	C80	3.80E+00 UG/G			1.00E+01 G	03AUG88	1005	10AUG88	I	341	011140
===> PROCEDURE: C81		REPORTED: 12AUG88											
SOIL	M163	ETHYGLY	C81	* 1.00E+01 UG/G			5.00E+00 G	03AUG88	1005	04AUG88	I	341	011140
*********** ===> SAMPLE: M164 <=== **********													
===> PROCEDURE: C88		REPORTED: 12AUG88											
SOIL	M164	LSP COND	C88	6.23E+02			1.00E+01 G	05AUG88	0645	05AUG88	I	341	011141
===> PROCEDURE: 207		REPORTED: 12AUG88											
SOIL	M164	PH (LAB)	207	7.70E+00			0.00E+00 G	05AUG88	0645	05AUG88	I	341	011141

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT · Contract no. B-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: 726		REPORTED: 12AUG88													
SOIL	M164	BERYLAM	A01	*	5.00E-01 UG/G			1.00E+00	G	05AUG88	0645	09AUG88	I	341	011141
SOIL	M164	STRONUM	A03		4.00E+01 UG/G			1.00E+00	G	05AUG88	0645	09AUG88	I	341	011141
SOIL	M164	ZINC	A04		8.34E+01 UG/G			1.00E+00	G	05AUG88	0645	09AUG88	I	341	011141
SOIL	M164	CALCIUM	A05		1.64E+04 UG/G	1		1.00E+00	G	05AUG88	0645	09AUG88	I	341	011141
SOIL	M164	BARIUM	A06		9.67E+01 UG/G			1.00E+00	G	05AUG88	0645	09AUG88	I	341	011141
SOIL	M164	CADMIUM	A07	*	2.00E-01 UG/G			1.00E+00	G	05AUG88	0645	09AUG88	I	341	011141
SOIL	M164	CHROMUM	A08		1.21E+01 UG/G			1.00E+00	G	05AUG88	0645	09AUG88	I	341	011141
SOIL	M164	SILVER	A10	*	1.00E+00 UG/G			1.00E+00	G	05AUG88	0645	09AUG88	I	341	011141
SOIL	M164	SODIUM	A11		3.09E+02 UG/G			1.00E+00	G	05AUG88	0645	09AUG88	I	341	011141
SOIL	M164	NICKEL	A12		1.04E+01 UG/G			1.00E+00	G	05AUG88	0645	09AUG88	I	341	011141
SOIL	M164	COPPER	A13		2.70E+02 UG/G			1.00E+00	G	05AUG88	0645	09AUG88	I	341	011141
SOIL	M164	VANADUM	A14		4.90E+01 UG/G			1.00E+00	G	05AUG88	0645	09AUG88	I	341	011141
SOIL	M164	ANTIONY	A15	*	1.00E+01 UG/G			1.00E+00	G	05AUG88	0645	09AUG88	I	341	011141
SOIL	M164	ALUMNUM	A16		1.02E+04 UG/G	1		1.00E+00	G	05AUG88	0645	09AUG88	I	341	011141
SOIL	M164	MANGESE	A17		3.32E+02 UG/G			1.00E+00	G	05AUG88	0645	09AUG88	I	341	011141
SOIL	M164	POTASUM	A18		1.58E+03 UG/G	1		1.00E+00	G	05AUG88	0645	09AUG88	I	341	011141
SOIL	M164	IRON	A19		2.49E+04 UG/G	1		1.00E+00	G	05AUG88	0645	09AUG88	I	341	011141
SOIL	M164	MAGNES	A50		6.29E+03 UG/G	1		1.00E+00	G	05AUG88	0645	09AUG88	I	341	011141
===> PROCEDURE: 729		REPORTED: 25AUG88													
SOIL	M164	ENDRIN	A33	*	1.00E-02 UG/G			1.00E+01	G	05AUG88	0645	20AUG88	I	341	011141
SOIL	M164	METHLOR	A34	*	3.00E-01 UG/G			1.00E+01	G	05AUG88	0645	20AUG88	I	341	011141
SOIL	M164	TOXAENE	A35	*	1.00E-01 UG/G			1.00E+01	G	05AUG88	0645	20AUG88	I	341	011141
SOIL	M164	A-BHC	A36	*	1.00E-02 UG/G			1.00E+01	G	05AUG88	0645	20AUG88	I	341	011141
SOIL	M164	B-BHC	A37	*	1.00E-02 UGAG			1.00E+01	C	05AUG88	0645	20AUG88	I	341	011141
SOIL	M164	G-BHC	A38	*	1.00E-02 UG/G			1.00E+01	G	05AUG88	0645	20AUG88	I	341	011141
SOIL	M164	D-BHC	A39	*	1.00E-02 UG/G			1.00E+01	G	05AUG88	0645	20AUG88	I	341	011141
SOIL	M164	DDD	A40	*	1.00E-02 UG/G			1.00E+01	G	05AUG88	0645	20AUG88	I	341	011141
SOIL	M164	DDE	A41	*	1.00E-02 UG/G			1.00E+01	G	05AUG88	0645	20AUG88	I	341	011141
SOIL	M164	DDT	A42	*	1.00E-02 UG/G			1.00E+01	G	05AUG88	0645	20AUG88	I	341	011141
SOIL	M164	HEPTLOR	A43	*	1.00E-02 UG/G			1.00E+01	G	05AUG88	0645	20AUG88	I	341	011141
SOIL	M164	HEPTIDE	A44	*	1.00E-02 UG/G			1.00E+01	G	05AUG88	0645	20AUG88	I	341	011141
SOIL	M164	DIELRIN	A46	*	1.00E-02 UG/G			1.00E+01	G	05AUG88	0645	20AUG88	I	341	011141
SOIL	M164	ALDRIN	A47	*	1.00E-02 UG/G			1.00E+01	G	05AUG88	0645	20AUG88	I	341	011141
SOIL	M164	CHLDANE	A48	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0645	20AUG88	I	341	011141
SOIL	M164	ENDO1	A49	*	1.00E-02 UG/G			1.00E+01	G	05AUG88	0645	20AUG88	I	341	011141
SOIL	M164	ENDO2	A52	*	1.00E-02 UG/G			1.00E+01	G	05AUG88	0645	20AUG88	I	341	011141
SOIL	M164	CHLLATE	C62	*	3.00E+00 UG/G			1.00E+01	G	05AUG88	0645	20AUG88	I	341	011141
SOIL	M164	DBC	X10		8.40E+01 %RECOV			1.00E+01	G	05AUG88	0645	20AUG88	I	341	011141
===> PROCEDURE: 731		REPORTED: 16AUG88													
SOIL	M164	TETRANE	A61	*	5.00E-03 UG/G			5.00E+00	G	05AUG88	0645	10AUG88	I	341	011141

* Denotes a result less than the detection limit

2600 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M164	BENZENE	A62	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	DIOXANE	A63	*	5.00E-01 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	METHONE	A64	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	PYRIDIN	A65	*	5.00E-01 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	TOLUENE	A66	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	1,1,1-T	A67	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	1,1,2-T	A68	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	TRICENE	A69	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	PERCENE	A70	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	OPXYLEN	A71	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	ACROLIN	A72	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	ACRYLE	A73	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	BISTHER	A74	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	BROMONE	A75	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	METHBRO	A76	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	CARBIDE	A77	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	CHLBENZ	A78	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	CHLTHER	A79	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	CHLFORM	A80	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	METHCHL	A81	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	CHMTHER	A82	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	CROTONA	A83	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	DIBRCHL	A84	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	DIBRETH	A85	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	DIBRMET	A86	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	DIBUTEN	A87	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	DICDIFM	A88	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	1,1-DIC	A89	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	1,2-DIC	A90	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	TRANDCE	A91	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	DICETHY	A92	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	METHYCH	A93	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	DICPANE	A94	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	DICPENE	A95	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	NNDIEHY	A96	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	HYDRSUL	A99	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	IODOMET	B01	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	METHACR	B02	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	METHTHI	B03	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	PENTACH	B04	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	1112-TC	B05	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	1122-TC	B06	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	BROMOFM	B08	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	TRCMEOL	B09	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	TRCMFLM	B10	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0645	10AUG88	I	341	011141

* Denotes a result less than the detection limit

2600 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT		DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M164	TRCPANE	B11	*	1.00E-02	UG/G			5.00E+00	G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	123-TRP	B12	*	1.00E-02	UG/G			5.00E+00	G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	VINYIDE	B13	*	1.00E-02	UG/G			5.00E+00	G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	N-XYLE	B14	*	5.00E-03	UG/G			5.00E+00	G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	DIETHY	B15	*	1.00E-02	UG/G			5.00E+00	G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	ACETILE	B19	*	3.00E+00	UG/G			5.00E+00	G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	METACRY	C04	*	1.00E-02	UG/G			5.00E+00	G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	FORMALN	C71	*	5.00E-01	UG/G			5.00E+00	G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	ETHOXID	H05	*	3.00E+00	UG/G			5.00E+00	G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	ETHMETH	H06	*	1.00E-02	UG/G			5.00E+00	G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	HEXONE	H68	*	1.00E-02	UG/G			5.00E+00	G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	12DCAD4	X07		9.94E+01	%RECOV			5.00E+00	G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	TOLUD8	X08		1.06E+02	%RECOV			5.00E+00	G	05AUG88	0645	10AUG88	I	341	011141
SOIL	M164	BFB	X09		8.64E+01	%RECOV			5.00E+00	G	05AUG88	0645	10AUG88	I	341	011141
===> PROCEDURE: 733		REPORTED 16AUG88														
SOIL	M164	ACETOPH	B20	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	DARFRIN	D21	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	ACEFENE	D22	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	AMINOYL	B23	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	AMIISOX	B24	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	AMITROL	B25	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	ANILINE	B26	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	ARAMITE	B27	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	AURAMIN	B28	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	BENZCAC	B29	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	BENZAAN	B30	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	BENDICM	B31	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	BENTHOL	B32	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	BENDINE	B33	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	BENZBFL	B34	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	BENZJFL	B35	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	PBENZQU	B36	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	BENZCHL	B37	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	BIS2CHM	B38	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	BIS2CHE	B39	*	1.00E+01	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	BIS2EPH	B40	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	BROPHEN	B41	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	BUTBENP	B42	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	BUTDINP	B43	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	CHALETH	B44	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	CHLANIL	B45	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	CHLCRES	B46	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	CHLEPOX	B47	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M164	CHLNAPH	B48	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	CHLPHEN	B49	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	CHRYSEN	B50	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	CRESOLS	B51	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	CYCHDIN	B52	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	DIBAHAC	B53	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	DIBAJAC	B54	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	DIBIHAN	B55	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	DIBCGCA	B56	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	DIBAEPY	B57	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	DIBAHPY	B58	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	DIBAIPY	B59	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	DIBPHTH	B60	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	12-DBEN	B61	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	13-DBEN	B62	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	14-DBEN	B63	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	DICHDEN	B64	*	2.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	24-DCHP	B65	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	26-DCHP	B66	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	DIEPHTH	B67	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	DIHYSAF	B68	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	DIMTHB	B69	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	DIMEAMB	B70	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	DIMBENZ	B71	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	DIMEYLD	B72	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	THIONOX	B73	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	DIMPHAN	B74	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	DIMPHEN	B75	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	DINPHTH	B76	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	DINBENZ	B77	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	DINCRES	B78	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	DINPHEN	B79	*	5.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	24-DINT	B80	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	26-DINT	B81	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	DIOPHTH	B82	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	DIPHAMI	B83	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	DIPHHYD	B84	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	DIPRNIT	B85	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	ETHMINE	B86	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	ETHMETS	B87	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	FLUORAN	B88	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	HEXCBEN	B89	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	HEXCBUT	B90	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	HEXCCYC	B91	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	HEXCETH	B92	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT. Contract no. B-62472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT		DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M164	INDENOP	B93	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	ISOSOLE	B94	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	MALOILE	B95	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	MELPHAL	B96	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	METHAPY	B97	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	METHNYL	B98	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	METAZIR	B99	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	METCHAN	C01	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	METBISC	C02	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	METACTO	C03	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	METMSUL	C05	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	METPROP	C06	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	METHIOU	C07	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	NAPHGUI	C08	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	1-NAPHA	C09	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	2-NAPHA	C10	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	NITRANI	C11	*	5.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	NITBENZ	C12	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	NITPHEN	C13	*	5.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	NNIBUTY	C14	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	NNIDIEA	C15	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	NNIDIEY	C16	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	NNIDINE	C17	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	NNIMETH	C18	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	NNIURET	C19	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	NNIVINY	C20	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	NNIMORP	C21	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	NNINICO	C22	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	NNIPIPE	C23	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	NITRPYR	C24	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	NITRTOL	C25	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	PENTCHB	C26	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	PENTCHN	C27	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	PENTCHP	C28	*	5.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	PHENTIN	C29	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	PHENINE	C30	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	PHTHEST	C31	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	PICOLIN	C32	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	PRONIDE	C33	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	RESERPI	C34	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	RESORCI	C35	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	SAFROL	C36	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	TETRCHB	C37	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	TETRCHP	C39	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	THIURAM	C40	*	1.00E+00	UG/G			1.00E+01	G	05AUG88	0645	13AUG88	I	341	011141

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M164	TOLUDIA	C41	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	OTOLHYD	C42	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	TRICHLB	C43	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	245-TRP	C44	*	5.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	246-TRP	C45	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	TRIPHOS	C46	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	SYMTRIN	C47	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	TRISPHO	C48	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	BENZOPY	C49	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	CHLNAPZ	C50	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	BIS2ETH	C51	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	HEXAENE	C52	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	HEXACHL	C54	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	NAPHTHA	C55	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	123TRI	C56	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	PHENOL	C57	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	135TRI	C58	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	1234TE	C59	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	1235TE	C60	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	KEROSEN	C79	*	1.00E+03 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	STRYCHN	C91	*	5.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	MALHYDR	C92	*	5.00E+01 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	NICOTIN	C93	*	1.00E+01 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIC	M164	TRIBUTH	I21	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	2FLPHEN	X01		6.67E+01 %RECOV			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	PHEND6	X02		6.42E+01 %RECOV			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	NITBN2	X03		6.36E+01 %RECOV			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	2FLB1PH	X04		6.66E+01 %RECOV			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	246TRI	X05		6.76E+01 %RECOV			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	TERD14	X06		6.60E+01 %RECOV			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
===> PROCEDURE: 734		REPORTED: 19AUG88												
SOIL	M164	TETEPYR	C61	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	CARBPHT	C63	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	DISULFO	C64	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	DIMETHO	C65	*	2.00E-01 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	METHPAR	C66	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
SOIL	M164	PARATHI	C67	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	13AUG88	I	341	011141
===> PROCEDURE: 735		REPORTED: 16AUG88												
SOIL	M164	NITRATE	C72	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0645	12AUG88	I	341	011141
SOIL	M164	SULFATE	C73		1.01E+02 UG/G	1		1.00E+01 G	05AUG88	0645	12AUG88	I	341	011141
SOIL	M164	FLOURID	C74		2.03E+00 UG/G			1.00E+01 G	05AUG88	0645	12AUG88	I	341	011141
					COMMENT: MIR									

* Denotes a result less than the detection limit

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M164	CHLORID	C75		7.18E+00 UG/G			1.00E+01	G	05AUG88	0645	12AUG88	I	341	011141
SOIL	M164	PHOSPHA	C76	*	2.00E+00 UG/G			1.00E+01	G	05AUG88	0645	12AUG88	I	341	011141
===> PROCEDURE: 737		REPORTED: 19AUG88													
SOIL	M164	2,4-D	H13	*	1.00E+00 UG/G			2.50E+01	G	05AUG88	0645	12AUG88	I	341	011141
SOIL	M164	2,4,5TP	H14	*	1.00E+00 UG/G			2.50E+01	G	05AUG88	0645	12AUG88	I	341	011141
SOIL	M164	2,4,5-T	H15	*	1.00E+00 UG/G			2.50E+01	G	05AUG88	0645	12AUG88	I	341	011141
===> PROCEDURE: 739		REPORTED: 25AUG88													
SOIL	M164	AR1016	A54	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0645	20AUG88	I	341	011141
SOIL	M164	AR1221	A55	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0645	20AUG88	I	341	011141
SOIL	M164	AR1232	A56	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0645	20AUG88	I	341	011141
SOIL	M164	AR1242	A57	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0645	20AUG88	I	341	011141
SOIL	M164	AR1248	A58	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0645	20AUG88	I	341	011141
SOIL	M164	AR1254	A59	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0645	20AUG88	I	341	011141
SOIL	M164	AR1260	A60	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0645	20AUG88	I	341	011141
===> PROCEDURE: A20		REPORTED: 16AUG88													
SOIL	M164	ARSENIC	A20		3.50E+00 UG/G			1.01E+00	G	05AUG88	0645	11AUG88	I	341	011141
===> PROCEDURE: A21		REPORTED: 12AUG88													
SOIL	M164	MERCURY	A21	*	2.00E-01 UG/G			2.27E-01	G	05AUG88	0645	10AUG88	I	341	011141
===> PROCEDURE: A22		REPORTED: 16AUG88													
SOIL	M164	SELENUM	A22	*	5.00E-01 UG/G			1.01E+00	G	05AUG88	0645	11AUG88	I	341	011141
===> PROCEDURE: A23		REPORTED: 16AUG88													
SOIL	M164	THALIUM	A23	*	1.00E+00 UG/G			1.01E+00	G	05AUG88	0645	10AUG88	I	341	011141
===> PROCEDURE: A51		REPORTED: 16AUG88													
SOIL	M164	LEAD	A51		8.76E+00 UG/G			1.01E+00	G	05AUG88	0645	11AUG88	I	341	011141
===> PROCEDURE: C68		REPORTED: 12AUG88													
SOIL	M164	TOX	C68	*	1.00E+00 UG/G			1.00E+00	G	05AUG88	0645	09AUG88	I	341	011141
===> PROCEDURE: C69		REPORTED: 25AUG88													
SOIL	M164	TOC	C69		1.37E+02 UG/G			2.01E+01	G	05AUG88	0645	12AUG88	I	341	011141

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2600 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

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===> PROCEDURE: C70		REPORTED: 16AUG88												
SOIL	M164	CYANIDE	C70	*	1.00E+00 UG/G			9.15E+00 G	05AUG88	0645	13AUG88	I	341	011141
===> PROCEDURE: C77		REPORTED: 16AUG88												
SOIL	M164	PERCHLO	C77	*	2.00E+00 UG/G			1.00E+01 G	05AUG88	0645	14AUG88	I	341	011141
===> PROCEDURE: C78		REPORTED: 16AUG88												
SOIL	M164	SULFIDE	C78	*	1.00E+01 UG/G			9.48E+00 G	05AUG88	0645	09AUG88	I	341	011141
===> PROCEDURE: C80		REPORTED: 12AUG88												
SOIL	M164	AMMONIU	C80		4.30E+00 UG/G			1.00E+01 G	05AUG88	0645	10AUG88	I	341	011141
===> PROCEDURE: C81		REPORTED: 19AUG88												
SOIL	M164	ETHYGLY	C81	*	1.00E+01 UG/G			5.00E+00 G	05AUG88	0645	17AUG88	I	341	011141
*********** ** SAMPLE: M165 ** **********														
===> PROCEDURE: 068		REPORTED: 12AUG88												
SOIL	M165	LSP COND	068		1.68E+02			1.00E+01 G	05AUG88	0710	05AUG88	I	341	011142
===> PROCEDURE: 207		REPORTED: 12AUG88												
SOIL	M165	PH (LAB)	207		8.00E+00			0.00E+00 G	05AUG88	0710	05AUG88	I	341	011142
===> PROCEDURE: 726		REPORTED: 12AUG88												
SOIL	M165	BERYLAM	A01	*	5.00E-01 UG/G			1.05E+00 G	05AUG88	0710	09AUG88	I	341	011142
SOIL	M165	STRONUM	A03		2.03E+01 UG/G			1.05E+00 G	05AUG88	0710	09AUG88	I	341	011142
SOIL	M165	ZINC	A04		3.09E+01 UG/G			1.05E+00 G	05AUG88	0710	09AUG88	I	341	011142
SOIL	M165	CALCIUM	A05		2.83E+03 UG/G			1.05E+00 G	05AUG88	0710	09AUG88	I	341	011142
SOIL	M165	BARIUM	A06		7.00E+01 UG/G			1.05E+00 G	05AUG88	0710	09AUG88	I	341	011142
SOIL	M165	CADMIUM	A07	*	2.00E-01 UG/G			1.05E+00 G	05AUG88	0710	09AUG88	I	341	011142
SOIL	M165	CHROMUM	A08		8.90E+00 UG/G			1.05E+00 G	05AUG88	0710	09AUG88	I	341	011142
SOIL	M165	SILVER	A10	*	1.00E+00 UG/G			1.05E+00 G	05AUG88	0710	09AUG88	I	341	011142
SOIL	M165	SODIUM	A11		1.63E+02 UG/G			1.05E+00 G	05AUG88	0710	09AUG88	I	341	011142
SOIL	M165	NICKEL	A12		6.90E+00 UG/G			1.05E+00 G	05AUG88	0710	09AUG88	I	341	011142

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HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

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SOIL	M165	COPPER	A13	*	1.00E+00 UG/G			1.05E+00 G	05AUG88	0710	09AUG88	I	341	011142
SOIL	M165	VANADUM	A14		3.74E+01 UG/G			1.05E+00 G	05AUG88	0710	09AUG88	I	341	011142
SOIL	M165	ANTIONY	A15	*	1.00E+01 UG/G			1.05E+00 G	05AUG88	0710	09AUG88	I	341	011142
SOIL	M165	ALUMNUM	A16		6.71E+03 UG/G	1		1.05E+00 G	05AUG88	0710	09AUG88	I	341	011142
SOIL	M165	MANGESE	A17		2.55E+02 UG/G			1.05E+00 G	05AUG88	0710	09AUG88	I	341	011142
SOIL	M165	POTASUM	A18		8.06E+02 UG/G			1.05E+00 G	05AUG88	0710	09AUG88	I	341	011142
SOIL	M165	IRON	A19		1.75E+04 UG/G	1		1.05E+00 G	05AUG88	0710	09AUG88	I	341	011142
SOIL	M165	MAGNES	A50		4.33E+03 UG/G	1		1.05E+00 G	05AUG88	0710	09AUG88	I	341	011142
===> PROCEDURE: A20		REPORTED: 16AUG88												
SOIL	M165	ARSENIC	A20		1.60E+00 UG/G			1.00E+00 G	05AUG88	0710	11AUG88	I	341	011142
===> PROCEDURE: A51		REPORTED: 16AUG88												
SOIL	M165	LEAD	A51		4.14E+00 UG/G			1.00E+00 G	05AUG88	0710	11AUG88	I	341	011142
===> PROCEDURE: C68		REPORTED: 12AUG88												
SOIL	M165	TOX	C68		5.07E+00 UG/G			1.00E+00 G	05AUG88	0710	09AUG88	I	341	011142
===> PROCEDURE: C69		REPORTED: 25AUG88												
SOIL	M165	TOC	C69	*	1.00E+01 UG/G			2.01E+01 G	05AUG88	0710	12AUG88	I	341	011142
********** <** SAMPLE: M166 **> **********														
===> PROCEDURE: 088		REPORTED: 12AUG88												
SOIL	M166	LSP COND	088		1.72E+02			1.00E+01 G	05AUG88	0740	05AUG88	I	341	011143
===> PROCEDURE: 207		REPORTED: 12AUG88												
SOIL	M166	PH (LAB)	207		8.10E+00			0.00E+00 G	05AUG88	0740	05AUG88	I	341	011143
===> PROCEDURE: 726		REPORTED: 12AUG88												
SOIL	M166	BERYLAM	A01	*	5.00E-01 UG/G			1.02E+00 G	05AUG88	0740	09AUG88	I	341	011143
SOIL	M166	STRONUM	A03		5.53E+01 UG/G			1.02E+00 G	05AUG88	0740	09AUG88	I	341	011143
SOIL	M166	ZINC	A04		2.91E+01 UG/G			1.02E+00 G	05AUG88	0740	09AUG88	I	341	011143
SOIL	M166	CALCIUM	A05		5.21E+03 UG/G			1.02E+00 G	05AUG88	0740	09AUG88	I	341	011143
SOIL	M166	BARIUM	A06		8.10E+01 UG/G			1.02E+00 G	05AUG88	0740	09AUG88	I	341	011143
SOIL	M166	CADMIUM	A07	*	2.00E-01 UG/G			1.02E+00 G	05AUG88	0740	09AUG88	I	341	011143

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M166	CHROMUM	A08		1.05E+01 UG/G			1.02E+00 G	05AUG88	0740	09AUG88	I	341	011143
SOIL	M166	SILVER	A10	*	1.00E+00 UG/G			1.02E+00 G	05AUG88	0740	09AUG88	I	341	011143
SOIL	M166	SODIUM	A11		1.95E+02 UG/G			1.02E+00 G	05AUG88	0740	09AUG88	I	341	011143
SOIL	M166	NICKEL	A12		8.10E+00 UG/G			1.02E+00 G	05AUG88	0740	09AUG88	I	341	011143
SOIL	M166	COPPER	A13		1.70E+00 UG/G			1.02E+00 G	05AUG88	0740	09AUG88	I	341	011143
SOIL	M166	VANADUM	A14		3.72E+01 UG/G			1.02E+00 G	05AUG88	0740	09AUG88	I	341	011143
SOIL	M166	ANTIONY	A15	*	1.00E+01 UG/G			1.02E+00 G	05AUG88	0740	09AUG88	I	341	011143
SOIL	M166	ALUMNUM	A16		7.98E+03 UG/G	1		1.02E+00 G	05AUG88	0740	09AUG88	I	341	011143
SOIL	M166	MANGESE	A17		2.70E+02 UG/G			1.02E+00 G	05AUG88	0740	09AUG88	I	341	011143
SOIL	M166	POTASUM	A18		8.86E+02 UG/G			1.02E+00 G	05AUG88	0740	09AUG88	I	341	011143
SOIL	M166	IRON	A19		2.10E+04 UG/G	1		1.02E+00 G	05AUG88	0740	09AUG88	I	341	011143
SOIL	M166	MAGNES	A50		4.99E+03 UG/G	1		1.02E+00 G	05AUG88	0740	09AUG88	I	341	011143
===> PROCEDURE: 729		REPORTED: 25AUG88												
SOIL	M166	ENDRIN	A33	*	1.00E-02 UG/G			1.00E+01 G	05AUG88	0740	20AUG88	I	341	011143
SOIL	M166	METHLOR	A34	*	3.00E-01 UG/G			1.00E+01 G	05AUG88	0740	20AUG88	I	341	011143
SOIL	M166	TOXAENE	A35	*	1.00E-01 UG/G			1.00E+01 G	05AUG88	0740	20AUG88	I	341	011143
SOIL	M166	A-BHC	A36	*	1.00E-02 UG/G			1.00E+01 G	05AUG88	0740	20AUG88	I	341	011143
SOIL	M166	B-BHC	A37	*	1.00E-02 UG/G			1.00E+01 G	05AUG88	0740	20AUG88	I	341	011143
SOIL	M166	G-BHC	A38	*	1.00E-02 UG/G			1.00E+01 G	05AUG88	0740	20AUG88	I	341	011143
SOIL	M166	D-BHC	A39	*	1.00E-02 UG/G			1.00E+01 G	05AUG88	0740	20AUG88	I	341	011143
SOIL	M166	DDD	A40	*	1.00E-02 UG/G			1.00E+01 G	05AUG88	0740	20AUG88	I	341	011143
SOIL	M166	DDE	A41	*	1.00E-02 UG/G			1.00E+01 G	05AUG88	0740	20AUG88	I	341	011143
SOIL	M166	DDT	A42	*	1.00E-02 UG/G			1.00E+01 G	05AUG88	0740	20AUG88	I	341	011143
SOIL	M166	HEPTLOR	A43	*	1.00E-02 UG/G			1.00E+01 G	05AUG88	0740	20AUG88	I	341	011143
SOIL	M166	HEPTIDE	A44	*	1.00E-02 UG/G			1.00E+01 G	05AUG88	0740	20AUG88	I	341	011143
SOIL	M166	DIELRIN	A46	*	1.00E-02 UG/G			1.00E+01 G	05AUG88	0740	20AUG88	I	341	011143
SOIL	M166	ALDRIN	A47	*	1.00E-02 UG/G			1.00E+01 G	05AUG88	0740	20AUG88	I	341	011143
SOIL	M166	CHLDANE	A48	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	20AUG88	I	341	011143
SOIL	M166	ENDO1	A49	*	1.00E-02 UG/G			1.00E+01 G	05AUG88	0740	20AUG88	I	341	011143
SOIL	M166	ENDO2	A52	*	1.00E-02 UG/G			1.00E+01 G	05AUG88	0740	20AUG88	I	341	011143
SOIL	M166	CHLDATE	C62	*	3.00E+00 UG/G			1.00E+01 G	05AUG88	0740	20AUG88	I	341	011143
SOIL	M166	DBC	X10		7.30E+01 %RECOV			1.00E+01 G	05AUG88	0740	20AUG88	I	341	011143
===> PROCEDURE: 731		REPORTED: 16AUG88												
SOIL	M166	TETRANE	A61	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	BENZENE	A62	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	DIOXANE	A63	*	5.00E-01 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	METHONE	A64	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	PYRIDIN	A65	*	5.00E-01 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	TOLUENE	A66	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	1,1,1-T	A67	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	1,1,2-T	A68	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. D-82472-A-I

All Results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M166	TRICENE	A69	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	PERCENE	A70	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	OPXYLEN	A71	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	ACROLIN	A72	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	ACRYILE	A73	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	BISTHER	A74	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	BROMONE	A75	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	METHBRO	A76	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	CARBIDE	A77	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	CHLBENZ	A78	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	CHLTHER	A79	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	CHLFORM	A80	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	METHCHL	A81	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	CHMTHER	A82	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	CROTONA	A83	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	DIBRCHL	A84	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	DIBRETH	A85	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	DIBRMET	A86	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	DIBUTEN	A87	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	DICDIFN	A88	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	1,1-DIC	A89	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	1,2-DIC	A90	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	TRANDCE	A91	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	DICETHY	A92	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	METHYCH	A93	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	DICPANE	A94	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	DICPENE	A95	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	NNDIEHY	A96	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	HYDRSUL	A99	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	ICDOMET	B01	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	METHACR	B02	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	METHTHI	B03	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	PENTACH	B04	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	1112-TC	B05	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	1122-TC	B06	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	BROMORM	B08	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	TRCMEOL	B09	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	TRCMFLM	B10	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	TRCPANE	B11	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	123-TRP	B12	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	VINYIDE	B13	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	M XYLE	B14	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	DIETHY	B15	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M166	ACETILE	B19	*	3.00E+00 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011142
SOIL	M166	METACRY	C04	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143

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HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

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SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M156	FORMALN	C71	*	5.00E-01 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M156	ETHOXID	H05	*	3.00E+00 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M156	ETHMETH	H06	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M156	HEXONE	H62	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M156	12DCAD4	X07		1.01E+02 %RECOV			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M156	TOLUD8	X08		1.05E+02 %RECOV			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
SOIL	M156	BFB	X09		1.07E+02 %RECOV			5.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
===> PROCEDURE: 733		REPORTED: 16AUG88												
SOIL	M156	ACETOPH	B20	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M156	WARFRIN	B21	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M156	ACEFENE	B22	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M156	AMINOYL	B23	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M156	ANIISOX	B24	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M156	ANITROL	B25	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M156	ANILINE	B26	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M156	ARAMITE	B27	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M156	AURAMIN	B28	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M156	BENZCAC	B29	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M156	BENZAAN	B30	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M156	BENDICM	B31	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M156	BENTHOL	B32	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M156	BENDINE	B33	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M156	BENZBFL	B34	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M156	BENZJFL	B35	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M156	PBENZQU	B36	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M156	BENZCHL	B37	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M156	BIS2CHM	B38	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M156	BIS2CHE	B39	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M156	BIS2EPH	B40	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M156	BROPHEN	B41	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M156	BUTBENP	B42	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M156	BUTDINP	B43	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M156	CHALETH	B44	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M156	CHLANIL	B45	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M156	CHLCRES	B46	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M156	CHLEPOX	B47	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M156	CHLNAPH	B48	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M156	CHLPHEN	B49	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M156	CHRYSEN	B50	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M156	CRESOLS	B51	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M156	CYCHDIN	B52	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M156	DIBAHAC	B53	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M156	DIBAJAC	B54	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M166	DIBIHAN	B55	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	DIBCGCA	B56	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	DIBAEPY	B57	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	DIBAHPY	B58	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	DIBAIPY	B59	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	DIBPHTH	B60	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	12-DBEN	B61	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	13-DBEN	B62	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	14-DBEN	B63	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	DICHDEN	B64	*	2.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	24-DCHP	B65	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	26-DCHP	B66	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	DIEPHTH	B67	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	DIHYSAF	B68	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	DIMTHO	B69	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	DIMEAMB	B70	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	DIMBENZ	B71	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	DIMEYLB	B72	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	THIONOX	B73	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	DIMPHAM	B74	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	DIMPHEN	B75	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	DIMPHTH	B76	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	DINBENZ	B77	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	DINCRES	B78	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	DINPHEN	B79	*	5.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	24-DINT	B80	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	26-DINT	B81	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	DIOPHTH	B82	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	DIPHAMI	B83	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	DIPHHYD	B84	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	DIPRNIT	B85	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	ETHMINE	B86	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	ETHMETS	B87	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	FLUORAN	B88	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	HEXCPEN	B89	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	HEXCBUT	B90	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	HEXCCYC	B91	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	HEXCETH	B92	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	INDENOP	B93	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	ISOSOLE	B94	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	MALOILE	B95	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	NELPHAL	B96	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	METHAPY	B97	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	METHNYL	B98	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	METAZIR	B99	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. 3-82472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M166	METCHAN	C01	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	METBISC	C02	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	METACTO	C03	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	METMSUL	C05	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	METPROP	C06	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	METHIOU	C07	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	NAPHQUI	C08	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	1-NAPHA	C09	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	2-NAPHA	C10	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	NITRANI	C11	*	5.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	NITBENZ	C12	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	NITPHEN	C13	*	5.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	NNIBUTY	C14	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	NNIDIEA	C15	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	NNIDIEY	C16	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	NNIDIME	C17	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	NNIMETH	C18	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	NNIURET	C19	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	NNIVINY	C20	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	NNIMORP	C21	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	NNINICO	C22	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	NNIPIPE	C23	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	NITRPYR	C24	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	NITRTOL	C25	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	PENTCHB	C26	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	PENTCHN	C27	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	PENTCHP	C28	*	5.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	PHENTIN	C29	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	PHENINE	C30	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	PHTHEST	C31	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	PICOLIN	C32	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	PRONIDE	C33	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	RESERPI	C34	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	RESORCI	C35	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	SAFROL	C36	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	TETRCHB	C37	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	TETRCHP	C39	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	THIURAM	C40	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	TOLUDIA	C41	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	OTOLHYD	C42	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	TRICHLB	C43	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	245-TRP	C44	*	5.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	246-TRP	C45	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	TRIPHOS	C46	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	SYMTRIN	C47	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M166	TRISPHO	C48	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	BENZOPY	C49	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	CHLNAPZ	C50	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	BIS2ETH	C51	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	HEXAENE	C52	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	HEXACHL	C54	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	NAPHTHA	C55	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	123TRI	C56	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	PHENOL	C57	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	135TRI	C58	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	1234TE	C59	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	1235TE	C60	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	KEROSEN	C79	*	1.00E+03 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	STRYCHN	C91	*	5.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	MALHYDR	C92	*	5.00E+01 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	NICOTIN	C93	*	1.00E+01 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	TRIBUPH	I21	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	2FLPHEN	X01		6.58E+01 %RECOV			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	PHEND6	X02		5.94E+01 %RECOV			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	NITBN2	X03		6.34E+01 %RECOV			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	2FLBIPH	X04		6.58E+01 %RECOV			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	246TRI	X05		6.35E+01 %RECOV			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
SOIL	M166	TERD14	X06		7.30E+01 %RECOV			1.00E+01 G	05AUG88	0740	13AUG88	I	341	011143
===> PROCEDURE: 734		REPORTED: 19AUG88												
SOIL	M166	TETEPYR	C61	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	15AUG88	I	341	011143
SOIL	M166	CARBPHT	C63	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	15AUG88	I	341	011143
SOIL	M166	DISULFO	C64	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	15AUG88	I	341	011143
SOIL	M166	DIMETHO	C65	*	2.00E-01 UG/G			1.00E+01 G	05AUG88	0740	15AUG88	I	341	011143
SOIL	M166	METHPAR	C66	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	15AUG88	I	341	011143
SOIL	M166	PARATHI	C67	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	15AUG88	I	341	011143
===> PROCEDURE: 735		REPORTED: 16AUG88												
SOIL	M166	NITRATE	C72		6.78E+00 UG/G			1.00E+01 G	05AUG88	0740	12AUG88	I	341	011143
SOIL	M166	SULFATE	C73		4.01E+00 UG/G			1.00E+01 G	05AUG88	0740	12AUG88	I	341	011143
SOIL	M166	FLOURID	C74	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	12AUG88	I	341	011143
SOIL	M166	CHLORID	C75	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	12AUG88	I	341	011143
SOIL	M166	PHOSPHA	C76	*	2.00E+00 UG/G			1.00E+01 G	05AUG88	0740	12AUG88	I	341	011143
===> PROCEDURE: 737		REPORTED: 19AUG88												
SOIL	M166	2,4-D	H13	*	1.00E+00 UG/G			2.50E+01 G	05AUG88	0740	12AUG88	I	341	011143
SOIL	M166	2,4,5TP	H14	*	1.00E+00 UG/G			2.50E+01 G	05AUG88	0740	12AUG88	I	341	011143

* Denotes a result less than the detection limit

2300 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M166	2,4,5-T	H15	*	1.00E+00 UG/G			2.50E+01 G	05AUG88	0740	12AUG88	I	341	011143
===> PROCEDURE: 739		REPORTED: 25AUG88												
SOIL	M166	AR1016	A54	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	20AUG88	I	341	011143
SOIL	M166	AR1221	A55	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	20AUG88	I	341	011143
SOIL	M166	AR1232	A56	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	20AUG88	I	341	011143
SOIL	M166	AR1242	A57	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	20AUG88	I	341	011143
SOIL	M166	AR1248	A58	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	20AUG88	I	341	011143
SOIL	M166	AR1254	A59	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	20AUG88	I	341	011143
SOIL	M166	AR1260	A60	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0740	20AUG88	I	341	011143
===> PROCEDURE: A20		REPORTED: 16AUG88												
SOIL	M166	ARSENIC	A20		1.00E+00 UG/G			1.00E+00 G	05AUG88	0740	11AUG88	I	341	011143
===> PROCEDURE: A21		REPORTED: 12AUG88												
SOIL	M166	MERCURY	A21	*	2.00E-01 UG/G			2.74E-01 G	05AUG88	0740	10AUG88	I	341	011143
===> PROCEDURE: A22		REPORTED: 16AUG88												
SOIL	M166	SELENUM	A22	*	5.00E-01 UG/G			1.00E+00 G	05AUG88	0740	11AUG88	I	341	011143
===> PROCEDURE: A23		REPORTED: 16AUG88												
SOIL	M166	THALIUM	A23	*	1.00E+00 UG/G			1.00E+00 G	05AUG88	0740	10AUG88	I	341	011143
===> PROCEDURE: A51		REPORTED: 16AUG88												
SOIL	M166	LEAD	A51		3.92E+00 UG/G			1.00E+00 G	05AUG88	0740	11AUG88	I	341	011143
===> PROCEDURE: C68		REPORTED: 12AUG88												
SOIL	M166	TOX	C68		8.04E+00 UG/G			1.00E+00 G	05AUG88	0740	09AUG88	I	341	011143
===> PROCEDURE: C69		REPORTED: 25AUG88												
SOIL	M166	TOC	C69	*	1.00E+01 UG/G			2.07E+01 G	05AUG88	0740	12AUG88	I	341	011143
===> PROCEDURE: C70		REPORTED: 16AUG88												
SOIL	M166	CYANIDE	C70	*	1.00E+00 UG/G			9.49E+00 G	05AUG88	0740	13AUG88	I	341	011143
===> PROCEDURE: C77		REPORTED: 16AUG88												
SOIL	M166	PERCHLO	C77	*	2.00E+00 UG/G			1.00E+01 G	05AUG88	0740	14AUG88	I	341	011143

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: C78		REPORTED: 16AUG88												
SOIL	M166	SULFIDE	C78	*	1.00E+01 UG/G			1.00E+01 G	05AUG88	0740	09AUG88	I	341	011143
===> PROCEDURE: C80		REPORTED: 12AUG88												
SOIL	M166	AMMONIU	C80		3.60E+00 UG/G			1.00E+01 G	05AUG88	0740	10AUG88	I	341	011143
===> PROCEDURE: C81		REPORTED: 19AUG88												
SOIL	M166	ETHYGLY	C81	*	1.00E+01 UG/G			5.00E+00 G	05AUG88	0740	17AUG88	I	341	011143
*********** <** SAMPLE: M167 **> **********>														
===> PROCEDURE: 088		REPORTED: 12AUG88												
SOIL	M167	LSP COND	088		1.71E+02			1.00E+01 G	05AUG88	0800	05AUG88	I	341	011144
===> PROCEDURE: 207		REPORTED: 12AUG88												
SOIL	M167	PH (LAB)	207		8.00E+00			0.00E+00 G	05AUG88	0800	05AUG88	I	341	011144
===> PROCEDURE: 726		REPORTED: 12AUG88												
SOIL	M167	BERYLAM	A01	*	5.00E-01 UG/G			1.04E+00 G	05AUG88	0800	09AUG88	I	341	011144
SOIL	M167	STRONJM	A03		3.25E+01 UG/G			1.04E+00 G	05AUG88	0800	09AUG88	I	341	011144
SOIL	M167	ZINC	A04		3.12E+01 UG/G			1.04E+00 G	05AUG88	0800	09AUG88	I	341	011144
SOIL	M167	CALCIUM	A05		5.00E+03 UG/G			1.04E+00 G	05AUG88	0800	09AUG88	I	341	011144
SOIL	M167	BARIUM	A06		6.63E+01 UG/G			1.04E+00 G	05AUG88	0800	09AUG88	I	341	011144
SOIL	M167	CADMIUM	A07	*	2.00E+01 UG/G			1.04E+00 G	05AUG88	0800	09AUG88	I	341	011144
SOIL	M167	CHROMUM	A08		9.80E+00 UG/G			1.04E+00 G	05AUG88	0800	09AUG88	I	341	011144
SOIL	M167	SILVER	A10	*	1.00E+00 UG/G			1.04E+00 G	05AUG88	0800	09AUG88	I	341	011144
SOIL	M167	SODIUM	A11		2.40E+02 UG/G			1.04E+00 G	05AUG88	0800	09AUG88	I	341	011144
SOIL	M167	NICKEL	A12		8.20E+00 UG/G			1.04E+00 G	05AUG88	0800	09AUG88	I	341	011144
SOIL	M167	COPPER	A13	*	1.00E+00 UG/G			1.04E+00 G	05AUG88	0800	09AUG88	I	341	011144
SOIL	M167	VANADUM	A14		4.24E+01 UG/G			1.04E+00 G	05AUG88	0800	09AUG88	I	341	011144
SOIL	M167	ANTIONY	A15	*	1.00E+01 UG/G			1.04E+00 G	05AUG88	0800	09AUG88	I	341	011144
SOIL	M167	ALUMNUM	A16		8.70E+03 UG/G	1		1.04E+00 G	05AUG88	0800	09AUG88	I	341	011144
SOIL	M167	MANGESE	A17		2.71E+02 UG/G			1.04E+00 G	05AUG88	0800	09AUG88	I	341	011144
SOIL	M167	POTASUM	A18		8.59E+02 UG/G			1.04E+00 G	05AUG88	0800	09AUG88	I	341	011144
SOIL	M167	IRON	A19		2.31E+04 UG/G	1		1.04E+00 G	05AUG88	0800	09AUG88	I	341	011144
SOIL	M167	MAGNES	A50		5.32E+03 UG/G	1		1.04E+00 G	05AUG88	0800	09AUG88	I	341	011144

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: 729		REPORTED: 25AUG88												
SOIL	M167	ENDRIN	A33	*	1.00E-02 UG/G			1.00E+01 G	05AUG88	0800	20AUG88	I	341	011144
SOIL	M167	METHLOR	A34	*	3.00E-01 UG/G			1.00E+01 G	05AUG88	0800	20AUG88	I	341	011144
SOIL	M167	TOXAENE	A35	*	1.00E-01 UG/G			1.00E+01 G	05AUG88	0800	20AUG88	I	341	011144
SOIL	M167	A-BHC	A36	*	1.00E-02 UG/G			1.00E+01 G	05AUG88	0800	20AUG88	I	341	011144
SOIL	M167	B-BHC	A37	*	1.00E-02 UG/G			1.00E+01 G	05AUG88	0800	20AUG88	I	341	011144
SOIL	M167	G-BHC	A38	*	1.00E-02 UG/G			1.00E+01 G	05AUG88	0800	20AUG88	I	341	011144
SOIL	M167	D-BHC	A39	*	1.00E-02 UG/G			1.00E+01 G	05AUG88	0800	20AUG88	I	341	011144
SOIL	M167	DDD	A40	*	1.00E-02 UG/G			1.00E+01 G	05AUG88	0800	20AUG88	I	341	011144
SOIL	M167	DDE	A41	*	1.00E-02 UG/G			1.00E+01 G	05AUG88	0800	20AUG88	I	341	011144
SOIL	M167	DDT	A42	*	1.00E-02 UG/G			1.00E+01 G	05AUG88	0800	20AUG88	I	341	011144
SOIL	M167	HEPTLOR	A43	*	1.00E-02 UG/G			1.00E+01 G	05AUG88	0800	20AUG88	I	341	011144
SOIL	M167	HEPTIDE	A44	*	1.00E-02 UG/G			1.00E+01 G	05AUG88	0800	20AUG88	I	341	011144
SOIL	M167	DIELRIN	A46	*	1.00E-02 UG/G			1.00E+01 G	05AUG88	0800	20AUG88	I	341	011144
SOIL	M167	ALDRIN	A47	*	1.00E-02 UG/G			1.00E+01 G	05AUG88	0800	20AUG88	I	341	011144
SOIL	M167	CHLDANE	A48	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	20AUG88	I	341	011144
SOIL	M167	ENDO1	A49	*	1.00E-02 UG/G			1.00E+01 G	05AUG88	0800	20AUG88	I	341	011144
SOIL	M167	ENDO2	A52	*	1.00E-02 UG/G			1.00E+01 G	05AUG88	0800	20AUG88	I	341	011144
SOIL	M167	CHLLATE	C62	*	3.00E+00 UG/G			1.00E+01 G	05AUG88	0800	20AUG88	I	341	011144
SOIL	M167	DBC	X10		8.40E+01 %RECOV			1.00E+01 G	05AUG88	0800	20AUG88	I	341	011144
===> PROCEDURE: 731		REPORTED 16AUG88												
SOIL	M167	TETRANE	A61	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	BENZENE	A62	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	DIOXANE	A63	*	5.00E-01 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	METHONE	A64	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	PYRIDIN	A65	*	5.00E-01 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	TOLUENE	A66	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	1,1,1-T	A67	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	1,1,2-T	A68	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	TRICENE	A69	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	PERCENE	A70	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	OPXYLEN	A71	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	ACROLIN	A72	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	ACRYLE	A73	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	BISTHER	A74	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	BROMOME	A75	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	METHBRO	A76	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	CARBIDE	A77	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	CHLBENZ	A78	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	CHLTHER	A79	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	CHLFORM	A80	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M167	METHCHL	A81	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	CHMTHER	A82	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	CROTONA	A83	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	DIBRCHL	A84	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	DIBRETH	A85	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	DIBRMET	A86	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	DIBUTEN	A87	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	DICDIFM	A88	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	1,1-DIC	A89	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	1,2-DIC	A90	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	TRANDCE	A91	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	DICETHY	A92	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	METHYCH	A93	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	DICPANE	A94	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	DICPENE	A95	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	NNDIEHY	A96	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	HYDRSUL	A99	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	IODOMET	B01	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	METHACR	B02	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	METHTHI	B03	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	PENTACH	B04	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	1112-TC	B05	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	1122-TC	B06	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	BROMORM	B08	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	TRCMEOL	B09	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	TRCMFLM	B10	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	TRCPANE	B11	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	123-TRP	B12	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	VINYIDE	B13	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	M-XYLE	B14	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	DIETHY	B15	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	ACETILE	B19	*	3.00E+00 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	METACRY	C04	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	FORMALN	C71	*	5.00E-01 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	ETHOXID	H05	*	3.00E+00 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	ETHMETH	H06	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	HEXONE	H68	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	12DCAD4	X07		9.92E+01 %RECOV			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	TOLUD8	X08		1.07E+02 %RECOV			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
SOIL	M167	BFB	X09		1.03E+02 %RECOV			5.00E+00 G	05AUG88	0800	10AUG88	I	341	011144
===> PROCEDURE: 733		REPORTED: 16AUG88												
SOIL	M167	ACETOPH	B20	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	WARFRIN	B21	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC
2600 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M167	ACEFENE	B22	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	AMINOYL	B23	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	AMITSOX	B24	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	AMITROL	B25	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	ANILINE	B26	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	ARAMITE	B27	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	AURAMIN	B28	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	BENZCAC	B29	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	BENZAAN	B30	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	BENDICM	B31	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	BENTHOL	B32	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	BENDINE	B33	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	BENZDFL	B34	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	BENZJFL	B35	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	BENZGU	B36	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	BENZCHL	B37	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	BIS2CHM	B38	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	BIS2CHE	B39	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	BIS2EPH	B40	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	BROPHEN	B41	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	BUTBENP	B42	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	BUTDINP	B43	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	CHALETH	B44	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	CHLANIL	B45	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	CHLCRES	B46	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	CHLEFOX	B47	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	CHLNAPH	B48	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	CHLPHEN	B49	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	CHRYSEN	B50	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	CRESOLS	B51	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	CYCHDIN	B52	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	DIBAHAC	B53	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	DIBAJAC	B54	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	DIBIHAN	B55	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	DIBCGCA	B56	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	DIBAEPY	B57	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	DIBAHPY	B58	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	DIBAIPY	B59	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	DIBPHTH	B60	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	12-DBEN	B61	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	13-DBEN	B62	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	14-DBEN	B63	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	DICHDEN	B64	*	2.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	24-DCHP	B65	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	26-DCHP	B66	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no D-02472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M167	DIEPHTH	B67	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	DIHYSAF	B68	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	DIMTHB	B69	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	DIMEAMB	B70	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	DIMBENZ	B71	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	DIMEYLB	B72	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	THIONOX	B73	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	DIMPHAM	B74	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	DIMPHEN	B75	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	DIMPHTH	B76	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	DINBENZ	B77	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	DINCRES	B78	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	DINPHEN	B79	*	5.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	24-DINT	B80	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	26-DINT	B81	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	DIOPHTH	B82	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	DIPHAMI	B83	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	DIPHHYD	B84	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	DIPRNIT	B85	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	ETHMINE	B86	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	ETHMETS	B87	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	FLUORAN	B88	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	HEXCDEN	B89	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	HEXCBUT	B90	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	HEXCCYC	B91	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	HEXCETH	B92	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	INDENOP	B93	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	ISOSOLE	B94	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	MALOILE	B95	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	MELPHAL	B96	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	METHAPY	B97	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	METHNYL	B98	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	METAZIR	B99	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	METCHAN	C01	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	METBISC	C02	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	METACTO	C03	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	METMBUL	C05	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	METPROP	C06	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	METHIOU	C07	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	NAPHQUI	C08	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	1-NAPHA	C09	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	2-NAPHA	C10	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	NITRANI	C11	*	5.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	NITBENZ	C12	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	NITPHEN	C13	*	5.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. 3-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIC #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M1#7	NNIBUTY	C14	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	NNIDIEA	C15	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	NNIDIEY	C16	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	NNIDIME	C17	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	NNIMETH	C18	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	NNIURET	C19	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	NNIVINY	C20	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	NNIMORP	C21	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	NNINICO	C22	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	NNIPIPE	C23	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	NITRPYR	C24	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	NITRTOL	C25	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	PENTCHB	C26	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	PENTCHN	C27	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	PENTCHP	C28	*	5.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	PHENTIN	C29	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	PHENINE	C30	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	PHTHEST	C31	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	PICOLIN	C32	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	PRONIDE	C33	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	RESERPI	C34	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	RESORCI	C35	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	SAFROL	C36	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	TETRCHB	C37	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	TETRCHP	C38	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	THIURAM	C40	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	TOLUDIA	C41	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	OTOLHYD	C42	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	TRICHLB	C43	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	245-TRP	C44	*	5.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	246-TRP	C45	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	TRIPHOS	C46	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	SYMTRIN	C47	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	TRISPHO	C48	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	BENZOPY	C49	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	CHLNAPZ	C50	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	BIS2ETH	C51	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	HEXAENE	C52	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	HEXACHL	C54	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	NAPHTHA	C55	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	123TRI	C56	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	PHENOL	C57	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	135TRI	C58	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	1234TE	C59	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M1#7	1235TE	C60	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0800	15AUG88	I	341	011144

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-1
All Results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M167	KEROSEN	C79	*	1.00E+03 UG/G			1.00E+01	G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	STRYCHN	C91	*	5.00E+00 UG/G			1.00E+01	G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	MALHYDR	C92	*	5.00E+01 UG/G			1.00E+01	G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	NICOTIN	C93	*	1.00E+01 UG/G			1.00E+01	G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	TRIBUPH	I21	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	2FLPHEN	X01		6.91E+01 %RECOV			1.00E+01	G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	PHEND6	X02		6.39E+01 %RECOV			1.00E+01	G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	NITBN2	X03		7.66E+01 %RECOV			1.00E+01	G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	2FLBIPH	X04		7.30E+01 %RECOV			1.00E+01	G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	246TRI	X05		5.65E+01 %RECOV			1.00E+01	G	05AUG88	0800	15AUG88	I	341	011144
SOIL	M167	TERD14	X06		8.44E+01 %RECOV			1.00E+01	G	05AUG88	0800	15AUG88	I	341	011144
===> PROCEDURE: 734		REPORTED: 19AUG88													
SOIL	M167	TETEPYR	C61	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0800	13AUG88	I	341	011144
SOIL	M167	CARBPHT	C63	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0800	13AUG88	I	341	011144
SOIL	M167	DISULFO	C64	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0800	13AUG88	I	341	011144
SOIL	M167	DIMETHO	C65	*	2.00E-01 UG/G			1.00E+01	G	05AUG88	0800	13AUG88	I	341	011144
SOIL	M167	METHPAR	C66	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0800	13AUG88	I	341	011144
SOIL	M167	PARATHI	C67	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0800	13AUG88	I	341	011144
===> PROCEDURE: 735		REPORTED: 16AUG88													
SOIL	M167	NITRATE	C72	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0800	12AUG88	I	341	011144
SOIL	M167	SULFATE	C73		1.98E+00 UG/G			1.00E+01	G	05AUG88	0800	12AUG88	I	341	011144
SOIL	M167	FLOURID	C74	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0800	12AUG88	I	341	011144
SOIL	M167	CHLORID	C75	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0800	12AUG88	I	341	011144
SOIL	M167	PHOSPHA	C76	*	2.00E+00 UG/G			1.00E+01	G	05AUG88	0800	12AUG88	I	341	011144
===> PROCEDURE: 737		REPORTED: 19AUG88													
SOIL	M167	2,4-D	H13	*	1.00E+00 UG/G			2.50E+01	G	05AUG88	0800	12AUG88	I	341	011144
SOIL	M167	2,4,5TP	H14	*	1.00E+00 UG/G			2.50E+01	G	05AUG88	0800	12AUG88	I	341	011144
SOIL	M167	2,4,5-T	H15	*	1.00E+00 UG/G			2.50E+01	G	05AUG88	0800	12AUG88	I	341	011144
===> PROCEDURE: 739		REPORTED: 25AUG88													
SOIL	M167	AR1016	A54	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0800	20AUG88	I	341	011144
SOIL	M167	AR1221	A55	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0800	20AUG88	I	341	011144
SOIL	M167	AR1232	A56	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0800	20AUG88	I	341	011144
SOIL	M167	AR1242	A57	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0800	20AUG88	I	341	011144
SOIL	M167	AR1248	A58	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0800	20AUG88	I	341	011144
SOIL	M167	AR1254	A59	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0800	20AUG88	I	341	011144
SOIL	M167	AR1260	A60	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0800	20AUG88	I	341	011144
===> PROCEDURE: A20		REPORTED: 16AUG88													
SOIL	M167	ARSENIC	A20		1.60E+00 UG/G			1.01E+00	G	05AUG88	0800	11AUG88	I	341	011144

* Denotes a result less than the detection limit

2200 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE	RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: A21		REPORTED: 12AUG88											
SOIL	M167	MERCURY	A21	* 2.00E-01 UG/G			2.21E-01 G	05AUG88	0800	10AUG88	I	341	011144
===> PROCEDURE: A22		REPORTED: 16AUG88											
SOIL	M167	SELENUM	A22	* 5.00E-01 UG/G			1.01E+00 G	05AUG88	0800	11AUG88	I	341	011144
===> PROCEDURE: A23		REPORTED: 16AUG88											
SOIL	M167	THALIUM	A23	* 1.00E+00 UG/G			1.01E+00 G	05AUG88	0800	10AUG88	I	341	011144
===> PROCEDURE: A51		REPORTED: 16AUG88											
SOIL	M167	LEAD	A51	3.99E+00 UG/G			1.01E+00 G	05AUG88	0800	11AUG88	I	341	011144
===> PROCEDURE: C68		REPORTED: 12AUG88											
SOIL	M167	TOX	C68	* 1.00E+00 UG/G			1.00E+00 G	05AUG88	0800	09AUG88	I	341	011144
===> PROCEDURE: C69		REPORTED: 25AUG88											
SOIL	M167	TOC	C69	* 1.00E+01 UG/G			2.09E+01 G	05AUG88	0800	12AUG88	I	341	011144
===> PROCEDURE: C70		REPORTED: 16AUG88											
SOIL	M167	CYANIDE	C70	* 1.00E+00 UG/G			9.44E+00 G	05AUG88	0800	13AUG88	I	341	011144
===> PROCEDURE: C77		REPORTED: 16AUG88											
SOIL	M167	PERCHLO	C77	* 2.00E+00 UG/G			1.00E+01 G	05AUG88	0800	14AUG88	I	341	011144
===> PROCEDURE: C78		REPORTED: 16AUG88											
SOIL	M167	SULFIDE	C78	* 1.00E+01 UG/G			1.10E+01 G	05AUG88	0800	09AUG88	I	341	011144
===> PROCEDURE: C80		REPORTED: 12AUG88											
SOIL	M167	AMMONIU	C80	3.20E+00 UG/G			1.00E+01 G	05AUG88	0800	10AUG88	I	341	011144
===> PROCEDURE: C81		REPORTED: 19AUG88											
SOIL	M167	ETHYGLY	C81	* 1.00E+01 UG/G			5.00E+00 G	05AUG88	0800	17AUG88	I	341	011144
********** <** SAMPLE: M168 **> **********													
===> PROCEDURE: 088		REPORTED: 12AUG88											
SOIL	M168	LSP COND	088	1.68E+02			1.00E+01 G	05AUG88	0810	05AUG88	I	341	011145

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no B-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: 207		REPORTED: 12AUG88													
SOIL	M168	PH (LAB)	207		8.00E+00			0.00E+00	G	05AUG88	0810	05AUG88	I	341	011145
===> PROCEDURE: 726		REPORTED: 12AUG88													
SOIL	M168	BERYLAM	A01	*	5.00E-01 UG/G			1.02E+00	G	05AUG88	0810	09AUG88	I	341	011145
SOIL	M168	STRONUM	A03		1.87E+01 UG/G			1.02E+00	G	05AUG88	0810	09AUG88	I	341	011145
SOIL	M168	ZINC	A04		2.70E+01 UG/G			1.02E+00	G	05AUG88	0810	09AUG88	I	341	011145
SOIL	M168	CALCIUM	A05		1.44E+04 UG/G	1		1.02E+00	G	05AUG88	0810	09AUG88	I	341	011145
SOIL	M168	BARIUM	A06		4.94E+01 UG/G			1.02E+00	G	05AUG88	0810	09AUG88	I	341	011145
SOIL	M168	CADMIUM	A07	*	2.00E-01 UG/G			1.02E+00	G	05AUG88	0810	09AUG88	I	341	011145
SOIL	M168	CHROMUM	A08		6.40E+00 UG/G			1.02E+00	G	05AUG88	0810	09AUG88	I	341	011145
SOIL	M168	SILVER	A10	*	1.00E+00 UG/G			1.02E+00	G	05AUG88	0810	09AUG88	I	341	011145
SOIL	M168	SODIUM	A11		1.36E+02 UG/G			1.02E+00	G	05AUG88	0810	09AUG88	I	341	011145
SOIL	M168	NICKEL	A12		5.30E+00 UG/G			1.02E+00	G	05AUG88	0810	09AUG88	I	341	011145
SOIL	M168	COPPER	A13		1.60E+00 UG/G			1.02E+00	G	05AUG88	0810	09AUG88	I	341	011145
SOIL	M168	VANADUM	A14		3.48E+01 UG/G			1.02E+00	G	05AUG88	0810	09AUG88	I	341	011145
SOIL	M168	ANTIONY	A15	*	1.00E+01 UG/G			1.02E+00	G	05AUG88	0810	09AUG88	I	341	011145
SOIL	M168	ALUMNUM	A16		7.00E+03 UG/G	1		1.02E+00	G	05AUG88	0810	09AUG88	I	341	011145
SOIL	M168	MANGESE	A17		2.30E+02 UG/G			1.02E+00	G	05AUG88	0810	09AUG88	I	341	011145
SOIL	M168	POTASUM	A18		6.75E+02 UG/G			1.02E+00	G	05AUG88	0810	09AUG88	I	341	011145
SOIL	M168	IRON	A19		2.17E+04 UG/G	1		1.02E+00	G	05AUG88	0810	09AUG88	I	341	011145
SOIL	M168	MAGNES	A50		5.28E+03 UG/G	1		1.02E+00	G	05AUG88	0810	09AUG88	I	341	011145
===> PROCEDURE: A20		REPORTED: 16AUG88													
SOIL	M168	ARSENIC	A20		1.20E+00 UG/G			1.01E+00	G	05AUG88	0810	11AUG88	I	341	011145
===> PROCEDURE: A51		REPORTED: 16AUG88													
SOIL	M168	LEAD	A51		4.21E+00 UG/G			1.01E+00	G	05AUG88	0810	11AUG88	I	341	011145
===> PROCEDURE: C68		REPORTED: 12AUG88													
SOIL	M168	TOX	C68	*	1.00E+00 UG/G			1.00E+00	G	05AUG88	0810	09AUG88	I	341	011145
===> PROCEDURE: C69		REPORTED: 25AUG88													
SOIL	M168	TOC	C69	*	1.00E+01 UG/G			2.14E+01	G	05AUG88	0810	12AUG88	I	341	011145
*********** **> SAMPLE: M169 **> **********															
===> PROCEDURE: 088		REPORTED: 12AUG88													
SOIL	M169	LSP COND	088		1.58E+02			1.00E+01	G	05AUG88	0900	05AUG88	I	341	011145

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: 207		REPORTED: 12AUG88													
SOIL	M169	PH (LAB)	207		8.10E+00			0.00E+00	G	05AUG88	0900	05AUG88	I	341	011146
===> PROCEDURE: 726		REPORTED: 12AUG88													
SOIL	M169	BERYLAM	A01	*	5.00E-01 UG/G			1.03E+00	G	05AUG88	0900	09AUG88	I	341	011146
SOIL	M169	STRONUM	A03		2.82E+01 UG/G			1.03E+00	G	05AUG88	0900	09AUG88	I	341	011146
SOIL	M169	ZINC	A04		3.29E+01 UG/G			1.03E+00	G	05AUG88	0900	09AUG88	I	341	011146
SOIL	M169	CALCIUM	A05		1.49E+04 UG/G	1		1.03E+00	G	05AUG88	0900	09AUG88	I	341	011146
SOIL	M169	BARIUM	A06		6.24E+01 UG/G			1.03E+00	G	05AUG88	0900	09AUG88	I	341	011146
SOIL	M169	CADMIUM	A07	*	2.00E-01 UG/G			1.03E+00	G	05AUG88	0900	09AUG88	I	341	011146
SOIL	M169	CHROMUM	A08		1.08E+01 UG/G			1.03E+00	G	05AUG88	0900	09AUG88	I	341	011146
SOIL	M169	SILVER	A10	*	1.00E+00 UG/G			1.03E+00	G	05AUG88	0900	09AUG88	I	341	011146
SOIL	M169	SODIUM	A11		1.43E+02 UG/G			1.03E+00	G	05AUG88	0900	09AUG88	I	341	011146
SOIL	M169	NICKEL	A12		7.20E+00 UG/G			1.03E+00	G	05AUG88	0900	09AUG88	I	341	011146
SOIL	M169	COPPER	A13		6.10E+00 UG/G			1.03E+00	G	05AUG88	0900	09AUG88	I	341	011146
SOIL	M169	VANADUM	A14		3.23E+01 UG/G			1.03E+00	G	05AUG88	0900	09AUG88	I	341	011146
SOIL	M169	ANTIONY	A15	*	1.00E+01 UG/G			1.03E+00	G	05AUG88	0900	09AUG88	I	341	011146
SOIL	M169	ALUMNUM	A16		1.03E+04 UG/G	1		1.03E+00	G	05AUG88	0900	09AUG88	I	341	011146
SOIL	M169	MANGESE	A17		2.86E+02 UG/G			1.03E+00	G	05AUG88	0900	09AUG88	I	341	011146
SOIL	M169	POTASUM	A18		1.77E+03 UG/G	1		1.03E+00	G	05AUG88	0900	09AUG88	I	341	011146
SOIL	M169	IRON	A19		2.50E+04 UG/G	1		1.03E+00	G	05AUG88	0900	09AUG88	I	341	011146
SOIL	M169	MAGNES	A50		6.93E+03 UG/G	1		1.03E+00	G	05AUG88	0900	09AUG88	I	341	011146
===> PROCEDURE: 729		REPORTED: 25AUG88													
SOIL	M169	ENDRIN	A33	*	1.00E-02 UG/G			1.00E+01	G	05AUG88	0900	20AUG88	I	341	011146
SOIL	M169	METHLOR	A34	*	3.00E-01 UG/G			1.00E+01	G	05AUG88	0900	20AUG88	I	341	011146
SOIL	M169	TOXAFNE	A35	*	1.00E-01 UG/G			1.00E+01	G	05AUG88	0900	20AUG88	I	341	011146
SOIL	M169	A-BHC	A36	*	1.00E-02 UG/G			1.00E+01	G	05AUG88	0900	20AUG88	I	341	011146
SOIL	M169	B-BHC	A37	*	1.00E-02 UG/G			1.00E+01	G	05AUG88	0900	20AUG88	I	341	011146
SOIL	M169	G-BHC	A38	*	1.00E-02 UG/G			1.00E+01	G	05AUG88	0900	20AUG88	I	341	011146
SOIL	M169	D-BHC	A39	*	1.00E-02 UG/G			1.00E+01	G	05AUG88	0900	20AUG88	I	341	011146
SOIL	M169	DDD	A40	*	1.00E-02 UG/G			1.00E+01	G	05AUG88	0900	20AUG88	I	341	011146
SOIL	M169	DDE	A41	*	1.00E-02 UG/G			1.00E+01	G	05AUG88	0900	20AUG88	I	341	011146
SOIL	M169	DDT	A42	*	1.00E-02 UG/G			1.00E+01	G	05AUG88	0900	20AUG88	I	341	011146
SOIL	M169	HEPTLOR	A43	*	1.00E-02 UG/G			1.00E+01	G	05AUG88	0900	20AUG88	I	341	011146
SOIL	M169	HEPTIDE	A44	*	1.00E-02 UG/G			1.00E+01	G	05AUG88	0900	20AUG88	I	341	011146
SOIL	M169	DIELRIN	A45	*	1.00E-02 UG/G			1.00E+01	G	05AUG88	0900	20AUG88	I	341	011146
SOIL	M169	ALDRIN	A47	*	1.00E-02 UG/G			1.00E+01	G	05AUG88	0900	20AUG88	I	341	011146
SOIL	M169	CHLDANE	A48	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	20AUG88	I	341	011146
SOIL	M169	ENDO1	A49	*	1.00E-02 UG/G			1.00E+01	G	05AUG88	0900	20AUG88	I	341	011146
SOIL	M169	ENDO2	A52	*	1.00E-02 UG/G			1.00E+01	G	05AUG88	0900	20AUG88	I	341	011146

* Denotes a result less than the detection limit

2600 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M169	CHLLATE	C62	*	3.00E+00 UG/G			1.00E+01 G	05AUG88	0900	20AUG88	I	341	011146
SOIL	M169	DBC	X10		7.60E+01 %RECOV			1.00E+01 G	05AUG88	0900	20AUG88	I	341	011146
==> PROCEDURE: 731		REPORTED: 16AUG88												
SOIL	M169	TETRANE	A61	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	BENZENE	A62	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	DIOXANE	A63	*	5.00E-01 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	METHONE	A64	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	PYRIDIN	A65	*	5.00E-01 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	TOLUENE	A66	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	1,1,1-T	A67	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	1,1,2-T	A68	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	TRICENE	A69	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	PERCENE	A70	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	OPXYLEN	A71	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	ACROLIN	A72	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	ACRYILE	A73	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	BISTHER	A74	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	BROMONE	A75	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	METHBRO	A76	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	CARBIDE	A77	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	CHLBENZ	A78	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	CHLTHER	A79	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	CHLFORM	A80	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	METHCHL	A81	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	CHMTHER	A82	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	CROTONA	A83	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	DIBRCHL	A84	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	DIBRETH	A85	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	DIBRMET	A86	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	DIBUTEN	A87	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	DICDIFM	A88	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	1,1-DIC	A89	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	1,2-DIC	A90	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	TRANDCE	A91	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	DICETHY	A92	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	METHYCH	A93	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	DICPANE	A94	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	DICPENE	A95	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	NNDIEHY	A96	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	HYDRSUL	A99	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	IODOMET	B01	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	METHACR	B02	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	METHTHI	B03	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no D-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M169	PENTACH	B04	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	1112-TC	B05	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	1122-TC	B06	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	BROMORM	B08	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	TRCMEOL	B09	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	TRCMFLN	B10	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	TRCPANE	B11	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	123-TRP	B12	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	VINYIDE	B13	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	M-XYLE	B14	*	5.00E-03 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	DIETHY	B15	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	ACETILE	B19	*	3.00E+00 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	METACRY	C04	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	FORMALN	C71	*	5.00E-01 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	ETHOXID	H05	*	3.00E+00 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	ETHNETH	H06	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	HEXONE	H68	*	1.00E-02 UG/G			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	12DCAD4	X07		1.03E+02 %RECOV			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	TOLUD8	X05		1.07E+02 %RECOV			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
SOIL	M169	BFB	X09		1.05E+02 %RECOV			5.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
===> PROCEDURE: 733		REPORTED: 16AUG88												
SOIL	M169	ACETOPH	B20	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	WARFRIN	B21	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	ACEFENE	B22	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	AMINOYL	B23	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	ANIISOX	B24	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	AMITROL	B25	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	ANILINE	B26	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	ARAMITE	B27	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	AURAMIN	B28	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	BENZCAC	B29	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	BENZAAN	B30	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	BENDICN	B31	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	BENTHOL	B32	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	BENDINE	B33	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	BENZDFL	B34	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	BENZOFL	B35	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	P2ENZGU	B36	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	BENZCHL	B37	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	BISZCHM	B38	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	BISZCHE	B39	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	BISZEPH	B40	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	BROPHEN	B41	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-1

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M169	BUTBENP	B42	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	BUTDINP	B43	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	CHALETH	B44	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	CHLANIL	B45	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	CHLCRES	B46	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	CHLEFOX	B47	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	CHLNAPH	B48	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	CHLPHEN	B49	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	CHRYSEN	B50	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	CRESOLS	B51	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	CYCHDIN	B52	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	DIBAHAC	B53	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	DIBAJAC	B54	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	DIBIHAN	B55	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	DIBCQCA	B56	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	DIBAEPY	B57	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	DIBAHPY	B58	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	DIBAIPY	B59	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	DIBPHTH	B60	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	12-DBEN	B61	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	13-DBEN	B62	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	14-DBEN	B63	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	DICHDEN	B64	*	2.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	24-DCHP	B65	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	26-DCHP	B66	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	DIEPHTH	B67	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	DIHYSAF	B68	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	DIMTHB	B69	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	DIMEAMB	B70	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	DIMBENZ	B71	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	DIMEYLB	B72	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	THIONOX	B73	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	DIMPHAM	B74	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	DIMPHEN	B75	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	DIMPHTH	B76	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	DINBENZ	B77	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	DINCRES	B78	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	DINPHEN	B79	*	5.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	24-DINT	B80	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	26-DINT	B81	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	DIOPHTH	B82	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	DIPHAMI	B83	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	DIPHHYD	B84	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	DIPRNIT	B85	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	ETHMINE	B86	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2500 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M169	ETHMETS	B87	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	FLUORAN	B88	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	HEXCDEN	B89	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	HEXCBUT	B90	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	HEXCCYC	B91	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	HEXCETH	B92	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	INDENOP	B93	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	ISOSOLE	B94	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	MALDILE	B95	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	MELPHAL	B96	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	METHAPY	B97	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	METHNYL	B98	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	METAZIR	B99	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	METCHAN	C01	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	METBISC	C02	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	METACTO	C03	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	METMSUL	C05	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	METPROP	C06	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	METHIDU	C07	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	NAPHGUI	C08	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	1-NAPHA	C09	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	2-NAPHA	C10	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	NITRANI	C11	*	5.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	NITBENZ	C12	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	NITPHEN	C13	*	5.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	NNIBUTY	C14	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	NNIDIEA	C15	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	NNIDIEY	C16	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	NNIDINE	C17	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	NNIMETH	C18	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	NNIURET	C19	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	NNIVINY	C20	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	NNIMORP	C21	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	NNINICO	C22	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	NNIPIPE	C23	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	NITRPYR	C24	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	NITRTOL	C25	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	PENTCHB	C26	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	PENTCHN	C27	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	PENTCHP	C28	*	5.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	PHENTIN	C29	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	PHENINE	C30	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	PHTHEST	C31	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	PICOLIN	C32	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	PRONIDE	C33	*	1.00E+00 UG/G			1.00E+01	G	05AUG88	0900	15AUG88	I	341	011146

* Denotes a result less than the detection limit

2600 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M169	RESERPI	C34	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	RESORCI	C35	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	SAFROL	C36	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	TETRCHD	C37	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	TETRCHP	C39	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	THIURAM	C40	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	TOLUDIA	C41	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	OTOLHYD	C42	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	TRICHLB	C43	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	245-TRP	C44	*	5.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	246-TRP	C45	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	TRIPHOS	C46	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	SYMTRIN	C47	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	TRISPHO	C48	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	BENZDPY	C49	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	CHLNAPZ	C50	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	BIS2ETH	C51	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	HEXAENE	C52	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	HEXACHL	C54	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	NAPHTHA	C55	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	123TRI	C56	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	PHENOL	C57	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	135TRI	C58	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	1234TE	C59	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	1235TE	C60	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	KEROSEN	C79	*	1.00E+03 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	STRYCHN	C91	*	5.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	MALHYDR	C92	*	5.00E+01 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	NICOTIN	C93	*	1.00E+01 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	TRIEUPH	I21	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	2FLPHEN	X01		8.26E+01 %RECOV			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	PHEND6	X02		7.19E+01 %RECOV			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	NITBN2	X03		7.64E+01 %RECOV			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	2FLBIPH	X04		7.44E+01 %RECOV			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	246TRI	X05		6.20E+01 %RECOV			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	TERD14	X06		1.00E+02 %RECOV			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
===> PROCEDURE: 734		REPORTED: 19AUG88												
SOIL	M169	TETEPYR	C61	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	CARBPHT	C63	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	DISULFO	C64	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	DIMETHO	C65	*	2.00E-01 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	METHPAR	C66	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146
SOIL	M169	PARATHI	C67	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	15AUG88	I	341	011146

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: 735		REPORTED: 16AUG88												
SOIL	#169	NITRATE	C72	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	12AUG88	I	341	011146
SOIL	#169	SULFATE	C73	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	12AUG88	I	341	011146
SOIL	#169	FLOURID	C74	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	12AUG88	I	341	011146
SOIL	#169	CHLORID	C75	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	12AUG88	I	341	011146
SOIL	#169	PHOSPHA	C76	*	2.00E+00 UG/G			1.00E+01 G	05AUG88	0900	12AUG88	I	341	011146
===> PROCEDURE: 737		REPORTED: 19AUG88												
SOIL	#169	2,4-D	H13	*	1.00E+00 UG/G			2.50E+01 G	05AUG88	0900	12AUG88	I	341	011146
SOIL	#169	2,4,5TP	H14	*	1.00E+00 UG/G			2.50E+01 G	05AUG88	0900	12AUG88	I	341	011146
SOIL	#169	2,4,5-T	H15	*	1.00E+00 UG/G			2.50E+01 G	05AUG88	0900	12AUG88	I	341	011146
===> PROCEDURE: 739		REPORTED: 23AUG88												
SOIL	#169	AR1016	A34	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	20AUG88	I	341	011146
SOIL	#169	AR1221	A35	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	20AUG88	I	341	011146
SOIL	#169	AR1232	A36	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	20AUG88	I	341	011146
SOIL	#169	AR1242	A37	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	20AUG88	I	341	011146
SOIL	#169	AR1248	A38	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	20AUG88	I	341	011146
SOIL	#169	AR1254	A39	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	20AUG88	I	341	011146
SOIL	#169	AR1260	A60	*	1.00E+00 UG/G			1.00E+01 G	05AUG88	0900	20AUG88	I	341	011146
===> PROCEDURE: A20		REPORTED: 16AUG88												
SOIL	#169	ARSENIC	A20		2.90E+00 UG/G			1.00E+00 G	05AUG88	0900	11AUG88	I	341	011146
===> PROCEDURE: A21		REPORTED: 12AUG88												
SOIL	#169	MERCURY	A21	*	2.00E-01 UG/G			2.34E-01 G	05AUG88	0900	10AUG88	I	341	011146
===> PROCEDURE: A22		REPORTED: 16AUG88												
SOIL	#169	SELENUM	A22	*	5.00E-01 UG/G			1.00E+00 G	05AUG88	0900	11AUG88	I	341	011146
===> PROCEDURE: A23		REPORTED: 16AUG88												
SOIL	#169	THALIUM	A23	*	1.00E+00 UG/G			1.00E+00 G	05AUG88	0900	10AUG88	I	341	011146
===> PROCEDURE: A51		REPORTED: 16AUG88												
SOIL	#169	LEAD	A51		6.86E+00 UG/G			1.00E+00 G	05AUG88	0900	11AUG88	I	341	011146
===> PROCEDURE: C68		REPORTED: 12AUG88												
SOIL	#169	TOX	C68	*	1.00E+00 UG/G			1.00E+00 G	05AUG88	0900	09AUG88	I	341	011146

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2200 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. D-52472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: C69		REPORTED: 25AUG88												
SOIL	M169	TOC	C69	*	1.00E+01 UG/G			2.14E+01 G	05AUG88	0900	12AUG88	I	341	011146
===> PROCEDURE: C70		REPORTED: 16AUG88												
SOIL	M169	CYANIDE	C70	*	1.00E+00 UG/G			9.49E+00 G	05AUG88	0900	12AUG88	I	341	011146
===> PROCEDURE: C77		REPORTED: 16AUG88												
SOIL	M169	PERCHLO	C77	*	2.00E+00 UG/G			1.00E+01 G	05AUG88	0900	14AUG88	I	341	011146
===> PROCEDURE: C78		REPORTED: 16AUG88												
SOIL	M169	SULFIDE	C78	*	1.00E+01 UG/G			1.17E+01 G	05AUG88	0900	09AUG88	I	341	011146
===> PROCEDURE: C80		REPORTED: 12AUG88												
SOIL	M169	AMMONIU	C80		2.50E+00 UG/G			1.00E+01 G	05AUG88	0900	10AUG88	I	341	011146
===> PROCEDURE: C81		REPORTED: 17AUG88												
SOIL	M169	ETHYGLY	C81	*	1.00E+01 UG/G			5.00E+00 G	05AUG88	0900	17AUG88	I	341	011146

5817 Records listed

* Denotes a result less than the detection limit

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*** SAMPLE: M101X ***
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===> PROCEDURE: 088 REPORTED: 12MAY88

SOIL	M101X	LSP COND	008		6.60E+02			5.00E+00	G	23MAR88	25APR88	I	341	011069

COMMENT: 799

===> PROCEDURE: 207 REPORTED: 12MAY88

SOIL	M101X	PH (LAB)	207		8.20E+00			0.00E+00	G	23MAR88	20APR88	I	341	011069

===> PROCEDURE: 726 REPORTED: 12MAY88

SOIL	M101X	BERYLIUM	A01	*	5.00E-01	UG/G		1.00E+00	G	23MAR88	05MAY88	I	341	011069
SOIL	M101X	STRONUM	A03		2.37E+01	UG/G		1.00E+00	G	23MAR88	05MAY88	I	341	011069
SOIL	M101X	ZINC	A04		6.04E+01	UG/G		1.00E+00	G	23MAR88	05MAY88	I	341	011069
SOIL	M101X	CALCIUM	A05		7.82E+03	UG/G	1	1.00E+00	G	23MAR88	05MAY88	I	341	011069
SOIL	M101X	BARIUM	A06		8.50E+01	UG/G		1.00E+00	G	23MAR88	05MAY88	I	341	011069
SOIL	M101X	CADMIUM	A07	*	2.00E-01	UG/G		1.00E+00	G	23MAR88	05MAY88	I	341	011069
SOIL	M101X	CHROMUM	A08		8.40E+00	UG/G		1.00E+00	G	23MAR88	05MAY88	I	341	011069
SOIL	M101X	SILVER	A10	*	1.00E+00	UG/G		1.00E+00	G	23MAR88	05MAY88	I	341	011069
SOIL	M101X	SODIUM	A11		3.22E+02	UG/G		1.00E+00	G	23MAR88	05MAY88	I	341	011069
SOIL	M101X	NICKEL	A12		7.70E+00	UG/G		1.00E+00	G	23MAR88	05MAY88	I	341	011069
SOIL	M101X	COPPER	A13	*	1.00E+00	UG/G		1.00E+00	G	23MAR88	05MAY88	I	341	011069
SOIL	M101X	VANADUM	A14		5.28E+01	UG/G		1.00E+00	G	23MAR88	05MAY88	I	341	011069
SOIL	M101X	ANTIONY	A15	*	1.00E+01	UG/G		1.00E+00	G	23MAR88	05MAY88	I	341	011069
SOIL	M101X	ALUMNUM	A16		8.03E+03	UG/G	1	1.00E+00	G	23MAR88	05MAY88	I	341	011069
SOIL	M101X	MANGESE	A17		3.48E+02	UG/G		1.00E+00	G	23MAR88	05MAY88	I	341	011069
SOIL	M101X	POTASUM	A18		1.50E+03	UG/G	1	1.00E+00	G	23MAR88	05MAY88	I	341	011069
SOIL	M101X	IRON	A19		2.58E+04	UG/G	1	1.00E+00	G	23MAR88	05MAY88	I	341	011069
SOIL	M101X	MAGNES	A50		5.60E+03	UG/G	1	1.00E+00	G	23MAR88	05MAY88	I	341	011069

===> PROCEDURE: 729 REPORTED: 12MAY88

SOIL	M101X	ENDRIN	A33	*	1.00E-02	UG/G		1.00E+01	G	23MAR88	01MAY88	I	341	011069
SOIL	M101X	METHLOR	A34	*	3.00E-01	UG/G		1.00E+01	G	23MAR88	01MAY88	I	341	011069
SOIL	M101X	TOXAFNE	A35	*	1.00E-01	UG/G		1.00E+01	G	23MAR88	01MAY88	I	341	011069
SOIL	M101X	A-BHC	A36	*	1.00E-02	UG/G		1.00E+01	G	23MAR88	01MAY88	I	341	011069
SOIL	M101X	B-BHC	A37	*	1.00E-02	UG/G		1.00E+01	G	23MAR88	01MAY88	I	341	011069
SOIL	M101X	G-BHC	A38	*	1.00E-02	UG/G		1.00E+01	G	23MAR88	01MAY88	I	341	011069
SOIL	M101X	D-BHC	A39	*	1.00E-02	UG/G		1.00E+01	G	23MAR88	01MAY88	I	341	011069
SOIL	M101X	DDD	A40	*	1.00E-02	UG/G		1.00E+01	G	23MAR88	01MAY88	I	341	011069

* Denotes a result less than the detection limit

12-May-88

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
Results reported on 880512

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	M C	GROUP	UST #
SOIL	M101X	DDE	A41	*	1.00E-02 UG/G			1.00E+01 G	23MAR88		01MAY88	I	341	011069
SOIL	M101X	DDT	A42	*	1.00E-02 UG/G			1.00E+01 G	23MAR88		01MAY88	I	341	011069
SOIL	M101X	HEPTLOR	A43	*	1.00E-02 UG/G			1.00E+01 G	23MAR88		01MAY88	I	341	011069
SOIL	M101X	HEPTIDE	A44	*	1.00E-02 UG/G			1.00E+01 G	23MAR88		01MAY88	I	341	011069
SOIL	M101X	DIELRIN	A46	*	1.00E-02 UG/G			1.00E+01 G	23MAR88		01MAY88	I	341	011069
SOIL	M101X	ALDRIN	A47	*	1.00E-02 UG/G			1.00E+01 G	23MAR88		01MAY88	I	341	011069
SOIL	M101X	CHLDANE	A48	*	1.00E+00 UG/G			1.00E+01 G	23MAR88		01MAY88	I	341	011069
SOIL	M101X	ENDO1	A49	*	1.00E-02 UG/G			1.00E+01 G	23MAR88		01MAY88	I	341	011069
SOIL	M101X	ENDO2	A50	*	1.00E-02 UG/G			1.00E+01 G	23MAR88		01MAY88	I	341	011069
SOIL	M101X	CHLLATE	C62	*	3.00E+00 UG/G			1.00E+01 G	23MAR88		01MAY88	I	341	011069
SOIL	M101X	DBC	X10		9.90E-01			1.00E+01 G	23MAR88		01MAY88	I	341	011069
===> PROCEDURE: 731		REPORTED: 12MAY88												
SOIL	M101X	TETRANE	A61	*	5.00E-03 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	BENZENE	A62	*	5.00E-03 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	DIOXANE	A63	*	5.00E-01 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	METHONE	A64	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	PYRIDIN	A65	*	5.00E-01 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	TOLUENE	A66	*	5.00E-03 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	1,1,1-T	A67	*	5.00E-03 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	1,1,2-T	A68	*	5.00E-03 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	TRICENE	A69	*	5.00E-03 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	PERCENE	A70	*	5.00E-03 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	OPXYLEN	A71	*	5.00E-03 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	ACROLIN	A72	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	ACRYLE	A73	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	BISTHER	A74	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	BROMONE	A75	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	METHBRO	A76	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	CARBIDE	A77	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	CHLBENZ	A78	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	CHLTHER	A79	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	CHLFORM	A80	*	5.00E-03 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	METHCHL	A81	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	CHMTHER	A82	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	CROTONA	A83	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	DIBRCHL	A84	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	DIBRETH	A85	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	DIBRMET	A86	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	DIBUTEN	A87	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	DICDIEM	A88	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	1,1-DIC	A89	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	1,2-DIC	A90	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	TRANDCE	A91	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
Results reported on 880512

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M101X	DICETHY	A92	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	METHYCH	A93	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	DICPANE	A94	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	DICPENE	A95	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	NNDIEHY	A96	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	HYDRSUL	A99	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	IODOMET	B01	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	METHACR	B02	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	METHTHI	B03	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	PENTACH	B04	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	1112-TC	B05	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	1122-TC	B06	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	BROMORM	B08	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	TRCMEOL	B09	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	TRCMFLM	B10	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	TRCPANE	B11	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	123-TRP	B12	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	VINYIDE	B13	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	M-XYLE	B14	*	5.00E-03 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	DIETHY	B15	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	ACETILE	B19	*	3.00E+00 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	METACRY	C04	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	FORMALN	C71	*	5.00E-01 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	ETHOXID	H05	*	3.00E+00 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	ETHMETH	H06	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	HEXONE	H68	*	1.00E-02 UG/G			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	12DCAD4	X07		1.08E+00			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	TOLUD8	X08		1.01E+00			5.00E+00 G	23MAR88		28APR88	I	341	011069
SOIL	M101X	BFB	X09		1.00E+00			5.00E+00 G	23MAR88		28APR88	I	341	011069
===> PROCEDURE: 733		REPORTED: 12MAY88												
SOIL	M101X	ACETOPH	B20	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	WARFRIN	B21	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	ACEFENE	B22	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	AMINOYL	B23	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	AMIISOX	B24	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	AMITROL	B25	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	ANILINE	B26	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	ARAMITE	B27	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	AURAMIN	B28	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	BENZDAC	B29	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	BENZAAN	B30	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	BENDICM	B31	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	BENTHOL	B32	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2900 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-1
Results reported on 880512

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M101X	BENDINE	B33	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	BENZBFL	B34	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	BENZJFL	B35	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	BBENZQU	B36	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	BENZCHL	B37	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	BIS2CHM	B38	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	BIS2CHE	B39	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	BIS2EPH	B40	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	BROPHEN	B41	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	BUTBENP	B42	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	BUTDINP	B43	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	CHALETH	B44	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	CHLANIL	B45	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	CHLCRES	B46	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	CHLEPOX	B47	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	CHLNAPH	B48	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	CHLPHEN	B49	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	CHRYSEN	B50	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	CRESOLS	B51	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	CYCHDIN	B52	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	DIBAHAC	B53	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	DIBAJAC	B54	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	DIBIMAN	B55	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	DIBCGCA	B56	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	DIBAEPY	B57	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	DIBAHPY	B58	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	DIBAIPY	B59	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	DIBPHTH	B60	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	12-DBEN	B61	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	13-DBEN	B62	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	14-DBEN	B63	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	DICHDEN	B64	*	2.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	24-DCHP	B65	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	26-DCHP	B66	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	DIEPHTH	B67	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	DIHYSAF	B68	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	DIMTHB	B69	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	DIMEAMB	B70	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	DIMBENZ	B71	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	DIMEYLB	B72	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	THIONOX	B73	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	DIMPHAM	B74	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	DIMPHEN	B75	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	DIMPHTH	B76	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	DINBENZ	B77	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
Results reported on 880512

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M101X	DINCRES	B78	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	DINPHEN	B79	*	5.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	24-DINT	B80	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	26-DINT	B81	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	DIOPHTH	B82	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	DIPHAMI	B83	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	DIPHHYD	B84	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	DIPRNIT	B85	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	ETHMINE	B86	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	ETHMETS	B87	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	FLUORAN	B88	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	HEXCBEN	B89	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	HEXCBUT	B90	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	HEXCCYC	B91	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	HEXCETH	B92	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	INDENOP	B93	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	ISOSOLE	B94	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	MALOILE	B95	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	MELPHAL	B96	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	METHAPY	B97	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	METHNYL	B98	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	METAZIR	B99	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	METCHAN	C01	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	METBISC	C02	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	METACTO	C03	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	METMSUL	C05	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	METPROP	C06	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	METHIOU	C07	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	NAPHQUI	C08	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	1-NAPHA	C09	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	2-NAPHA	C10	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	NITRANI	C11	*	5.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	NITBENZ	C12	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	NITPHEN	C13	*	5.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	NNIBUTY	C14	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	NNIDIEA	C15	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	NNIDIEY	C16	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	NNIDIME	C17	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	NNIMETH	C18	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	NNIURET	C19	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	NNIVINY	C20	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	NNIMORP	C21	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	NNINICO	C22	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	NNIFIPE	C23	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	NITPPYR	C24	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I
Results reported on 880512

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M101X	NITRTOL	C25	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	PENICHB	C26	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	PENTCHN	C27	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	PENTCHP	C28	*	5.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	PHENTIN	C29	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	PHENINE	C30	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	PHTHEST	C31	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	PICOLIN	C32	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	PRONIDE	C33	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	RESERPI	C34	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	RESORCI	C35	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	SAFROL	C36	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	TETRCHB	C37	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	TETRCHP	C39	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	THIURAM	C40	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	TOLUDIA	C41	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	DIOLHYD	C42	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	TRICHLB	C43	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	245-TRP	C44	*	5.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	246-TRP	C45	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	TRIPHOS	C46	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	SYMTRIN	C47	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	TRISPHO	C48	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	BENZOPY	C49	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	CHLNAPZ	C50	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	BIS2ETH	C51	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	HEXAENE	C52	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	HEXACHL	C54	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	NAPHTHA	C55	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	123TRI	C56	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	PHENOL	C57	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	135TRI	C58	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	1234TE	C59	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	1235TE	C60	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	KEROSEN	C79	*	1.00E+03 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	STRYCHN	C91	*	5.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	MALHYDR	C92	*	5.00E+01 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	NICOTIN	C93	*	1.00E+01 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	TRIDUPH	121	*	1.00E+00 UG/G			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	2FLPHON	X01		8.27E-01			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	PHENO6	X02		6.99E-01			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	NITBN2	X03		8.12E-01			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	2FLBIPH	X04		8.10E-01			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	246TRI	X05		7.09E-01			9.92E+00 G	23MAR88		04MAY88	I	341	011069
SOIL	M101X	TERP14	X06		9.76E-01			9.92E+00 G	23MAR88		04MAY88	I	341	011069

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
Results reported on 880512

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: 734		REPORTED: 12MAY88													
SOIL	M101X	TETEPYR	C61	*	1.00E+00 UG/G			1.00E+01	G	23MAR88		31MAR88	I	341	011069
SOIL	M101X	CARBPHT	C63	*	1.00E+00 UG/G			1.00E+01	G	23MAR88		31MAR88	I	341	011069
SOIL	M101X	DISULFO	C64	*	1.00E+00 UG/G			1.00E+01	G	23MAR88		31MAR88	I	341	011069
SOIL	M101X	DIMETHO	C65	*	2.00E-01 UG/G			1.00E+01	G	23MAR88		31MAR88	I	341	011069
SOIL	M101X	METHPAR	C66	*	1.00E+00 UG/G			1.00E+01	G	23MAR88		31MAR88	I	341	011069
SOIL	M101X	PARATHI	C67	*	1.00E+00 UG/G			1.00E+01	G	23MAR88		31MAR88	I	341	011069
===> PROCEDURE: 735		REPORTED: 12MAY88													
SOIL	M101X	NITRATE	C72	*	1.00E+00 UG/G			1.00E+01	G	23MAR88		25MAR88	I	341	011069
SOIL	M101X	SULFATE	C73		3.06E+00 UG/G			1.00E+01	G	23MAR88		25MAR88	I	341	011069
SOIL	M101X	FLOURID	C74	*	1.00E+00 UG/G			1.00E+01	G	23MAR88		25MAR88	I	341	011069
SOIL	M101X	CHLORID	C75		6.41E+00 UG/G	1		1.00E+01	G	23MAR88		25MAR88	I	341	011069
SOIL	M101X	PHOSPHA	C76	*	2.00E+00 UG/G			1.00E+01	G	23MAR88		25MAR88	I	341	011069
===> PROCEDURE: 737		REPORTED: 12MAY88													
SOIL	M101X	2,4-D	H13	*	1.00E+00 UG/G			2.50E+01	G	23MAR88		07MAY88	I	341	011069
SOIL	M101X	2,4,5TP	H14	*	1.00E+00 UG/G			2.50E+01	G	23MAR88		07MAY88	I	341	011069
SOIL	M101X	2,4,5-T	H15	*	1.00E+00 UG/G			2.50E+01	G	23MAR88		07MAY88	I	341	011069
===> PROCEDURE: 739		REPORTED: 12MAY88													
SOIL	M101X	AR1016	A54	*	1.00E+00 UG/G			1.00E+01	G	23MAR88		15APR88	I	341	011069
SOIL	M101X	AR1221	A55	*	1.00E+00 UG/G			1.00E+01	G	23MAR88		15APR88	I	341	011069
SOIL	M101X	AR1232	A56	*	1.00E+00 UG/G			1.00E+01	G	23MAR88		15APR88	I	341	011069
SOIL	M101X	AR1242	A57	*	1.00E+00 UG/G			1.00E+01	G	23MAR88		15APR88	I	341	011069
SOIL	M101X	AR1248	A58	*	1.00E+00 UG/G			1.00E+01	G	23MAR88		15APR88	I	341	011069
SOIL	M101X	AR1254	A59	*	1.00E+00 UG/G			1.00E+01	G	23MAR88		15APR88	I	341	011069
SOIL	M101X	AR1260	A60	*	1.00E+00 UG/G			1.00E+01	G	23MAR88		15APR88	I	341	011069
===> PROCEDURE: A20		REPORTED: 12MAY88													
SOIL	M101X	ARSENIC	A20		1.70E+00 UG/G			5.00E-01	G	23MAR88		28APR88	I	341	011069
===> PROCEDURE: A21		REPORTED: 12MAY88													
SOIL	M101X	MERCURY	A21	*	2.00E-01 UG/G			2.13E-01	G	23MAR88		06APR88	I	341	011069
===> PROCEDURE: A22		REPORTED: 12MAY88													
SOIL	M101X	SELENUM	A22	*	5.00E-01 UG/G			5.00E-01	G	23MAR88		28APR88	I	341	011069

* Denotes a result less than the detection limit

12-May-88

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-1
Results reported on 880512

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE	RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: A23		REPORTED: 12MAY88											
SOIL	M101X	THALIUM	A23	* 1.00E+00 UG/G			1.00E+00 G	23MAR88		19APR88	I	341	011069
===> PROCEDURE: A51		REPORTED: 12MAY88											
SOIL	M101X	LEAD	A51	7.60E+00 UG/G	1		1.00E+00 G	23MAR88		19APR88	I	341	011069
===> PROCEDURE: C68		REPORTED: 12MAY88											
SOIL	M101X	TOX	C68	* 1.00E+00 UG/G			1.00E+00 G	23MAR88		29APR88	I	341	011069
===> PROCEDURE: C69		REPORTED: 12MAY88											
SOIL	M101X	TOC	C69	1.18E+02 UG/G			2.00E+01 G	23MAR88		14APR88	I	341	011069
===> PROCEDURE: C70		REPORTED: 12MAY88											
SOIL	M101X	CYANIDE	C70	* 1.00E+00 UG/G			1.00E+01 G	23MAR88		25APR88	I	341	011069
===> PROCEDURE: C77		REPORTED: 12MAY88											
SOIL	M101X	PERCHLO	C77	* 2.00E+00 UG/G			1.00E+01 G	23MAR88		04APR88	I	341	011069
===> PROCEDURE: C78		REPORTED: 12MAY88											
SOIL	M101X	SULFIDE	C78	* 1.00E+01 UG/G			1.00E+01 G	23MAR88		19APR88	I	341	011069
===> PROCEDURE: C80		REPORTED: 12MAY88											
SOIL	M101X	AMMONIU	C80	1.50E+00 UG/G			1.00E+00 G	23MAR88		22APR88	I	341	011069
===> PROCEDURE: C81		REPORTED: 12MAY88											
SOIL	M101X	ETHYGLY	C81	* 1.00E+01 UG/G			1.00E+01 G	23MAR88		29MAR88	I	341	011069

1 **EP TOXICITY TEST RESULTS**

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01-Nov-88

UNITED STATES TESTING 'ANY, INC.
2800 George Washington Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
Results reported on 881101

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
** SAMPLE: M147 **>														
===> PROCEDURE: 760		REPORTED: 01NOV88												
EXTRCT	M147	BERYLAM	A01	*	5.00E+00 PPB			1.00E+02 ML	27JUL88		27OCT88	I	519	011163
EXTRCT	M147	STRONUM	A03		8.40E+01 PPB			1.00E+02 ML	27JUL88		27OCT88	I	519	011163
EXTRCT	M147	ZINC	A04		1.43E+02 PPB			1.00E+02 ML	27JUL88		27OCT88	I	519	011163
EXTRCT	M147	CALCIUM	A05		2.66E+04 PPB			1.00E+02 ML	27JUL88		27OCT88	I	519	011163
EXTRCT	M147	BARIUM	A06		1.76E+02 PPB			1.00E+02 ML	27JUL88		27OCT88	I	519	011163
EXTRCT	M147	CADMIUM	A07	*	2.00E+00 PPB			1.00E+02 ML	27JUL88		27OCT88	I	519	011163
EXTRCT	M147	CHROMUM	A08	*	1.00E+01 PPB			1.00E+02 ML	27JUL88		27OCT88	I	519	011163
EXTRCT	M147	SILVER	A10	*	1.00E+01 PPB			1.00E+02 ML	27JUL88		27OCT88	I	519	011163
EXTRCT	M147	SODIUM	A11		6.80E+02 PPB			1.00E+02 ML	27JUL88		27OCT88	I	519	011163
EXTRCT	M147	NICKEL	A12	*	1.00E+01 PPB			1.00E+02 ML	27JUL88		27OCT88	I	519	011163
EXTRCT	M147	COPPER	A13		1.00E+01 PPB			1.00E+02 ML	27JUL88		27OCT88	I	519	011163
EXTRCT	M147	VANADUM	A14	*	5.00E+00 PPB			1.00E+02 ML	27JUL88		27OCT88	I	519	011163
EXTRCT	M147	ANTIONY	A15	*	1.00E+02 PPB			1.00E+02 ML	27JUL88		27OCT88	I	519	011163
EXTRCT	M147	ALUMNUM	A16	*	1.50E+02 PPB			1.00E+02 ML	27JUL88		27OCT88	I	519	011163
EXTRCT	M147	MANGESE	A17		2.47E+02 PPB			1.00E+02 ML	27JUL88		27OCT88	I	519	011163
EXTRCT	M147	POTASUM	A18		1.79E+03 PPB			1.00E+02 ML	27JUL88		27OCT88	I	519	011163
EXTRCT	M147	IRON	A19	*	3.00E+01 PPB			1.00E+02 ML	27JUL88		27OCT88	I	519	011163
EXTRCT	M147	ARSENIC	A20	*	5.00E+01 PPB			1.00E+02 ML	27JUL88		27OCT88	I	519	011163
EXTRCT	M147	SELENUM	A22	*	5.00E+01 PPB			1.00E+02 ML	27JUL88		27OCT88	I	519	011163
EXTRCT	M147	MAGNES	A50		3.35E+03 PPB			1.00E+02 ML	27JUL88		27OCT88	I	519	011163
EXTRCT	M147	LEAD	A51	*	5.00E+01 PPB			1.00E+02 ML	27JUL88		27OCT88	I	519	011163
EXTRCT	M147	BORON	P01		1.60E+01 PPB			1.00E+02 ML	27JUL88		27OCT88	I	519	011163
EXTRCT	M147	COBALT	P02	*	2.00E+01 PPB			1.00E+02 ML	27JUL88		27OCT88	I	519	011163
EXTRCT	M147	LITHIUM	P03	*	1.00E+01 PPB			1.00E+02 ML	27JUL88		27OCT88	I	519	011163
EXTRCT	M147	MOLY	P04	*	4.00E+01 PPB			1.00E+02 ML	27JUL88		27OCT88	I	519	011163
EXTRCT	M147	SILICON	P05		1.90E+03 PPB			1.00E+02 ML	27JUL88		27OCT88	I	519	011163
EXTRCT	M147	TIN	P06	*	3.00E+01 PPB			1.00E+02 ML	27JUL88		27OCT88	I	519	011163
EXTRCT	M147	TITAN	P07	*	6.00E+01 PPB			1.00E+02 ML	27JUL88		27OCT88	I	519	011163
EXTRCT	M147	ZIRCON	P08	*	5.00E+01 PPB			1.00E+02 ML	27JUL88		27OCT88	I	519	011163
** SAMPLE: M154 **>														
===> PROCEDURE: 760		REPORTED: 01NOV88												
XTRCT	M154	BERYLAM	A01	*	5.00E+00 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011164
XTRCT	M154	STRONUM	A03		1.19E+02 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011164

* Denotes a result less than the detection limit

9513319.1815

DOE/RL 88-41
Revision 2

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
Results reported on 881101

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
EXTRCT	M154	ZINC	A04		1.98E+02 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011164
EXTRCT	M154	CALCIUM	A05		2.17E+04 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011164
EXTRCT	M154	BARIUM	A06		2.47E+02 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011164
EXTRCT	M154	CADMIUM	A07	*	2.00E+00 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011164
EXTRCT	M154	CHROMUM	A08	*	1.00E+01 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011164
EXTRCT	M154	SILVER	A10	*	1.00E+01 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011164
EXTRCT	M154	SODIUM	A11		1.58E+03 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011164
EXTRCT	M154	NICKEL	A12		2.30E+01 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011164
EXTRCT	M154	COPPER	A13		1.57E+02 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011164
EXTRCT	M154	VANADUM	A14	*	5.00E+00 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011164
EXTRCT	M154	ANTIONY	A15	*	1.00E+02 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011164
EXTRCT	M154	ALUMNUM	A16	*	1.50E+02 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011164
EXTRCT	M154	MANGESE	A17		1.89E+03 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011164
EXTRCT	M154	POTASUM	A18		3.21E+03 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011164
EXTRCT	M154	IRON	A19		3.90E+01 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011164
EXTRCT	M154	ARSENIC	A20	*	5.00E+01 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011164
EXTRCT	M154	SELENUM	A22	*	5.00E+01 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011164
EXTRCT	M154	MAGNES	A50		4.91E+03 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011164
EXTRCT	M154	LEAD	A51	*	5.00E+01 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011164
EXTRCT	M154	BORON	P01	*	1.00E+01 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011164
EXTRCT	M154	COBALT	P02		2.50E+01 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011164
EXTRCT	M154	LITHIUM	P03	*	1.00E+01 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011164
EXTRCT	M154	MOLY	P04	*	4.00E+01 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011164
EXTRCT	M154	SILICON	P05		4.32E+03 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011164
EXTRCT	M154	TIN	P06	*	3.00E+01 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011164
EXTRCT	M154	TITAN	P07	*	6.00E+01 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011164
EXTRCT	M154	ZIRCON	P08	*	5.00E+01 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011164

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<** SAMPLE: M155 **>
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==> PROCEDURE: 760 REPORTED: 01NOV88

EXTRCT	M155	BERYLAM	A01	*	5.00E+00 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011165
EXTRCT	M155	STRONUM	A03		1.36E+02 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011165
EXTRCT	M155	ZINC	A04		1.14E+02 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011165
EXTRCT	M155	CALCIUM	A05		3.68E+04 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011165
EXTRCT	M155	BARIUM	A06		2.21E+02 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011165
EXTRCT	M155	CADMIUM	A07	*	2.00E+00 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011165
EXTRCT	M155	CHROMUM	A08	*	1.00E+01 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011165
EXTRCT	M155	SILVER	A10	*	1.00E+01 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011165
EXTRCT	M155	SODIUM	A11		1.59E+03 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011165
EXTRCT	M155	NICKEL	A12		1.90E+01 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011165
EXTRCT	M155	COPPER	A13		6.80E+01 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011165

* Denotes a result less than the detection limit

01-Nov-88

UNITED STATES TESTIN IPANY, INC.
2800 George Washington Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPOR. Contract no. B-B2472-A-I
Results reported on 881101

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
EXTRCT	M155	VANADUM	A14	*	5.00E+00 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011165
EXTRCT	M155	ANTIONY	A15	*	1.00E+02 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011165
EXTRCT	M155	ALUMNUM	A16	*	1.50E+02 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011165
EXTRCT	M155	MANGESE	A17		1.90E+03 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011165
EXTRCT	M155	POTASUM	A18		3.57E+03 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011165
EXTRCT	M155	IRON	A19	*	3.00E+01 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011165
EXTRCT	M155	ARSENIC	A20	*	5.00E+01 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011165
EXTRCT	M155	SELENUM	A22	*	5.00E+01 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011165
EXTRCT	M155	MAGNES	A50		5.41E+03 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011165
EXTRCT	M155	LEAD	A51	*	5.00E+01 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011165
EXTRCT	M155	BORON	P01	*	1.00E+01 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011165
EXTRCT	M155	COBALT	P02		2.10E+01 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011165
EXTRCT	M155	LITHIUM	P03	*	1.00E+01 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011165
EXTRCT	M155	MOLY	P04	*	4.00E+01 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011165
EXTRCT	M155	SILICON	P05		3.13E+03 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011165
EXTRCT	M155	TIN	P06	*	3.00E+01 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011165
EXTRCT	M155	TITAN	P07	*	6.00E+01 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011165
EXTRCT	M155	ZIRCON	P08	*	5.00E+01 PPB			1.00E+02 ML	02AUG88		27OCT88	I	519	011165

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<** SAMPLE: M159 **>
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===> PROCEDURE: 760 REPORTED: 01NOV88

EXTRCT	M159	BERYLAM	A01	*	5.00E+00 PPB			1.00E+02 ML	03AUG88		27OCT88	I	519	011166
EXTRCT	M159	STRONUM	A03		1.57E+02 PPB			1.00E+02 ML	03AUG88		27OCT88	I	519	011166
EXTRCT	M159	ZINC	A04		7.80E+02 PPB			1.00E+02 ML	03AUG88		27OCT88	I	519	011166
EXTRCT	M159	CALCIUM	A05		3.55E+04 PPB			1.00E+02 ML	03AUG88		27OCT88	I	519	011166
EXTRCT	M159	BARIUM	A06		4.13E+02 PPB			1.00E+02 ML	03AUG88		27OCT88	I	519	011166
EXTRCT	M159	CADMIUM	A07		4.00E+00 PPB			1.00E+02 ML	03AUG88		27OCT88	I	519	011166
EXTRCT	M159	CHROMUM	A08	*	1.00E+01 PPB			1.00E+02 ML	03AUG88		27OCT88	I	519	011166
EXTRCT	M159	SILVER	A10	*	1.00E+01 PPB			1.00E+02 ML	03AUG88		27OCT88	I	519	011166
EXTRCT	M159	SODIUM	A11		1.21E+03 PPB			1.00E+02 ML	03AUG88		27OCT88	I	519	011166
EXTRCT	M159	NICKEL	A12		3.80E+01 PPB			1.00E+02 ML	03AUG88		27OCT88	I	519	011166
EXTRCT	M159	COPPER	A13		1.70E+03 PPB			1.00E+02 ML	03AUG88		27OCT88	I	519	011166
EXTRCT	M159	VANADUM	A14	*	5.00E+00 PPB			1.00E+02 ML	03AUG88		27OCT88	I	519	011166
EXTRCT	M159	ANTIONY	A15	*	1.00E+02 PPB			1.00E+02 ML	03AUG88		27OCT88	I	519	011166
EXTRCT	M159	ALUMNUM	A16	*	1.50E+02 PPB			1.00E+02 ML	03AUG88		27OCT88	I	519	011166
EXTRCT	M159	MANGESE	A17		3.79E+03 PPB			1.00E+02 ML	03AUG88		27OCT88	I	519	011166
EXTRCT	M159	POTASUM	A18		4.71E+03 PPB			1.00E+02 ML	03AUG88		27OCT88	I	519	011166
EXTRCT	M159	IRON	A19	*	3.00E+01 PPB			1.00E+02 ML	03AUG88		27OCT88	I	519	011166
EXTRCT	M159	ARSENIC	A20	*	5.00E+01 PPB			1.00E+02 ML	03AUG88		27OCT88	I	519	011166
EXTRCT	M159	SELENUM	A22	*	5.00E+01 PPB			1.00E+02 ML	03AUG88		27OCT88	I	519	011166
EXTRCT	M159	MAGNES	A50		5.64E+03 PPB			1.00E+02 ML	03AUG88		27OCT88	I	519	011166

* Denotes a result less than the detection limit

9513191816

DOE/RL 88-41
Revision 2

UNITED STATES TESTING COMPANY, INC.
2900 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
Results reported on 881101

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT		DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
EXTRCT	M159	LEAD	A51	*	5.00E+01	PPB			1.00E+02	ML	03AUG88		27OCT88	I	519	011166
EXTRCT	M159	BORON	P01		2.30E+01	PPB			1.00E+02	ML	03AUG88		27OCT88	I	519	011166
EXTRCT	M159	COBALT	P02		3.60E+01	PPB			1.00E+02	ML	03AUG88		27OCT88	I	519	011166
EXTRCT	M159	LITHIUM	P03	*	1.00E+01	PPB			1.00E+02	ML	03AUG88		27OCT88	I	519	011166
EXTRCT	M159	MOLY	P04	*	4.00E+01	PPB			1.00E+02	ML	03AUG88		27OCT88	I	519	011166
EXTRCT	M159	SILICON	P05		2.48E+03	PPB			1.00E+02	ML	03AUG88		27OCT88	I	519	011166
EXTRCT	M159	TIN	P06	*	3.00E+01	PPB			1.00E+02	ML	03AUG88		27OCT88	I	519	011166
EXTRCT	M159	TITAN	P07	*	6.00E+01	PPB			1.00E+02	ML	03AUG88		27OCT88	I	519	011166
EXTRCT	M159	ZIRCON	P08	*	5.00E+01	PPB			1.00E+02	ML	03AUG88		27OCT88	I	519	011166

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<** SAMPLE: M164 **>
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===> PROCEDURE: 760 REPORTED: 01NOV88

EXTRCT	M164	BERYLAM	A01	*	5.00E+00	PPB			1.00E+02	ML	05AUG88		27OCT88	I	519	011167
EXTRCT	M164	STRONUM	A03		6.32E+02	PPB			1.00E+02	ML	05AUG88		27OCT88	I	519	011167
EXTRCT	M164	ZINC	A04		7.84E+02	PPB			1.00E+02	ML	05AUG88		27OCT88	I	519	011167
EXTRCT	M164	CALCIUM	A05		4.11E+05	PPB	1		1.00E+02	ML	05AUG88		27OCT88	I	519	011167
EXTRCT	M164	BARIUM	A06		5.98E+02	PPB			1.00E+02	ML	05AUG88		27OCT88	I	519	011167
EXTRCT	M164	CADMIUM	A07		3.00E+00	PPB			1.00E+02	ML	05AUG88		27OCT88	I	519	011167
EXTRCT	M164	CHROMUM	A08	*	1.00E+01	PPB			1.00E+02	ML	05AUG88		27OCT88	I	519	011167
EXTRCT	M164	SILVER	A10	*	1.00E+01	PPB			1.00E+02	ML	05AUG88		27OCT88	I	519	011167
EXTRCT	M164	SODIUM	A11		3.12E+03	PPB			1.00E+02	ML	05AUG88		27OCT88	I	519	011167
EXTRCT	M164	NICKEL	A12		2.50E+01	PPB			1.00E+02	ML	05AUG88		27OCT88	I	519	011167
EXTRCT	M164	COPPER	A13		2.71E+03	PPB			1.00E+02	ML	05AUG88		27OCT88	I	519	011167
EXTRCT	M164	VANADUM	A14	*	5.00E+00	PPB			1.00E+02	ML	05AUG88		27OCT88	I	519	011167
EXTRCT	M164	ANTIONY	A15	*	1.00E+02	PPB			1.00E+02	ML	05AUG88		27OCT88	I	519	011167
EXTRCT	M164	ALUMNUM	A16		6.74E+02	PPB			1.00E+02	ML	05AUG88		27OCT88	I	519	011167
EXTRCT	M164	MANGESE	A17		1.27E+03	PPB			1.00E+02	ML	05AUG88		27OCT88	I	519	011167
EXTRCT	M164	POTASUM	A18		2.67E+03	PPB			1.00E+02	ML	05AUG88		27OCT88	I	519	011167
EXTRCT	M164	IRON	A19		3.20E+01	PPB			1.00E+02	ML	05AUG88		27OCT88	I	519	011167
EXTRCT	M164	ARSENIC	A20	*	5.00E+01	PPB			1.00E+02	ML	05AUG88		27OCT88	I	519	011167
EXTRCT	M164	SELENUM	A22	*	5.00E+01	PPB			1.00E+02	ML	05AUG88		27OCT88	I	519	011167
EXTRCT	M164	MAGNES	A50		1.85E+04	PPB			1.00E+02	ML	05AUG88		27OCT88	I	519	011167
EXTRCT	M164	LEAD	A51	*	5.00E+01	PPB			1.00E+02	ML	05AUG88		27OCT88	I	519	011167
EXTRCT	M164	BORON	P01		1.80E+01	PPB			1.00E+02	ML	05AUG88		27OCT88	I	519	011167
EXTRCT	M164	COBALT	P02	*	2.00E+01	PPB			1.00E+02	ML	05AUG88		27OCT88	I	519	011167
EXTRCT	M164	LITHIUM	P03	*	1.00E+01	PPB			1.00E+02	ML	05AUG88		27OCT88	I	519	011167
EXTRCT	M164	MOLY	P04	*	4.00E+01	PPB			1.00E+02	ML	05AUG88		27OCT88	I	519	011167
EXTRCT	M164	SILICON	P05		3.65E+03	PPB			1.00E+02	ML	05AUG88		27OCT88	I	519	011167
EXTRCT	M164	TIN	P06	*	3.00E+01	PPB			1.00E+02	ML	05AUG88		27OCT88	I	519	011167
EXTRCT	M164	TITAN	P07	*	6.00E+01	PPB			1.00E+02	ML	05AUG88		27OCT88	I	519	011167
EXTRCT	M164	ZIRCON	P08	*	5.00E+01	PPB			1.00E+02	ML	05AUG88		27OCT88	I	519	011167

145 Records listed
* Denotes a result less than the detection limit

RESULTS OF THE VADOSE ZONE SEDIMENT ANALYSES BY THE X-RAY FLUORESCENCE METHOD

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Constituent	Result		
	2-E18-1 (195 ft)	2-E18-3 (45 ft)	2-E18-3 (45 ft)(a)
Aluminum (%)	6.79 ± 0.39	6.63 ± 0.38	6.56 ± 0.38
Silica (%)	30.0 ± 1.5	30.4 ± 1.5	31.7 ± 1.6
Phosphorus (%)	<0.069	<0.064	<0.068
Sulfur (%)	<0.019	<0.018	<0.019
Chlorine (%)	<0.010	<0.010	<0.010
Potassium (%)	1.833 ± 0.093	2.07 ± 0.10	2.12 ± 0.11
Calcium (%)	2.64 ± 0.13	2.26 ± 0.12	2.27 ± 0.12
Titanium (%)	0.385 ± 0.020	0.292 ± 0.015	0.291 ± 0.015
Vanadium (ppm)	98 ± 23	65 ± 20	58 ± 20
Chromium (ppm)	34 ± 12	32 ± 11	24 ± 11
Manganese (ppm)	625 ± 34	484 ± 27	459 ± 26
Iron (ppm)	3.33 ± 0.17	2.57 ± 0.13	2.52 ± 0.13
Cobalt (ppm)	<35	43 ± 16	<31
Nickel (ppm)	19.3 ± 4.1	21.4 ± 3.7	15.4 ± 3.6
Copper (ppm)	19.6 ± 1.8	14.7 ± 1.5	15.8 ± 1.6
Zinc (ppm)	57.0 ± 3.3	45.0 ± 2.7	45.1 ± 2.6
Gallium (ppm)	14.5 ± 1.1	13.2 ± 1.0	13.4 ± 1.0
Mercury (ppm)	<2.5	<2.4	<2.4
Selenium (ppm)	<0.89	<0.87	<0.86
Lead (ppm)	13.1 ± 1.4	11.1 ± 1.4	10.6 ± 1.3
Arsenic (ppm)	4.63 ± 0.74	4.46 ± 0.72	5.11 ± 0.74
Bromine (ppm)	<0.84	<0.80	0.83 ± 0.40
Rubidium (ppm)	70.5 ± 3.6	87.5 ± 4.5	87.0 ± 4.4
Strontium (ppm)	412 ± 21	358 ± 18	352 ± 18

	2-E18-3 (62 ft)	2-E18-3 (84 ft)	2-E18-3 (97 ft)
Aluminum (%)	6.74 ± 0.39	6.73 ± 0.39	6.92 ± 0.40
Silica (%)	30.0 ± 1.5	29.9 ± 1.5	30.8 ± 1.6
Phosphorus (%)	<0.066	<0.066	<0.066
Sulfur (%)	<0.018	<0.018	<0.018
Chlorine (%)	<0.010	<0.009	<0.010
Potassium (%)	2.02 ± 0.10	2.00 ± 0.10	1.971 ± 0.099
Calcium (%)	2.23 ± 0.11	2.32 ± 0.12	2.26 ± 0.12
Titanium (%)	0.386 ± 0.020	0.355 ± 0.019	0.347 ± 0.018
Vanadium (ppm)	121 ± 23	92 ± 22	91 ± 21
Chromium (ppm)	32 ± 11	38 ± 11	40 ± 11
Manganese (ppm)	593 ± 32	546 ± 30	542 ± 30
Iron (ppm)	3.14 ± 0.16	2.93 ± 0.15	2.73 ± 0.14
Cobalt (ppm)	<34	<33	<32
Nickel (ppm)	23.0 ± 4.0	20.4 ± 3.9	23.5 ± 3.8
Copper (ppm)	18.7 ± 1.7	17.9 ± 1.7	18.0 ± 1.7
Zinc (ppm)	58.1 ± 3.3	58.8 ± 3.4	59.3 ± 3.4
Gallium (ppm)	13.5 ± 1.0	14.9 ± 1.1	14.5 ± 1.1
Mercury (ppm)	<2.5	<2.5	<2.4
Selenium (ppm)	<0.88	<0.87	<0.86
Lead (ppm)	13.4 ± 1.4	15.5 ± 1.5	13.3 ± 1.5
Arsenic (ppm)	6.58 ± 0.82	6.34 ± 0.81	9.60 ± 0.90
Bromine (ppm)	<0.86	<0.87	<0.86
Rubidium (ppm)	79.5 ± 4.1	86.4 ± 4.4	80.7 ± 4.1
Strontium (ppm)	363 ± 19	352 ± 18	360 ± 19

Constituent	Result	
	2-E18-3 (194 ft)	2-E18-3 (194 ft)[a]
Aluminum (%)	6.68 ± 0.39	6.53 ± 0.38
Silica (%)	29.3 ± 1.5	30.0 ± 1.5
Phosphorus (%)	<0.067	<0.067
Sulfur (%)	<0.018	<0.018
Chlorine (%)	<0.010	<0.010
Potassium (%)	2.01 ± 0.10	1.98 ± 0.10
Calcium (%)	2.50 ± 0.13	2.51 ± 0.13
Titanium (%)	0.347 ± 0.018	0.344 ± 0.018
Vanadium (ppm)	<41	93 ± 22
Chromium (ppm)	46 ± 12	48 ± 12
Manganese (ppm)	473 ± 27	481 ± 27
Iron (ppm)	2.85 ± 0.14	2.84 ± 0.14
Cobalt (ppm)	47 ± 17	<33
Nickel (ppm)	30.4 ± 4.0	25.1 ± 2.4
Copper (ppm)	19.5 ± 1.8	19.6 ± 1.7
Zinc (ppm)	58.5 ± 3.3	60.3 ± 3.4
Gallium (ppm)	14.6 ± 1.1	13.8 ± 1.1
Mercury (ppm)	<2.4	<2.5
Selenium (ppm)	1.14 ± 0.43	<0.87
Lead (ppm)	13.8 ± 1.4	15.1 ± 1.5
Arsenic (ppm)	10.08 ± 0.92	10.00 ± 0.92
Bromine (ppm)	<0.85	<0.86
Rubidium (ppm)	81.1 ± 4.2	79.8 ± 4.1
Strontium (ppm)	383 ± 20	374 ± 19

(a) Duplicate analysis

Well Number	Depth (ft)	Constituent	Result (ppm)
2-E18-3	45	tetrachloromethane	<5.00E-03
2-E18-3	45	methyl ethyl ketone	<1.00E-02
2-E18-3	45	1,1,1-trichloroethane	<5.00E-03
2-E18-3	45	1,1,2-trichloroethane	<5.00E-03
2-E18-3	45	trichloroethylene	<5.00E-03
2-E18-3	45	perchloroethylene	<5.00E-03
2-E18-3	45	xylene-O,P	<5.00E-03
2-E18-3	45	chloroform	<5.00E-03
2-E18-3	45	methylene chloride	<1.00E-02
2-E18-3	45	xylene-M	<5.00E-03
2-E18-3	45	hexone	<1.00E-02
2-E18-3	62	tetrachloromethane	<5.00E-03
2-E18-3	62	methyl ethyl ketone	<1.00E-02
2-E18-3	62	1,1,1-trichloroethane	<5.00E-03
2-E18-3	62	1,1,2-trichloroethane	<5.00E-03
2-E18-3	62	trichloroethylene	<5.00E-03
2-E18-3	62	perchloroethylene	<5.00E-03
2-E18-3	62	xylene-O,P	<5.00E-03
2-E18-3	62	chloroform	<5.00E-03
2-E18-3	62	methylene chloride	<1.00E-02
2-E18-3	62	xylene-M	<5.00E-03
2-E18-3	62	hexone	<1.00E-02
2-E18-3	84	tetrachloromethane	<5.00E-03
2-E18-3	84	methyl ethyl ketone	<1.00E-02
2-E18-3	84	1,1,1-trichloroethane	<5.00E-03
2-E18-3	84	1,1,2-trichloroethane	<5.00E-03
2-E18-3	84	trichloroethylene	<5.00E-03
2-E18-3	84	perchloroethylene	<5.00E-03
2-E18-3	84	xylene-O,P	<5.00E-03
2-E18-3	84	chloroform	<5.00E-03
2-E18-3	84	methylene chloride	<1.00E-02
2-E18-3	84	xylene-M	<5.00E-03
2-E18-3	84	hexone	<1.00E-02
2-E18-3	97	tetrachloromethane	<5.00E-03
2-E18-3	97	methyl ethyl ketone	<1.00E-02
2-E18-3	97	1,1,1-trichloroethane	<5.00E-03
2-E18-3	97	1,1,2-trichloroethane	<5.00E-03
2-E18-3	97	trichloroethylene	<5.00E-03
2-E18-3	97	perchloroethylene	<5.00E-03
2-E18-3	97	xylene-O,P	<5.00E-03
2-E18-3	97	chloroform	<5.00E-03
2-E18-3	97	methylene chloride	2.10E-02
2-E18-3	97	xylene-M	<5.00E-03
2-E18-3	97	hexone	<1.00E-02

Well Number	Depth (ft)	Constituent	Result (ppm)
2-E18-3	194	tetrachloromethane	<5.00E-03
2-E18-3	194	methyl ethyl ketone	<1.00E-02
2-E18-3	194	1,1,1-trichloroethane	<5.00E-03
2-E18-3	194	1,1,2-trichloroethane	<5.00E-03
2-E18-3	194	trichloroethylene	<5.00E-03
2-E18-3	194	perchloroethylene	<5.00E-03
2-E18-3	194	xylene-O,P	<5.00E-03
2-E18-3	194	chloroform	<5.00E-03
2-E18-3	194	methylene chloride	2.90E-02
2-E18-3	194	xylene-M	<5.00E-03
2-E18-3	194	hexone	<1.00E-02
2-E18-3	195	tetrachloromethane	<5.00E-03
2-E18-3	195	methyl ethyl ketone	<1.00E-02
2-E18-3	195	1,1,1-trichloroethane	<5.00E-03
2-E18-3	195	1,1,2-trichloroethane	<5.00E-03
2-E18-3	195	trichloroethylene	<5.00E-03
2-E18-3	195	perchloroethylene	<5.00E-03
2-E18-3	195	xylene-O,P	<5.00E-03
2-E18-3	195	chloroform	<5.00E-03
2-E18-3	195	methylene chloride	<1.00E-02
2-E18-3	195	xylene-M	<5.00E-03
2-E18-3	195	hexone	<1.00E-02
2-E18-1	195	tetrachloromethane	<5.00E-03
2-E18-1	195	methyl ethyl ketone	<1.00E-02
2-E18-1	195	1,1,1-trichloroethane	<5.00E-03
2-E18-1	195	1,1,2-trichloroethane	<5.00E-03
2-E18-1	195	trichloroethylene	<5.00E-03
2-E18-1	195	perchloroethylene	<5.00E-03
2-E18-1	195	xylene-O,P	<5.00E-03
2-E18-1	195	chloroform	<5.00E-03
2-E18-1	195	methylene chloride	<1.00E-02
2-E18-1	195	xylene-M	<5.00E-03
2-E18-1	195	hexone	<1.00E-02

1 **RESULTS OF THE VADOSE ZONE SEDIMENT ANALYSIS USING ICP METHOD**

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Well Number	Depth (ft)	Constituent	Result (ppm)
2-E18-1	80	Beryllium	<5.00E-01
2-E18-1	80	Strontium	3.61E+01
2-E18-1	80	Zinc	2.73E+01
2-E18-1	80	Calcium	8.82E+03
2-E18-1	80	Barium	5.65E+01
2-E18-1	80	Cadmium	<2.00E-01
2-E18-1	80	Chromium	1.02E+01
2-E18-1	80	Silver	<1.00E+00
2-E18-1	80	Sodium	1.59E+02
2-E18-1	80	Nickel	8.30E+00
2-E18-1	80	Copper	3.30E+00
2-E18-1	80	Vanadium	2.42E+01
2-E18-1	80	Antimony	<1.00E+01
2-E18-1	80	Aluminum	6.05E+03
2-E18-1	80	Manganese	2.96E+02
2-E18-1	80	Potassium	1.14E+03
2-E18-1	80	Iron	1.39E+04
2-E18-1	80	Magnesium	4.72E+03
2-E18-1	80	Arsenic	3.30E+00
2-E18-1	80	Selenium	<5.00E-01
2-E18-1	110	Beryllium	<5.00E-01
2-E18-1	110	Strontium	2.53E+01
2-E18-1	110	Zinc	2.97E+01
2-E18-1	110	Calcium	7.10E+03
2-E18-1	110	Barium	5.81E+01
2-E18-1	110	Cadmium	<2.00E-01
2-E18-1	110	Chromium	1.25E+01
2-E18-1	110	Silver	<1.00E+00
2-E18-1	110	Sodium	1.24E+02
2-E18-1	110	Nickel	1.10E+01
2-E18-1	110	Copper	5.40E+00
2-E18-1	110	Vanadium	2.52E+01
2-E18-1	110	Antimony	<1.00E+01
2-E18-1	110	Aluminum	6.08E+03
2-E18-1	110	Manganese	2.65E+02
2-E18-1	110	Potassium	1.31E+03
2-E18-1	110	Iron	1.37E+04
2-E18-1	110	Magnesium	4.68E+03
2-E18-1	110	Arsenic	4.90E+00
2-E18-1	110	Selenium	<5.00E-01
2-E18-1	190	Beryllium	<5.00E-01
2-E18-1	190	Strontium	2.71E+01
2-E18-1	190	Zinc	3.04E+01
2-E18-1	190	Calcium	9.19E+03
2-E18-1	190	Barium	7.11E+01

Well Number	Depth (ft)	Constituent	Result (ppm)
2-E18-1	190	Cadmium	<2.00E-01
2-E18-1	190	Chromium	1.18E+01
2-E18-1	190	Silver	<1.00E+00
2-E18-1	190	Sodium	1.52E+02
2-E18-1	190	Nickel	9.00E+00
2-E18-1	190	Copper	1.20E+00
2-E18-1	190	Vanadium	3.66E+01
2-E18-1	190	Antimony	<1.00E+01
2-E18-1	190	Aluminum	8.51E+03
2-E18-1	190	Manganese	2.95E+02
2-E18-1	190	Potassium	1.71E+03
2-E18-1	190	Iron	2.14E+04
2-E18-1	190	Magnesium	6.03E+03
2-E18-1	190	Arsenic	2.10E+00
2-E18-1	190	Selenium	<5.00E-01
2-E18-2	84	Beryllium	<5.00E-01
2-E18-2	84	Strontium	3.21E+01
2-E18-2	84	Zinc	4.15E+01
2-E18-2	84	Calcium	9.90E+03
2-E18-2	84	Barium	9.93E+01
2-E18-2	84	Cadmium	<2.00E-01
2-E18-2	84	Chromium	1.49E+01
2-E18-2	84	Silver	<1.00E+00
2-E18-2	84	Sodium	1.27E+02
2-E18-2	84	Nickel	1.21E+01
2-E18-2	84	Copper	2.78E+01
2-E18-2	84	Vanadium	3.15E+01
2-E18-2	84	Antimony	<1.00E+01
2-E18-2	84	Aluminum	9.67E+03
2-E18-2	84	Manganese	3.90E+02
2-E18-2	84	Potassium	2.25E+03
2-E18-2	84	Iron	1.94E+04
2-E18-2	84	Magnesium	6.71E+03
2-E18-2	84	Arsenic	4.30E+00
2-E18-2	84	Selenium	<5.00E-01
2-E18-2	99	Beryllium	<5.00E-01
2-E18-2	99	Strontium	3.31E+01
2-E18-2	99	Zinc	4.73E+01
2-E18-2	99	Calcium	1.03E+04
2-E18-2	99	Barium	7.67E+01
2-E18-2	99	Cadmium	<2.00E-01
2-E18-2	99	Chromium	1.66E+01
2-E18-2	99	Silver	<1.00E+00
2-E18-2	99	Sodium	1.24E+02

Well Number	Depth (ft)	Constituent	Result (ppm)
2-E18-2	99	Nickel	1.47E+01
2-E18-2	99	Copper	5.60E+01
2-E18-2	99	Vanadium	3.39E+01
2-E18-2	99	Antimony	<1.00E+01
2-E18-2	99	Aluminum	9.28E+03
2-E18-2	99	Manganese	3.10E+02
2-E18-2	99	Potassium	1.96E+03
2-E18-2	99	Iron	2.00E+04
2-E18-2	99	Magnesium	6.38E+03
2-E18-2	99	Arsenic	7.80E+00
2-E18-2	99	Selenium	<5.00E-01
2-E18-2	109	Beryllium	<5.00E-01
2-E18-2	109	Strontium	3.11E+01
2-E18-2	109	Zinc	4.33E+01
2-E18-2	109	Calcium	9.55E+03
2-E18-2	109	Barium	7.95E+01
2-E18-2	109	Cadmium	<2.00E-01
2-E18-2	109	Chromium	1.58E+01
2-E18-2	109	Silver	<1.00E+00
2-E18-2	109	Sodium	1.23E+02
2-E18-2	109	Nickel	1.34E+01
2-E18-2	109	Copper	4.21E+01
2-E18-2	109	Vanadium	3.01E+01
2-E18-2	109	Antimony	<1.00E+01
2-E18-2	109	Aluminum	9.45E+03
2-E18-2	109	Manganese	2.95E+02
2-E18-2	109	Potassium	2.43E+03
2-E18-2	109	Iron	1.95E+04
2-E18-2	109	Magnesium	6.80E+03
2-E18-2	109	Arsenic	5.20E+00
2-E18-2	109	Selenium	<5.00E-01
2-E18-4	45	Beryllium	<5.00E-01
2-E18-4	45	Strontium	2.91E+01
2-E18-4	45	Zinc	3.65E+01
2-E18-4	45	Calcium	1.29E+04
2-E18-4	45	Barium	7.69E+01
2-E18-4	45	Cadmium	<2.00E-01
2-E18-4	45	Chromium	1.09E+01
2-E18-4	45	Silver	<1.00E+00
2-E18-4	45	Sodium	1.04E+02
2-E18-4	45	Nickel	1.28E+01
2-E18-4	45	Copper	7.60E+00
2-E18-4	45	Vanadium	2.40E+01
2-E18-4	45	Antimony	<1.00E+01

Well Number	Depth (ft)	Constituent	Result (ppm)
2-E18-4	45	Aluminum	8.67E+03
2-E18-4	45	Manganese	2.91E+02
2-E18-4	45	Potassium	1.78E+03
2-E18-4	45	Iron	1.79E+04
2-E18-4	45	Magnesium	6.30E+03
2-E18-4	45	Arsenic	3.90E+00
2-E18-4	45	Selenium	<5.00E-01
2-E18-4	85	Beryllium	<5.00E-01
2-E18-4	85	Strontium	2.93E+01
2-E18-4	85	Zinc	3.17E+01
2-E18-4	85	Calcium	9.71E+03
2-E18-4	85	Barium	6.63E+01
2-E18-4	85	Cadmium	<2.00E-01
2-E18-4	85	Chromium	1.16E+01
2-E18-4	85	Silver	<1.00E+00
2-E18-4	85	Sodium	1.04E+02
2-E18-4	85	Nickel	1.08E+01
2-E18-4	85	Copper	3.80E+00
2-E18-4	85	Vanadium	2.64E+01
2-E18-4	85	Antimony	<1.00E+01
2-E18-4	85	Aluminum	7.38E+03
2-E18-4	85	Manganese	2.79E+02
2-E18-4	85	Potassium	1.81E+03
2-E18-4	85	Iron	1.68E+04
2-E18-4	85	Magnesium	5.54E+03
2-E18-4	85	Arsenic	3.70E+00
2-E18-4	85	Selenium	<5.00E-01
2-E18-4	95	Beryllium	<5.00E-01
2-E18-4	95	Strontium	3.27E+01
2-E18-4	95	Zinc	3.16E+01
2-E18-4	95	Calcium	9.19E+03
2-E18-4	95	Barium	8.53E+01
2-E18-4	95	Cadmium	<2.00E-01
2-E18-4	95	Chromium	1.32E+01
2-E18-4	95	Silver	<1.00E+00
2-E18-4	95	Sodium	1.05E+02
2-E18-4	95	Nickel	3.66E+01
2-E18-4	95	Copper	3.90E+00
2-E18-4	95	Vanadium	3.30E+01
2-E18-4	95	Antimony	<1.00E+01
2-E18-4	95	Aluminum	7.31E+03
2-E18-4	95	Manganese	3.15E+02
2-E18-4	95	Potassium	1.44E+03
2-E18-4	95	Iron	1.97E+04

Well Number	Depth (ft)	Constituent	Result (ppm)
2-E18-4	95	Magnesium	5.58E+03
2-E18-4	95	Arsenic	2.20E+00
2-E18-4	95	Selenium	<5.00E-01

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1 **CONSTITUENT CODES KEY**

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CODE	SYMBOL	CONSTITUENT DESCRIPTION
I41	MEBENZ	(1-METHYLETHYL)-BENZENE
J10	1MPBENZ	(1-METHYLPROPYL)-BENZENE
B05	1112-TC	1,1,1,2-TETRACHLORETHANE
A67	1,1,1-T	1,1,1-TRICHLOROETHANE
B06	1122-TC	1,1,2,2-TETRACHLORETHANE
I68	FREONTF	1,1,2-TRICHLORO-1,2,2-TRIFLOUROETHANE
A68	1,1,2-T	1,1,2-TRICHLOROETHANE
I35	TMCYCH	1,1,3-TRIMETHYLCYCLOHEXANE
A89	1,1-DIC	1,1-DICHLOROETHANE
A92	DICETHY	1,1-DICHLOROETHYLENE
J88	DCPROPE	1,1-DICHLOROPROPENE
K01	DMEBENZ	1,1-DIMETHYLETHYLBENZENE
A97	1,1-DIM	1,1-DIMETHYLHYDRAZINE
I04	MEBUPHT	1,2 BENZENE DICARBOXYLIC ACID,BUTYL, 2
C59	1234TE	1,2,3,4-TETRACHLOROBENZENE
K47	1234THN	1,2,3,4-TETRAHYDRO-5-METHYL-NAPHTHALENE
K46	1234NAP	1,2,3,4-TETRAHYDRO-NAPHTHALENE
K44	1234TMB	1,2,3,4-TETRAMETHYL-BENZENE
C60	1235TE	1,2,3,5-TETRACHLOROBENZENE
C56	123TRI	1,2,3-TRICHLOROBENZENE
B12	123-TRP	1,2,3-TRICHLOROPROPANE
J36	1235MBE	1,2,3-TRIMETHYL BENZENE
J28	123MCYC	1,2,3-TRIMETHYL CYCLOPENTANE
I36	12TMCYH	1,2,3-TRIMETHYLCYCLOHEXANE
C37	TETRCHB	1,2,4,5-TETRACHLOROBENZENE
C43	TRICHLB	1,2,4-TRICHLOROBENZENE
I85	124TMBE	1,2,4-TRIMETHYLBENZENE
J51	TRITHIO	1,2,4-TRITHIOLANE
K39	12BCDBE	1,2-BENZENEDICARBOXYLICACIDDIBUTYLESTER
A84	DIBRCHL	1,2-DIBROMO-3-CHLOROPROPANE
A85	DIBRETH	1,2-DIBROMOETHANE
B61	12-DBEN	1,2-DICHLOROBENZENE
A90	1,2-DIC	1,2-DICHLOROETHANE
A94	DICPANE	1,2-DICHLOROPROPANE
K37	12DECYB	1,2-DIETHYL-CYCLOBUTANE (TRANS)
J23	12DMCYC	1,2-DIMETHYL CYCLOHEXANE(TRANS)
K28	12DMCYP	1,2-DIMETHYL-CYCLOPROPANE (CIS)
A98	1,2-DIM	1,2-DIMETHYLHYDRAZINE
J61	DMNAPHT	1,2-DIMETHYLNAPHTHALENE
B84	DIPHHYD	1,2-DIPHENYLHYDRAZINE
I17	OCTADIE	1,2-OCTADIENE
K75	133TMBH	1,3,3-TRIMETHYL-BICYCLO[2.2.1]HEPTANE
I38	CYCTETR	1,3,5,7-CYCLOOCTATETRAENE
C58	135TRI	1,3,5-TRICHLOROBENZENE
J24	135MCYC	1,3,5-TRIMETHYL CYCLOHEXANE
K98	135TRMB	1,3,5-TRIMETHYL-BENZENE
K79	136TMEN	1,3,6-TRIMETHYLNADHTHALENE
B62	13-DBEN	1,3-DICHLOROBENZENE
A95	DICPENE	1,3-DICHLOROPROPANE
J72	13DCPRO	1,3-DICHLOROPROPENE

K17	DICYMBZ	1,3-DIISOCYANATOMETHYLBENZENE
I58	DMBCYCL	1,3-DIMETHYLBUTYL CYCLOHEXANE
K60	13DMNAP	1,3-DIMETHYLNAPHTHALENE
I26	14BDDN	1,4 BUTANEDIOL, DINITRATE
A87	DIBUTEN	1,4-DICHLORO-2-BUTENE
B63	14-DBEN	1,4-DICHLOROBENZENE
I45	14DMCYO	1,4-DIMETHYL CYCLOOCTANE
C08	NAPHQUI	1,4-NAPHTHOQUINONE
I96	15DMNAP	1,5-DIMETHYL NAPHTHALENE
J97	167TNAP	1,6,7-TRIMETHYL NAPHTHALENE
J95	DMMENAP	1,6-DIMETHLETHYL-4-(I-METHLETHYL) NAPHT
K78	17DIMEN	1,7-DIMETHYLNAPHTHALENE
K68	18DIPPN	1,8-DI-1-PROPNYL-NAPHTHALENE
K63	18DMNAP	1,8-DIMETHYLNAPHTHALENE
I55	PROCYEN	1-(1-PROPYNYL)-CYCLOHEXENE
K40	12BUTOX	1-(2-BUTOXYETHOXY)-ETHANOL
A26	CHLOREA	1-(2-CHLOROPHENYL) THIOUREA
A29	NAPHREA	1-(2-NAPHTHYL)-2-THIOUREA
J48	THYETHA	1-(2-THIENYL) ETHANONE
X07	12DCAD4	1-2-DICHLOROETHANE-D4
A25	ACETREA	1-ACETYL-2-THIOUREA
I09	BUTANOL	1-BUTANOL
B47	CHLEPOX	1-CHLORO-2,3-EPOXYPROPANE
K80	1CLHEXA	1-CHLOROHEXANE
L01	C12OH	1-DODECANOL
J85	DODCENE	1-DODECENE
I74	1E1MCYC	1-ETHYL-1-METHYLCYCLOHEXANE
J13	132MBEN	1-ETHYL-2-METHYL BENZENE
J19	1E2MCYC	1-ETHYL-2-METHYL CYCLOHEXANE
I84	1E2MBEN	1-ETHYL-2-METHYLBENZENE
K97	1ETH3MB	1-ETHYL-3-METHYL-BENZENE
I48	ETMTBEN	1-ETHYL-4-METHYL BENZENE
I11	INDOCHY	1-H INDENE OCTAHYDRO
K33	1HEPTYN	1-HEPTYNE
L03	C16OH	1-HEXADECANOL
K72	1M4NITB	1-METHYL-4-NITROSO-BENZENE
K65	1M71MEN	1-METHYL-7-(1-METHYLETHYL)-NAPHTHALENE
K66	1M9HFLR	1-METHYL-9H-FLUORENE
K83	1MPYREN	1-METHYL-PYRENE
K74	1METHNP	1-METHYLNAPHTHALENE
C09	1-NAPHA	1-NAPHTHYLAMINE
K02	OCTDCOL	1-OCTADECANOL
K81	1PHENNP	1-PHENYLNAPHTHALENE
K99	1PROPBN	1-PROPENYL-BENZENE
L02	C14OH	1-TETRADECANOL
K25	12PRDOL	12-PROPANEDIOL
K84	1HPHENL	1H-PHENALENE
K14	23HFURO	2(3H)-FURANONE
K38	21ODMUN	2,10-DIMETHYL UNDECANE
K50	2233TMB	2,2,3,3-TETRAMETHYLBUTANE
J03	223TMBU	2,2,3-TRIMETHYLBUTANE
J75	TMPENDI	2,2,4-TRIMETHYL-1,3-PENTANEDIOL

C39	TETRCHP	2,3,4,6-TETRACHLOROPHENOL
K64	2346TCP	2,3,4,6-TETRACHLOROPHENOL
J98	236TNAP	2,3,6-TRIMETHYL NAPHTHALENE
J30	5MEOCT	2,3,7-TRIMETHYL OCTANE
K76	237TRMD	2,3,7-TRIMETHYL-DECANE
K45	234INDN	2,3-DIHYDRO-4-METHYL-1H-INDENE
J32	DHYINDE	2,3-DIHYDRO-IH-INDENE
J29	23DMHEP	2,3-DIMETHYL HEPTANE
I56	DIMEHEX	2,3-DIMETHYL-2-HEXENE
K43	23DMBUT	2,3-DIMETHYL-BUTANE
K49	23DMPEN	2,3-DIMETHYL-PENTANE
K59	23DMNAP	2,3-DIMETHYLNAPHTHALENE
H15	2,4,5-T	2,4,5-T
C44	245-TRP	2,4,5-TRICHLOROPHENOL
X05	246TRI	2,4,6-TRIBROMOPHENOL
C45	246-TRP	2,4,6-TRICHLOROPHENOL
K86	246TMPY	2,4,6-TRIMETHYLPYRIDINE
H13	2,4-D	2,4-D
H84	EPT24D	2,4-D (EP TOX)
I66	245DCMP	2,4-DICHLORO-5-METHYLPHENOL
I65	246DCMP	2,4-DICHLORO-6-METHYLPHENOL
K23	24DCPEN	2,4-DICHLOROPENTHAN
B65	24-DCHP	2,4-DICHLOROPHENOL
J12	24DMHEP	2,4-DIMETHYL HEPTANE
J42	DMDECEN	2,4-DIMETHYL-1-DECENE
B75	DIMPHEN	2,4-DIMETHYLPHENOL
B79	DINPHEN	2,4-DINITROPHENOL
B80	24-DINT	2,4-DINITROTOLUENE
I92	256TMDE	2,5,6-TRIMETHYL DECANE
J67	TETDODE	2,5,8,11-TETRAOXADODECANE
K67	25DMPHE	2,5-DIMETHYL PHENANTHRENE
J37	TMHEXAD	2,6,10 TRIMETHYL HEXADECANE
J16	PRISTAN	2,6,10,14-TETRAMETHYLPENTADECANE
I80	PHYTANE	2,6,10,15-TETRAMETHYLHEPTADECANE
I63	BHT	2,6-BIS(1,1-DIMETHYLETHYL)-4-METHYL PHEI
B66	26-DCHP	2,6-DICHLOROPHENOL
I87	26DMNON	2,6-DIMETHYLNONANE
J14	26DMUND	2,6-DIMETHYLUNDECANE
B81	26-DINT	2,6-DINITROTOLUENE
J96	27DMNAP	2,7-DIMETHYL NAPHTHALENE
K77	21MENAP	2-(1-METHYLETHYL)-NAPHTHALENE
I25	BUTOX2	2-(2-BUTOXYETHOXY) ETHANOL
J65	22MEETH	2-(2-METHOXYETHOXY)ETHANOL
K71	2FO1PHE	2-(FORMYLOXY)-1-PHENYL-ETHANONE
B22	ACEFENE	2-ACETYLAMINOFLUORENE
I23	BUTOXET	2-BUTOXY ETHANOL
J74	CMPHEN	2-CHLORO-6-METHYLPHENOL
A79	CHLTHER	2-CHLOROETHYLVINYLETHER
B48	CHLNAPH	2-CHLORONAPHTHALENE
B49	CHLPHEN	2-CHLOROPHENOL
J87	CHLORTOL	2-CHLOROTOLUENE
B52	CYCHDIN	2-CYCLOHEXYL-4,6-DINITROPHENOL

J64	ETHHEXA	2-ETHYL HEXANOIC ACID
J15	2ETNAPH	2-ETHYL NAPHTHALENE
I71	2ET1HOL	2-ETHYL-1-HEXANOL
X04	2FLBIPH	2-FLOUROBIPHENYL
X01	2FLPHEN	2-FLOUROPHENOL
K15	2FUROXA	2-FURANCARBOXALDEHYDE
J69	2HEXANO	2-HEXANONE
K21	HYMEPRA	2-HYDROXY-2-METHYLPROPANOIC ACID
K51	2METHPH	2-METHPH
I59	METBUTA	2-METHYL BUTANE
I93	2MEDECN	2-METHYL DECAHYDRO-NAPHTHALENE
I90	2MEDECA	2-METHYL DECANE
J06	2MEHEPT	2-METHYL HEPTANE
I62	2MEHEX	2-METHYL HEXANE
I51	MEOCTA	2-METHYL OCTANE
J34	2METDEC	2-METHYL TETRADECANE
C06	METPROP	2-METHYL-2(METHYLTHIO)PROPIONALDEHYDE-C
J45	MEPRNON	2-METHYL-5-PROPYLNONANE
B99	METAZIR	2-METHYLAZIRIDINE
C03	METACTO	2-METHYLLACTONITRILE
I75	2MENAPH	2-METHYLNAPHTHALENE
K62	2MEPHEN	2-METHYLPHENANTHRENE
C10	2-NAPHA	2-NAPHTHYLAMINE
I64	2NITPH	2-NITROPHENOL
K07	2PENONE	2-PENTANONE
I61	2PENTEN	2-PENTENE
C32	PICOLIN	2-PICOLINE
I10	PROPANOL	2-PROPANOL
K93	2PROBEN	2-PROPENYL-BENZENE
H12	PROPYNO	2-PROPYN-1-OL
B43	BUTDINP	2-SEC-BUTYL-4,6-DINITROPHENOL
J68	222ETHO	2-[2-(2-ETHOXYETHOXY)ETHOXY]ETHANOL
J66	222METH	2-[2-(2-METHOXYETHOXY)ETHOXY]ETHANOL
J17	3TMDECA	3,3,4-TRIMETHYL DECANE
B64	DICHDEN	3,3-DICHLOROBENZIDINE
B69	DIMTHB	3,3-DIMETHOXYBENZIDINE
B72	DIMEYLB	3,3-DIMETHYLBENZIDINE
J07	5M2HEXE	3,4,4-TRIMETHYL-2-HEXENE
I27	34DCBA	3,4-DICHLOROBENZOIC ACID
J20	35MHEP5	3,5-DIMETHYL HEPTANE
K53	35DIMPY	3,5-DIMETHYL-PYRIDINE
K06	3BRCYEN	3-BROMOCYCLOHEXENE
I08	BUTENON	3-BUTEN-2-ONE
K03	3CLCYHE	3-CHLORO-CYCLOHEXENE
C98	CHLPROP	3-CHLOROPROPIONITRILE
J02	3EDMPEN	3-ETHYL-2,2-DIMETHYL PENTANE
J22	3E2MHEP	3-ETHYL-2-METHYL HEPTANE
J81	EMFURAN	3-ETHYL-4-METHYL-2,5-FURANDIONE
I37	3ETHHEX	3-ETHYLHEXANE
I49	MEHEPT	3-METHYL HEPTANE
J21	3MENONA	3-METHYL NONANE
J09	3MEOCT	3-METHYL OCTANE

J01		3MEPENT	3-METHYL PENTANE
K35		3M14TDN	3-METHYL-1,4-HEPTADIENE
K34		3M24XDN	3-METHYL-2,4-HEXADIENE
I69	1	3M32BUT	3-METHYL-2-BUTANONE
I79		NONMEP	3-METHYL-5-PROPYLNONANE
K48		3MCYCLP	3-METHYL-CYCLOPENTENE
C01		METCHAN	3-METHYLCHOLANTHRENE
J04		3MEHEX	3-METHYLHEXANE
C02		METBISC	4,4-METHYLENEBIS(2-CHLOROANILINE)
I89		45DMNON	4,5-DIMETHYLNONANE
J35		46DMUND	4,6-DIMETHYL UNDECANE
B78		DINCRES	4,6-DINITRO-O-CRESOL AND SALTS
K69		41MEBAC	4-(1-METHYLETHYL)-BENZOIC ACID
J33		41MEHEP	4-(1-METHYLETHYL)-HEPTANE
K73		41MPPHN	4-(1-METHYLPROPYL)-PHENOL
B23		AMINOYL	4-AMINOBYPHENYL
B41		BROPHEN	4-BROMOPHENYL PHENYL ETHER
J82		4CPPETH	4-CHLOROPHENYLPHENYL ETHER
K13		4H4MPNT	4-HYDROXY-4-METHYL-2-PENTANONE
J27		4MENONA	4-METHYL NONANE
K20		4ME2POL	4-METHYL-2-PENTANOL
J73		MIBK	4-METHYL-2-PENTANONE
K29		4MCYPEN	4-METHYL-CLYCLOPENTENE
K61		4MEPHEN	4-METHYLPHENANTHRENE
K41		4METHPH	4-METHYLPHENOL
K82		4MPYREN	4-METHYLPYRENE
C13		NITPHEN	4-NITROPHENOL
B24		AMIISOX	5-(AMINOMETHYL)-3-ISOXAZOLOL
K16		5HMFURX	5-(HYDROXYMETHYL)-2-FURANCARBOXALDEHYDE
J31		5E2MHEP	5-ETHYL-2-METHYL HEPTANE
J18		5MENONA	5-METHYL NONANE
K70		5M21MEP	5-METHYL-2-(1-METHYLETHYL)-PHENOL
J70		MEHEXON	5-METHYL-2-HEXANONE
K22		5ME3HOL	5-METHYL-3-HEXANOL
I15		NONEME	5-METHYL-4 NONENE
I76		2MEUNDE	5-METHYLUNDECANE
C25		NITRTOL	5-NITRO-O-TOLUIDINE
B71		DIMBENZ	7,12-DIMETHYLBENZ[A]ANTHRACENE
B56		DIBCGCA	7H-DIBENZO[C,G]CARBAZOLE
K88		910ATCD	9,10-ANTHRACENEDIONE
K87		9M9HFLR	9-METHYL-9H-FLUORERE
K58		ACENATL	ACENAPHTHALENE
I29		ACENAPH	ACENAPHTHENE
J77		AMYCACE	ACETIC ACID, PENTYLESTER
K91		ACETAEE	ACETIC ACID,ETHYL ESTER
K90		ACETAME	ACETIC ACID,METHYL ESTER
I01		ACETONE	ACETONE
B19		ACETILE	ACETONITRILE
B20		ACETOPH	ACETOPHENONE
A72		ACROLIN	ACROLEIN
C94		ACRYIDE	ACRYLAMIDE
A73		ACRYILE	ACRYLONITRILE

J92	ALACHLO	ALACHLOR
A47	ALDRIN	ALDRIN
H58	ALKALIN	ALKALINITY
C95	ALLYLAL	ALLYL ALCOHOL
A49	ENDO1	ALPHA ENDOSULFAN
B74	DIMPHAM	ALPHA, ALPHA-DIMETHYLPHENETHYLAMINE
A36	A-BHC	ALPHA-BHC
A16	ALUMNUM	ALUMINUM
H28	FALUMIN	ALUMINUM (FILTERED SAMPLE)
B25	AMITROL	AMITROLE
C80	AMMONIU	AMMONIUM ION
B26	ANILINE	ANILINE
I31	ANTHRA	ANTHRACENE
A15	ANTIONY	ANTIMONY
H36	FANTIMO	ANTIMONY (FILTERED SAMPLE)
B27	ARAMITE	ARAMITE
A54	AR1016	AROCHLOR 1016
A55	AR1221	AROCHLOR 1221
A56	AR1232	AROCHLOR 1232
A57	AR1242	AROCHLOR 1242
A58	AR1248	AROCHLOR 1248
A59	AR1254	AROCHLOR 1254
A60	AR1260	AROCHLOR 1260
H72	EPTARS	ARSENIC (EP TOX)
H37	FARSENI	ARSENIC (FILTERED) GFAA
A20	ARSENIC	ARSENIC (GFAA)
B28	AURAMIN	AURAMINE
A06	BARIUM	BARIUM
H73	EPTBAR	BARIUM (EP TOX)
H20	FBARIUM	BARIUM (FILTERED SAMPLE)
I24	BENZALD	BENZALDEHYDE
A62	BENZENE	BENZENE
B31	BENDICM	BENZENE, DICHLOROMETHYL
B32	BENTHOL	BENZENETHOIL
B33	BENDINE	BENZIDINE
J83	BGHIPER	BENZO(GHI)PERYLENE
J71	BNZKFLU	BENZO(K)FLUORANTHENE
J78	BENZACD	BENZOIC ACID
C49	BENZOPY	BENZO[A]PYRENE
B34	BENZBFL	BENZO[B]FLUORANTHENE
B35	BENZJFL	BENZO[J]FLUORANTHENE
J43	BENZALC	BENZYL ALCOHOL
B37	BENZCHL	BENZYL CHLORIDE
B30	BENZAAN	BENZ[A]ANTHRACENE
B29	BENZCAC	BENZ[C]ACRIDINE
A01	BERYLAM	BERYLLIUM
H33	FBERYLL	BERYLLIUM (FILTERED SAMPLE)
111	BETA	BETA
A52	ENDO2	BETA ENDOSULFAN
A37	B-BHC	BETA-BHC
B38	BIS2CHM	BIS (2-CHLOROETHOXY) METHANE
B39	BIS2CHE	BIS (2-CHLOROETHYL) ETHER

B40	BIS2EPH	BIS (2-ETHYLHEXYL) PHTHALATE
A74	BISTHER	BIS (CHLOROMETHYL) ETHER
C51	BIS2ETH	BIS(2-CHLOROISOPROPYL)ETHER
H64	BISMUTH	BISMUTH
H86	BORON	BORON
H66	BROMIDE	BROMIDE
A75	BROMONE	BROMOACETONE
K94	BROBENZ	BROMOBENZENE
I42	BDCM	BROMODICHLOROMETHANE
B08	BROMORM	BROMOFORM
I07	BUTANAL	BUTANAL
B42	BUTBENP	BUTYL BENZYL PHTHALATE
I88	BUTCYCL	BUTYL CYCLOHEXANE
J25	BUTCYCP	BUTYL CYCLOPENTANE
J39	BUTNITR	BUTYLNITRATE
A07	CADMIUM	CADMIUM
H74	EPTCAD	CADMIUM (EP TOX)
H21	FCADMIU	CADMIUM (FILTERED SAMPLE)
A05	CALCIUM	CALCIUM
H19	FCALCIU	CALCIUM (FILTERED SAMPLE)
A77	CARBIDE	CARBON DISULFIDE
C63	CARBPHT	CARBOPHENOTHION
C96	CHLORAL	CHLORAL
A48	CHLOANE	CHLORDANE
C75	CHLORID	CHLORIDE
X11	CHLOR37	CHLORINE-37
C50	CHLNAPZ	CHLORNAPHAZINE
C97	CHLACET	CHLOROACETALDEHYDE
B44	CHALETH	CHLOROALKYL ETHERS
A78	CHLBENZ	CHLOROBENZENE
C62	CHLLATE	CHLOROBENZILATE
I43	CDBM	CHLORODIBROMOMETHANE
A80	CHLFORM	CHLOROFORM
A82	CHMTHER	CHLOROMETHYL METHYL ETHER
A08	CHROMUM	CHROMIUM
H75	EPTCHR	CHROMIUM (EP TOX)
H22	FCHROMI	CHROMIUM (FILTERED SAMPLE)
B50	CHRYSEN	CHRYSENE
K05	C13DCCA	CIS-1,3-DICHLORO-CYCLOHEXANE
I73	CDMECYC	CIS-1,3-DIMETHYLCYCLOHEXANE
C87	CITRUSR	CITRUS RED
H87	COBALT	COBALT
109	COLIFORM	COLIFORM
H61	COLOR	COLOR
A13	COPPER	COPPER
H26	FCOPPER	COPPER (FILTERED SAMPLE)
H69	CORROS	CORROSIVITY
B51	CRESOLS	CRESOLS
A83	CROTONA	CROTONALDEHYDE
C70	CYANIDE	CYANIDE
H95	REACYA	CYANIDE (REACTIVITY)
C99	CYANOGN	CYANOGEN

C88	CYANBRO	CYANOGEN BROMIDE
C89	CYANCHL	CYANOGEN CHLORIDE
J76	CYDODEC	CYCLODODECANE
K32	CYCHEPT	CYCLOHEPTENE
I46	CYCLHEX	CYCLOHEXANE
I13	CYCISO1	CYCLOHEXANE ISOMER
I14	CYCISO2	CYCLOHEXANE ISOMER
K31	CYCLHXE	CYCLOHEXENE
K27	CYPENTE	CYCLOPENTENE
A40	DDD	DDD
A41	DDE	DDE
A42	DDT	DDT
I50	DECANAP	DECAHYDRONAPHTHALENE
I86	DECANE	DECANE (C10)
A39	D-BHC	DELTA-BHC
B60	DIBPHTH	DI-N-BUTYL PHTHALATE
B82	DIOPHTH	DI-N-OCTYL PHTHALATE
B85	DIPRNIT	DI-N-PROPYLNITROSAMINE
J91	DIALLAT	DIALLATE
K56	DIBENFR	DIBENZOFURAN
K57	DIBENTP	DIBENZOTHIOPHENE
B57	DIBAEPY	DIBENZO[A,E]PYRENE
B58	DIBAHPY	DIBENZO[A,H]PYRENE
B59	DIBAIPY	DIBENZO[A,I]PYRENE
B53	DIBAHAC	DIBENZ[A,H]ACRIDINE
B55	DIBIHAN	DIBENZ[A,H]ANTHRACENE
B54	DIBAJAC	DIBENZ[A,J]ACRIDINE
A86	DIBRMET	DIBROMOMETHANE
X10	DBC	DIBUTYLCHLORENDATE
X12	EPTDBC	DIBUTYLCHLORENDATE (EP TOX)
K95	DCLBVOA	DICHLOROBENZENE (BY VOA)
A88	DICDIFM	DICHLORODIFLUOROMETHANE
I53	DCFM	DICHLOROFLUOROMETHANE
H01	1DICPROP	DICHLOROPROPANOL
A46	DIELRIN	DIELDRIN
J84	DETHFUR	DIETHOXY TETRAHYDRO FURAN
B67	DIEPHTH	DIETHYL PHTHALATE
B15	DIETHY	DIETHYLARSINE
A27	DIETROL	DIETHYLSTILBESTROL
B68	DIHYSAF	DIHYDROSAFROLE
C65	DIMETHO	DIMETHOATE
J38	DMOMTHN	DIMETHOXYMETHANE
B76	DIMPHTH	DIMETHYL PHTHALATE
B77	DINBENZ	DINITROBENZENE
J89	DINOSEB	DINOSEB
A63	DIOXANE	DIOXANE
C86	DIOXIN	DIOXIN
B83	DIPHAMI	DIPHENYLAMINE
C64	DISULFO	DISULFOTON
J58	NC22HC	DOCOSANE
J62	DOCOACI	DOCOSANOIC ACID
I95	DODECANE	DODECANE (C12)

J46	DODECAC	DODECANOIC ACID
J56	NC20HC	EICOSANE
A33	ENDRIN	ENDRIN
H80	EPTEND	ENDRIN (EP TOX)
I67	ETHANOL	ETHANOL
I57	ETHECYC	ETHENYL CYCLOPENTANE
H03	ETHCARB	ETHYL CARBAMATE
H04	ETHCYAN	ETHYL CYANIDE
J05	ECYCHEX	ETHYL CYCLOHEXANE
J26	ETHCYCO	ETHYL CYCLOOCTANE
H06	ETHMETH	ETHYL METHACRYLATE
B87	ETHMETS	ETHYL METHANESULFONATE
I33	ETHBENZ	ETHYLBENZENE
C81	ETHYGLY	ETHYLENE GLYCOL
H05	ETHOXID	ETHYLENE OXIDE
B86	ETHMINE	ETHYLENEIMINE
A28	ETHYREA	ETHYLENETHIOUREA
I12	CYCETME	ETHYLMETHYL CYCLOHEXANE
B88	FLUORAN	FLOURANTHENE
I30	FLRENE	FLUORENE
C74	FLOURID	FLUORIDE
H63	LFLUORD	FLUORIDE (SPEC. ION ELECTRODE)
H07	FLUOROA	FLUOROACETIC ACID
C71	FORMALN	FORMALIN
K89	FORMAEE	FORMIC ACID, ETHENYL ESTER
A38	G-BHC	GAMMA-BHC
H08	GLYCIDY	GLYCIDYLALDEHYDE
J57	NC21HC	HENEICOSANE
A43	HEPTLOR	HEPTACHLOR
A44	HEPTIDE	HEPTACHLOR EPOXIDE
J60	NC27HC	HEPTACOSANE
J53	NC17HC	HEPTADECANE
K36	TYLEFRA	HEPTYLESTER FORMIC ACID
K19	HCL11BP	HEXACHLORO-1,1'-BIPHENYL
B89	HEXCBEN	HEXACHLOROBENZENE
B90	HEXCBUT	HEXACHLOROBUTADIENE
B91	HEXCCYC	HEXACHLOROCYCLOPENTADIENE
B92	HEXCETH	HEXACHLOROETHANE
C54	HEXACHL	HEXACHLOROPHENE
C52	HEXAENE	HEXACHLOROPROPENE
K10	NC26HC	HEXACOSANE
J63	HXDECAL	HEXADECANAL
J52	NC16HC	HEXADECANE
J47	HXDECAC	HEXADECANOIC ACID
I02	HEXANE	HEXANE
K24	HEXDIOC	HEXANEDIOICACID, DIOCTYLESTER
I22	HEXACID	HEXANOIC ACID
J50	HEXTHIE	HEXATHIEPANE
H68	HEXONE	HEXONE
C53	HYDRAZI	HYDRAZINE
H62	LHYDRAZ	HYDRAZINE(LOWER DETECTION LIMIT)
A99	HYDRSUL	HYDROGEN SULFIDE

H70	IGNITE	IGNITABILITY
B93	INDENOP	INDENO(1,2,3-CD)PYRENE
B01	IODOMET	IODOMETHANE
A19	IRON	IRON
H31	FIRON	IRON (FILTERED SAMPLE)
H09	ISOBUTY	ISOBUTYL ALCOHOL
I70	ISOCTOL	ISOOCTANOL
I06	ISOPHER	ISOPHERONE
K85	ISOQUIN	ISOQUINOLINE
B94	ISOSOLE	ISOSAFROLE
A45	KEPONE	KEPONE
C79	KEROSEN	KEROSENE
H76	EPTLEA	LEAD (EP TOX)
H41	FLEAD	LEAD (FILTERED) GFAA
A51	LEAD	LEAD (GFAA)
A09	LEAD	LEAD (ICAP)
H81	EPTLIN	LINDANE (EP TOX)
H88	LITHIUM	LITHIUM
212	LO-ALPHA	LOW ALPHA
B14	M-XYLE	M-XYLENE
A50	MAGNES	MAGNESIUM
H32	FMAGNES	MAGNESIUM (FILTERED SAMPLE)
C92	MALHYDR	MALEIC HYDRAZIDE
B95	MALOILE	MALONONITRILE
A17	MANGESE	MANGANESE
H29	FMANGAN	MANGANESE (FILTERED SAMPLE)
B96	MELPHAL	MELPHALAN
A21	MERCURY	MERCURY
H79	EPTMER	MERCURY (EP TOX)
H38	FMERCUR	MERCURY (FILTERED SAMPLE)
B02	METHACR	METHACRYLONITRILE
B03	METHTHI	METHANETHIOL
B97	METHAPY	METHAPYRILENE
B98	METHNYL	METHOLONYL
A34	METHLOR	METHOXYCHLOR
H82	EPTMET	METHOXYCHLOR (EP TOX)
A76	METHBRO	METHYL BROMIDE
A81	METHCHL	METHYL CHLORIDE
I47	MECYCHE	METHYL CYCLOHEXANE
A64	METHONE	METHYL ETHYL KETONE
H10	METZINE	METHYL HYDRAZINE
C04	METACRY	METHYL METHACRYLATE
C05	METMSUL	METHYL METHANESULFONATE
C66	METHPAR	METHYL PARATHION
I03	MECYPEN	METHYLCYCLOPENTANE
A93	METHYCH	METHYLENE CHLORIDE
I19	MEFORMT	METHYLFORMATE
I20	MENITRA	METHYLNITRATE
C07	METHIOU	METHYLTHIOURACIL
J49	MOLSULF	MOLECULAR SULFUR (S8)
H89	MOLY	MOLYBDENUM
K96	MRPHLNE	MORPHOLINE

J40	N4DMBSA	N,4-DIMETHYL BENZENESULFONAMIDE
A96	NNDIEHY	N,N-DIETHYLHYDRAZINE
I18	MEOXAMI	N-METHOXYMETHANAMINE
C19	NNIURET	N-NITROSO-N-METHYLURETHANE
C14	NNIBUTY	N-NITROSODI-N-BUTYLAMINE
C15	NNIDIEA	N-NITROSODIETHANOLAMINE
C16	NNIDIEY	N-NITROSODIETHYLAMINE
C17	NNIDIME	N-NITROSODIMETHYLAMINE
K52	NNDIPHA	N-NITROSODIPHENYLAMINE
C18	NNIMETH	N-NITROSOMETHYLETHYLAMINE
C20	NNIVINY	N-NITROSOMETHYLVINYLAMINE
C21	NNIMORP	N-NITROSOMORPHOLINE
C22	NNINICO	N-NITROSONORNICOTINE
C23	NNIPIPE	N-NITROSOPIPERIDINE
A32	PHENREA	N-PHENYLTHIOUREA
H11	PROPYLA	N-PROPYLAMINE
C55	NAPHTHA	NAPHTHALENE
A12	NICKEL	NICKEL
H25	FNICKEL	NICKEL (FILTERED SAMPLE)
C93	NICOTIN	NICOTINIC ACID
C72	NITRATE	NITRATE
H65	HNITRAT	NITRATE (HIGHER DETECTION LIMIT)
H67	NITRITE	NITRITE
C12	NITBENZ	NITROBENZENE
X03	NITBN2	NITROBENZENE D5
K26	NITRETH	NITROETHANE
I05	NITROM	NITROMETHANE
C24	NITRPYR	NITROSOPYRROLIDINE
K54	NC29HC	NONACOSANE
J55	NC19HC	NONADECANE
J99	NONACD	NONADECANOIC ACID
I83	NONANE	NONANE (C9)
J44	NONANAC	NONANOIC ACID
C46	TRIPHOS	O,O,O-TRIETHYLPHOSPHOROTHIOATE
A71	OPXYLEN	O-P-XYLENE
C42	OTOLHYD	O-TOLUIDINE HYDROCHLORIDE
J86	OCTCOS	OCTACOSANE
K11	NC28HC	OCTACOSANE
J54	NC18HC	OCTADECANE
J08	OCTANE	OCTANE
H59	OIL+GRE	OIL AND GREASE
K12	BCM	BROMOCHLOROMETHANE
A02	OSMIUM	OSMIUM
H34	FOSMIUM	OSMIUM (FILTERED SAMPLE)
B36	PBENZQU	P-BENZOQUINONE
X09	BFB	P-BROMOFLUOROBENZENE
B46	CHLCRES	P-CHLORO-M-CRESOL
B45	CHLANIL	P-CHLOROANILINE
B70	DIMEAMB	P-DIMETHYLAMINOAZOBENZENE
C11	NITRANI	P-NITROANILINE
C90	PARALDE	PARALDEHYDE
C67	PARATHI	PARATHION

K18	PCL11BP	PENTACHLORO-1,1'-BIPHENYL
C26	PENTCHB	PENTACHLOROBENZENE
B04	PENTACH	PENTACHLOROETHANE
C27	PENTCHN	PENTACHLORONITROBENZENE
C28	PENTCHP	PENTACHLOROPHENOL
K09	NC25HC	PENTACOSANE
I78	PENTDEC	PENTADECANE (C15)
K92	PNTANAL	PENTANAL
I60	PENTANE	PENTANE
I81	PENTRCO	PENTATRIACONTANE (C35)
I54	PENTAL	PENTENAL
I94	PENTCYC	PENTYL CYCLOHEXANE
C77	PERCHLO	PERCHLORATE
A70	PERCENE	PERCHLOROETHYLENE
199	PH	PH (FIELD)
207	PH	PH (LAB)
C29	PHENTIN	PHENACETIN
I82	PHENANT	PHENANTHRENE
C57	PHENOL	PHENOL
H57	LPHENOL	PHENOL (LOWER DETECTION LIMIT)
X02	PHEND6	PHENOL-D6
C30	PHENINE	PHENYLENEDIAMINE
C76	PHOSPHA	PHOSPHATE
C31	PHTHEST	PHTHALIC ACID ESTERS
J90	PICLORA	PICLORAM
A18	POTASUM	POTASSIUM
H30	FPOTASS	POTASSIUM (FILTERED SAMPLE)
C33	PRONIDE	PRONAMIDE
J94	PRONAMD	PRONAMIDE
I44	PROBENZ	PROPYL BENZENE
J11	PRCYHEX	PROPYL CYCLOHEXANE
K30	PRCYCPR	PROPYL-CYCLOPROPANE
I32	PYRENE	PYRENE
A65	PYRIDIN	PYRIDINE
C34	RESERPI	RESERPINE
C35	RESORCI	RESORCINOL
C36	SAFROL	SAFROL
H77	EPTSEL	SELENIUM (EP TOX)
H39	FSELENI	SELENIUM (FILTERED) GFAA
A22	SELENUM	SELENIUM (GFAA)
H90	SILICON	SILICON
A10	SILVER	SILVER
H78	EPTSIL	SILVER (EP TOX)
H23	FSILVER	SILVER (FILTERED SAMPLE)
J93	SIMAZIN	SIMAZINE
A11	SODIUM	SODIUM
H24	FSODIUM	SODIUM (FILTERED SAMPLE)
191	FSP COND	SPECIFIC CONDUCTIVITY (FIELD)
088	LSP COND	SPECIFIC CONDUCTIVITY (LAB)
A03	STRONUM	STRONTIUM
H35	FSTRONT	STRONTIUM (FILTERED SAMPLE)
C91	STRYCHN	STRYCHNINE

I34	STYRENE	STYRENE
C73	SULFATE	SULFATE
C78	SULFIDE	SULFIDE
H94	REASUL	SULFIDE (REACTIVITY)
O63	SOLIDS	SUSPENDED SOLIDS
C47	SYMTRIN	SYM-TRINITROBENZENE
X06	TERD14	TERPHENYL-D14
A61	TETRANE	TETRACHLOROMETHANE
K08	NC24HC	TETRACOSANE
J41	TETRADE	TETRADECANE (C14)
C61	TETEPYR	TETRAETHYLPYROPHOSPHATE
I28	TAF	TETRAHYDORFURAN
K42	TH2METH	TETRAHYDRO-2-METHYL-THIOPHENE
H40	FTHALLI	THALLIUM (FILTERED) GFAA
A23	THALIUM	THALLIUM (GFAA)
B73	THIONOX	THIOFANOX
A24	THIOURA	THIOUREA
C40	THIURAM	THIURAM
H91	TIN	TIN
H92	TITAN	TITANIUM
A66	TOLUENE	TOLUENE
X08	TOLUD8	TOLUENE-D8
C41	TOLUDIA	TOLUENEDIAMINE
H16	TC	TOTAL CARBON
H17	TDS	TOTAL DISSOLVED SOLIDS
C69	TOC	TOTAL ORGANIC CARBON
C68	TOX	TOTAL ORGANIC HALIDE
H42	TOXLDL	TOTAL ORGANIC HALIDE(LOWER DETECTION LI
181	TOTAL_RA	TOTAL RADIUM
L04	TOTXYL	TOTAL XYLENES (BY ABN)
A35	TOXAENE	TOXAPHENE
H83	EPTTOX	TOXAPHENE (EP TOX)
A91	TRANDCE	TRANS-1,2-DICHLOROETHENE
I72	TDMECYC	TRANS-1,3-DIMETHYLCYCLOHEXANE
I39	ETMTCYC	TRANS-1-ETHYL-4-METHYLCYCLOHEXANE
K04	T4CLCHL	TRANS-4-CHLORO-CYCLOHEXANOL
K55	NC30HC	TRIACONTANE
I21	TRIBUPH	TRIBUTYLPHOSPHORIC ACID
A69	TRICENE	TRICHLOROETHYLENE
B09	TRCMEOL	TRICHLOROMETHANETHIOL
B10	TRCMFLM	TRICHLOROMONOFLUOROMETHANE
J59	NC23HC	TRICOSANE
I77	TRIDECA	TRIDECANE (C13)
I16	TMEHEPT	TRIMETHYL HEPTATRIENE
I52	TMSILO	TRIMETHYL SILANOL
J80	TMAMINE	TRIMETHYLAMINE
C48	TRISPHO	TRIS(2,3-DIBROMOPROPYL)PHOSPHATE
H60	TURBID	TURBIDITY
I91	UNDECAN	UNDECANE (C11)
I99	UNKNWN	UNKNOWN
I98	UNKALI	UNKNOWN ALIPHATIC HC
I97	UNKARO	UNKNOWN AROMATIC HC

A14	VANADUM	VANADIUM
H27	FVANADI	VANADIUM (FILTERED SAMPLE)
B13	VINYIDE	VINYL CHLORIDE
B21	WARFRIN	WARFARIN
A04	ZINC	ZINC
H18	FZINC	ZINC (FILTERED SAMPLE)
H93	ZIRCON	ZIRCONIUM
H14	2,4,5TP	[2-(2,4,5-T)P] (SILVEX)
H85	EPT245	[2-(2,4,5-T)P] (SILVEX) (EP TOX)

CODE	SYMBOL	CONSTITUENT DESCRIPTION
063	SOLIDS	SUSPENDED SOLIDS
088	LSP COND	SPECIFIC CONDUCTIVITY (LAB)
109	COLIFORM	COLIFORM
111	BETA	BETA
181	TOTAL RA	TOTAL RADIUM
191	FSP COND	SPECIFIC CONDUCTIVITY (FIELD)
199	PH	PH (FIELD)
207	PH	PH (LAB)
212	LO-ALPHA	LOW ALPHA
A01	BERYLAM	BERYLLIUM
A02	OSMIUM	OSMIUM
A03	STRONUM	STRONTIUM
A04	ZINC	ZINC
A05	CALCIUM	CALCIUM
A06	BARIUM	BARIUM
A07	CADMIUM	CADMIUM
A08	CHROMUM	CHROMIUM
A09	LEAD	LEAD (ICAP)
A10	SILVER	SILVER
A11	SODIUM	SODIUM
A12	NICKEL	NICKEL
A13	COPPER	COPPER
A14	VANADUM	VANADIUM
A15	ANTIONY	ANTIMONY
A16	ALUMNUM	ALUMINUM
A17	MANGESE	MANGANESE
A18	POTASUM	POTASSIUM
A19	IRON	IRON
A20	ARSENIC	ARSENIC (GFAA)
A21	MERCURY	MERCURY
A22	SELENUM	SELENIUM (GFAA)
A23	THALIUM	THALLIUM (GFAA)
A24	THIOURA	THIOUREA
A25	ACETREA	1-ACETYL-2-THIOUREA
A26	CHLOREA	1-(2-CHLOROPHENYL) THIOUREA
A27	DIETROL	DIETHYLSTILBESTROL
A28	ETHYREA	ETHYLENETHIOUREA
A29	NAPHREA	1-(2-NAPHTHYL)-2-THIOUREA
A32	PHENREA	N-PHENYLTHIOUREA
A33	ENDRIN	ENDRIN
A34	METHLOR	METHOXYCHLOR
A35	TOXAENE	TOXAPHENE
A36	A-BHC	ALPHA-BHC
A37	B-BHC	BETA-BHC
A38	G-BHC	GAMMA-BHC
A39	D-BHC	DELTA-BHC
A40	DDD	DDD
A41	DDE	DDE
A42	DDT	DDT
A43	HEPTLOR	HEPTACHLOR

A44	HEPTIDE	HEPTACHLOR EPOXIDE
A45	KEPONE	KEPONE
A46	DIELRIN	DIELDRIN
A47	ALDRIN	ALDRIN
A48	CHLOANE	CHLORDANE
A49	ENDO1	ALPHA ENDOSULFAN
A50	MAGNES	MAGNESIUM
A51	LEAD	LEAD (GFAA)
A52	ENDO2	BETA ENDOSULFAN
A54	AR1016	AROCHLOR 1016
A55	AR1221	AROCHLOR 1221
A56	AR1232	AROCHLOR 1232
A57	AR1242	AROCHLOR 1242
A58	AR1248	AROCHLOR 1248
A59	AR1254	AROCHLOR 1254
A60	AR1260	AROCHLOR 1260
A61	TETRANE	TETRACHLOROMETHANE
A62	BENZENE	BENZENE
A63	DIOXANE	DIOXANE
A64	METHONE	METHYL ETHYL KETONE
A65	PYRIDIN	PYRIDINE
A66	TOLUENE	TOLUENE
A67	1,1,1-T	1,1,1-TRICHLOROETHANE
A68	1,1,2-T	1,1,2-TRICHLOROETHANE
A69	TRICENE	TRICHLOROETHYLENE
A70	PERCENE	PERCHLOROETHYLENE
A71	OPXYLEN	O-P-XYLENE
A72	ACROLIN	ACROLEIN
A73	ACRYILE	ACRYLONITRILE
A74	BISTHER	BIS (CHLOROMETHYL) ETHER
A75	BROMONE	BROMOACETONE
A76	METHBRO	METHYL BROMIDE
A77	CARBIDE	CARBON DISULFIDE
A78	CHLBENZ	CHLOROBENZENE
A79	CHLTHER	2-CHLOROETHYLVINYLETHER
A80	CHLFORM	CHLOROFORM
A81	METHCHL	METHYL CHLORIDE
A82	CHMTHER	CHLOROMETHYL METHYL ETHER
A83	CROTONA	CROTONALDEHYDE
A84	DIBRCHL	1,2-DIBROMO-3-CHLOROPROPANE
A85	DIBRETH	1,2-DIBROMOETHANE
A86	DIBRMET	DIBROMOMETHANE
A87	DIBUTEN	1,4-DICHLORO-2-BUTENE
A88	DICDIFM	DICHLORODIFLUOROMETHANE
A89	1,1-DIC	1,1-DICHLOROETHANE
A90	1,2-DIC	1,2-DICHLOROETHANE
A91	TRANDCE	TRANS-1,2-DICHLOROETHENE
A92	DICETHY	1,1-DICHLOROETHYLENE
A93	METHYCH	METHYLENE CHLORIDE
A94	DICPANE	1,2-DICHLOROPROPANE
A95	DICPENE	1,3-DICHLOROPROPANE
A96	NNDIEHY	N,N-DIETHYLHYDRAZINE

A97	1,1-DIM	1,1-DIMETHYLHYDRAZINE
A98	1,2-DIM	1,2-DIMETHYLHYDRAZINE
A99	HYDRSUL	HYDROGEN SULFIDE
B01	IODOMET	IODOMETHANE
B02	METHACR	METHACRYLONITRILE
B03	METHTHI	METHANETHIOL
B04	PENTACH	PENTACHLOROETHANE
B05	1112-TC	1,1,1,2-TETRACHLORETHANE
B06	1122-TC	1,1,2,2-TETRACHLORETHANE
B08	BROMORM	BROMOFORM
B09	TRCMEOL	TRICHLOROMETHANETHIOL
B10	TRCMFLM	TRICHLOROMONOFLUOROMETHANE
B12	123-TRP	1,2,3-TRICHLOROPROPANE
B13	VINYIDE	VINYL CHLORIDE
B14	M-XYLE	M-XYLENE
B15	DIETHY	DIETHYLARSINE
B19	ACETILE	ACETONITRILE
B20	ACETOPH	ACETOPHENONE
B21	WARFRIN	WARFARIN
B22	ACEFENE	2-ACETYLAMINOFLUORENE
B23	AMINOYL	4-AMINOBYPHENYL
B24	AMIISOX	5-(AMINOMETHYL)-3-ISOXAZOLOL
B25	AMITROL	AMITROLE
B26	ANILINE	ANILINE
B27	ARAMITE	ARAMITE
B28	AURAMIN	AURAMINE
B29	BENZCAC	BENZ[C]ACRIDINE
B30	BENZAAN	BENZ[A]ANTHRACENE
B31	BENDICM	BENZENE, DICHLOROMETHYL
B32	BENTHOL	BENZENETHOIL
B33	BENDINE	BENZIDINE
B34	BENZBFL	BENZO[B]FLUORANTHENE
B35	BENZJFL	BENZO[J]FLUORANTHENE
B36	PBENZQU	P-BENZOQUINONE
B37	BENZCHL	BENZYL CHLORIDE
B38	BIS2CHM	BIS (2-CHLOROETHOXY) METHANE
B39	BIS2CHE	BIS (2-CHLOROETHYL) ETHER
B40	BIS2EPH	BIS (2-ETHYLHEXYL) PHTHALATE
B41	BROPHEN	4-BROMOPHENYL PHENYL ETHER
B42	BUTBENP	BUTYL BENZYL PHTHALATE
B43	BUTDINP	2-SEC-BUTYL-4,6-DINITROPHENOL
B44	CHALETH	CHLOROALKYL ETHERS
B45	CHLANIL	P-CHLOROANILINE
B46	CHLCRES	P-CHLORO-M-CRESOL
B47	CHLEPOX	1-CHLORO-2,3-EPOXYPROPANE
B48	CHLNAPH	2-CHLORONAPHTHALENE
B49	CHLPHEN	2-CHLOROPHENOL
B50	CHRYSEN	CHRYSENE
B51	CRESOLS	CRESOLS
B52	CYCHDIN	2-CYCLOHEXYL-4,6-DINITROPHENOL
B53	DIBAHAC	DIBENZ[A,H]ACRIDINE
B54	DIBAJAC	DIBENZ[A,J]ACRIDINE

B55	DIBIHAN	DIBENZ[A,H]ANTHRACENE
B56	DIBCGCA	7H-DIBENZO[C,G]CARBAZOLE
B57	DIBAEPY	DIBENZO[A,E]PYRENE
B58	DIBAHPY	DIBENZO[A,H]PYRENE
B59	DIBAIPY	DIBENZO[A,I]PYRENE
B60	DIBPHTH	DI-N-BUTYL PHTHALATE
B61	12-DBEN	1,2-DICHLOROBENZENE
B62	13-DBEN	1,3-DICHLOROBENZENE
B63	14-DBEN	1,4-DICHLOROBENZENE
B64	DICHDEN	3,3-DICHLOROBENZIDINE
B65	24-DCHP	2,4-DICHLOROPHENOL
B66	26-DCHP	2,6-DICHLOROPHENOL
B67	DIEPHTH	DIETHYL PHTHALATE
B68	DIHYSAF	DIHYDROSAFROLE
B69	DIMTHB	3,3-DIMETHOXYBENZIDINE
B70	DIMEAMB	P-DIMETHYLAMINOAZOBENZENE
B71	DIMBENZ	7,12-DIMETHYLBENZ[A]ANTHRACENE
B72	DIMEYLB	3,3-DIMETHYLBENZIDINE
B73	THIONOX	THIOFANOX
B74	DIMPHAM	ALPHA,ALPHA-DIMETHYLPHENETHYLAMINE
B75	DIMPHEN	2,4-DIMETHYLPHENOL
B76	DIMPHTH	DIMETHYL PHTHALATE
B77	DINBENZ	DINITROBENZENE
B78	DINCRES	4,6-DINITRO-O-CRESOL AND SALTS
B79	DINPHEN	2,4-DINITROPHENOL
B80	24-DINT	2,4-DINITROTOLUENE
B81	26-DINT	2,6-DINITROTOLUENE
B82	DIOPHTH	DI-N-OCTYL PHTHALATE
B83	DIPHAMI	DIPHENYLAMINE
B84	DIPHHYD	1,2-DIPHENYLHYDRAZINE
B85	DIPRNIT	DI-N-PROPYLNITROSAMINE
B86	ETHMINE	ETHYLENEIMINE
B87	ETHMETS	ETHYL METHANESULFONATE
B88	FLUORAN	FLOURANTHENE
B89	HEXCBEN	HEXACHLOROBENZENE
B90	HEXCBUT	HEXACHLOROBUTADIENE
B91	HEXCCYC	HEXACHLOROCYCLOPENTADIENE
B92	HEXCETH	HEXACHLOROETHANE
B93	INDENOP	INDENO(1,2,3-CD)PYRENE
B94	ISOSOLE	ISOSAFROLE
B95	MALOILE	MALONONITRILE
B96	MELPHAL	MELPHALAN
B97	METHAPY	METHAPYRILENE
B98	METHNYL	METHOLONYL
B99	METAZIR	2-METHYLAZIRIDINE
C01	METCHAN	3-METHYLCHOLANTHRENE
C02	METBISC	4,4-METHYLENEBIS(2-CHLOROANILINE)
C03	METACTO	2-METHYLLACTONITRILE
C04	METACRY	METHYL METHACRYLATE
C05	METMSUL	METHYL METHANESULFONATE
C06	METPROP	2-METHYL-2(METHYLTHIO)PROPIONALDEHYDE
C07	METHIOU	METHYLTHIOURACIL

C08	NAPHQUI	1,4-NAPHTHOQUINONE
C09	1-NAPHA	1-NAPHTHYLAMINE
C10	2-NAPHA	2-NAPHTHYLAMINE
C11	NITRANI	P-NITROANILINE
C12	NITBENZ	NITROBENZENE
C13	NITPHEN	4-NITROPHENOL
C14	NNIBUTY	N-NITROSODI-N-BUTYLAMINE
C15	NNIDIEA	N-NITROSODIETHANOLAMINE
C16	NNIDIEY	N-NITROSODIETHYLAMINE
C17	NNIDIME	N-NITROSODIMETHYLAMINE
C18	NNIMETH	N-NITROSOMETHYLETHYLAMINE
C19	NNIURET	N-NITROSO-N-METHYLURETHANE
C20	NNIVINY	N-NITROSOMETHYLVINYLAMINE
C21	NNIMORP	N-NITROSOMORPHOLINE
C22	NNINICO	N-NITROSONORNICOTINE
C23	NNIPIPE	N-NITROSOPIPERIDINE
C24	NITRPYR	NITROSOPYRROLIDINE
C25	NITRTOL	5-NITRO-O-TOLUIDINE
C26	PENTCHB	PENTACHLOROBENZENE
C27	PENTCHN	PENTACHLORONITROBENZENE
C28	PENTCHP	PENTACHLOROPHENOL
C29	PHENTIN	PHENACETIN
C30	PHENINE	PHENYLENEDIAMINE
C31	PHTHEST	PHTHALIC ACID ESTERS
C32	PICOLIN	2-PICOLINE
C33	PRONIDE	PRONAMIDE
C34	RESERPI	RESERPINE
C35	RESORCI	RESORCINOL
C36	SAFROL	SAFROL
C37	TETRCHB	1,2,4,5-TETRACHLOROBENZENE
C39	TETRCHP	2,3,4,6-TETRACHLOROPHENOL
C40	THIURAM	THIURAM
C41	TOLUDIA	TOLUENEDIAMINE
C42	OTOLHYD	O-TOLUIDINE HYDROCHLORIDE
C43	TRICHLB	1,2,4-TRICHLOROBENZENE
C44	245-TRP	2,4,5-TRICHLOROPHENOL
C45	246-TRP	2,4,6-TRICHLOROPHENOL
C46	TRIPHOS	O,O,O-TRIETHYLPHOSPHOROTHIOATE
C47	SYMTRIN	SYM-TRINITROBENZENE
C48	TRISPHO	TRIS(2,3-DIBROMOPROPYL)PHOSPHATE
C49	BENZOPY	BENZO[A]PYRENE
C50	CHLNAPZ	CHLORNAPHAZINE
C51	BIS2ETH	BIS(2-CHLOROISOPROPYL)ETHER
C52	HEXAENE	HEXACHLOROPROPENE
C53	HYDRAZI	HYDRAZINE
C54	HEXACHL	HEXACHLOROPHENE
C55	NAPHTHA	NAPHTHALENE
C56	123TRI	1,2,3-TRICHLOROBENZENE
C57	PHENOL	PHENOL
C58	135TRI	1,3,5-TRICHLOROBENZENE
C59	1234TE	1,2,3,4-TETRACHLOROBENZENE
C60	1235TE	1,2,3,5-TETRACHLOROBENZENE

C61	TETEPYR	TETRAETHYLPYROPHOSPHATE
C62	CHLLATE	CHLOROBENZILATE
C63	CARBPHT	CARBOPHENOTHION
C64	DISULFO	DISULFOTON
C65	DIMETHO	DIMETHOATE
C66	METHPAR	METHYL PARATHION
C67	PARATHI	PARATHION
C68	TOX	TOTAL ORGANIC HALIDE
C69	TOC	TOTAL ORGANIC CARBON
C70	CYANIDE	CYANIDE
C71	FORMALN	FORMALIN
C72	NITRATE	NITRATE
C73	SULFATE	SULFATE
C74	FLOURID	FLUORIDE
C75	CHLORID	CHLORIDE
C76	PHOSPHA	PHOSPHATE
C77	PERCHLO	PERCHLORATE
C78	SULFIDE	SULFIDE
C79	KEROSEN	KEROSENE
C80	AMMONIU	AMMONIUM ION
C81	ETHYGLY	ETHYLENE GLYCOL
C86	DIOXIN	DIOXIN
C87	CITRUSR	CITRUS RED
C88	CYANBRO	CYANOGEN BROMIDE
C89	CYANCHL	CYANOGEN CHLORIDE
C90	PARALDE	PARALDEHYDE
C91	STRYCHN	STRYCHNINE
C92	MALHYDR	MALEIC HYDRAZIDE
C93	NICOTIN	NICOTINIC ACID
C94	ACRYIDE	ACRYLAMIDE
C95	ALLYLAL	ALLYL ALCOHOL
C96	CHLORAL	CHLORAL
C97	CHLACET	CHLOROACETALDEHYDE
C98	CHLPROP	3-CHLOROPROPIONITRILE
C99	CYANOGN	CYANOGEN
H01	IDICPROP	DICHLOROPROPANOL
H03	ETHCARB	ETHYL CARBAMATE
H04	ETHCYAN	ETHYL CYANIDE
H05	ETHOXID	ETHYLENE OXIDE
H06	ETHMETH	ETHYL METHACRYLATE
H07	FLUOROA	FLUOROACETIC ACID
H08	GLYCIDY	GLYCIDYLALDEHYDE
H09	ISOBUTY	ISOBUTYL ALCOHOL
H10	METZINE	METHYL HYDRAZINE
H11	PROPYLA	N-PROPYLAMINE
H12	PROPYNO	2-PROPYN-1-OL
H13	2,4-D	2,4-D
H14	2,4,5TP	[2-(2,4,5-T)P] (SILVEX)
H15	2,4,5-T	2,4,5-T
H16	TC	TOTAL CARBON
H17	TDS	TOTAL DISSOLVED SOLIDS
H18	FZINC	ZINC (FILTERED SAMPLE)

H19	FCALCIU	CALCIUM (FILTERED SAMPLE)
H20	FBARIUM	BARIUM (FILTERED SAMPLE)
H21	FCADMIU	CADMIUM (FILTERED SAMPLE)
H22	FCHROMI	CHROMIUM (FILTERED SAMPLE)
H23	FSILVER	SILVER (FILTERED SAMPLE)
H24	FSODIUM	SODIUM (FILTERED SAMPLE)
H25	FNICKEL	NICKEL (FILTERED SAMPLE)
H26	FCOPPER	COPPER (FILTERED SAMPLE)
H27	FVANADI	VANADIUM (FILTERED SAMPLE)
H28	FALUMIN	ALUMINUM (FILTERED SAMPLE)
H29	FMANGAN	MANGANESE (FILTERED SAMPLE)
H30	FPOTASS	POTASSIUM (FILTERED SAMPLE)
H31	FIRON	IRON (FILTERED SAMPLE)
H32	FMAGNES	MAGNESIUM (FILTERED SAMPLE)
H33	FBERYLL	BERYLLIUM (FILTERED SAMPLE)
H34	FOSMIUM	OSMIUM (FILTERED SAMPLE)
H35	FSTRONT	STRONTIUM (FILTERED SAMPLE)
H36	FANTIMO	ANTIMONY (FILTERED SAMPLE)
H37	FARSENI	ARSENIC (FILTERED) GFAA
H38	FMERCUR	MERCURY (FILTERED SAMPLE)
H39	FSELENI	SELENIUM (FILTERED) GFAA
H40	FTHALLI	THALLIUM (FILTERED) GFAA
H41	FLEAD	LEAD (FILTERED) GFAA
H42	TOXLDL	TOTAL ORGANIC HALIDE(LOWER DETECTION
H57	LPHENOL	PHENOL (LOWER DETECTION LIMIT)
H58	ALKALIN	ALKALINITY
H59	OIL+GRE	OIL AND GREASE
H60	TURBID	TURBIDITY
H61	COLOR	COLOR
H62	LHYDRAZ	HYDRAZINE(LOWER DETECTION LIMIT)
H63	LFLUORD	FLUORIDE (SPEC. ION ELECTRODE)
H64	BISMUTH	BISMUTH
H65	HNITRAT	NITRATE (HIGHER DETECTION LIMIT)
H66	BROMIDE	BROMIDE
H67	NITRITE	NITRITE
H68	HEXONE	HEXONE
H69	CORROS	CORROSIVITY
H70	IGNITE	IGNITABILITY
H72	EPTARS	ARSENIC (EP TOX)
H73	EPTBAR	BARIUM (EP TOX)
H74	EPTCAD	CADMIUM (EP TOX)
H75	EPTCHR	CHROMIUM (EP TOX)
H76	EPTLEA	LEAD (EP TOX)
H77	EPTSEL	SELENIUM (EP TOX)
H78	EPTSIL	SILVER (EP TOX)
H79	EPTMER	MERCURY (EP TOX)
H80	EPTEND	ENDRIN (EP TOX)
H81	EPTLIN	LINDANE (EP TOX)
H82	EPTMET	METHOXYCHLOR (EP TOX)
H83	EPTTOX	TOXAPHENE (EP TOX)
H84	EPT24D	2,4-D (EP TOX)
H85	EPT245	[2-(2,4,5-T)P] (SILVEX) (EP TOX)

H86	BORON	BORON
H87	COBALT	COBALT
H88	LITHIUM	LITHIUM
H89	MOLY	MOLYBDENUM
H90	SILICON	SILICON
H91	TIN	TIN
H92	TITAN	TITANIUM
H93	ZIRCON	ZIRCONIUM
H94	REASUL	SULFIDE (REACTIVITY)
H95	REACYA	CYANIDE (REACTIVITY)
I01	ACETONE	ACETONE
I02	HEXANE	HEXANE
I03	MECYPEN	METHYLCYCLOPENTANE
I04	MEBUPHT	1,2 BENZENE DICARBOXYLIC ACID,BUTYL,
I05	NITROM	NITROMETHANE
I06	ISOPHER	ISOPHERONE
I07	BUTANAL	BUTANAL
I08	BUTENON	3-BUTEN-2-ONE
I09	BUTANOL	1-BUTANOL
I10	PROPANOL	2-PROPANOL
I11	INDOCHY	1-H INDENE OCTAHYDRO
I12	CYCETME	ETHYLMETHYL CYCLOHEXANE
I13	CYCISO1	CYCLOHEXANE ISOMER
I14	CYCISO2	CYCLOHEXANE ISOMER
I15	NONEME	5-METHYL-4 NONENE
I16	TMEHEPT	TRIMETHYL HEPTATRIENE
I17	OCTADIE	1,2-OCTADIENE
I18	MEOXAMI	N-METHOXYMETHANAMINE
I19	MEFORMT	METHYLFORMATE
I20	MENITRA	METHYLNITRATE
I21	TRIBUPH	TRIBUTYLPHOSPHORIC ACID
I22	HEXACID	HEXANOIC ACID
I23	BUTOXET	2-BUTOXY ETHANOL
I24	BENZALD	BENZALDEHYDE
I25	BUTOX2	2-(2-BUTOXYETHOXY) ETHANOL
I26	14BDDN	1,4 BUTANEDIOL, DINITRATE
I27	34DCBA	3,4-DICHLOROBENZOIC ACID
I28	TAF	TETRAHYDORFURAN
I29	ACENAPH	ACENAPHTHENE
I30	FLRENE	FLUORENE
I31	ANTHRA	ANTHRACENE
I32	PYRENE	PYRENE
I33	ETHBENZ	ETHYLBENZENE
I34	STYRENE	STYRENE
I35	TMCYCH	1,1,3-TRIMETHYLCYCLOHEXANE
I36	12TMCYH	1,2,3-TRIMETHYLCYCLOHEXANE
I37	3ETHHEX	3-ETHYLHEXANE
I38	CYCTETR	1,3,5,7-CYCLOOCTATETRAENE
I39	ETMTCYC	TRANS-1-ETHYL-4-METHYLCYCLOHEXANE
I41	MEBENZ	(1-METHYLETHYL)-BENZENE
I42	BDCM	BROMODICHLOROMETHANE
I43	CDBM	CHLORODIBROMOMETHANE

I44	PROBENZ	PROPYL BENZENE
I45	14DMCYO	1,4-DIMETHYL CYCLOOCTANE
I46	CYCLHEX	CYCLOHEXANE
I47	MECYCHE	METHYL CYCLOHEXANE
I48	ETMTBEN	1-ETHYL-4-METHYL BENZENE
I49	MEHEPT	3-METHYL HEPTANE
I50	DECANAP	DECAHYDRONAPHTHALENE
I51	MEOCTA	2-METHYL OCTANE
I52	TMSILO	TRIMETHYL SILANOL
I53	DCFM	DICHLOROFLUOROMETHANE
I54	PENTAL	PENTENAL
I55	PROCYEN	1-(1-PROPYNYL)-CYCLOHEXENE
I56	DIMEHEX	2,3-DIMETHYL-2-HEXENE
I57	ETHECYC	ETHENYL CYCLOPENTANE
I58	DMBCYCL	1,3-DIMETHYLBUTYL CYCLOHEXANE
I59	METBUTA	2-METHYL BUTANE
I60	PENTANE	PENTANE
I61	2PENTEN	2-PENTENE
I62	2MEHEX	2-METHYL HEXANE
I63	BHT	2,6-BIS(1,1-DIMETHYLETHYL)-4-METHYL F
I64	2NITPH	2-NITROPHENOL
I65	246DCMP	2,4-DICHLORO-6-METHYLPHENOL
I66	245DCMP	2,4-DICHLORO-5-METHYLPHENOL
I67	ETHANOL	ETHANOL
I68	FREONTF	1,1,2-TRICHLORO-1,2,2-TRIFLOUROETHANE
I69	3M32BUT	3-METHYL-2-BUTANONE
I70	ISOCTOL	ISOOCTANOL
I71	2ET1HOL	2-ETHYL-1-HEXANOL
I72	TDMECYC	TRANS-1,3-DIMETHYLCYCLOHEXANE
I73	CDMECYC	CIS-1,3-DIMETHYLCYCLOHEXANE
I74	1E1MCYC	1-ETHYL-1-METHYLCYCLOHEXANE
I75	2MENAPH	2-METHYLNAPHTHALENE
I76	2MEUNDE	5-METHYLUNDECANE
I77	TRIDECA	TRIDECANE (C13)
I78	PENTDEC	PENTADECANE (C15)
I79	NONMEP	3-METHYL-5-PROPYLNONANE
I80	PHYTANE	2,6,10,15-TETRAMETHYLHEPTADECANE
I81	PENTRCO	PENTATRIACONTANE (C35)
I82	PHENANT	PHENANTHRENE
I83	NONANE	NONANE (C9)
I84	1E2MBEN	1-ETHYL-2-METHYLBENZENE
I85	124TMBE	1,2,4-TRIMETHYLBENZENE
I86	DECANE	DECANE (C10)
I87	26DMNON	2,6-DIMETHYLNONANE
I88	BUTCYCL	BUTYL CYCLOHEXANE
I89	45DMNON	4,5-DIMETHYLNONANE
I90	2MEDECA	2-METHYL DECANE
I91	UNDECAN	UNDECANE (C11)
I92	256TMDE	2,5,6-TRIMETHYL DECANE
I93	2MEDECN	2-METHYL DECAHYDRO-NAPHTHALENE
I94	PENTCYC	PENTYL CYCLOHEXANE
I95	DODECANE	DODECANE (C12)

I96	15DMNAP	1,5-DIMETHYL NAPHTHALENE
I97	UNKARO	UNKNOWN AROMATIC HC
I98	UNKALI	UNKNOWN ALIPHATIC HC
I99	UNKNWN	UNKNOWN
J01	3MEPENT	3-METHYL PENTANE
J02	3EDMPEN	3-ETHYL-2,2-DIMETHYL PENTANE
J03	223TMBU	2,2,3-TRIMETHYLBUTANE
J04	3MEHEX	3-METHYLHEXANE
J05	ECYCHEX	ETHYL CYCLOHEXANE
J06	2MEHEPT	2-METHYL HEPTANE
J07	5M2HEXE	3,4,4-TRIMETHYL-2-HEXENE
J08	OCTANE	OCTANE
J09	3MEOCT	3-METHYL OCTANE
J10	1MPBENZ	(1-METHYLPROPYL)-BENZENE
J11	PRCYHEX	PROPYL CYCLOHEXANE
J12	24DMHEP	2,4-DIMETHYL HEPTANE
J13	132MBEN	1-ETHYL-2-METHYL BENZENE
J14	26DMUND	2,6-DIMETHYLUNDECANE
J15	2ETNAPH	2-ETHYL NAPHTHALENE
J16	PRISTAN	2,6,10,14-TETRAMETHYLPENTADECANE
J17	3TMDECA	3,3,4-TRIMETHYL DECANE
J18	5MENONA	5-METHYL NONANE
J19	1E2MCYC	1-ETHYL-2-METHYL CYCLOHEXANE
J20	35MHEP5	3,5-DIMETHYL HEPTANE
J21	3MENONA	3-METHYL NONANE
J22	3E2MHEP	3-ETHYL-2-METHYL HEPTANE
J23	12DMCYC	1,2-DIMETHYL CYCLOHEXANE(TRANS)
J24	135MCYC	1,3,5-TRIMETHYL CYCLOHEXANE
J25	BUTCYCP	BUTYL CYCLOPENTANE
J26	ETHCYCO	ETHYL CYCLOOCTANE
J27	4MENONA	4-METHYL NONANE
J28	123MCYC	1,2,3-TRIMETHYL CYCLOPENTANE
J29	23DMHEP	2,3-DIMETHYL HEPTANE
J30	5MEOCT	2,3,7-TRIMETHYL OCTANE
J31	5E2MHEP	5-ETHYL-2-METHYL HEPTANE
J32	DHYINDE	2,3-DIHYDRO-IH-INDENE
J33	41MEHEP	4-(1-METHYLETHYL)-HEPTANE
J34	2METDEC	2-METHYL TETRADECANE
J35	46DMUND	4,6-DIMETHYL UNDECANE
J36	1235MBE	1,2,3-TRIMETHYL BENZENE
J37	TMHEXAD	2,6,10 TRIMETHYL HEXADECANE
J38	DMOMTHN	DIMETHOXYMETHANE
J39	BUTNITR	BUTYLNITRATE
J40	N4DMBSA	N,4-DIMETHYL BENZENESULFONAMIDE
J41	TETRADE	TETRADECANE (C14)
J42	DMDECEN	2,4-DIMETHYL-1-DECENE
J43	BENZALC	BENZYL ALCOHOL
J44	NONANAC	NONANOIC ACID
J45	MEPRNON	2-METHYL-5-PROPYLNONANE
J46	DODECAC	DODECANOIC ACID
J47	HXDECAC	HEXADECANOIC ACID
J48	THYETHA	1-(2-THIENYL) ETHANONE

J49	MOLSULF	MOLECULAR SULFUR (S8)
J50	HEXTHIE	HEXATHIEPANE
J51	TRITHIO	1,2,4-TRITHIOLANE
J52	NC16HC	HEXADECANE
J53	NC17HC	HEPTADECANE
J54	NC18HC	OCTADECANE
J55	NC19HC	NONADECANE
J56	NC20HC	EICOSANE
J57	NC21HC	HENEICOSANE
J58	NC22HC	DOCOSANE
J59	NC23HC	TRICOSANE
J60	NC27HC	HEPTACOSANE
J61	DMNAPHT	1,2-DIMETHYLNAPHTHALENE
J62	DOCOACI	DOCOSANOIC ACID
J63	HXDECAL	HEXADECANAL
J64	ETHHEXA	2-ETHYL HEXANOIC ACID
J65	22MEETH	2-(2-METHOXYETHOXY)ETHANOL
J66	222METH	2-[2-(2-METHOXYETHOXY)ETHOXY]ETHANOL
J67	TETDODE	2,5,8,11-TETRAOXADODECANE
J68	222ETHO	2-[2-(2-ETHOXYETHOXY)ETHOXY]ETHANOL
J69	2HEXANO	2-HEXANONE
J70	MEHEXON	5-METHYL-2-HEXANONE
J71	BNZKFLU	BENZO(K)FLUORANTHENE
J72	13DCPRO	1,3-DICHLOROPROPENE
J73	MIBK	4-METHYL-2-PENTANONE
J74	CMPHEN	2-CHLORO-6-METHYLPHENOL
J75	TMPENDI	2,2,4-TRIMETHYL-1,3-PENTANEDIOL
J76	CYDODEC	CYCLODODECANE
J77	AMYCACE	ACETIC ACID, PENTYLESTER
J78	BENZACD	BENZOIC ACID
J80	TMAMINE	TRIMETHYLAMINE
J81	EMFURAN	3-ETHYL-4-METHYL-2,5-FURANDIONE
J82	4CPPETH	4-CHLOROPHENYLPHENYL ETHER
J83	BGHIPER	BENZO(GHI)PERYLENE
J84	DETHFUR	DIETHOXY TETRAHYDRO FURAN
J85	DODCENE	1-DODECENE
J86	OCTCOS	OCTACOSANE
J87	CHLORTOL	2-CHLOROTOLUENE
J88	DCPROPE	1,1-DICHLOROPROPENE
J89	DINOSEB	DINOSEB
J90	PICLORA	PICLORAM
J91	DIALLAT	DIALLATE
J92	ALACHLO	ALACHLOR
J93	SIMAZIN	SIMAZINE
J94	PRONAMD	PRONAMIDE
J95	DMMENAP	1,6-DIMETHLETHYL-4-(I-METHLETHYL) NAP
J96	27DMNAP	2,7-DIMETHYL NAPHTHALENE
J97	167TNAP	1,6,7-TRIMETHYL NAPHTHALENE
J98	236TNAP	2,3,6-TRIMETHYL NAPHTHALENE
J99	NONACD	NONADECANOIC ACID
K01	DMEBENZ	1,1-DIMETHYLETHYLBENZENE
K02	OCTDCOL	1-OCTADECANOL

K03	3CLCYHE	3-CHLORO-CYCLOHEXENE
K04	T4CLCHL	TRANS-4-CHLORO-CYCLOHEXANOL
K05	CI3DCCA	CIS-1,3-DICHLORO-CYCLOHEXANE
K06	3BRCYEN	3-BROMOCYCLOHEXENE
K07	2PENONE	2-PENTANONE
K08	NC24HC	TETRACOSANE
K09	NC25HC	PENTACOSANE
K10	NC26HC	HEXACOSANE
K11	NC28HC	OCTACOSANE
K12	BCM	BROMOCHLOROMETHANE
K13	4H4MPNT	4-HYDROXY-4-METHYL-2-PENTANONE
K14	23HFURO	2(3H)-FURANONE
K15	2FUROXA	2-FURANCARBOXALDEHYDE
K16	5HMFURX	5-(HYDROXYMETHYL)-2-FURANCARBOXALDEHY
K17	DICYMBZ	1,3-DIISOCYANATOMETHYLBENZENE
K18	PCL11BP	PENTACHLORO-1,1'-BIPHENYL
K19	HCL11BP	HEXACHLORO-1,1'-BIPHENYL
K20	4ME2POL	4-METHYL-2-PENTANOL
K21	HYMEPRA	2-HYDROXY-2-METHYLPROPANOIC ACID
K22	5ME3HOL	5-METHYL-3-HEXANOL
K23	24DCPEN	2,4-DICHLOROPENTHAN
K24	HEXDIOC	HEXANEDIOICACID, DIOCTYLESTER
K25	12PRDOL	12-PROPANEDIOL
K26	NITRETH	NITROETHANE
K27	CYPENTE	CYCLOPENTENE
K28	12DMCYP	1,2-DIMETHYL-CYCLOPROPANE (CIS)
K29	4MCYPEN	4-METHYL-CLYCLOPENTENE
K30	PRCYCPR	PROPYL-CYCLOPROPANE
K31	CYCLHXE	CYCLOHEXENE
K32	CYCHEPT	CYCLOHEPTENE
K33	1HEPTYN	1-HEPTYNE
K34	3M24XDN	3-METHYL-2,4-HEXADIENE
K35	3M14TDN	3-METHYL-1,4-HEPTADIENE
K36	TYLEFRA	HEPTYLESTER FORMIC ACID
K37	12DECYB	1,2-DIETHYL-CYCLOBUTANE (TRANS)
K38	2IODMUN	2,10-DIMETHYL UNDECANE
K39	12BCDBE	1,2-BENZENEDICARBOXYLICACIDDIBUTYLESTE
K40	12BUTOX	1-(2-BUTOXYETHOXY)-ETHANOL
K41	4METHPH	4-METHYLPHENOL
K42	TH2METH	TETRAHYDRO-2-METHYL-THIOPHENE
K43	23DMBUT	2,3-DIMETHYL-BUTANE
K44	1234TMB	1,2,3,4-TETRAMETHYL-BENZENE
K45	234INDN	2,3-DIHYDRO-4-METHYL-1H-INDENE
K46	1234NAP	1,2,3,4-TETRAHYDRO-NAPHTHALENE
K47	1234THN	1,2,3,4-TETRAHYDRO-5-METHYL-NAPHTHALEN
K48	3MCYCLP	3-METHYL-CYCLOPENTENE
K49	23DMPEN	2,3-DIMETHYL-PENTANE
K50	2233TMB	2,2,3,3-TETRAMETHYLBUTANE
K51	2METHPH	2-METHPH
K52	NNDIPHA	N-NITROSODIPHENYLAMINE
K53	35DIMPY	3,5-DIMETHYL-PYRIDINE
K54	NC29HC	NONACOSANE

K55	NC30HC	TRIACONTANE
K56	DIBENFR	DIBENZOFURAN
K57	DIBENTP	DIBENZOTHIOPHENE
K58	ACENATL	ACENAPHTHALENE
K59	23DMNAP	2,3-DIMETHYLNAPHTHALENE
K60	13DMNAP	1,3-DIMETHYLNAPHTHALENE
K61	4MEPHEN	4-METHYLPHENANTHRENE
K62	2MEPHEN	2-METHYLPHENANTHRENE
K63	18DMNAP	1,8-DIMETHYLNAPHTHALENE
K64	2346TCP	2,3,4,6-TETRACHLOROPHENOL
K65	1M71MEN	1-METHYL-7-(1-METHYLETHYL)-NAPHTHALEN
K66	1M9HFLR	1-METHYL-9H-FLUORENE
K67	25DMPHE	2,5-DIMETHYL PHENANTHRENE
K68	18DIPPN	1,8-DI-1-PROPNYL-NAPHTHALENE
K69	41MEBAC	4-(1-METHYLETHYL)-BENZOIC ACID
K70	5M21MEP	5-METHYL-2-(1-METHYLETHYL)-PHENOL
K71	2FO1PHE	2-(FORMYLOXY)-1-PHENYL-ETHANONE
K72	1M4NITB	1-METHYL-4-NITROSO-BENZENE
K73	41MPPHN	4-(1-METHYLPROPYL)-PHENOL
K74	1METHNP	1-METHYLNAPHTHALENE
K75	133TMBH	1,3,3-TRIMETHYL-BICYCLO[2.2.1]HEPTANE
K76	237TRMD	2,3,7-TRIMETHYL-DECANE
K77	21MENAP	2-(1-METHYLETHYL)-NAPHTHALENE
K78	17DIMEN	1,7-DIMETHYLNAPHTHALENE
K79	136TMEN	1,3,6-TRIMETHYLNADHTHALENE
K80	1CLHEXA	1-CHLOROHEXANE
K81	1PHENNP	1-PHENYLNAPHTHALENE
K82	4MPYREN	4-METHYLPYRENE
K83	1MPYREN	1-METHYL-PYRENE
K84	1HPHENL	1H-PHENALENE
K85	ISOQUIN	ISOQUINOLINE
K86	246TMPY	2,4,6-TRIMETHYLPYRIDINE
K87	9M9HFLR	9-METHYL-9H-FLUORERE
K88	910ATCD	9,10-ANTHRACENEDIONE
K89	FORMAEE	FORMIC ACID,ETHENYL ESTER
K90	ACETAME	ACETIC ACID,METHYL ESTER
K91	ACETAEE	ACETIC ACID,ETHYL ESTER
K92	PNTANAL	PENTANAL
K93	2PROBEN	2-PROPENYL-BENZENE
K94	BROBENZ	BROMOBENZENE
K95	DCLBVOA	DICHLOROBENZENE (BY VOA)
K96	MRPHLNE	MORPHOLINE
K97	1ETH3MB	1-ETHYL-3-METHYL-BENZENE
K98	135TRMB	1,3,5-TRIMETHYL-BENZENE
K99	1PROPBN	1-PROPENYL-BENZENE
L01	C12OH	1-DODECANOL
L02	C14OH	1-TETRADECANOL
L03	C16OH	1-HEXADECANOL
L04	TOTXYL	TOTAL XYLENES (BY ABN)
X01	2FLPHEN	2-FLOUROPHENOL
X02	PHEND6	PHENOL-D6
X03	NITBN2	NITROBENZENE D5

X04	2FLBIPH	2-FLOUROBIPHENYL
X05	246TRI	2,4,6-TRIBROMOPHENOL
X06	TERD14	TERPHENYL-D14
X07	12DCAD4	1-2-DICHLOROETHANE-D4
X08	TOLUD8	TOLUENE-D8
X09	BFB	P-BROMOFLUOROBENZENE
X10	DBC	DIBUTYLCHLORENDATE
X11	CHLOR37	CHLORINE-37
X12	EPTDBC	DIBUTYLCHLORENDATE (EP TOX)

2600 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M152	METHTHI	B03	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	PENTACH	B04	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	1112-TC	B05	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	1122-TC	B06	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	BROMORM	B08	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	TRCMEOL	B09	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	TRCMFLM	B10	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	TRCPANE	B11	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	123-TRP	B12	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	VINYIDE	B13	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	M-XYLE	B14	*	5.00E-03 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	DIETHY	B15	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	ACETILE	B19	*	3.00E+00 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	MCTACRY	C04	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	FORMALN	C71	*	5.00E-01 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	ETHOXID	H05	*	3.00E+00 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	ETHMETH	H06	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	HEXONE	H58	*	1.00E-02 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	ACETONE	I01		1.20E-01 UG/G			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	12DCAD4	X07		1.02E+02 %RECOV			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	TOLUD8	X08		1.30E+02 %RECOV			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
SOIL	M152	BFB	X09		1.05E+02 %RECOV			5.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
===> PROCEDURE: 733		REPORTED: 12AUG88												
SOIL	M152	ACETOPH	B20	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	WARFRIN	B21	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	ACEFENE	B22	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	AMINOYL	B23	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	ANIISOX	B24	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	AMITROL	B25	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	ANILINE	B26	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	ARAMITE	B27	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	AURAMIN	B28	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	BENZCAC	B29	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	BENZAAN	B30	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	BENDICN	B31	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	BENTHOL	B32	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	BENDINE	B33	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	BENZDFL	B34	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	BENZJFL	B35	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	PBENZQU	B36	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	BENZCHL	B37	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	BIS2CHM	B38	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	BIS2CHE	B39	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M152	BIS2EPH	B40	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	BROPHEN	B41	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	BUTBENP	B42	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	BUTDINP	B43	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	CHALETH	B44	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	CHLANIL	B45	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	CHLCRES	B46	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	CHLEPOX	B47	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	CHLNAPH	B48	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	CHLPHEN	B49	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	CHRYSEN	B50	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	CRESOLS	B51	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	CYCHDIN	B52	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	DIBAHAC	B53	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	DIBAJAC	B54	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	DIBIHAN	B55	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	DIBCGCA	B56	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	DIBAEPY	B57	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	DIBAHPY	B58	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	DIBAIPY	B59	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	DIBPHTH	B60	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	12-DBEN	B61	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	13-DBEN	B62	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	14-DBEN	B63	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	DICHDEN	B64	*	2.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	24-DCHP	B65	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	25-DCHP	B66	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	DIEPHTH	B67	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	DIHYSAF	B68	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	DIMTHB	B69	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	DIMEAND	B70	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	DIMBENZ	B71	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	DIMEYLB	B72	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	THIONOX	B73	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	DINPHAN	B74	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	DIMPHEN	B75	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	DIMPHTH	B76	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	DINBENZ	B77	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	DINCRES	B78	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	DINPHEN	B79	*	5.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	24-DINT	B80	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	25-DINT	B81	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	DIOPHTH	B82	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	DIPHAMI	B83	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	DIPHHYD	B84	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. D-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M152	DIPRNIT	B85	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	ETHMINE	B86	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	ETHMETS	B87	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	FLUORAN	B88	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	HEXCDEN	B89	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	HEXCBUT	B90	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	HEXCCYC	B91	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	HEXCETH	B92	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	INDENOP	B93	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	ISOSOLE	B94	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	MALOILE	B95	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	MELPHAL	B96	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	METHAPY	B97	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	METHNYL	B98	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	METAZIR	B99	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	METCHAN	C01	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	METBISC	C02	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	METACTO	C03	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	METMSUL	C05	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	METPROP	C06	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	METHIOU	C07	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	NAPHGUI	C08	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	1-NAPHA	C09	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	2-NAPHA	C10	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	NITRANI	C11	*	5.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	NITBENZ	C12	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	NITPHEN	C13	*	5.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	NNIBUTY	C14	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	NNIDIEA	C15	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	NNIDIEY	C16	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	NNIDIME	C17	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	NNIMETH	C18	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	NNIURET	C19	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	NNIVINY	C20	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	NNIMORP	C21	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	NNINICO	C22	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	NNIPIPE	C23	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	NITRPYR	C24	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	NITRTOL	C25	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	PENTCHB	C26	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	PENTCHN	C27	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	PENTCHP	C28	*	5.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	PHENTIN	C29	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	PHENINE	C30	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	PHTHEST	C31	*	1.00E+00 UG/G			1.00E+01	G	29JUL88	0835	08AUG88	I	341	011129

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2800 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M152	PICOLIN	C32	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	PRONIDE	C33	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	RESERPI	C34	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	RESORCI	C35	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	SAFROL	C36	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	TETRCHB	C37	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	TETRCHP	C39	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	THIURAM	C40	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	TOLUDIA	C41	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	OTOLHYD	C42	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	TRICHLB	C43	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	245-TRP	C44	*	5.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	246-TRP	C45	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	TRIPHOS	C46	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	SYMTRIN	C47	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	TRISPHO	C48	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	BENZDPY	C49	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	CHLNAPZ	C50	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	BIS2ETH	C51	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	HEXAENE	C52	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	HEXACHL	C54	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	NAPHTHA	C55	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	123TRI	C56	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	PHENOL	C57	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	135TRI	C58	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	1234TE	C59	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	1235TE	C60	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	KEROSEN	C79	*	1.00E+03 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	STRYCHN	C91	*	5.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	MALHYDR	C92	*	5.00E+01 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	NICOTIN	C93	*	1.00E+01 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	TRIBUPH	I21	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	2FLPHCN	X01		7.76E+01 %RECOV			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	PHENO6	X02		6.63E+01 %RECOV			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	NITBN2	X03		6.80E+01 %RECOV			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	2FLBIPH	X04		7.72E+01 %RECOV			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	246TRI	X05		5.64E+01 %RECOV			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	TERD14	X06		7.80E+01 %RECOV			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
===> PROCEDURE: 734		REPORTED: 12AUG88												
SOIL	M152	TETEPYR	C61	*	1.00E+00 UG/G			1.01E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	CARBPHT	C63	*	1.00E+00 UG/G			1.01E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	DISULFO	C64	*	1.00E+00 UG/G			1.01E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	DIMETHO	C65	*	2.00E-01 UG/G			1.01E+01 G	29JUL88	0835	08AUG88	I	341	011129

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M152	METHPAR	C66	*	1.00E+00 UG/G			1.01E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	PARATHI	C67	*	1.00E+00 UG/G			1.01E+01 G	29JUL88	0835	08AUG88	I	341	011129
===> PROCEDURE: 735		REPORTED: 12AUG88												
SOIL	M152	NITRATE	C72	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	SULFATE	C73		2.55E+01 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	FLOURID	C74	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	CHLORID	C75		3.84E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
SOIL	M152	PHOSPHA	C76	*	2.00E+00 UG/G			1.00E+01 G	29JUL88	0835	08AUG88	I	341	011129
===> PROCEDURE: 737		REPORTED: 12AUG88												
SOIL	M152	2,4-D	H13	*	1.00E+00 UG/G			2.50E+01 G	29JUL88	0835	10AUG88	I	341	011129
SOIL	M152	2,4,5TP	H14	*	1.00E+00 UG/G			2.50E+01 G	29JUL88	0835	10AUG88	I	341	011129
SOIL	M152	2,4,5-T	H15	*	1.00E+00 UG/G			2.50E+01 G	29JUL88	0835	10AUG88	I	341	011129
===> PROCEDURE: 739		REPORTED: 12AUG88												
SOIL	M152	AR1016	A54	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	12AUG88	I	341	011129
SOIL	M152	AR1221	A55	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	12AUG88	I	341	011129
SOIL	M152	AR1232	A56	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	12AUG88	I	341	011129
SOIL	M152	AR1242	A57	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	12AUG88	I	341	011129
SOIL	M152	AR1248	A58	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	12AUG88	I	341	011129
SOIL	M152	AR1254	A59	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	12AUG88	I	341	011129
SOIL	M152	AR1260	A60	*	1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	12AUG88	I	341	011129
===> PROCEDURE: A20		REPORTED: 12AUG88												
SOIL	M152	ARSENIC	A20		1.50E+00 UG/G			1.01E+00 G	29JUL88	0835	10AUG88	I	341	011129
===> PROCEDURE: A21		REPORTED: 12AUG88												
SOIL	M152	MERCURY	A21	*	2.00E-01 UG/G			2.06E-01 G	29JUL88	0835	02AUG88	I	341	011129
===> PROCEDURE: A22		REPORTED: 12AUG88												
SOIL	M152	SELENUM	A22	*	5.00E-01 UG/G			1.01E+00 G	29JUL88	0835	10AUG88	I	341	011129
===> PROCEDURE: A23		REPORTED: 12AUG88												
SOIL	M152	THALIUM	A23	*	1.00E+00 UG/G			1.01E+00 G	29JUL88	0835	08AUG88	I	341	011129
===> PROCEDURE: A51		REPORTED: 12AUG88												
SOIL	M152	LEAD	A51		5.30E+00 UG/G			1.01E+00 G	29JUL88	0835	09AUG88	I	341	011129

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE	RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
===> PROCEDURE: C68		REPORTED: 12AUG88											
SOIL	M152	TOX	C68	* 1.00E-02 UG/G			1.00E+00 G	29JUL88	0835	04AUG88	I	341	011129
===> PROCEDURE: C69		REPORTED: 12AUG88											
SOIL	M152	TOC	C69	1.36E+01 UG/G			1.86E+01 G	29JUL88	0835	02AUG88	I	341	011129
===> PROCEDURE: C70		REPORTED: 12AUG88											
SOIL	M152	CYANIDE	C70	* 1.00E+00 UG/G			1.00E+01 G	29JUL88	0835	04AUG88	I	341	011129
===> PROCEDURE: C77		REPORTED: 12AUG88											
SOIL	M152	PERCHLO	C77	* 2.00E+00 UG/G			1.00E+01 G	29JUL88	0835	04AUG88	I	341	011129
===> PROCEDURE: C78		REPORTED: 12AUG89											
SOIL	M152	SULFIDE	C78	* 1.00E+01 UG/G			4.66E+01 G	29JUL88	0835	03AUG88	I	341	011129
===> PROCEDURE: C80		REPORTED: 12AUG88											
SOIL	M152	AMMONIU	C80	1.70E+00 UG/G			1.00E+01 G	29JUL88	0835	10AUG88	I	341	011129
===> PROCEDURE: C81		REPORTED: 12AUG88											
SOIL	M152	ETHYGLY	C81	* 1.00E+01 UG/G			5.00E+00 G	29JUL88	0835	30JUL88	I	341	011129
********** <** SAMPLE: M153 **> **********													
===> PROCEDURE: 088		REPORTED: 04AUG88											
SOIL	M153	LSP COND	088	1.46E+02			1.00E+01 G	29JUL88	0920	01AUG88	I	341	011130
===> PROCEDURE: 207		REPORTED: 04AUG88											
SOIL	M153	PH (LAB)	207	8.20E+00			0.00E+00 G	29JUL88	0920	29JUL88	I	341	011130
===> PROCEDURE: 726		REPORTED: 12AUG88											
SOIL	M153	BERYLAN	A01	* 5.00E-01 UG/G			1.01E+00 G	29JUL88	0920	04AUG88	I	341	011130
SOIL	M153	STRONUM	A03	2.79E+01 UG/G			1.01E+00 G	29JUL88	0920	04AUG88	I	341	011130

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. D-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M153	ZINC	A04		3.90E+01 UG/G			1.01E+00 G	29JUL88	0920	04AUG88	I	341	011130
SOIL	M153	CALCIUM	A05		7.73E+03 UG/G	1		1.01E+00 G	29JUL88	0920	04AUG88	I	341	011130
SOIL	M153	BARIUM	A06		8.03E+01 UG/G			1.01E+00 G	29JUL88	0920	04AUG88	I	341	011130
SOIL	M153	CADMIUM	A07	*	2.00E-01 UG/G			1.01E+00 G	29JUL88	0920	04AUG88	I	341	011130
SOIL	M153	CHROMUM	A08		8.00E+00 UG/G			1.01E+00 G	29JUL88	0920	04AUG88	I	341	011130
SOIL	M153	SILVER	A10	*	1.00E+00 UG/G			1.01E+00 G	29JUL88	0920	04AUG88	I	341	011130
SOIL	M153	SODIUM	A11		1.25E+03 UG/G			1.01E+00 G	29JUL88	0920	04AUG88	I	341	011130
SOIL	M153	NICKEL	A12		7.00E+00 UG/G			1.01E+00 G	29JUL88	0920	04AUG88	I	341	011130
SOIL	M153	COPPER	A13	*	1.00E+00 UG/G			1.01E+00 G	29JUL88	0920	04AUG88	I	341	011130
SOIL	M153	VANADUM	A14		5.26E+01 UG/G			1.01E+00 G	29JUL88	0920	04AUG88	I	341	011130
SOIL	M153	ANTIONY	A15	*	1.00E+01 UG/G			1.01E+00 G	29JUL88	0920	04AUG88	I	341	011130
SOIL	M153	ALUMNUM	A16		7.57E+03 UG/G	1		1.01E+00 G	29JUL88	0920	04AUG88	I	341	011130
SOIL	M153	MANGESE	A17		3.38E+02 UG/G			1.01E+00 G	29JUL88	0920	04AUG88	I	341	011130
SOIL	M153	POTASUM	A18		7.03E+02 UG/G			1.01E+00 G	29JUL88	0920	04AUG88	I	341	011130
SOIL	M153	IRON	A19		2.50E+04 UG/G	1		1.01E+00 G	29JUL88	0920	04AUG88	I	341	011130
SOIL	M153	MAGNES	A50		5.06E+03 UG/G	1		1.01E+00 G	29JUL88	0920	04AUG88	I	341	011130
===> PROCEDURE: A20		REPORTED: 12AUG88												
SOIL	M153	ARSENIC	A20		7.00E-01 UG/G			1.00E+00 G	29JUL88	0920	10AUG88	I	341	011130
===> PROCEDURE: A51		REPORTED: 12AUG88												
SOIL	M153	LEAD	A51		3.56E+00 UG/G			1.00E+00 G	29JUL88	0920	09AUG88	I	341	011130
===> PROCEDURE: C68		REPORTED: 12AUG88												
SOIL	M153	TOX	C68	*	1.00E-02 UG/G			1.00E+00 G	29JUL88	0920	04AUG88	I	341	011130
===> PROCEDURE: C69		REPORTED: 12AUG88												
SOIL	M153	TOC	C69	*	1.00E+01 UG/G			2.29E+01 G	29JUL88	0920	02AUG88	I	341	011130
**********														
<** SAMPLE: M154 **>														
**********														
===> PROCEDURE: 089		REPORTED: 12AUG88												
SOIL	M154	LSP COND	089		2.65E+02			1.00E+01 G	02AUG88	0745	03AUG88	I	341	011131
===> PROCEDURE: 207		REPORTED: 12AUG88												
SOIL	M154	PH (LAB)	207		6.80E+00			0.00E+00 G	02AUG88	0745	03AUG88	I	341	011131
===> PROCEDURE: 726		REPORTED: 12AUG88												
SOIL	M154	BERYLAM	A01	*	5.00E-01 UG/G			1.04E+00 G	02AUG88	0745	09AUG88	I	341	011131

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M154	STRONUM	A03		2.03E+01 UG/G			1.04E+00 G	02AUG88	0745	09AUG88	I	341	011131
SOIL	M154	ZINC	A04		6.00E+01 UG/G			1.04E+00 G	02AUG88	0745	09AUG88	I	341	011131
SOIL	M154	CALCIUM	A05		3.99E+03 UG/G			1.04E+00 G	02AUG88	0745	09AUG88	I	341	011131
SOIL	M154	BARIUM	A06		8.09E+01 UG/G			1.04E+00 G	02AUG88	0745	09AUG88	I	341	011131
SOIL	M154	CADMIUM	A07	*	2.00E-01 UG/G			1.04E+00 G	02AUG88	0745	09AUG88	I	341	011131
SOIL	M154	CHROMUM	A08		9.10E+00 UG/G			1.04E+00 G	02AUG88	0745	09AUG88	I	341	011131
SOIL	M154	SILVER	A10	*	1.00E+00 UG/G			1.04E+00 G	02AUG88	0745	09AUG88	I	341	011131
SOIL	M154	SODIUM	A11		2.87E+02 UG/G			1.04E+00 G	02AUG88	0745	09AUG88	I	341	011131
SOIL	M154	NICKEL	A12		5.60E+00 UG/G			1.04E+00 G	02AUG88	0745	09AUG88	I	341	011131
SOIL	M154	COPPER	A13		5.16E+01 UG/G			1.04E+00 G	02AUG88	0745	09AUG88	I	341	011131
SOIL	M154	VANADUM	A14		7.76E+01 UG/G			1.04E+00 G	02AUG88	0745	09AUG88	I	341	011131
SOIL	M154	ANTIONY	A15	*	1.00E+01 UG/G			1.04E+00 G	02AUG88	0745	09AUG88	I	341	011131
SOIL	M154	ALUMNUM	A16		6.97E+03 UG/G	1		1.04E+00 G	02AUG88	0745	09AUG88	I	341	011131
SOIL	M154	MANGESE	A17		3.02E+02 UG/G			1.04E+00 G	02AUG88	0745	09AUG88	I	341	011131
SOIL	M154	POTASUM	A18		8.96E+02 UG/G			1.04E+00 G	02AUG88	0745	09AUG88	I	341	011131
SOIL	M154	IRON	A19		2.63E+04 UG/G	1		1.04E+00 G	02AUG88	0745	09AUG88	I	341	011131
SOIL	M154	MAGNES	A50		4.03E+03 UG/G	1		1.04E+00 G	02AUG88	0745	09AUG88	I	341	011131
===> PROCEDURE: 727		REPORTED: 16AUG88												
SOIL	M154	THIOURA	A24	*	2.00E+00 UG/G			1.00E+01 G	02AUG88	0745	14AUG88	I	341	011131
SOIL	M154	ACETREA	A25	*	2.00E+00 UG/G			1.00E+01 G	02AUG88	0745	14AUG88	I	341	011131
SOIL	M154	CHLOREA	A26	*	2.00E+00 UG/G			1.00E+01 G	02AUG88	0745	14AUG88	I	341	011131
SOIL	M154	DIETROL	A27	*	2.00E+00 UG/G			1.00E+01 G	02AUG88	0745	14AUG88	I	341	011131
SOIL	M154	ETHYREA	A28	*	2.00E+00 UG/G			1.00E+01 G	02AUG88	0745	14AUG88	I	341	011131
SOIL	M154	NAPHREA	A29	*	2.00E+00 UG/G			1.00E+01 G	02AUG88	0745	14AUG88	I	341	011131
SOIL	M154	PHENREA	A32	*	5.00E+00 UG/G			1.00E+01 G	02AUG88	0745	14AUG88	I	341	011131
===> PROCEDURE: 729		REPORTED: 16AUG88												
SOIL	M154	ENDRIN	A33	*	1.00E-02 UG/G			1.00E+01 G	02AUG88	0745	10AUG88	I	341	011131
SOIL	M154	METHLOR	A34	*	3.00E-01 UG/G			1.00E+01 G	02AUG88	0745	10AUG88	I	341	011131
SOIL	M154	TOXAENE	A35	*	1.00E-01 UG/G			1.00E+01 G	02AUG88	0745	10AUG88	I	341	011131
SOIL	M154	A-BHC	A36	*	1.00E-02 UG/G			1.00E+01 G	02AUG88	0745	10AUG88	I	341	011131
SOIL	M154	B-BHC	A37	*	1.00E-02 UG/G			1.00E+01 G	02AUG88	0745	10AUG88	I	341	011131
SOIL	M154	G-BHC	A38	*	1.00E-02 UG/G			1.00E+01 G	02AUG88	0745	10AUG88	I	341	011131
SOIL	M154	D-BHC	A39	*	1.00E-02 UG/G			1.00E+01 G	02AUG88	0745	10AUG88	I	341	011131
SOIL	M154	DDD	A40	*	1.00E-02 UG/G			1.00E+01 G	02AUG88	0745	10AUG88	I	341	011131
SOIL	M154	DDE	A41	*	1.00E-02 UG/G			1.00E+01 G	02AUG88	0745	10AUG88	I	341	011131
SOIL	M154	DDT	A42	*	1.00E-02 UG/G			1.00E+01 G	02AUG88	0745	10AUG88	I	341	011131
SOIL	M154	HEPTLOR	A43	*	1.00E-02 UG/G			1.00E+01 G	02AUG88	0745	10AUG88	I	341	011131
SOIL	M154	HEPTIDE	A44	*	1.00E-02 UG/G			1.00E+01 G	02AUG88	0745	10AUG88	I	341	011131
SOIL	M154	DIELRIN	A46	*	1.00E-02 UG/G			1.00E+01 G	02AUG88	0745	10AUG88	I	341	011131
SOIL	M154	ALDRIN	A47	*	1.00E-02 UG/G			1.00E+01 G	02AUG88	0745	10AUG88	I	341	011131
SOIL	M154	CHLDANE	A48	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0745	10AUG88	I	341	011131

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-52472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M154	ENDO1	A49	*	1.00E-02 UG/G			1.00E+01	G	02AUG88	0745	10AUG88	I	341	011131
SOIL	M154	ENDO2	A52	*	1.00E-02 UG/G			1.00E+01	G	02AUG88	0745	10AUG88	I	341	011131
SOIL	M154	CHLLATE	C62	*	3.00E+00 UG/G			1.00E+01	G	02AUG88	0745	10AUG88	I	341	011131
SOIL	M154	DBC	X10		1.00E+02 %RECOV			1.00E+01	G	02AUG88	0745	10AUG88	I	341	011131
===> PROCEDURE: 731		REPORTED: 12AUG88													
SOIL	M154	TETRANE	A61	*	5.00E-03 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	BENZENE	A62	*	5.00E-03 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	DIOXANE	A63	*	5.00E-01 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	METHONE	A64	*	1.00E-02 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	PYRIDIN	A65	*	5.00E-01 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	TOLUENE	A66		7.20E-02 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	1,1,1-T	A67	*	5.00E-03 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	1,1,2-T	A68	*	5.00E-03 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	TRICENE	A69	*	5.00E-03 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	PERCENE	A70	*	5.00E-03 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	OPXYLEN	A71	*	5.00E-03 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	ACROLIN	A72	*	1.00E-02 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	ACRYLE	A73	*	1.00E-02 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	BISTHER	A74	*	1.00E-02 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	BROMONE	A75	*	1.00E-02 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	METHBRO	A76	*	1.00E-02 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	CARBIDE	A77	*	1.00E-02 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	CHLBENZ	A78	*	1.00E-02 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	CHLTHER	A79	*	1.00E-02 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	CHLFORM	A80	*	5.00E-03 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	METHCHL	A81	*	1.00E-02 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	CHMTHER	A82	*	1.00E-02 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	CROTONA	A83	*	1.00E-02 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	DIBRCHL	A84	*	1.00E-02 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	DIBRETH	A85	*	1.00E-02 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	DIBRMET	A86	*	1.00E-02 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	DIBUTEN	A87	*	1.00E-02 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	DICDIFN	A88	*	1.00E-02 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	1,1-DIC	A89	*	1.00E-02 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	1,2-DIC	A90	*	1.00E-02 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	TRANDCE	A91	*	1.00E-02 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	DICETHY	A92	*	1.00E-02 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	METHYCH	A93	*	6.00E-03 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	DICPANE	A94	*	1.00E-02 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	DICPENE	A95	*	1.00E-02 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	NNDIEHY	A96	*	1.00E-02 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	HYDRSUL	A99	*	1.00E-02 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	IODOMET	D01	*	1.00E-02 UG/G			5.00E+00	G	02AUG88	0745	04AUG88	I	341	011131

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2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M154	METHACR	B02	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	METHTHI	B03	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	PENTACH	B04	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	1112-TC	B05	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	1122-TC	B06	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	BROMORM	B08	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	TRCMEOL	B09	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	TRCMFLM	B10	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	TRCFANE	B11	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	123-TRP	B12	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	VINYIDE	B13	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	M-XYLE	B14	*	5.00E-03 UG/G			5.00E+00 G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	DIETHY	B15	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	ACETILE	B19	*	3.00E+00 UG/G			5.00E+00 G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	METACRY	C04	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	FORMALN	C71	*	5.00E-01 UG/G			5.00E+00 G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	ETHOXID	H05	*	3.00E+00 UG/G			5.00E+00 G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	ETHMETH	H06	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	HEXONE	H68	*	1.00E-02 UG/G			5.00E+00 G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	ACETONE	I01		7.10E-02 UG/G			5.00E+00 G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	PROPANOL	I10		5.00E-03 UG/G			5.00E+00 G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	ETHANOL	I67		5.00E-03 UG/G			5.00E+00 G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	12DCAD4	X07		1.21E+02 %RECOV			5.00E+00 G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	TOLUD8	X08		1.09E+02 %RECOV			5.00E+00 G	02AUG88	0745	04AUG88	I	341	011131
SOIL	M154	BFB	X09		9.44E+01 %RECOV			5.00E+00 G	02AUG88	0745	04AUG88	I	341	011131
***> PROCEDURE: 733		REPORTED: 12AUG88												
SOIL	M154	ACETOPH	B20	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	WARFRIN	B21	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	ACEFENE	B22	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	ANINDYL	B23	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	ANIISOX	B24	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	ANITROL	B25	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	ANILINE	B26	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	ARAMITE	B27	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	AURAMIN	B28	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	BENZCAC	B29	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	BENZAAN	B30	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	BENDICM	B31	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	BENTHOL	B32	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	BENDINE	B33	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	BENZBFL	B34	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	BENZJFL	B35	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	PBENZGU	B36	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0745	11AUG88	I	341	011131

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CONSTITUENT CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M154	BENZCHL	B37	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	BIS2CHM	B38	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	BIS2CHE	B39	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	BIS2EPH	B40	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	BROPHEN	B41	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	BUTBENP	B42	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	BUTDINP	B43	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	CHALETH	B44	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	CHLANIL	B45	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	CHLCRES	B46	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	CHLEPOX	B47	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	CHLNAPH	B48	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	CHLPHEN	B49	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	CHRYSEN	B50	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	CRESOLS	B51	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	CYCHDIN	B52	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	DIBAHAC	B53	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	DIBAJAC	B54	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	DIBIHAN	B55	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	DIBCGCA	B56	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	DIBAEPY	B57	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	DIBAHPY	B58	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	DIBAIPY	B59	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	DIBPHTH	B60	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	12-DBEN	B61	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	13-DBEN	B62	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	14-DBEN	B63	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	DICHDEN	B64	*	2.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	24-DCHP	B65	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	26-DCHP	B66	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	DIEPHTH	B67	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	DIHYSAF	B68	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	DINTHB	B69	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	DIMEAMB	B70	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	DIMBENZ	B71	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	DIMEYLB	B72	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	THIONOX	B73	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	DIMPHAN	B74	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	DIMPHEN	B75	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	DIMPHTH	B76	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	DINBENZ	B77	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	DINCRES	B78	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	DINPHEN	B79	*	5.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	24-DINT	B80	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	26-DINT	B81	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131

* Denotes a result less than the detection limit

2800 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M154	DIOPHTH	B82	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	DIPHAMI	B83	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	DIPHHYD	B84	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	DIPRNIT	B85	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	ETHMINE	B86	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	ETHMETS	B87	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	FLUORAN	B88	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	HEXCDEN	B89	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	HEXCBUT	B90	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	HEXCCYC	B91	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	HEXCETH	B92	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	INDENOP	B93	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	ISOSOLE	B94	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	MALOILE	B95	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	MELPRAL	B96	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	METHAPY	B97	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	METHNYL	B98	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	METAZIR	B99	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	METCHAN	C01	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	METBISC	C02	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	METACTO	C03	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	METHSUL	C05	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	METFROP	C06	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	METHIOU	C07	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	NAPHQUI	C08	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	1-NAPHA	C09	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	2-NAPHA	C10	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	NITRANI	C11	*	5.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	NITBENZ	C12	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	NITPHEN	C13	*	5.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	NNIBUTY	C14	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	NNIDIEA	C15	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	NNIDIEY	C16	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	NNIDIME	C17	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	NNIMETH	C18	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	NNIURET	C19	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	NNIVINY	C20	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	NNIMORP	C21	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	NNINICO	C22	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	NNIPIPE	C23	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	NITRPYR	C24	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	NITRTOL	C25	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	PENTCHB	C26	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	PENTCHN	C27	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	PENTCHP	C28	*	5.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131

* Denotes a result less than the detection limit

UNITED STATES TESTING COMPANY, INC.
2500 George Washington Way, Richland, WA
HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. B-B2472-A-I
All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE		SAMPLE DATE	SAMPLE TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M154	PHENTIN	C29	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	PHENINE	C30	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	PHTHEST	C31	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	PICOLIN	C32	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	PRONIDE	C33	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	RESERPI	C34	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	RESORCI	C35	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	SAFROL	C36	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	TETRCH5	C37	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	TETRCHP	C39	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	THIURAM	C40	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	TOLUDIA	C41	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	OTOLHYD	C42	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	TRICHLO	C43	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	245-TRP	C44	*	5.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	246-TRP	C45	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	TRIPHOS	C46	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	SYMTRIN	C47	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	TRISPHO	C48	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	DENIDPY	C49	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	CHLNAPZ	C50	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	BISZETH	C51	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	HEXAENE	C52	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	HEXACHL	C54	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	NAPHTHA	C55	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	123TRI	C56	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	PHENOL	C57	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	135TRI	C58	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	1234TE	C59	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	1235TE	C60	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	KEROSEN	C79	*	1.00E+03 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	STRYCHN	C91	*	5.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	MALHYDR	C92	*	5.00E+01 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	NICOTIN	C93	*	1.00E+01 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	TRIBUPH	I21	*	1.00E+00 UG/G			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	2FLPHEN	X01		5.46E+01 %RECOV			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	PHENO6	X02		5.39E+01 %RECOV			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	NITBN2	X03		5.40E+01 %RECOV			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	2FLDIPH	X04		4.60E+01 %RECOV			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	246TRI	X05		5.61E+01 %RECOV			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	TERD14	X06		6.44E+01 %RECOV			1.00E+01	G	02AUG88	0745	11AUG88	I	341	011131
*** PROCEDURE: 734		REPORTED 12AUG88													
SOIL	M154	TETEPYR	C61	*	1.00E+00 UG/G			1.01E+01	G	02AUG88	0745	08AUG88	I	341	011131

* Denotes a result less than the detection limit

2200 George Washington Way, Richland, WA

HAZARDOUS SUBSTANCE ANALYSIS REPORT Contract no. D-82472-A-I

All results

SAMPLE TYPE	CUSTOMER NUMBER	CONSTITUENT NAME	CODE		RESULT	DIL #	C C	ANALYSIS SIZE	SAMPLE DATE	TIME	ANALYSIS DATE	H C	GROUP	UST #
SOIL	M154	CARBPHT	C63	*	1.00E+00 UG/G			1.01E+01 G	02AUG88	0745	08AUG88	I	341	011131
SOIL	M154	DISULFO	C64	*	1.00E+00 UG/G			1.01E+01 G	02AUG88	0745	08AUG88	I	341	011131
SOIL	M154	DIMETHO	C65	*	2.00E-01 UG/G			1.01E+01 G	02AUG88	0745	08AUG88	I	341	011131
SOIL	M154	METHPAR	C66	*	1.00E+00 UG/G			1.01E+01 G	02AUG88	0745	08AUG88	I	341	011131
SOIL	M154	PARATHI	C67	*	1.00E+00 UG/G			1.01E+01 G	02AUG88	0745	08AUG88	I	341	011131
===> PROCEDURE: 735		REPORTED: 12AUG88												
SOIL	M154	NITRATE	C72	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0745	09AUG88	I	341	011131
SOIL	M154	SULFATE	C73		4.08E+00 UG/G			1.00E+01 G	02AUG88	0745	09AUG88	I	341	011131
SOIL	M154	FLOURID	C74		3.31E+00 UG/G			1.00E+01 G	02AUG88	0745	09AUG88	I	341	011131
SOIL	M154	CHLORID	C75		6.77E+00 UG/G			1.00E+01 G	02AUG88	0745	08AUG88	I	341	011131
SOIL	M154	PHOSPHA	C76	*	2.00E+00 UG/G			1.00E+01 G	02AUG88	0745	08AUG88	I	341	011131
===> PROCEDURE: 737		REPORTED: 16AUG88												
SOIL	M154	2,4-D	H13	*	1.00E+00 UG/G			2.50E+01 G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	2,4,5TP	H14	*	1.00E+00 UG/G			2.50E+01 G	02AUG88	0745	11AUG88	I	341	011131
SOIL	M154	2,4,5-T	H15	*	1.00E+00 UG/G			2.50E+01 G	02AUG88	0745	11AUG88	I	341	011131
===> PROCEDURE: 739		REPORTED: 16AUG88												
SOIL	M154	AR1016	A54	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0745	10AUG88	I	341	011131
SOIL	M154	AR1221	A55	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0745	10AUG88	I	341	011131
SOIL	M154	AR1232	A56	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0745	10AUG88	I	341	011131
SOIL	M154	AR1242	A57	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0745	10AUG88	I	341	011131
SOIL	M154	AR1248	A58	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0745	10AUG88	I	341	011131
SOIL	M154	AR1254	A59	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0745	10AUG88	I	341	011131
SOIL	M154	AR1260	A60	*	1.00E+00 UG/G			1.00E+01 G	02AUG88	0745	10AUG88	I	341	011131
===> PROCEDURE: A20		REPORTED: 16AUG88												
SOIL	M154	ARSENIC	A20	*	5.00E-01 UG/G			1.01E+00 G	02AUG88	0745	11AUG88	I	341	011131
===> PROCEDURE: A21		REPORTED: 12AUG88												
SOIL	M154	MERCURY	A21	*	2.00E-01 UG/G			2.20E-01 G	02AUG88	0745	03AUG88	I	341	011131
===> PROCEDURE: A22		REPORTED: 16AUG88												
SOIL	M154	SELENUM	A22	*	5.00E-01 UG/G			1.01E+00 G	02AUG88	0745	11AUG88	I	341	011131
===> PROCEDURE: A23		REPORTED: 16AUG88												
SOIL	M154	THALIUM	A23	*	1.00E+00 UG/G			1.01E+00 G	02AUG88	0745	10AUG88	I	341	011131

* Denotes a result less than the detection limit

APPENDIX C-2.

GRAPHIC REPRESENTATION OF PHASE I SOIL SAMPLES OF THE 2101-M POND

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1 **AERIAL PHOTOS OF 2101-M POND SITE**

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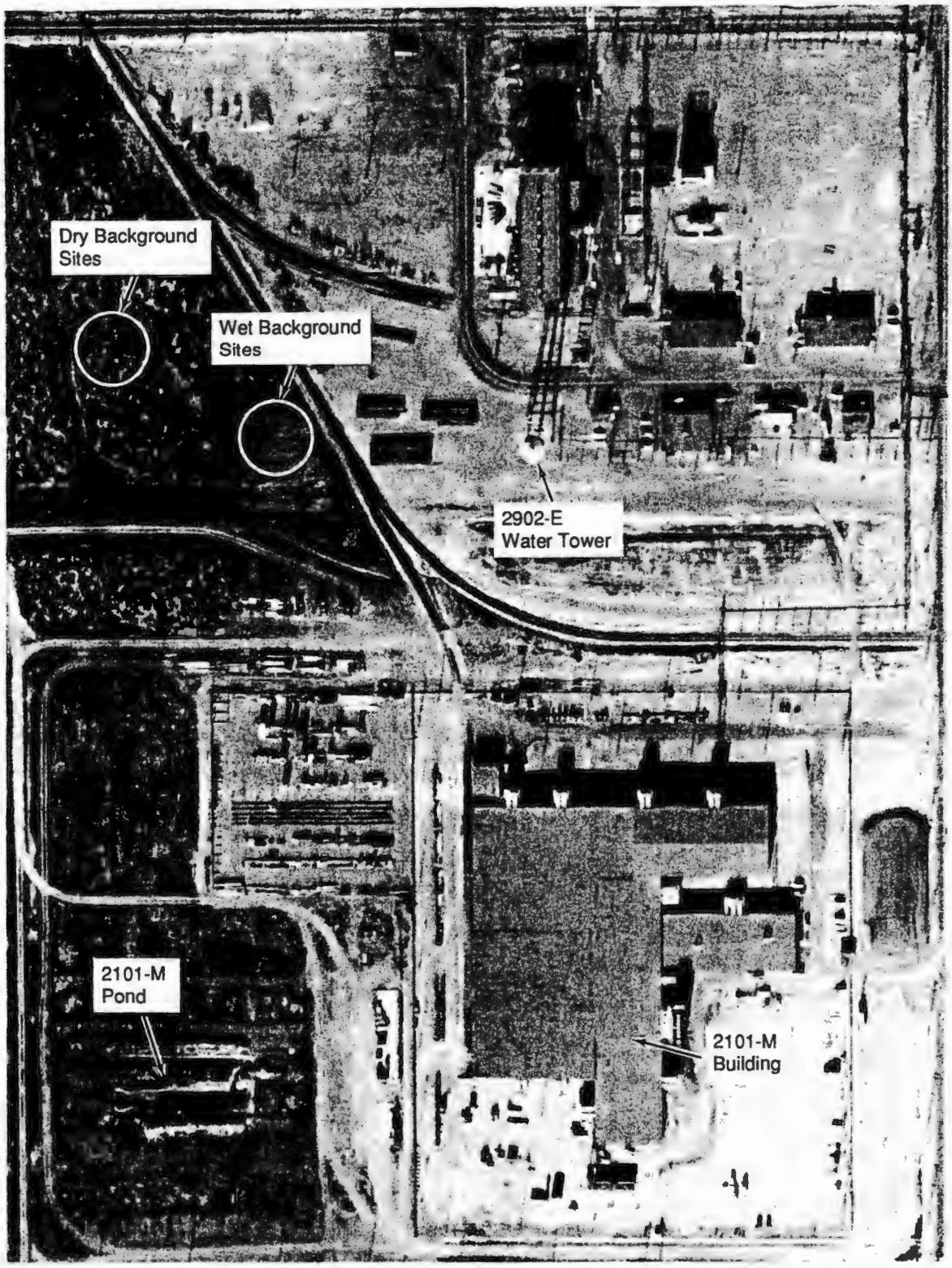

Photo #9628

1 Aerial Photo Taken in 1953 of 2101-M Building Site.

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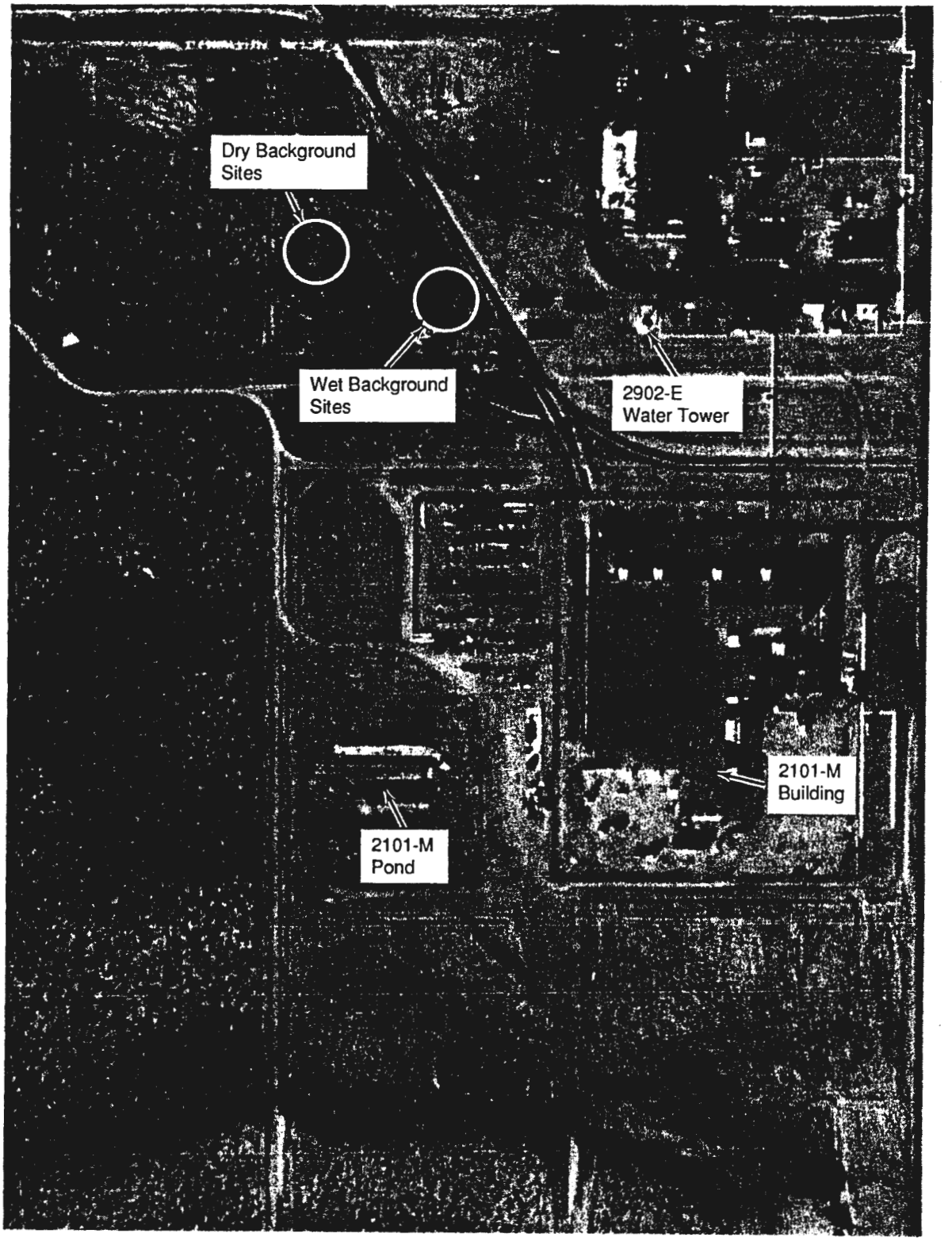

Photo # 1071

1 | Aerial Photo Taken in 1964 of 2101-M Building Site.

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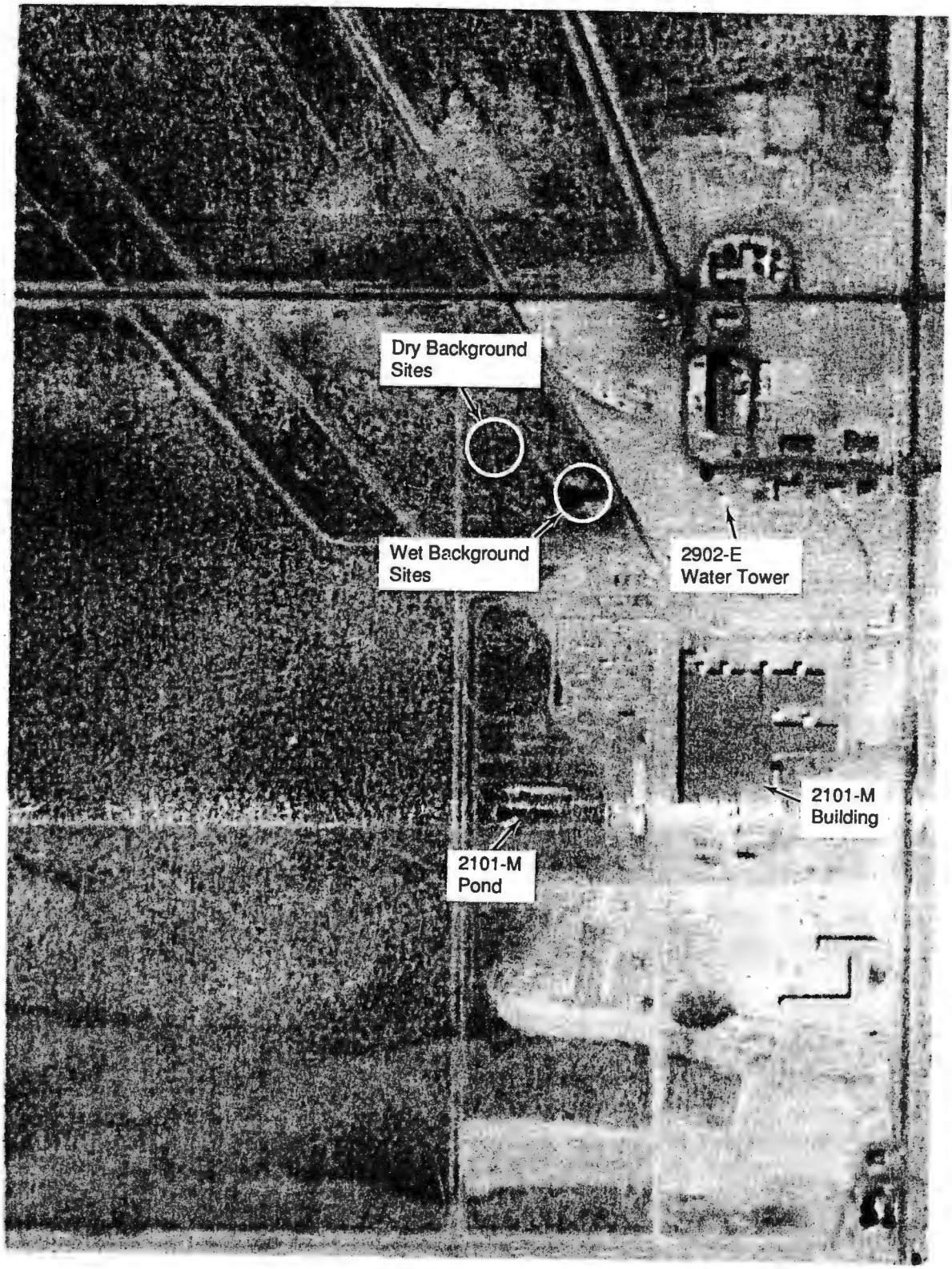

Photo # 65-VELV

1 Aerial Photo Taken in 1977 of 2101-M Building Site.

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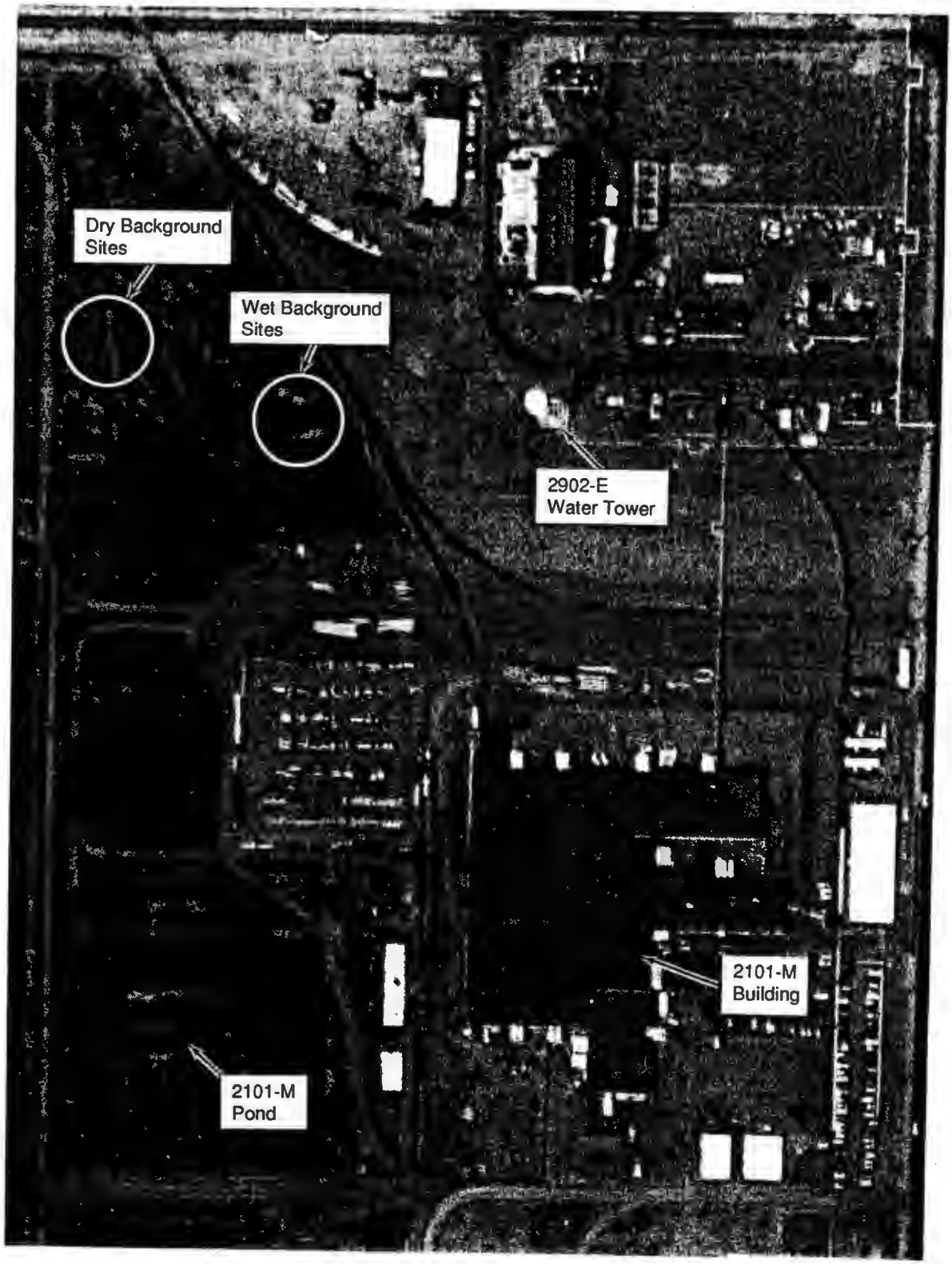

Photo #2-141-GSVFEKC

1 | Aerial Photo Taken in 1982 of 2101-M Building Site.

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1 POND SOIL SAMPLING RESULTS

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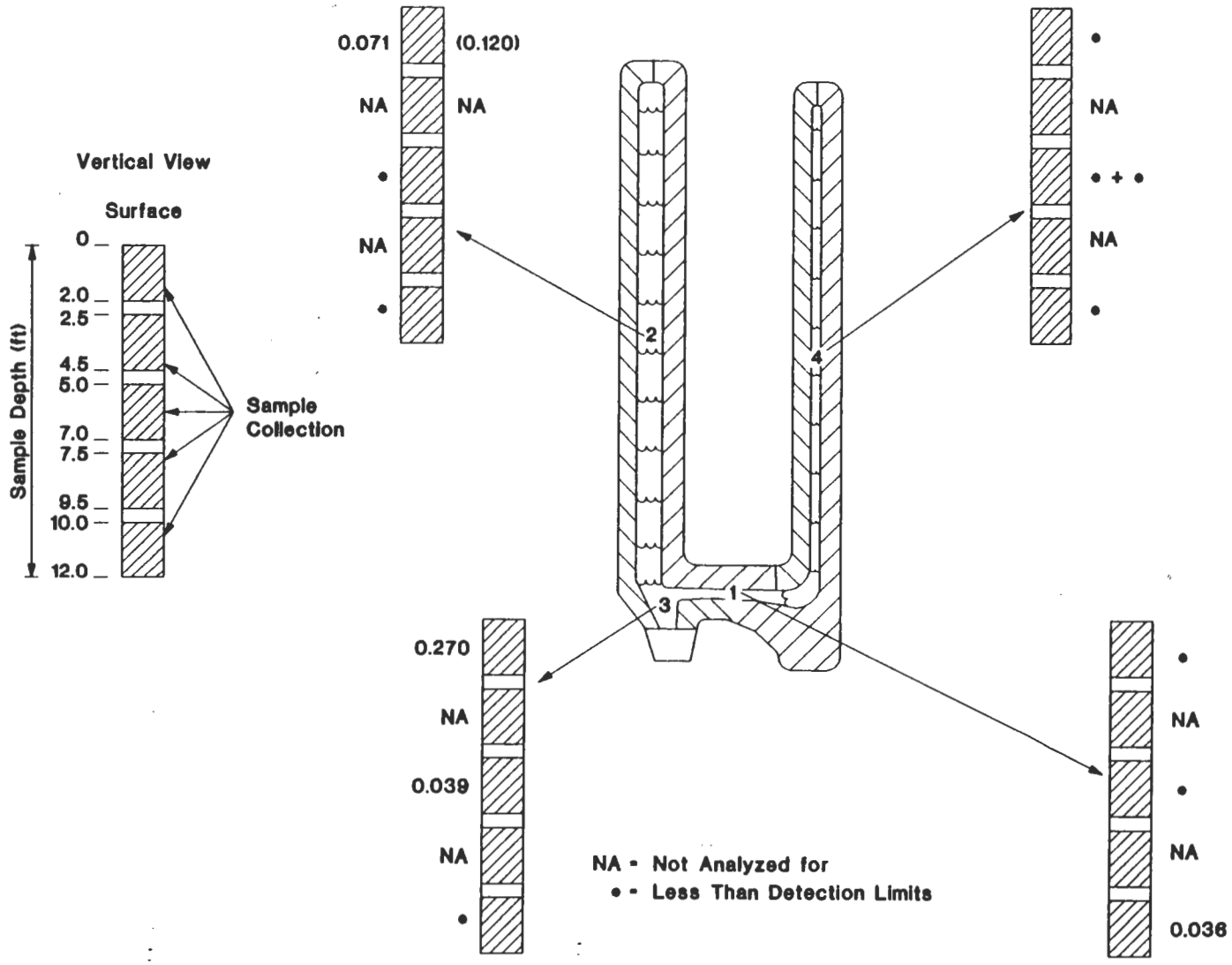
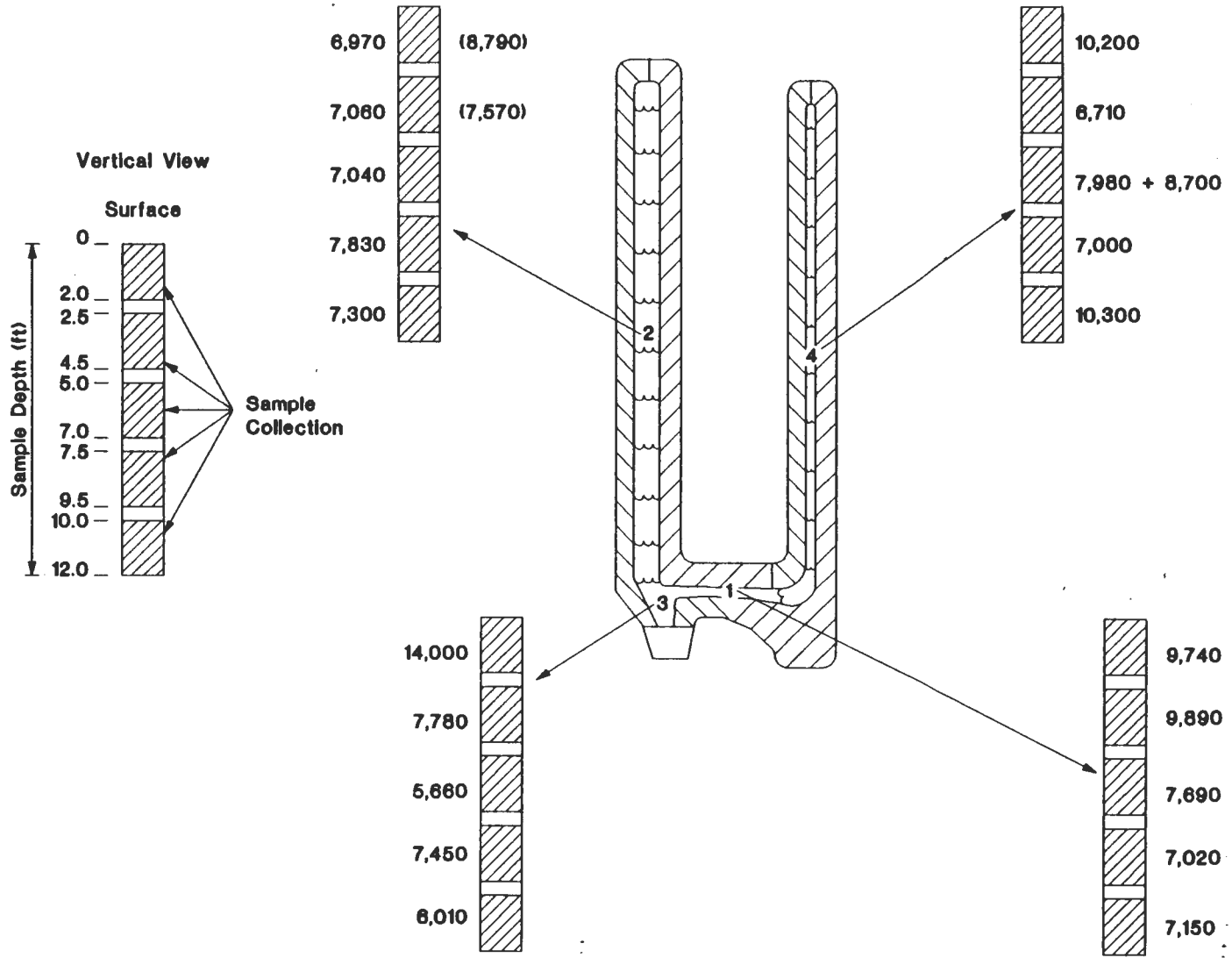
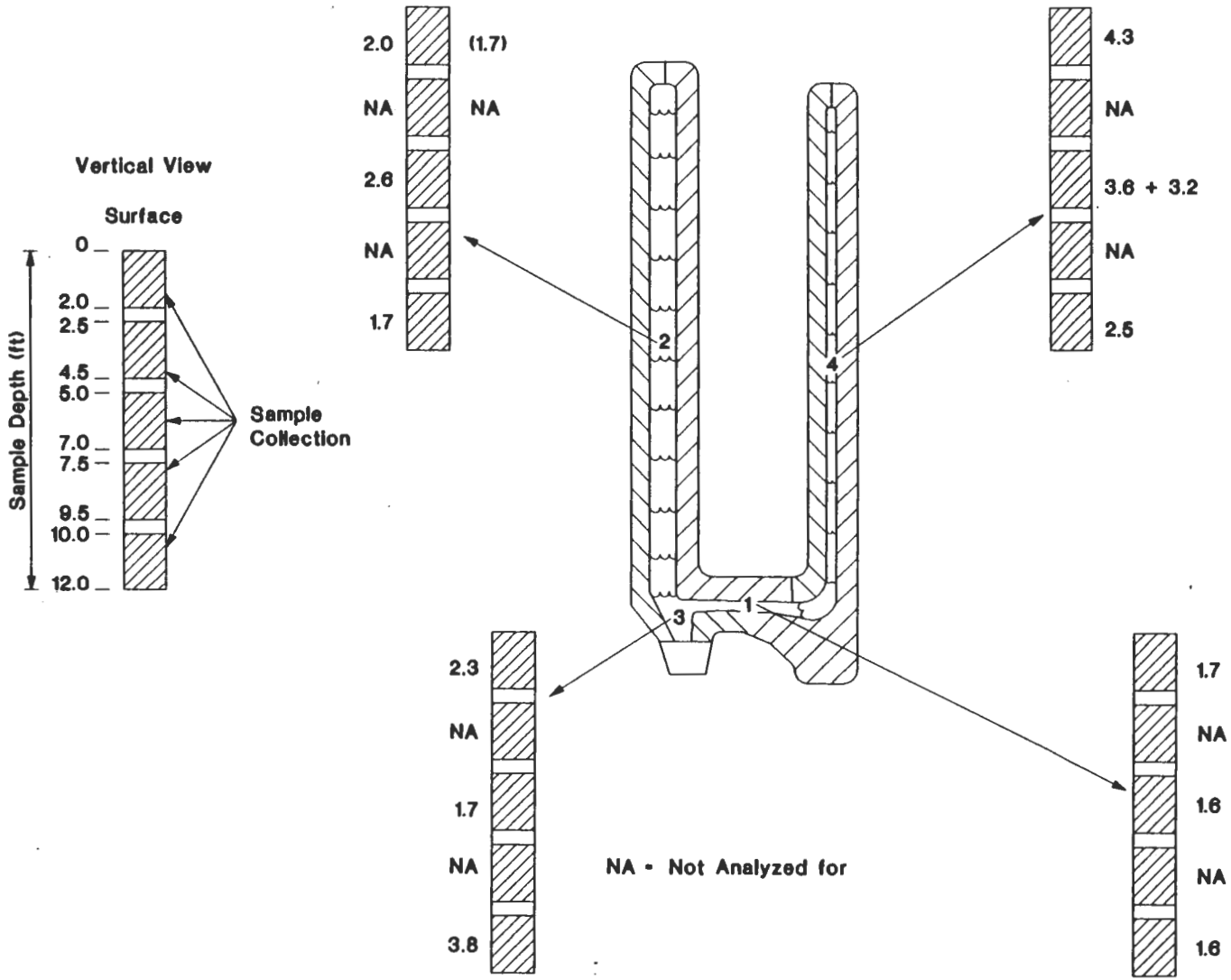


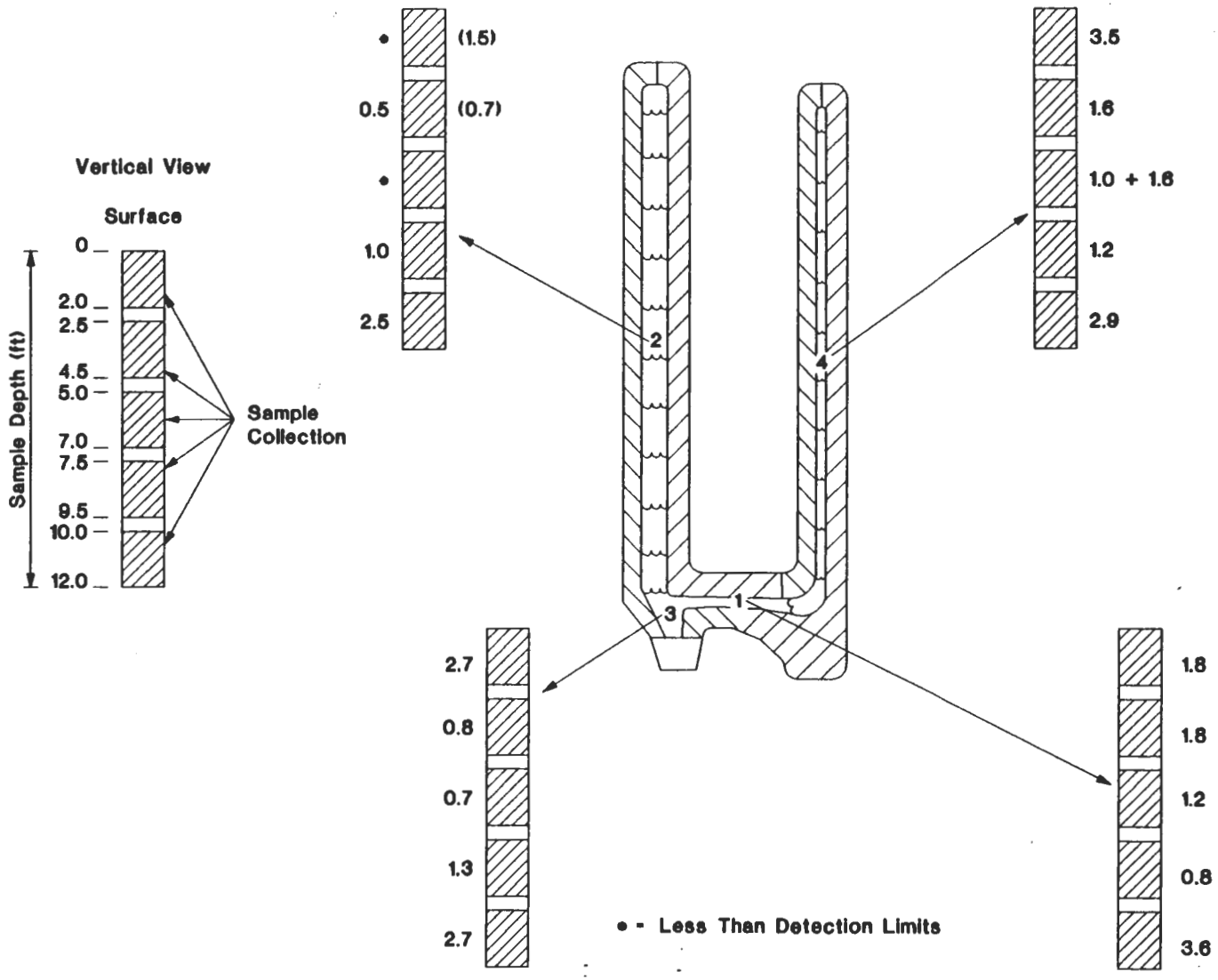
Acetone Values (ppm) for Samples Collected from 2101-M Pond.



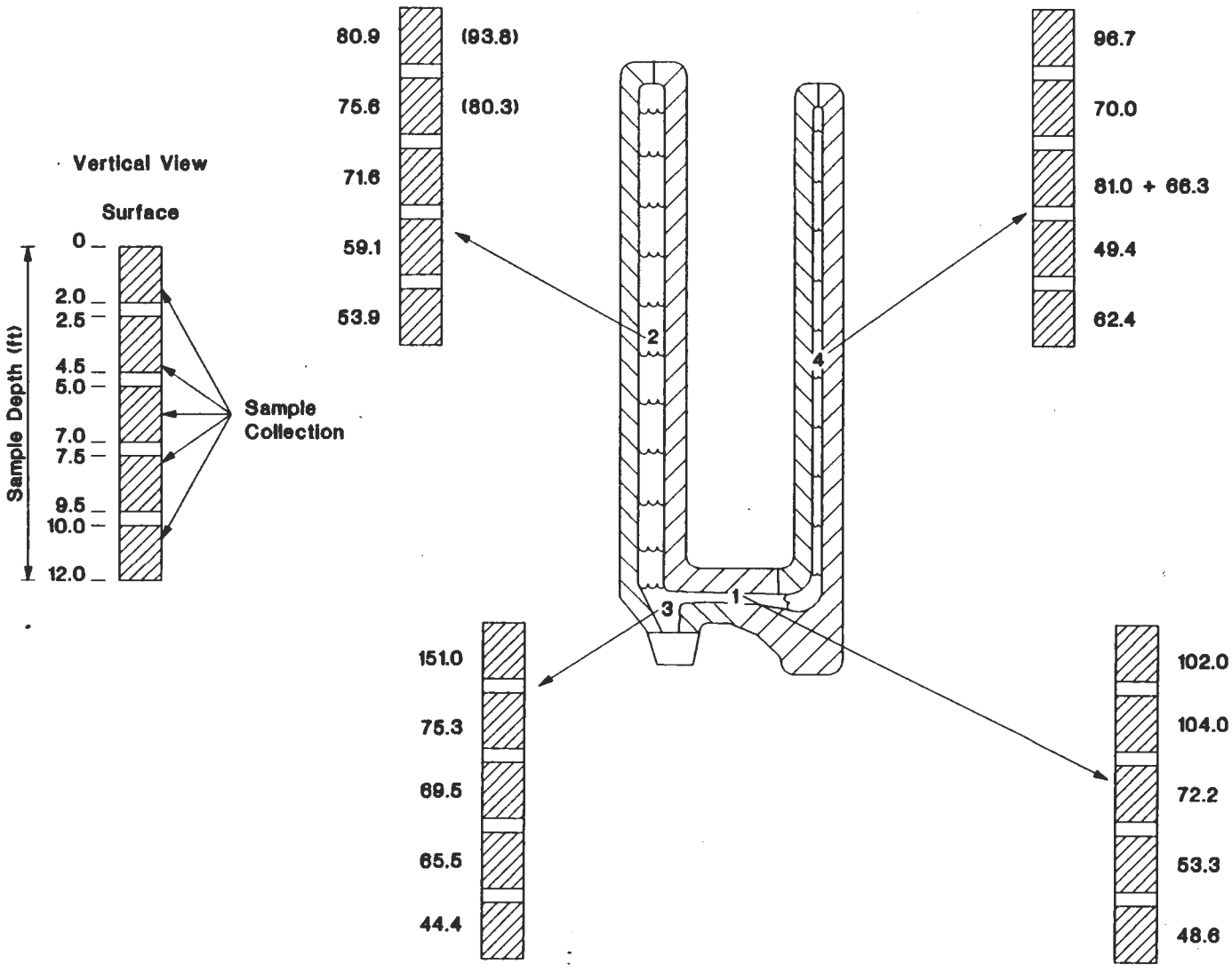
Aluminum Values (ppm) for Samples Collected from 2101-M Pond.



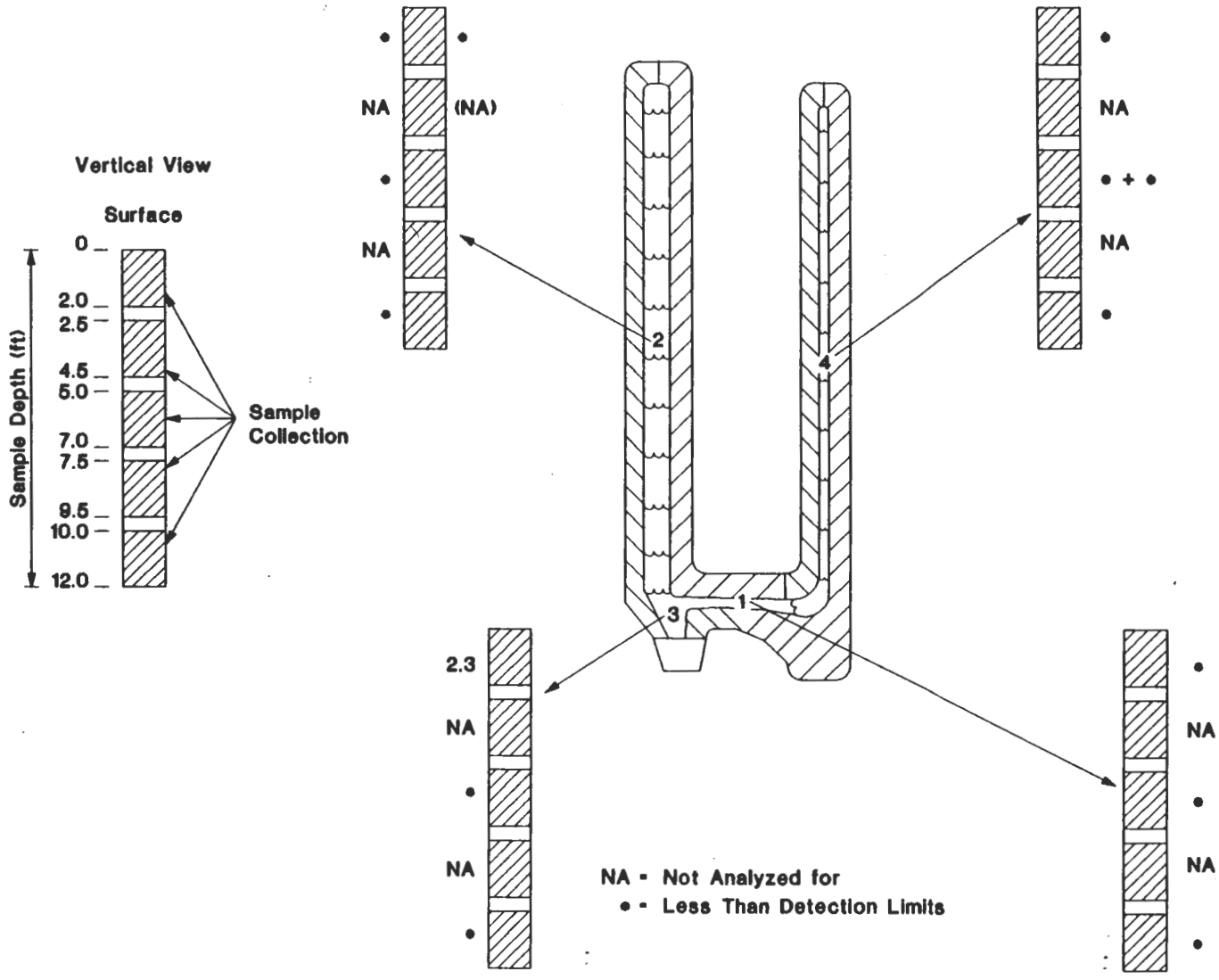
Ammonium Values (ppm) for Samples Collected from 2101-M Pond.



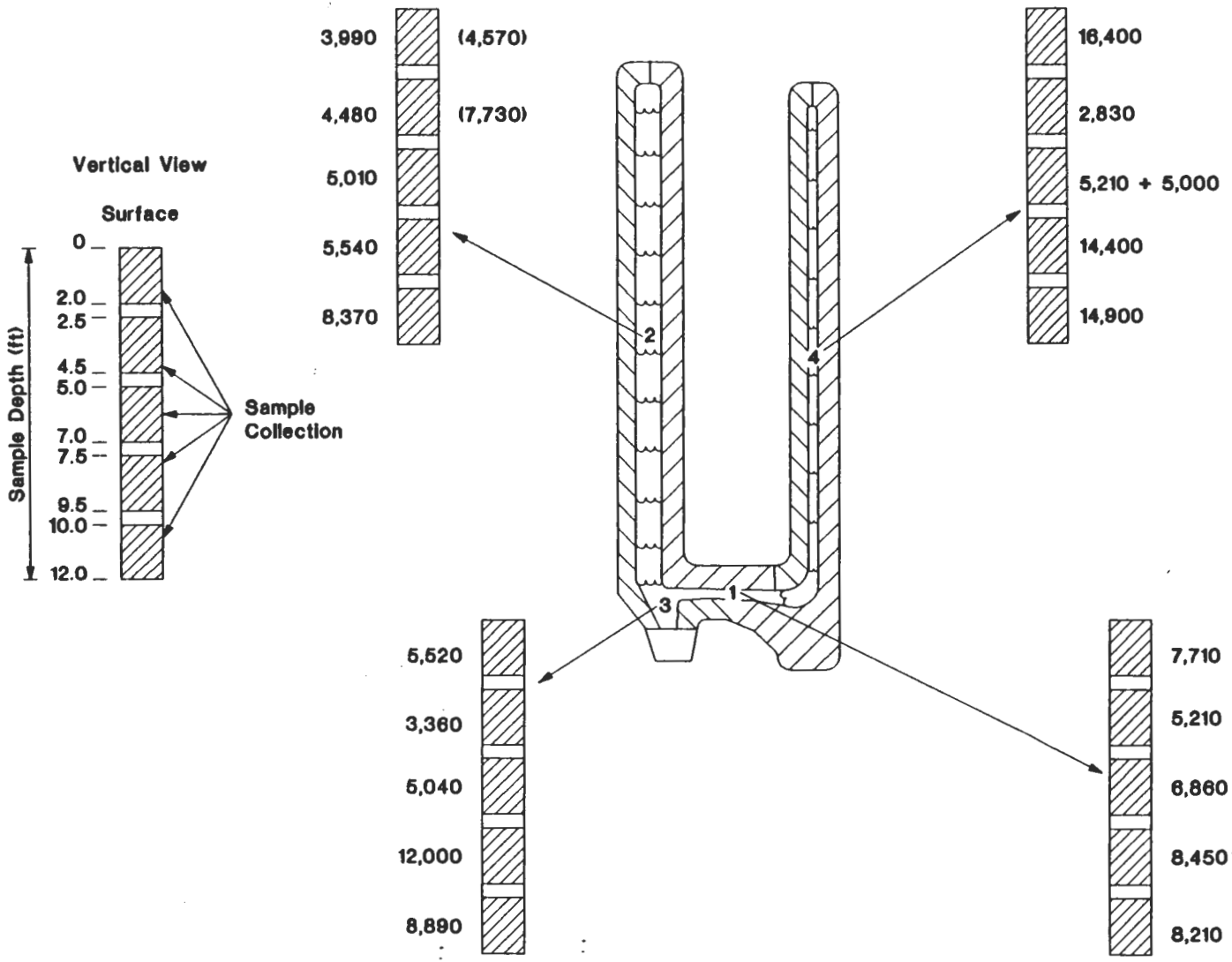
Arsenic Values (ppm) for Samples Collected from 2101-M Pond.



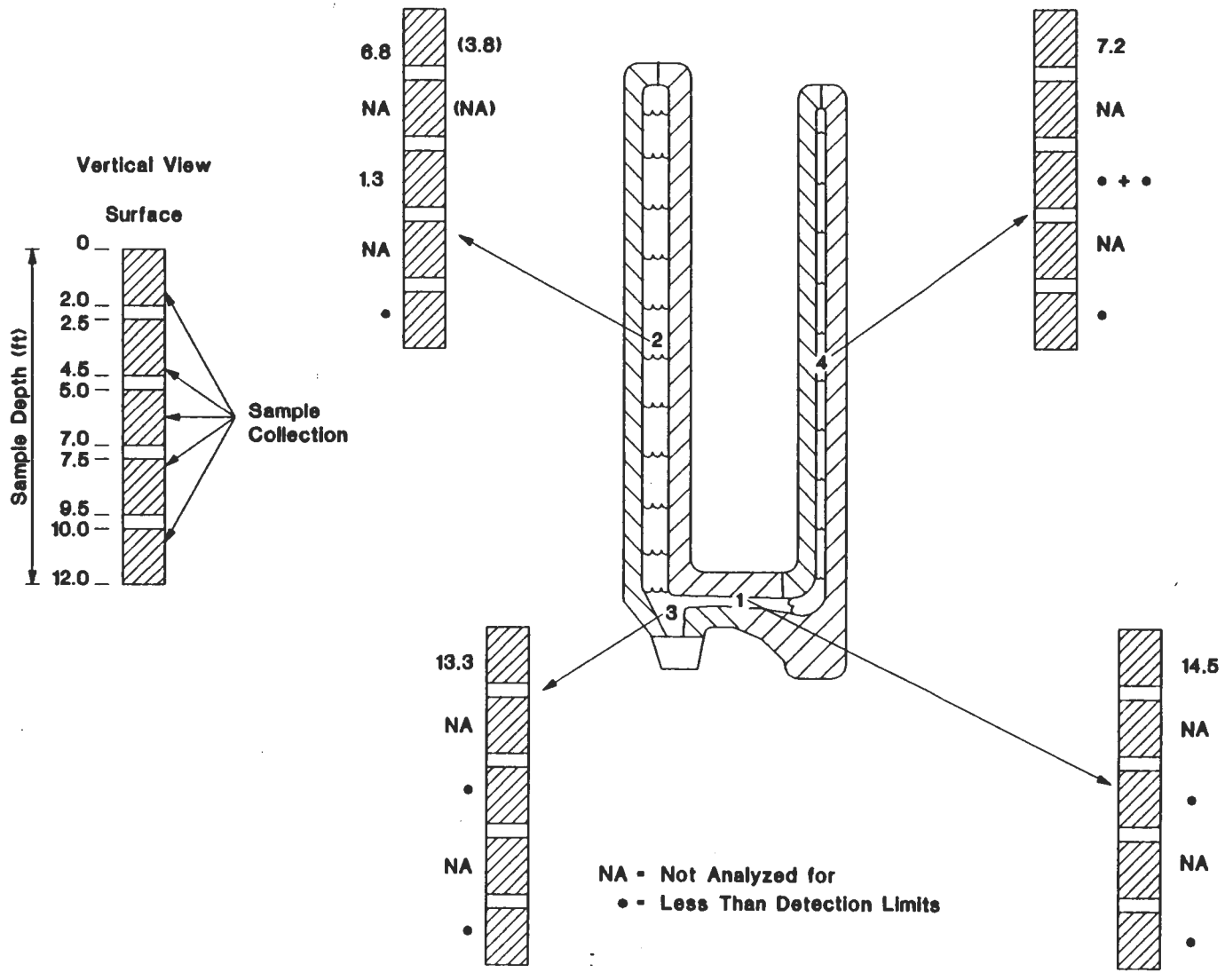
Barium Values (ppm) for Samples Collected from 2101-M Pond.



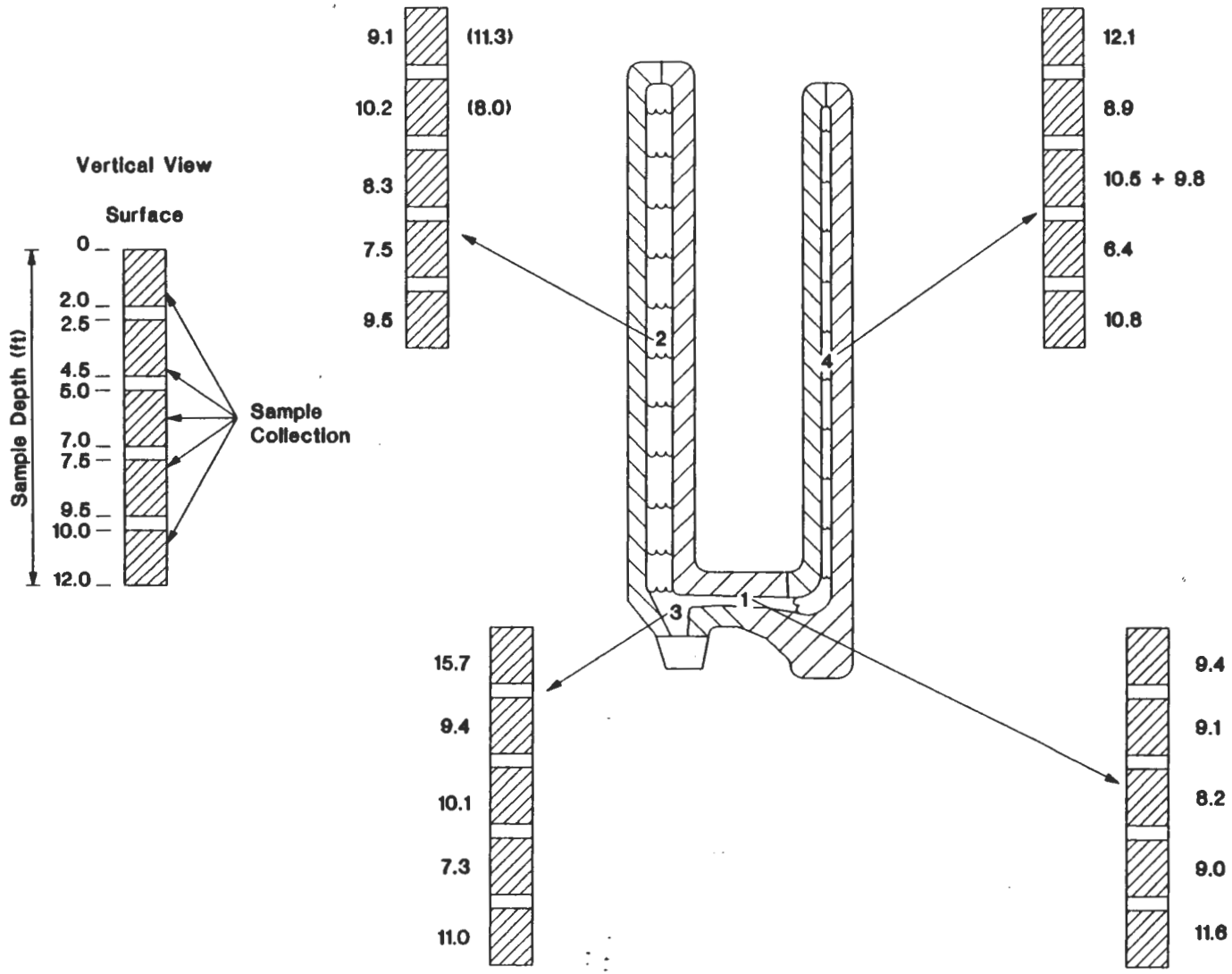
Butanoic Acid Values (ppm) for Samples Collected from 2101-M Pond.



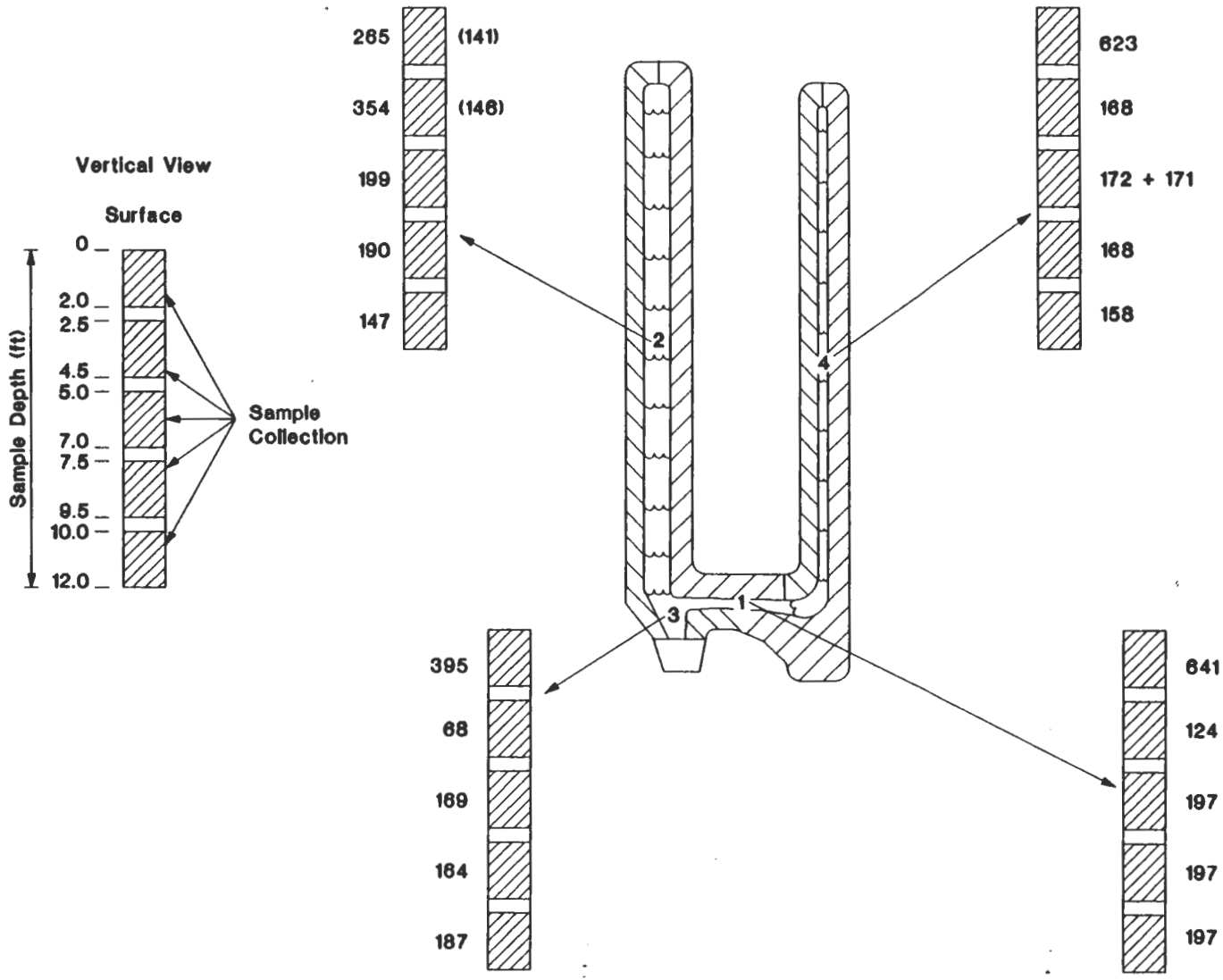
Calcium Values (ppm) for Samples Collected from 2101-M Pond.



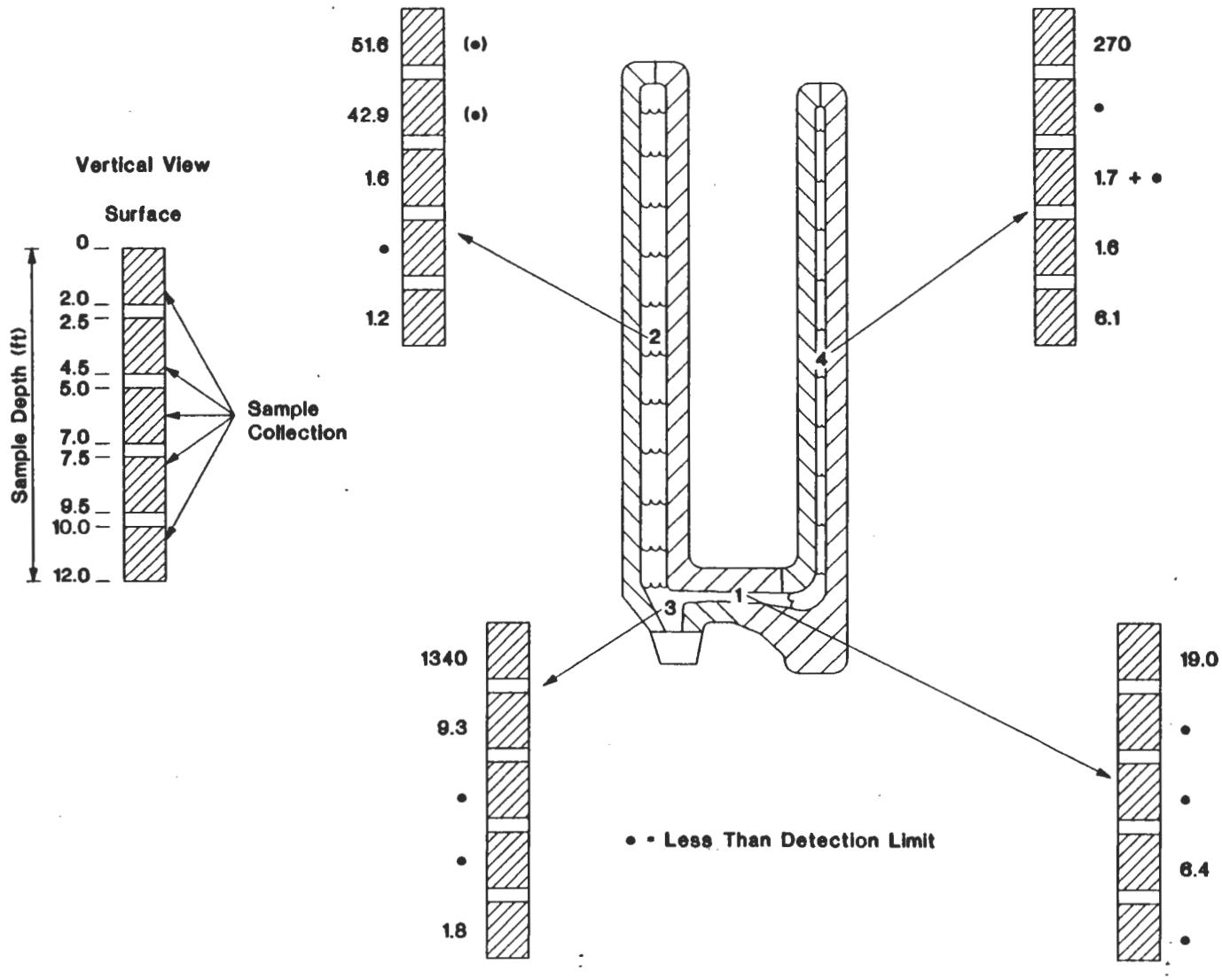
Chloride Values (ppm) for Samples Collected from 2101-M Pond.



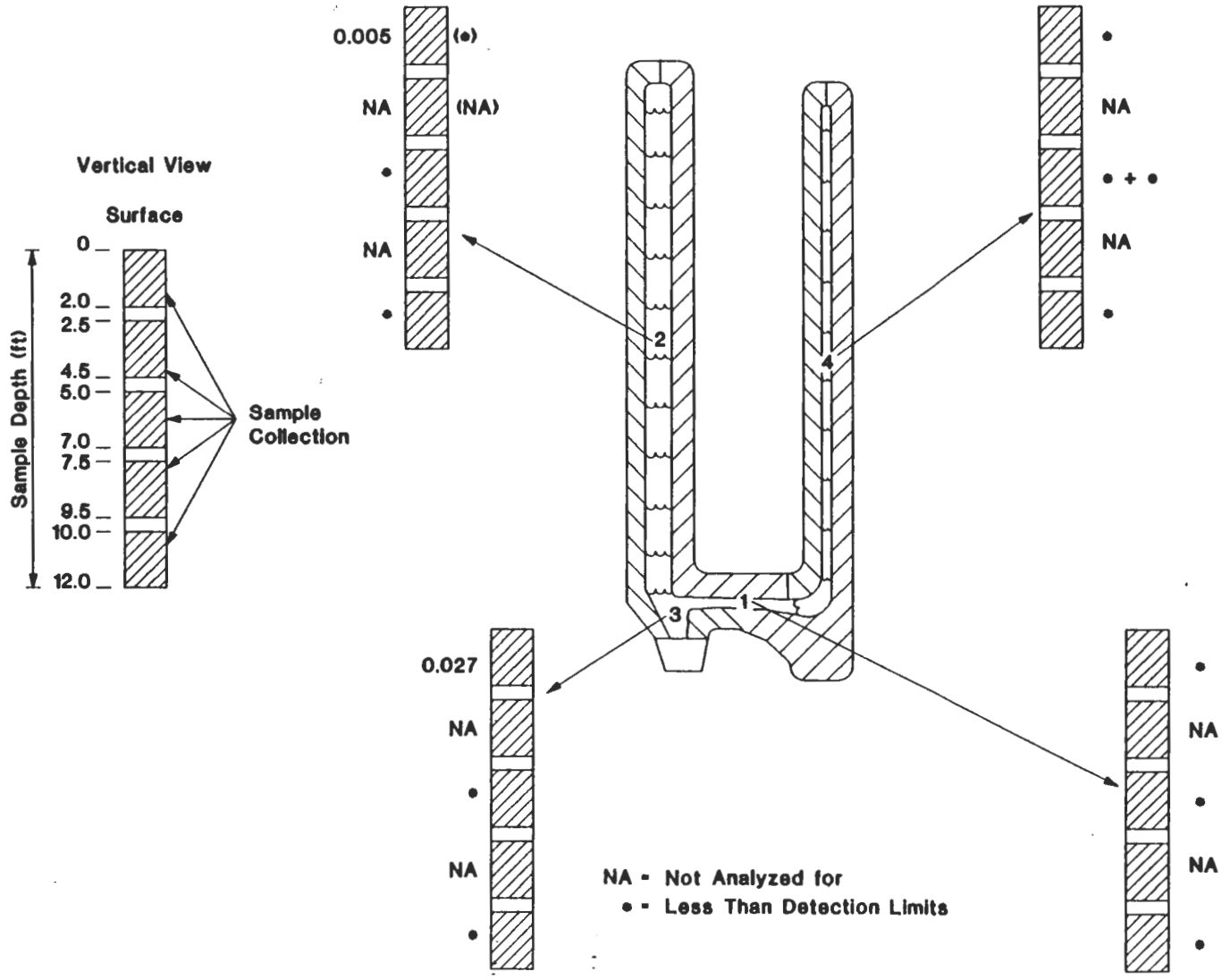
Chromium Values (ppm) for Samples Collected from 2101-M Pond.



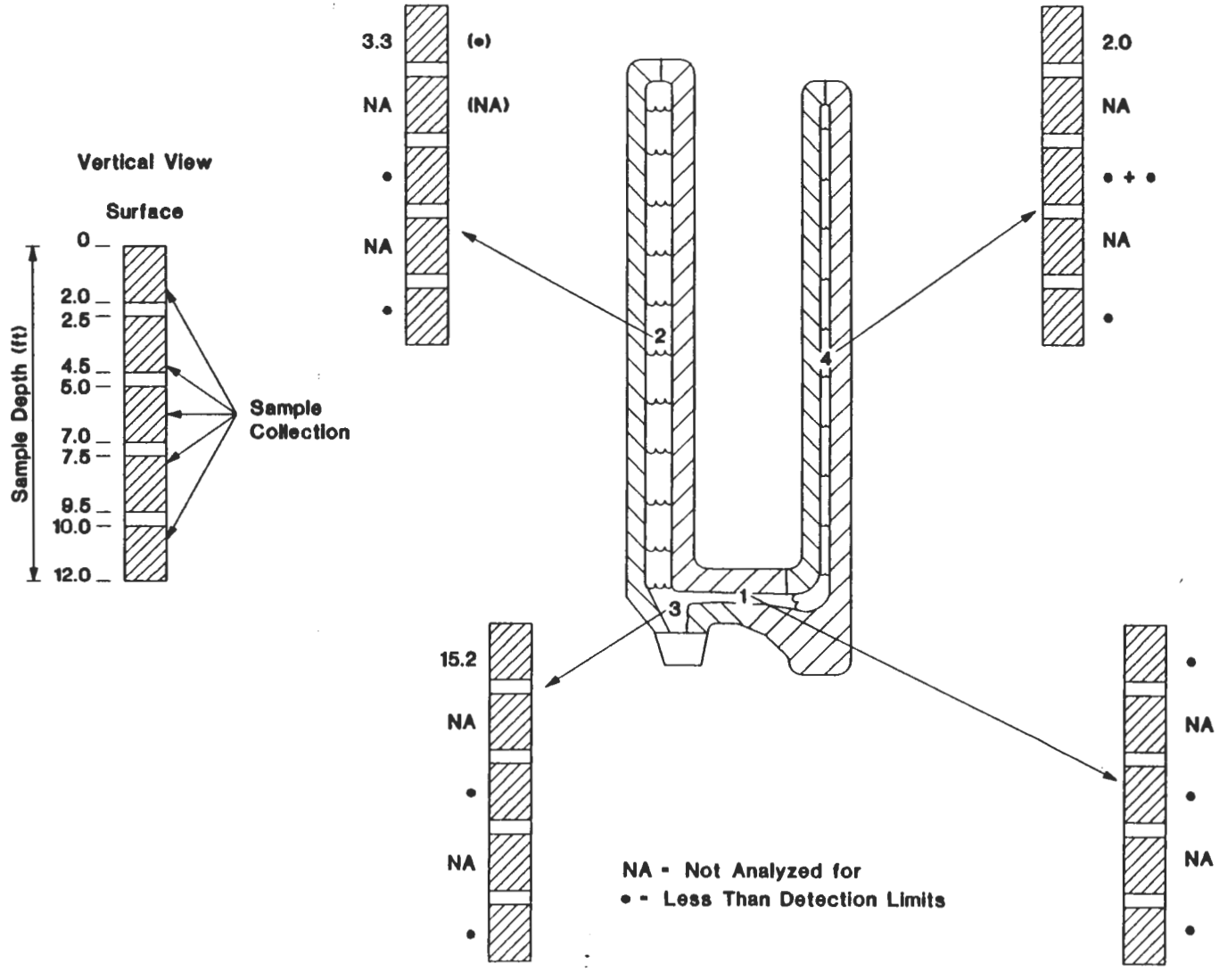
Conductivity Measurements for Samples Collected from 2101-M Pond.



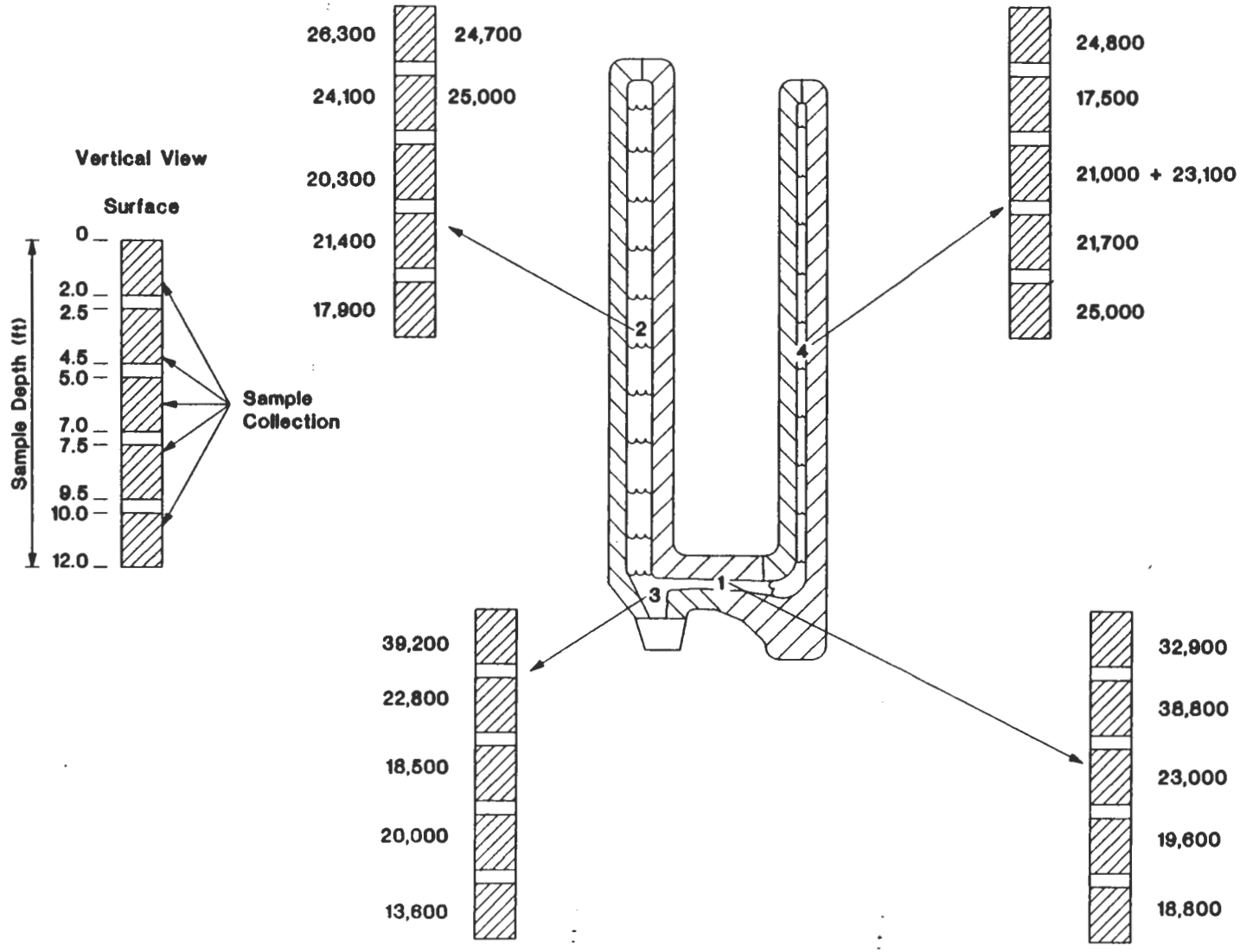
Copper Values (ppm) for Samples Collected from 2101-M Pond.



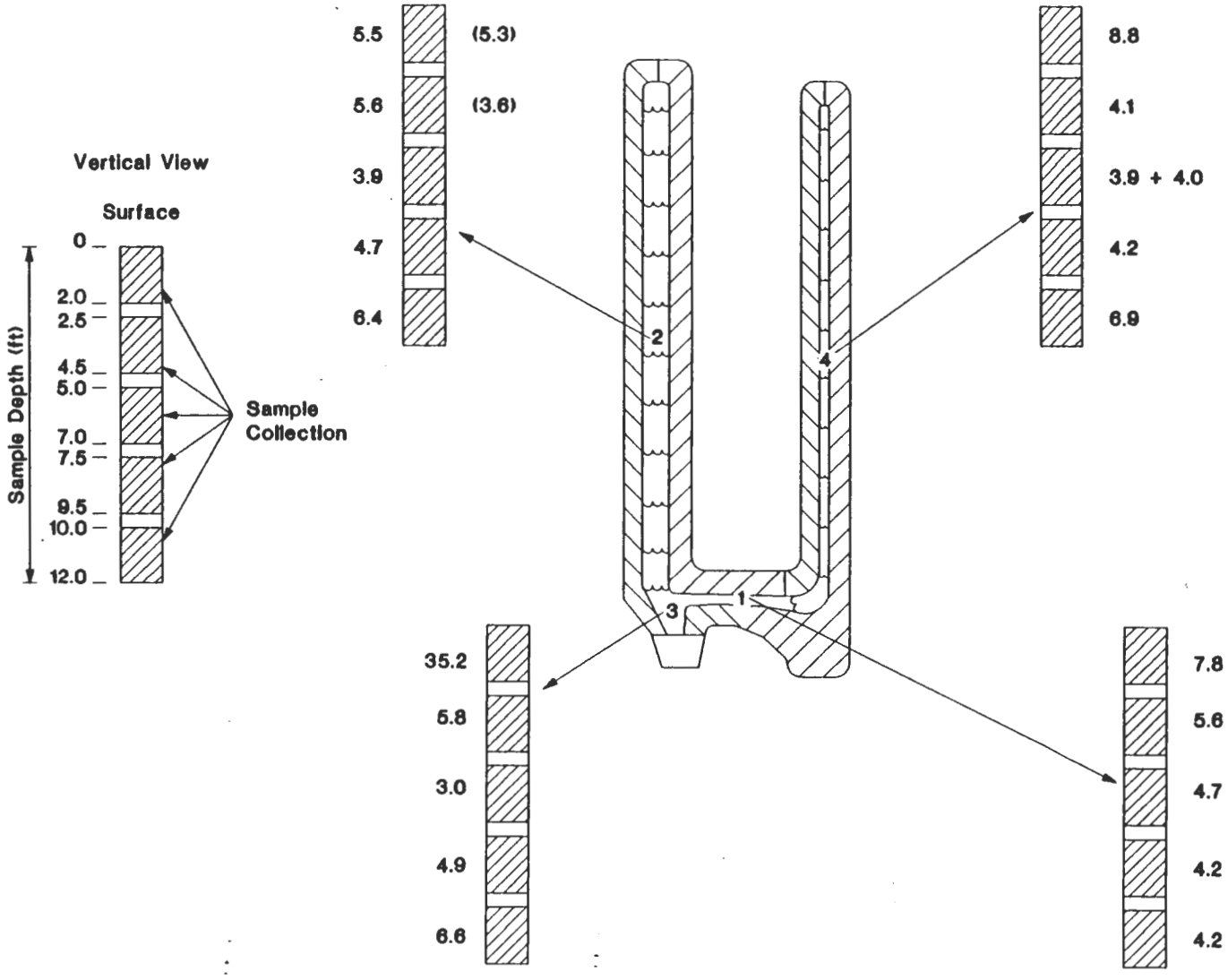
Ethanol Values (ppm) for Samples Collected from 2101-M Pond.



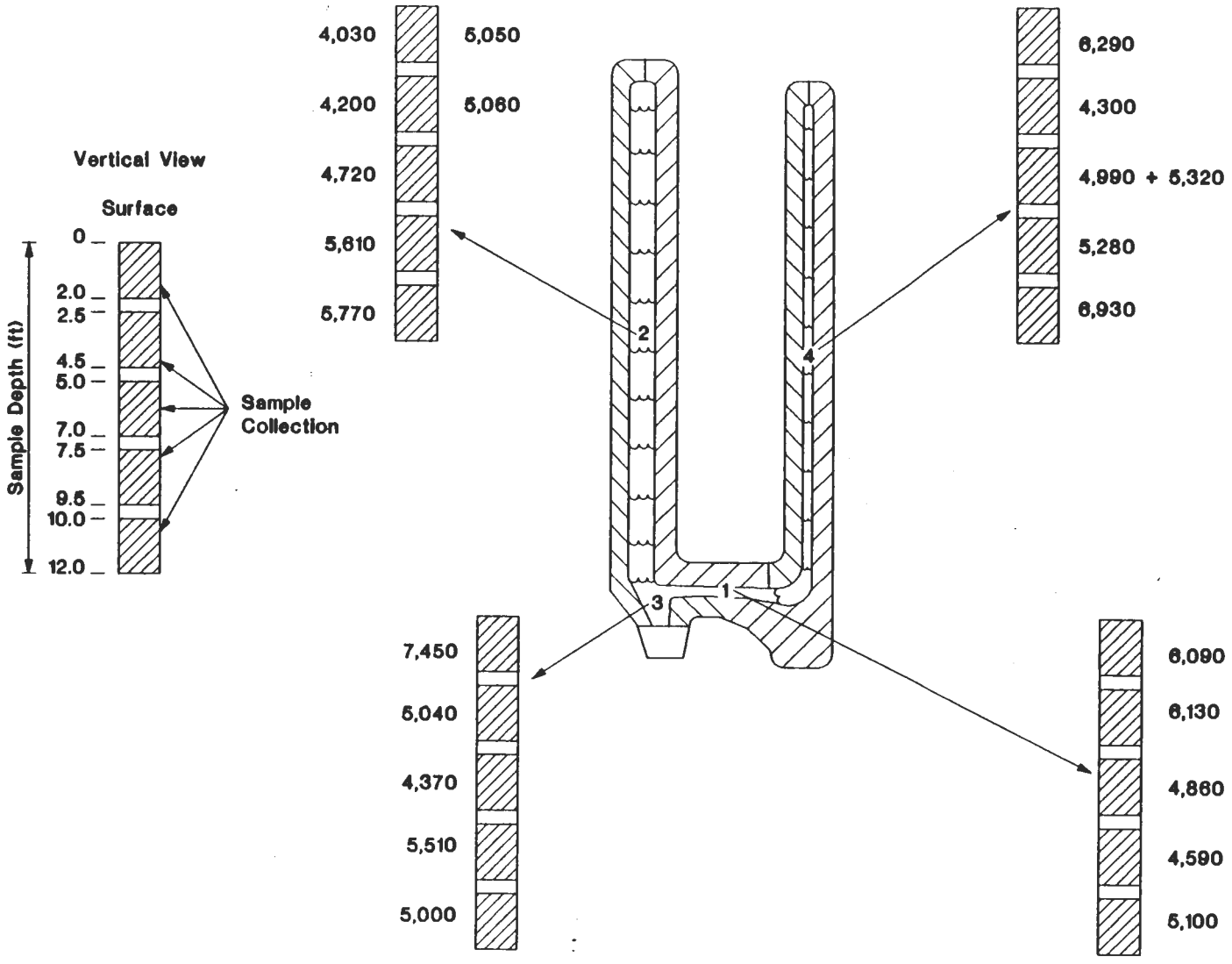
Fluoride Values (ppm) for Samples Collected from 2101-M Pond.



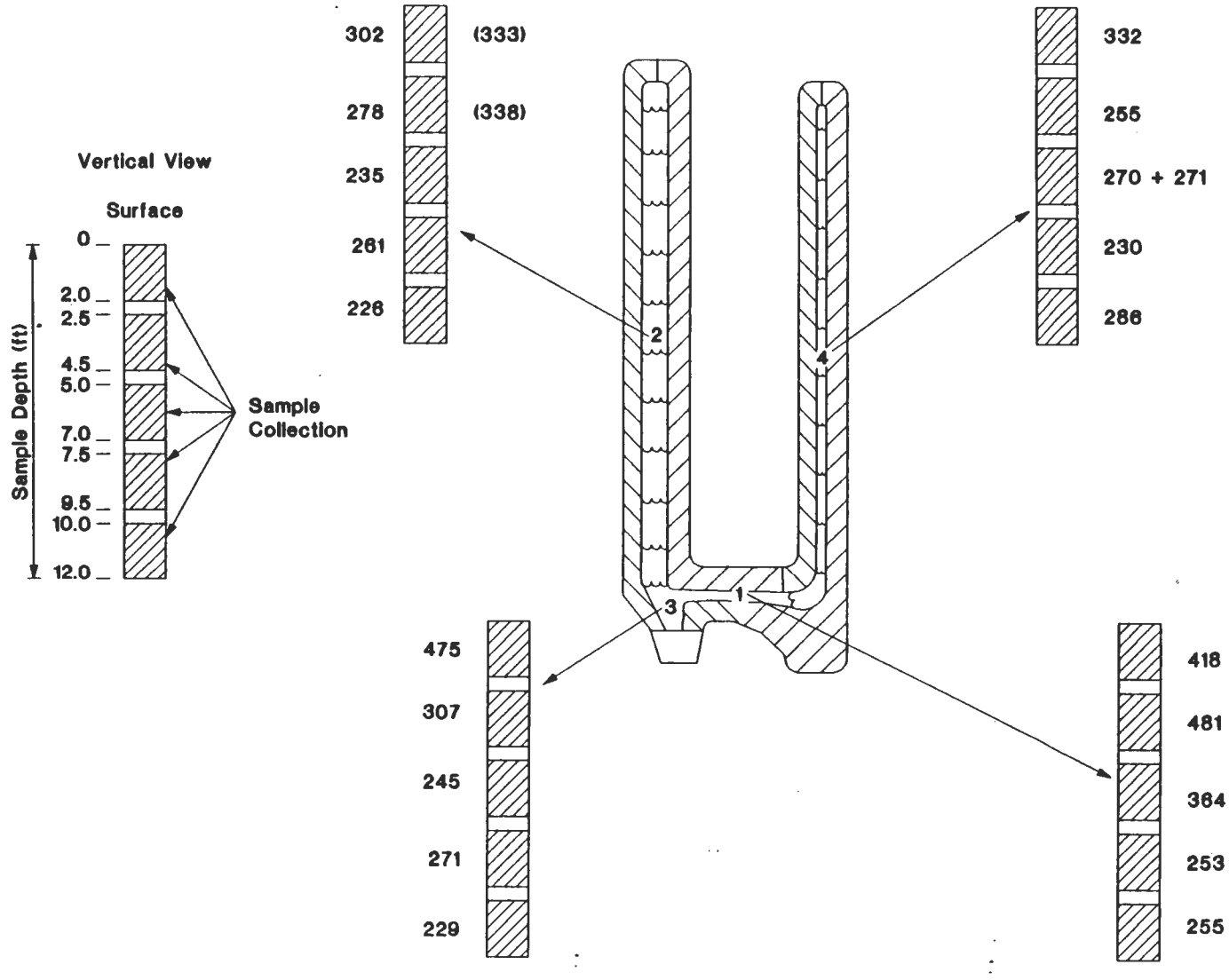
Iron Values (ppm) for Samples Collected from 2101-M Pond.



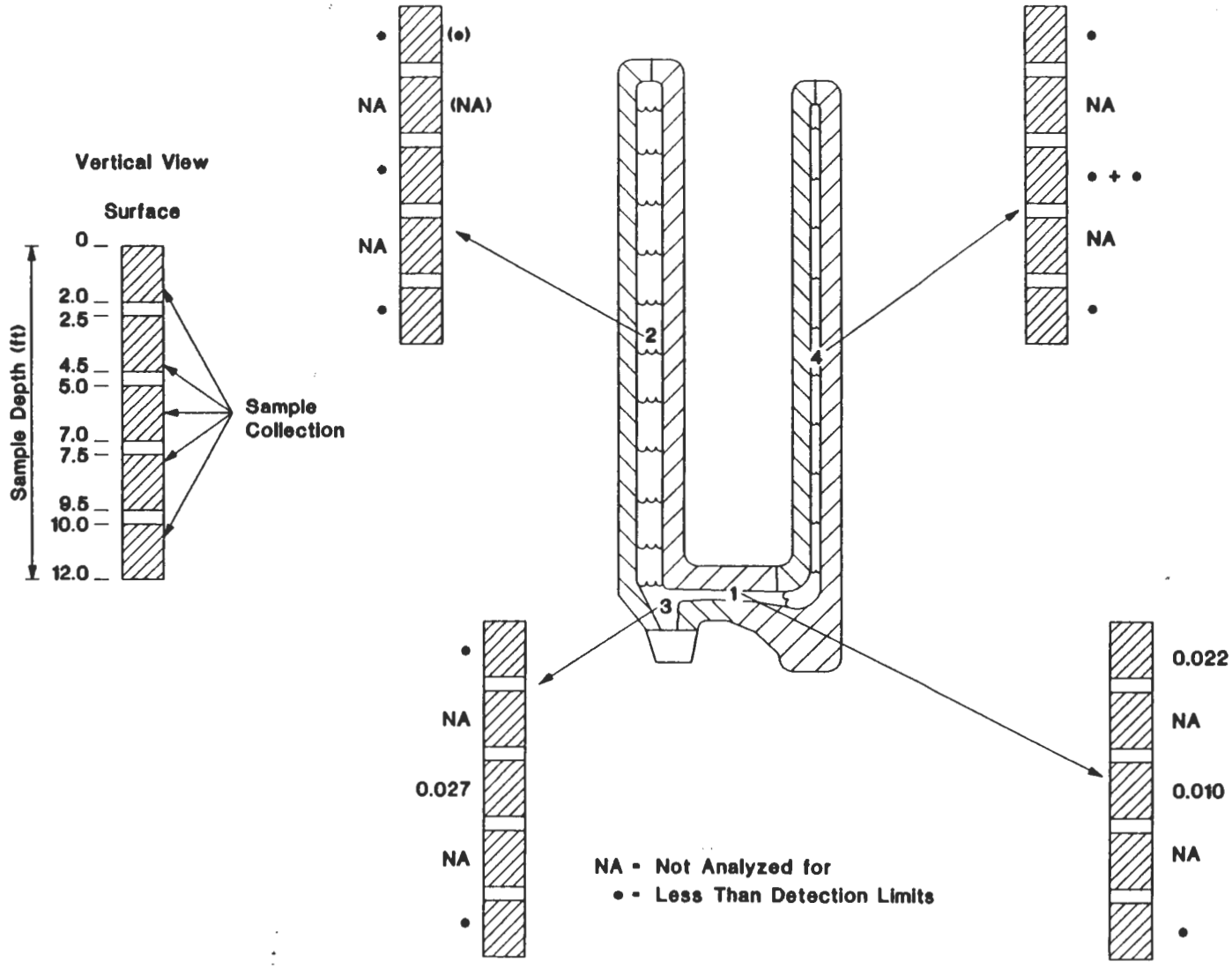
Lead Values (ppm) for Samples Collected from 2101-M Pond.



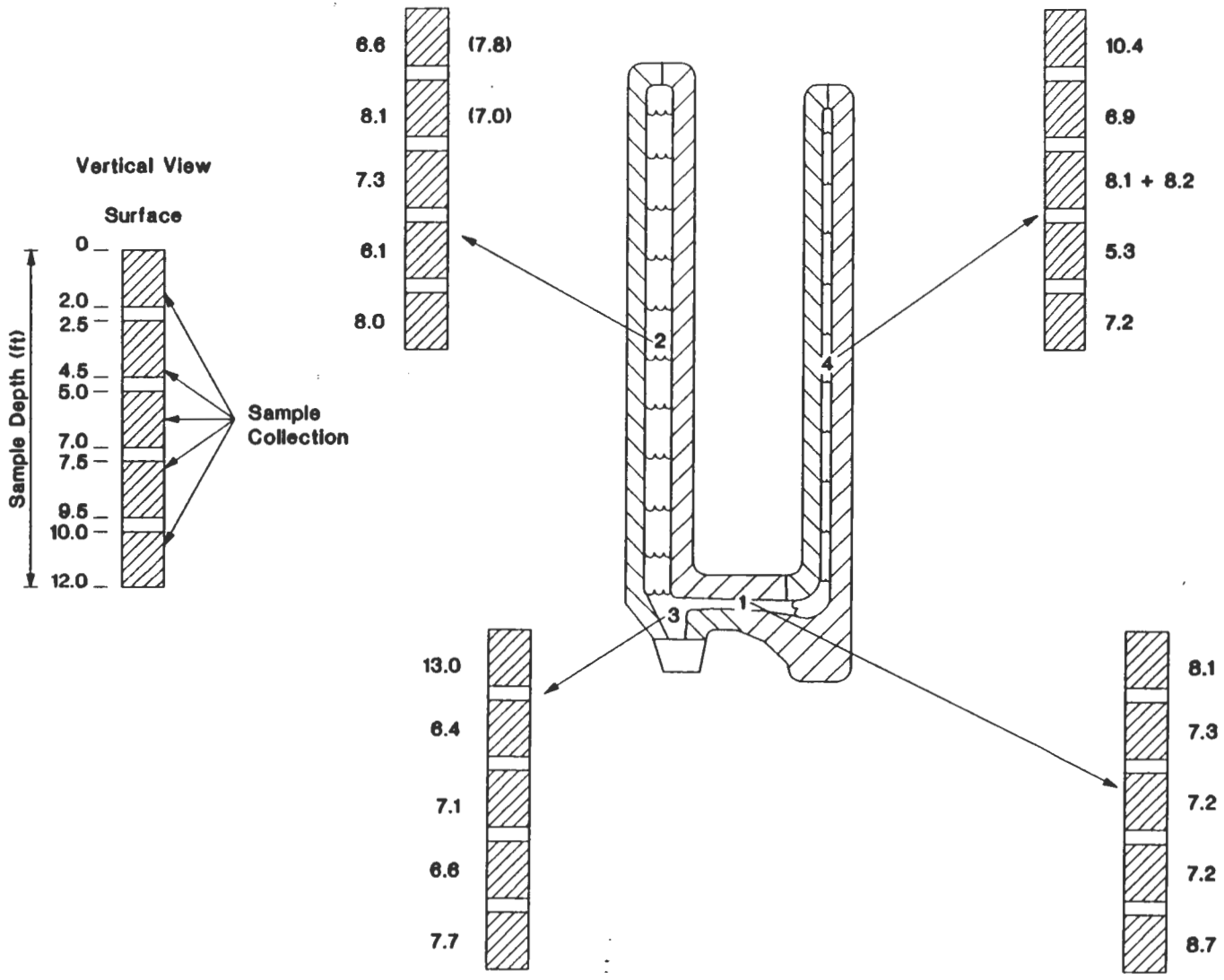
Magnesium Values (ppm) for Samples Collected from 2101-M Pond.



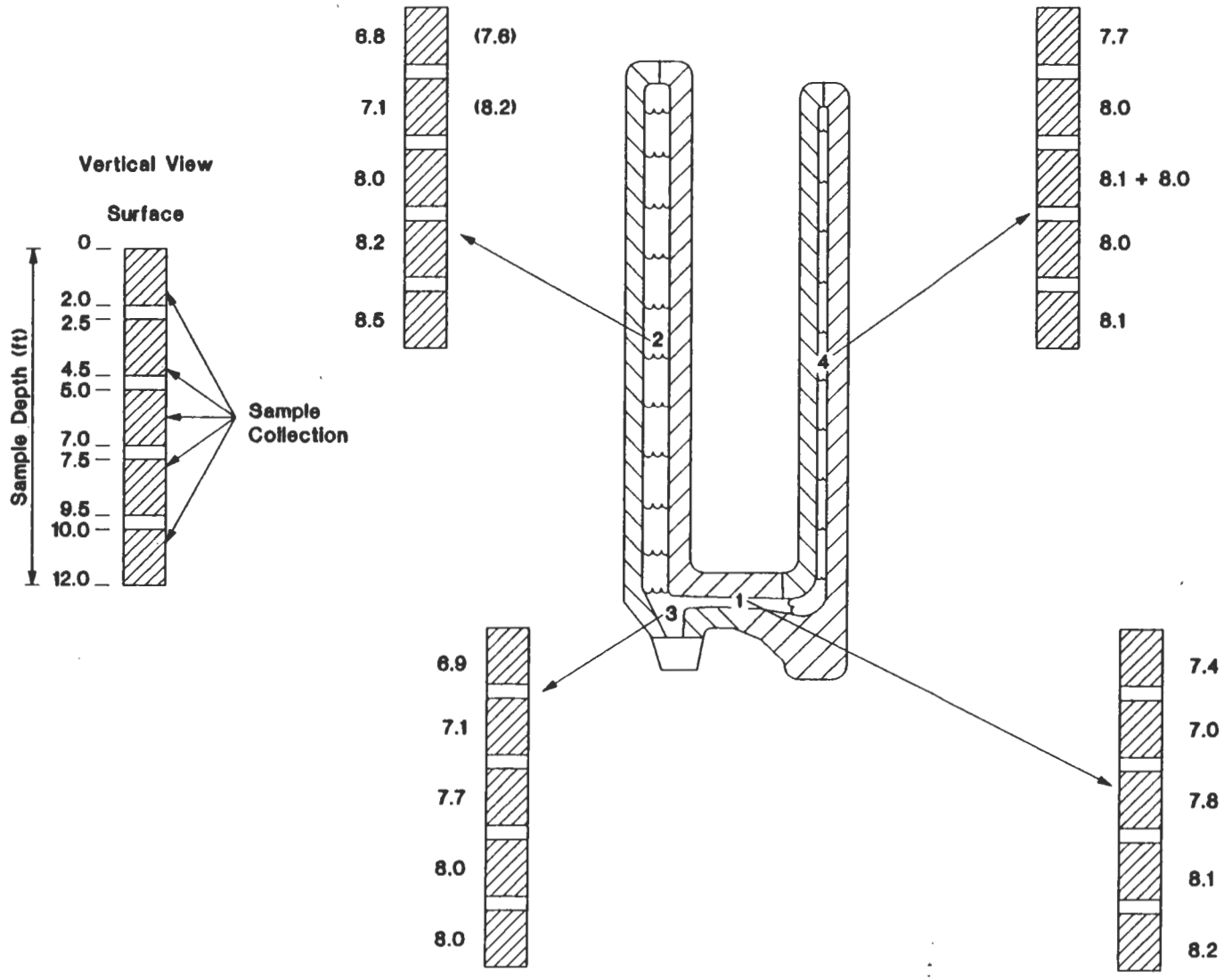
Manganese Values (ppm) for Samples Collected from 2101-M Pond.



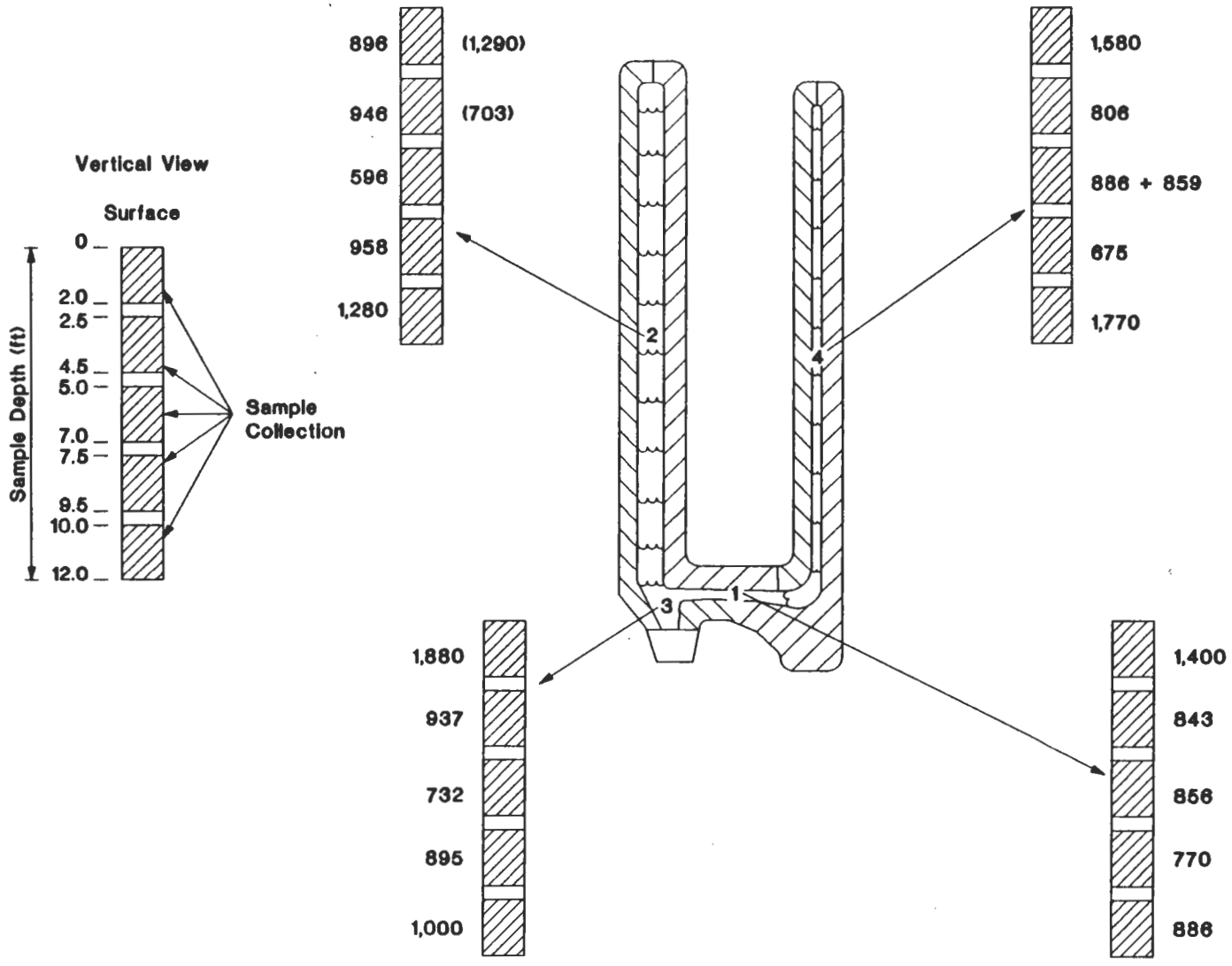
Methylene Chloride Values (ppm) for Samples Collected from 2101-M Pond.



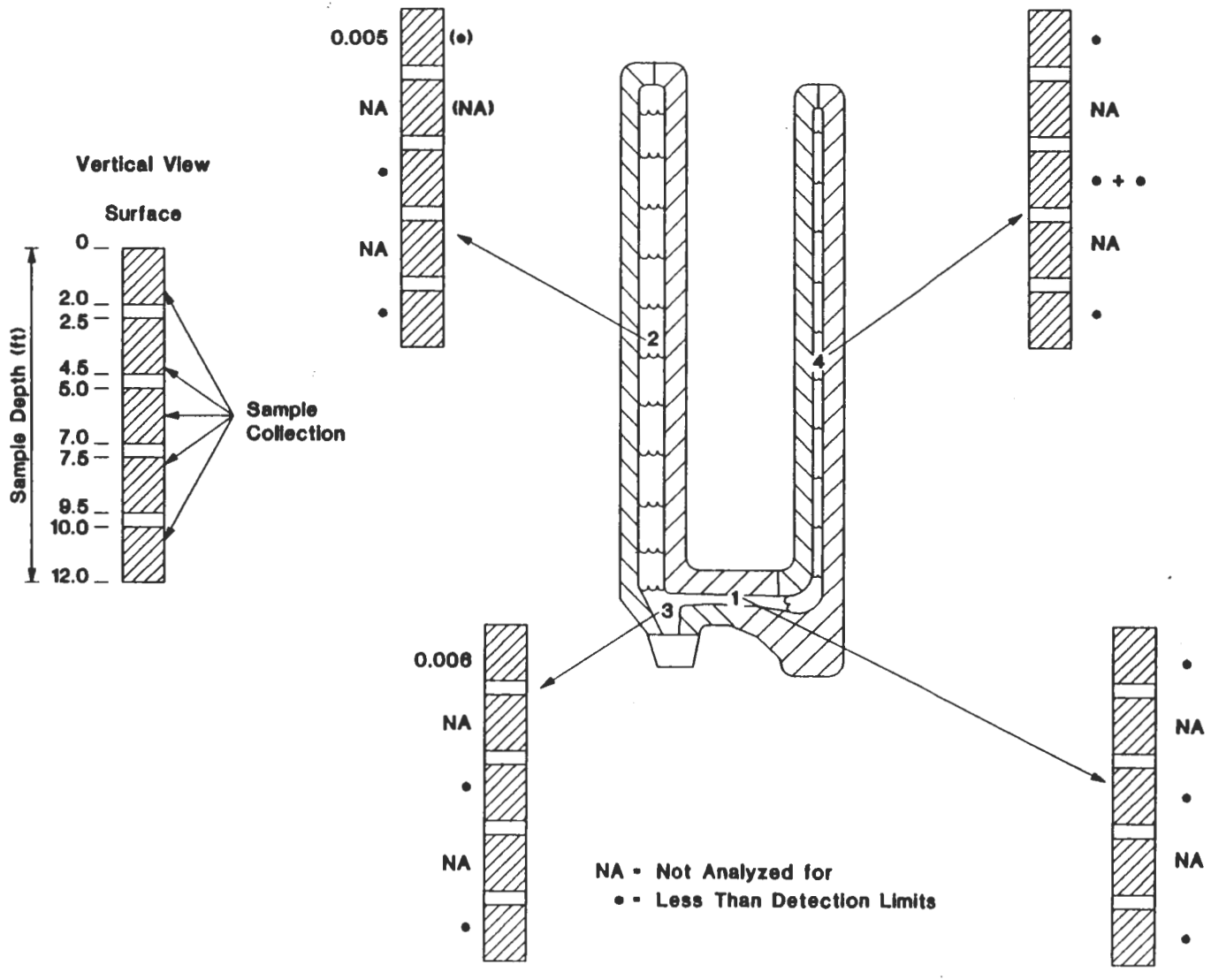
Nickel Values (ppm) for Samples Collected from 2101-M Pond.



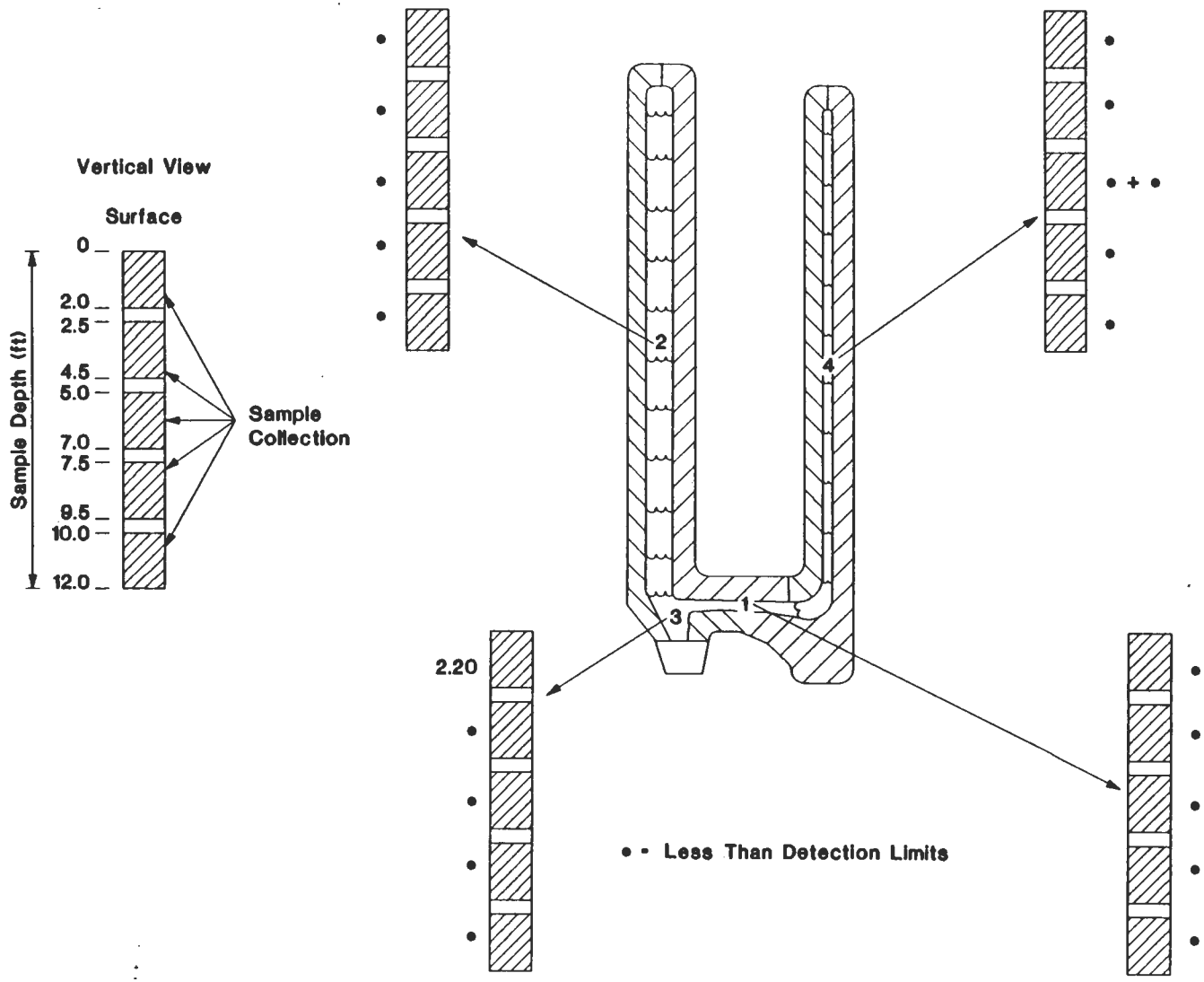
pH Measurements for Samples Collected from 2101-M Pond.



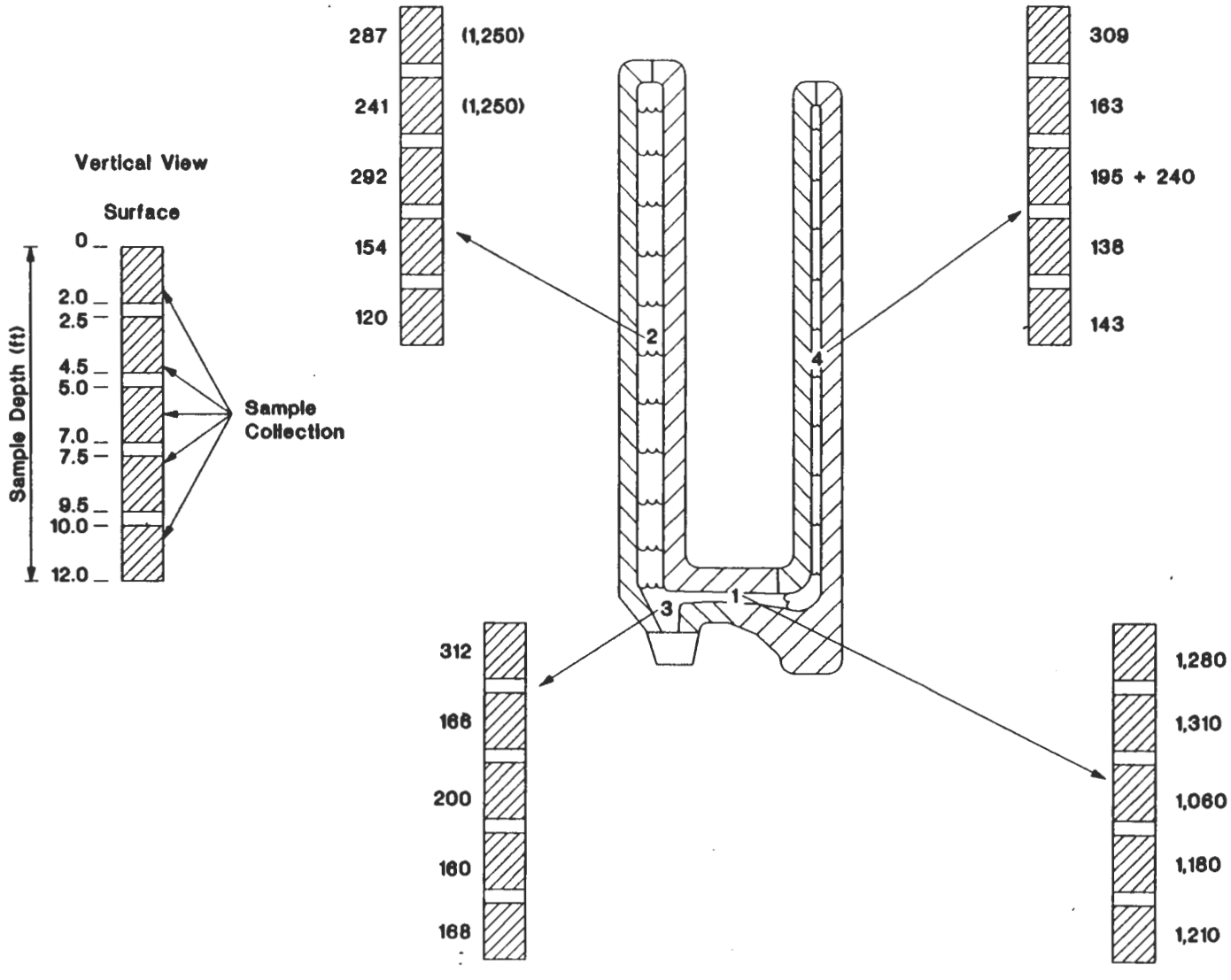
Potassium Values (ppm) for Samples Collected from 2101-M Pond.



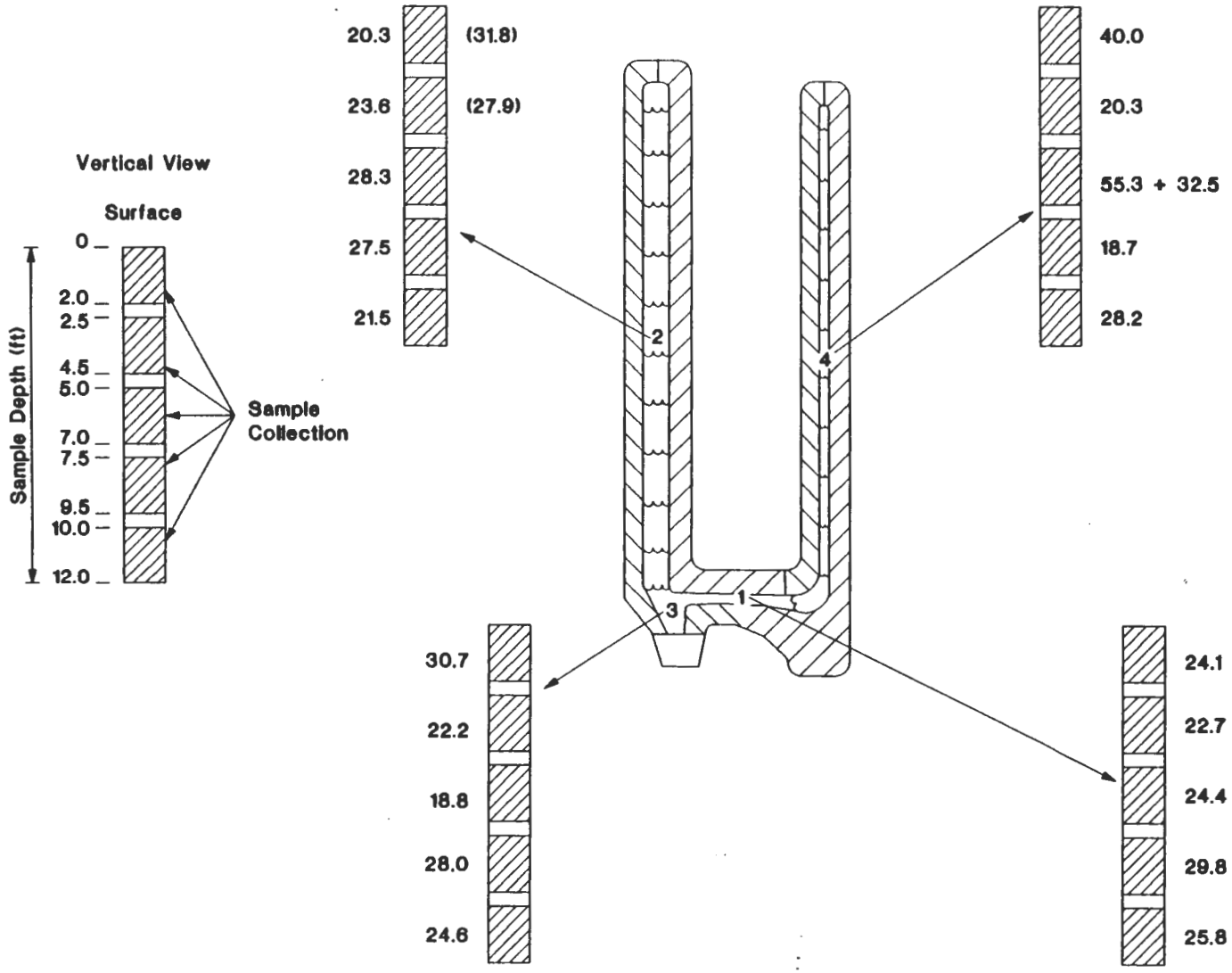
Propanol Values (ppm) for Samples Collected from 2101-M Pond.



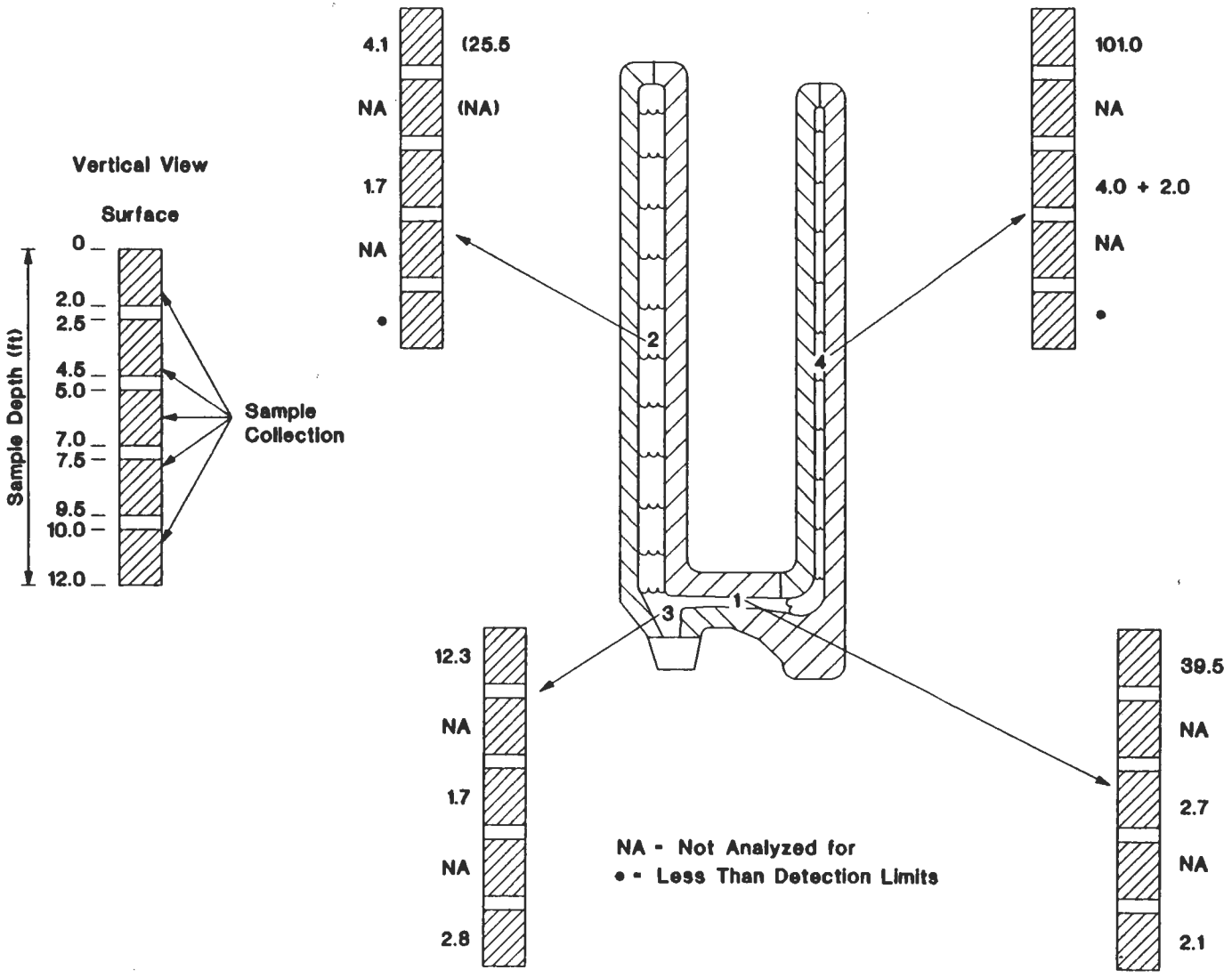
Silver Values (ppm) for Samples Collected from 2101-M Pond.



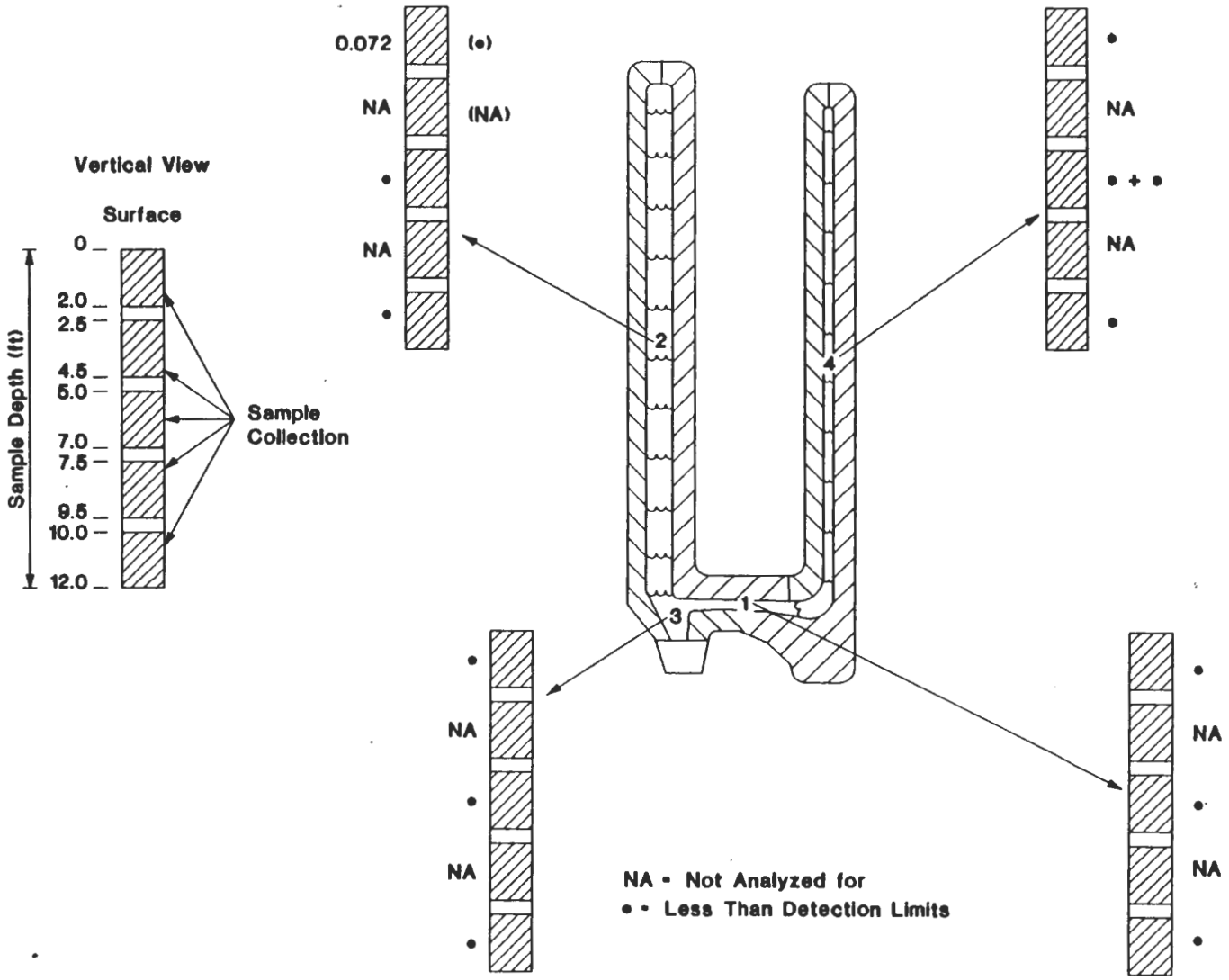
Sodium Values (ppm) for Samples Collected from 2101-M Pond.



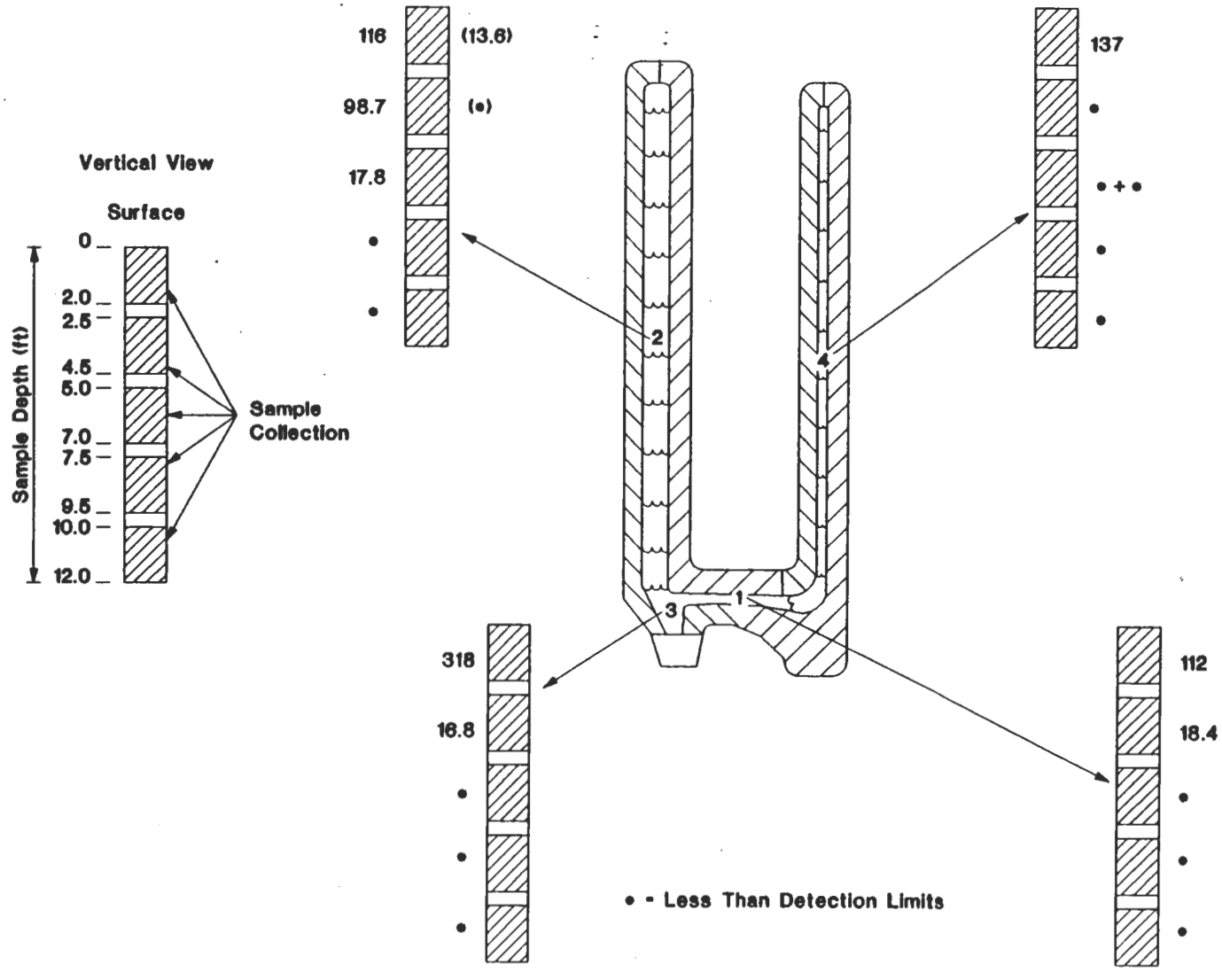
Strontium Values (ppm) for Samples Collected from 2101-M Pond.



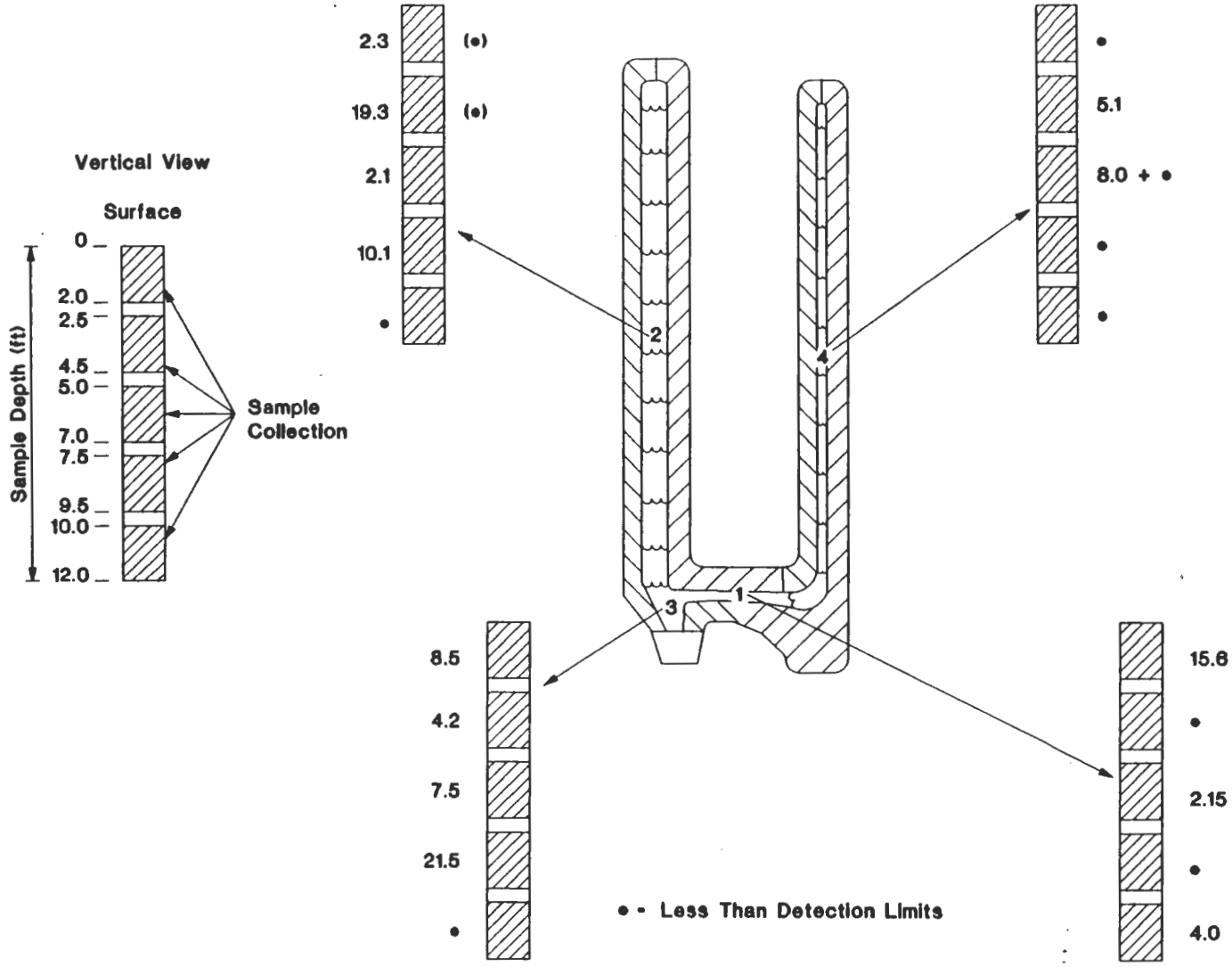
Sulfate Values (ppm) for Samples Collected from 2101-M Pond.



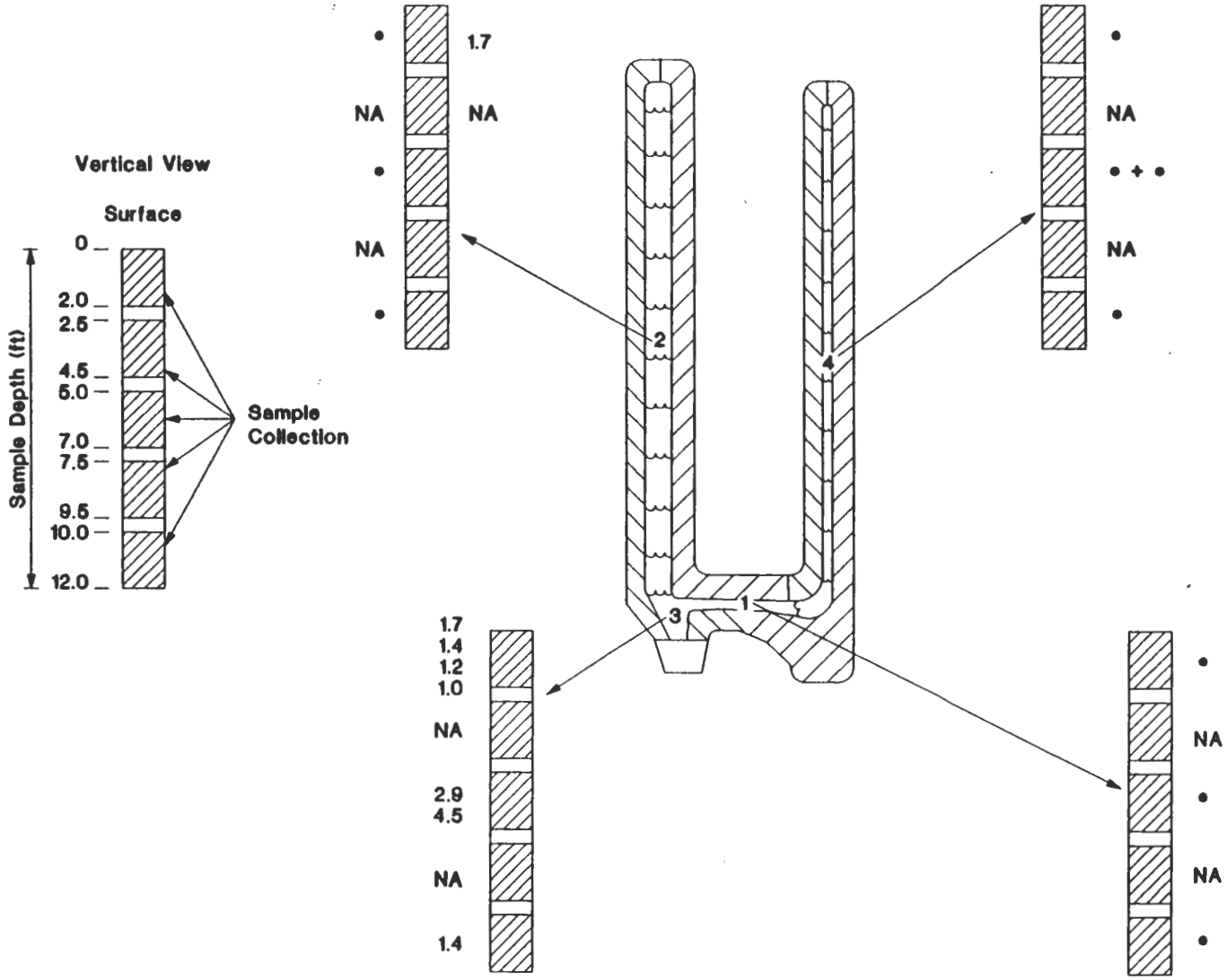
Toluene Values (ppm) for Samples Collected from 2101-M Pond.



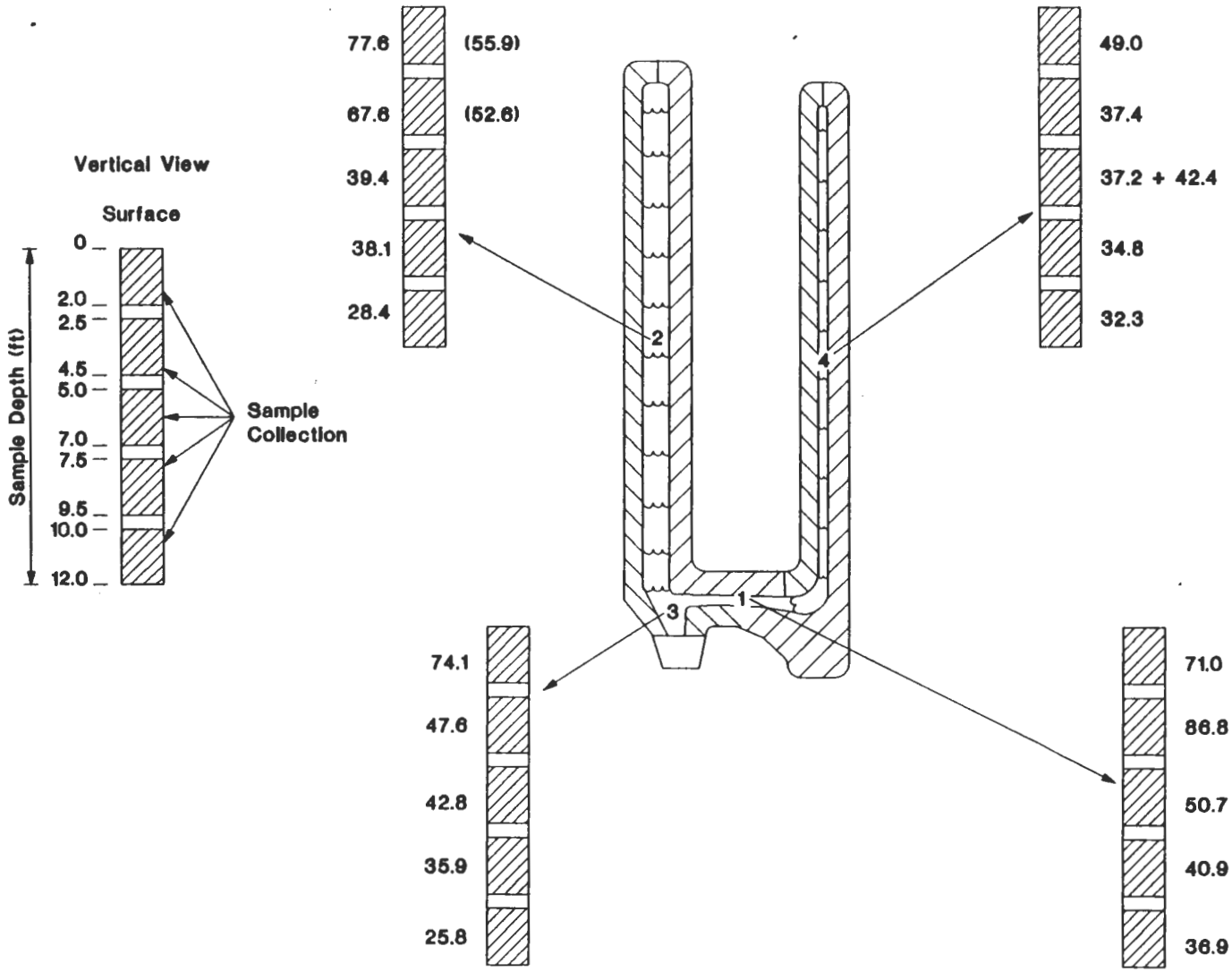
Total Organic Carbon Values (ppm) for Samples Collected from 2101-M Pond.



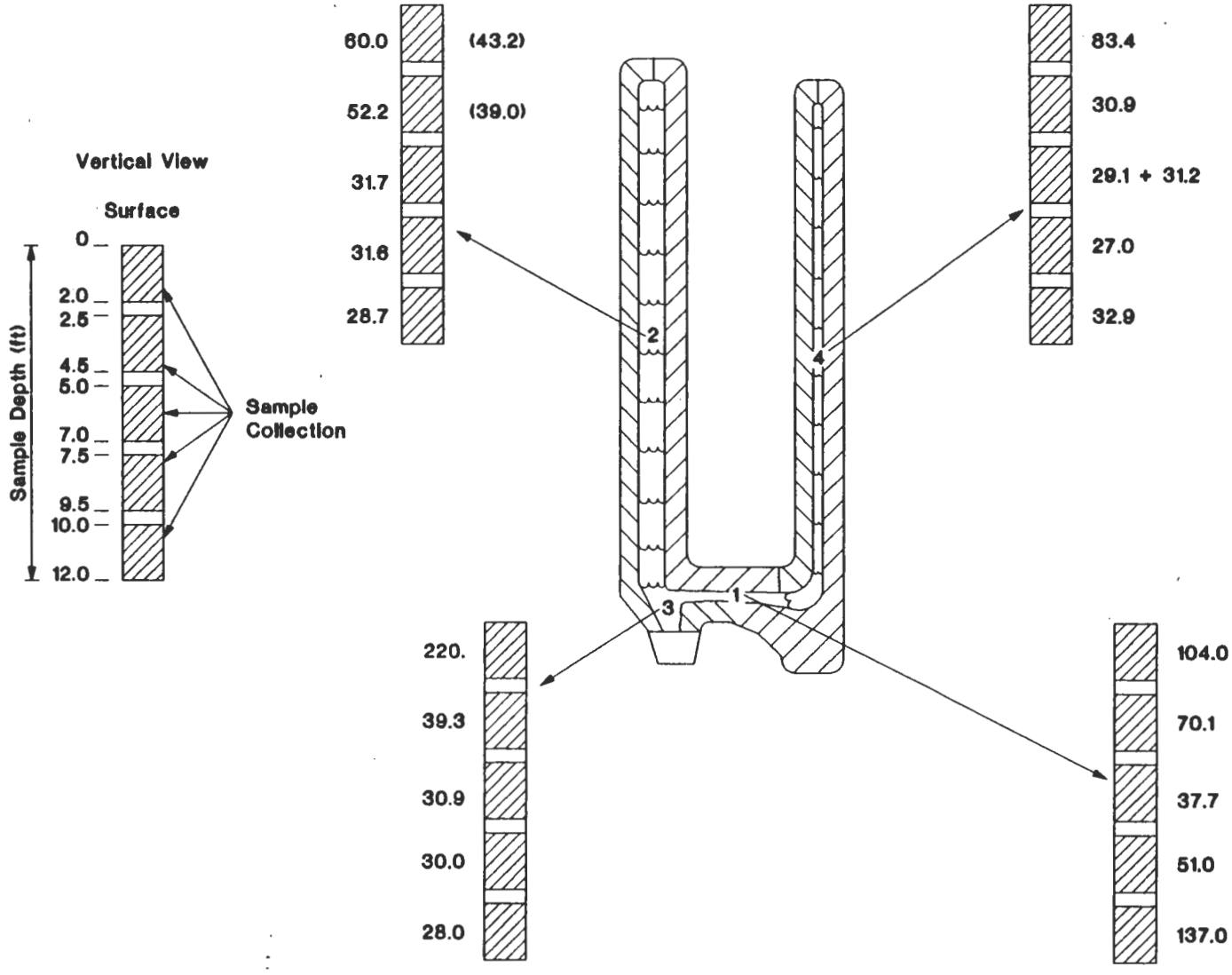
Total Organic Halogen Values (ppm) for Samples Collected from 2101-M Pond.



Unknown Organics Values (ppm) for Samples Collected from 2101-M Pond.



Vanadium Values (ppm) for Samples Collected from 2101-M Pond.



Zinc Values (ppm) for Samples Collected from 2101-M Pond.

1 **BACKGROUND SOIL SAMPLING RESULTS**

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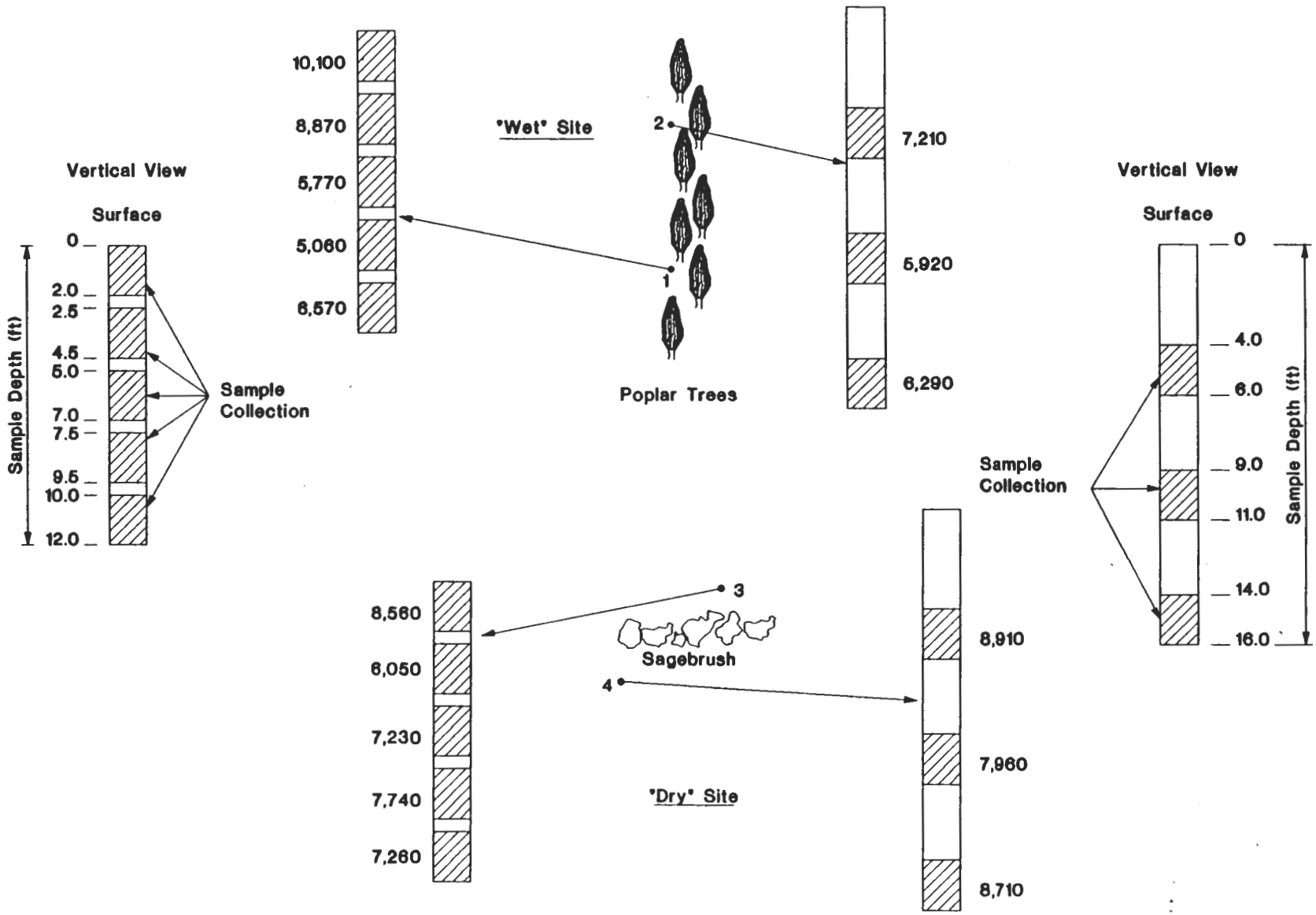
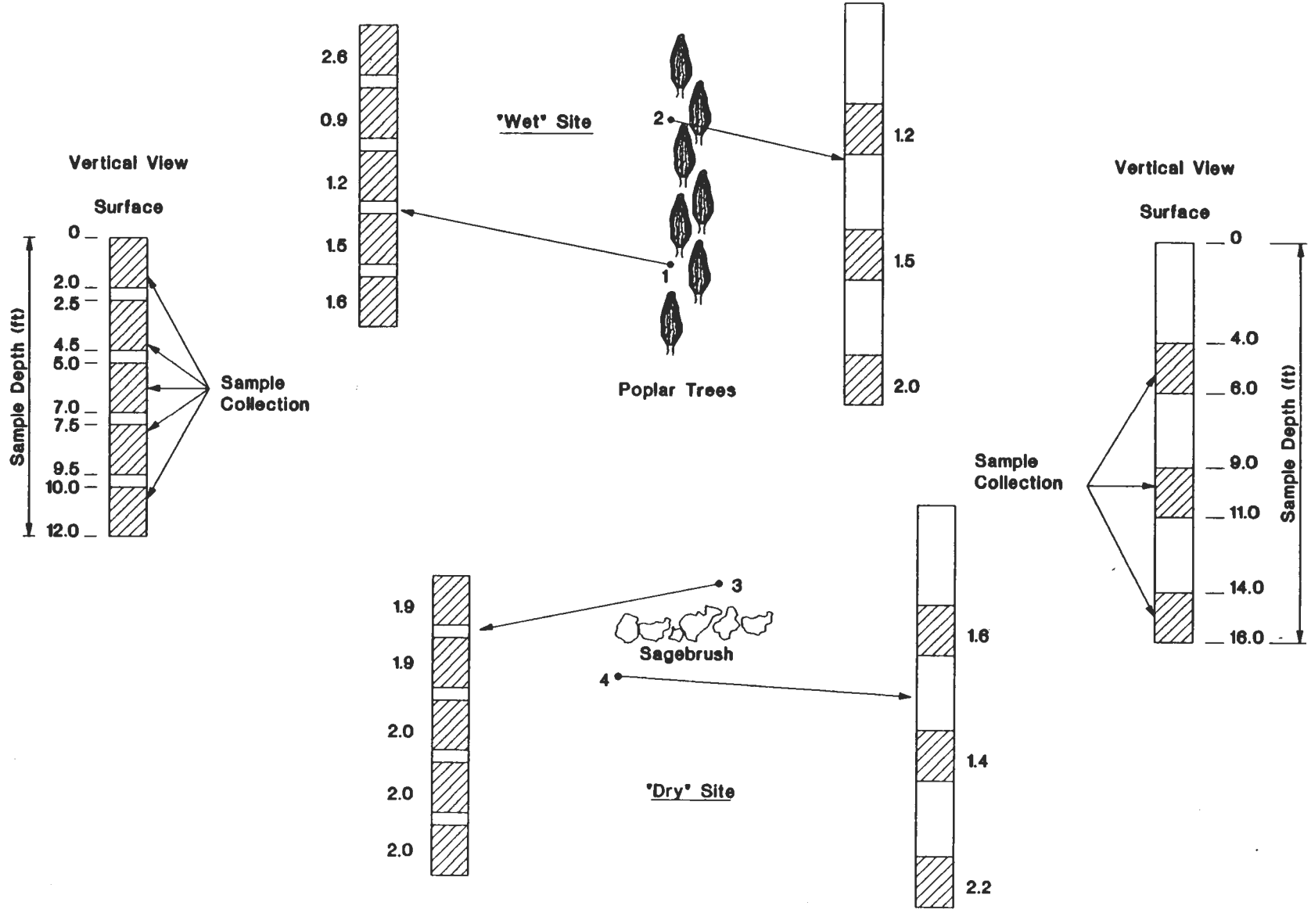
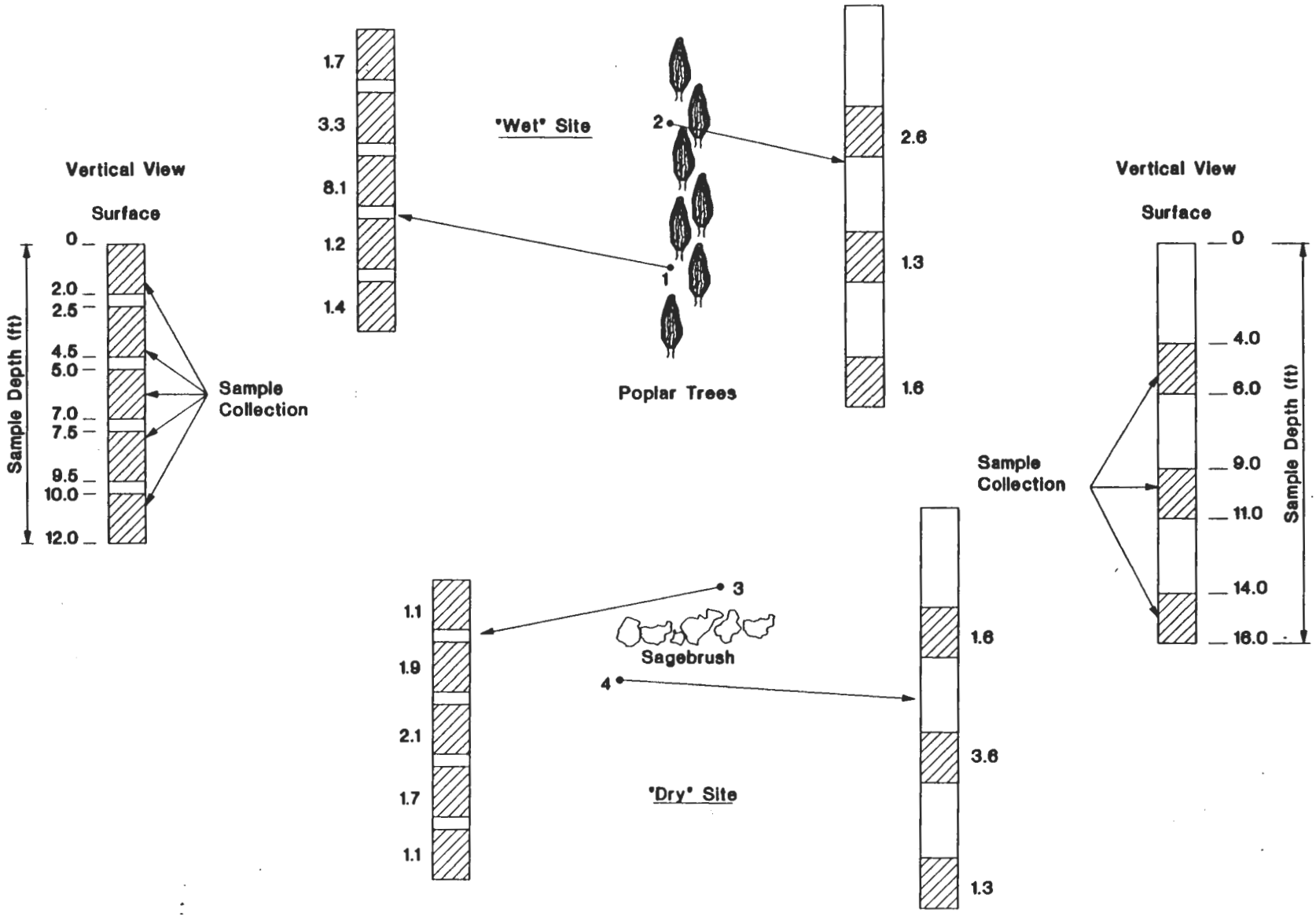


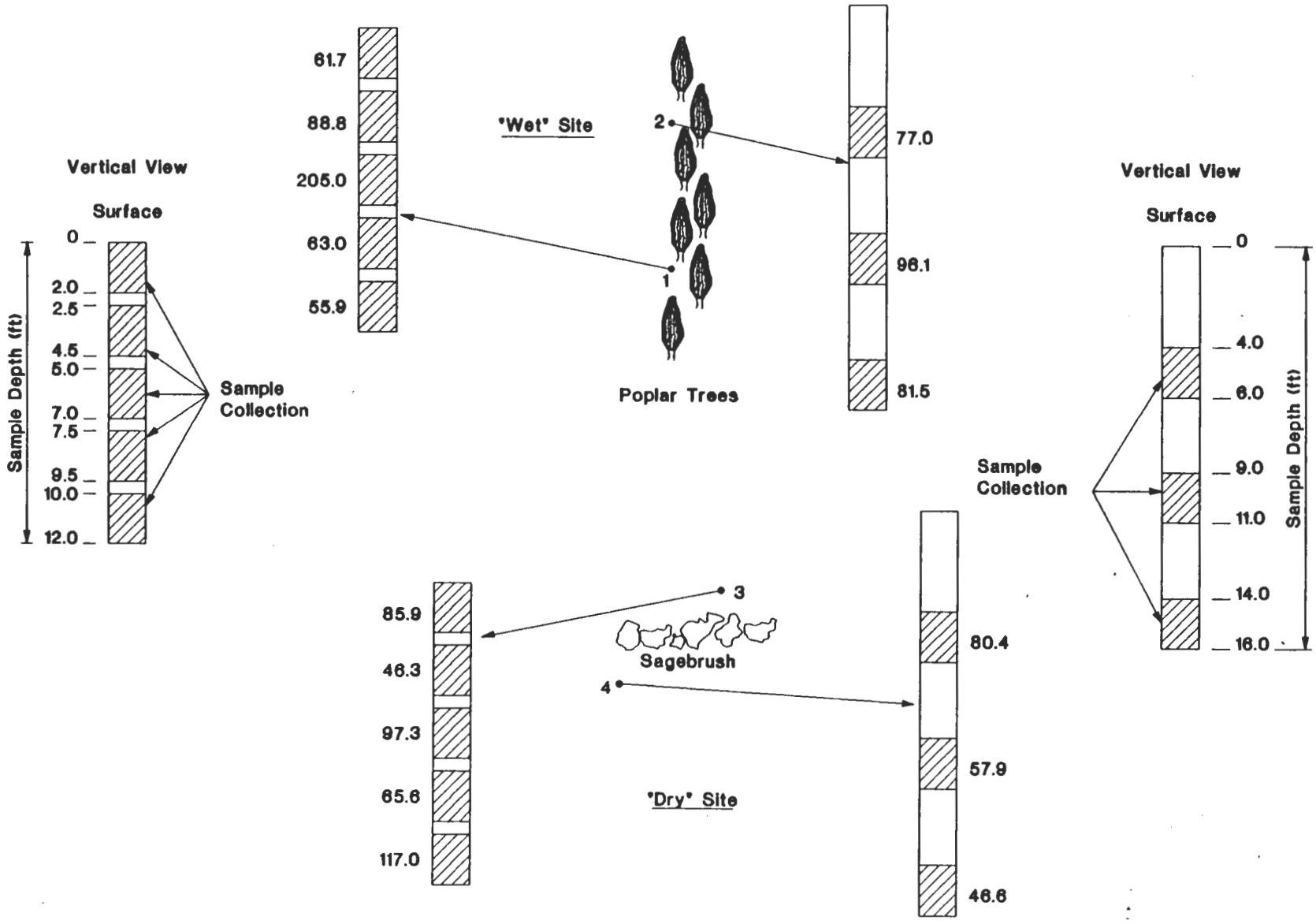
Aluminum Values (ppm) for 2101-M Pond Soil Background.



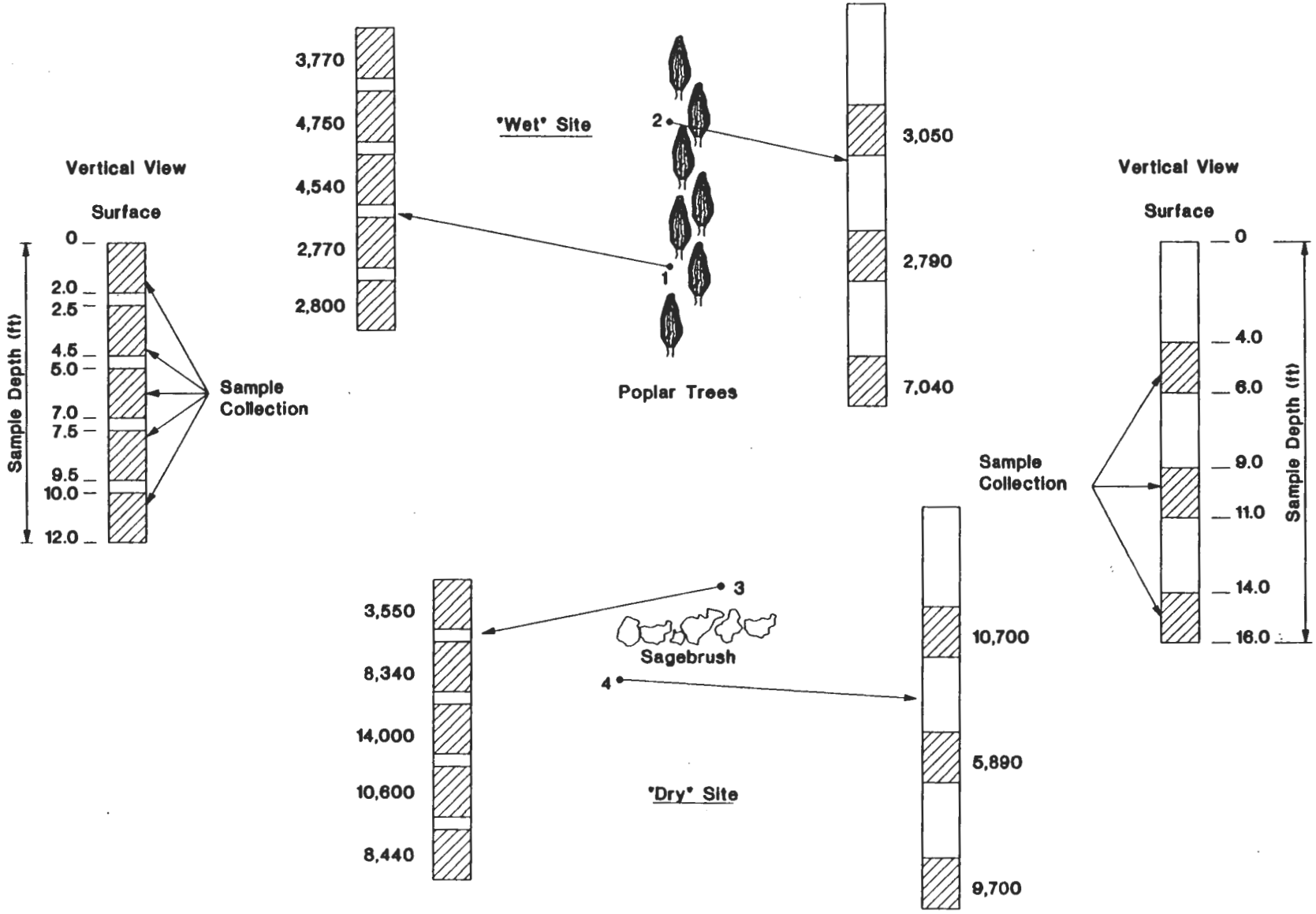
Ammonium Values (ppm) for 2101-M Pond Soil Background.



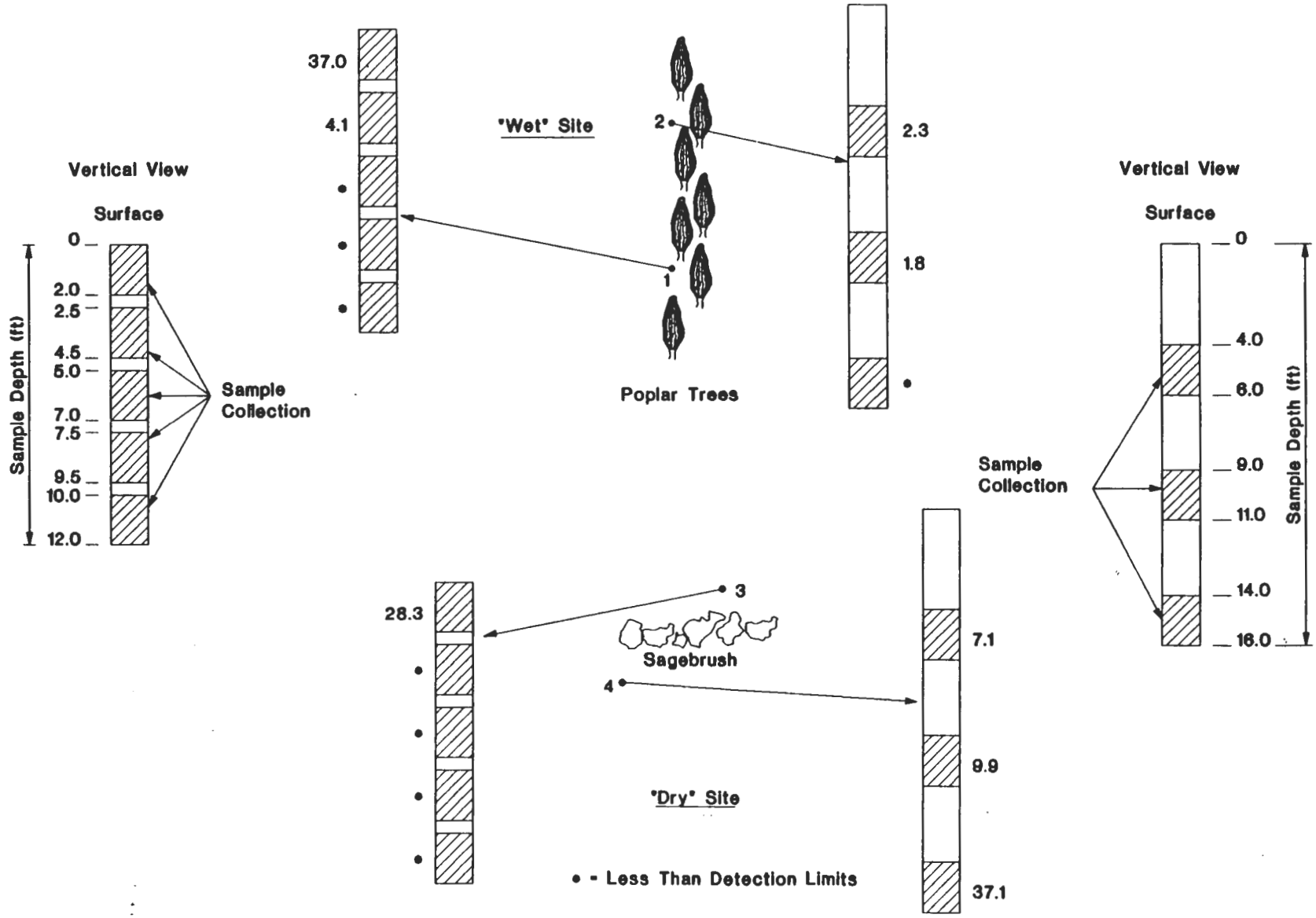
Arsenic Values (ppm) for 2101-M Pond Soil Background.



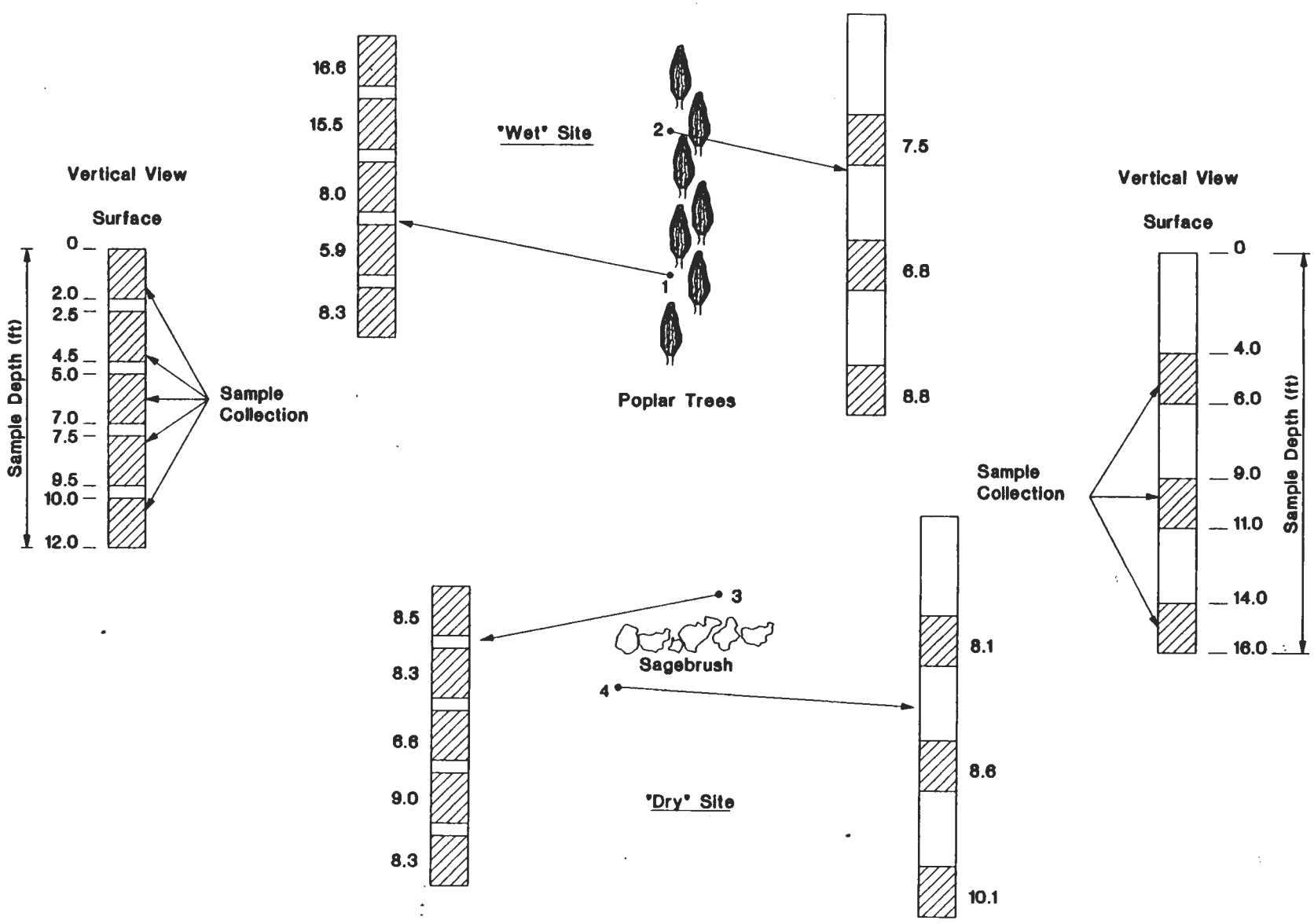
Barium Values (ppm) for 2101-M Pond Soil Background.



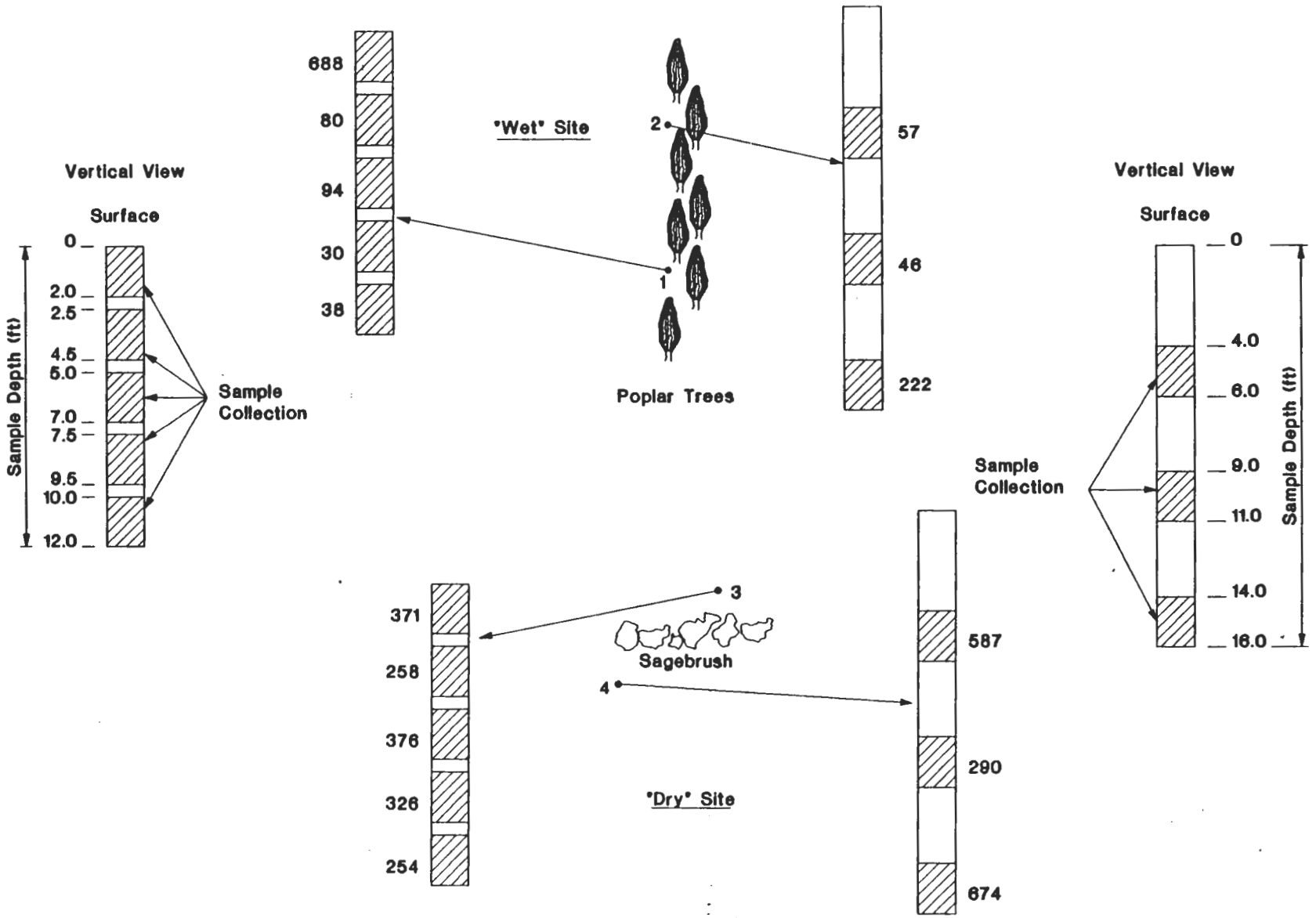
Calcium Values (ppm) for 2101-M Pond Soil Background.



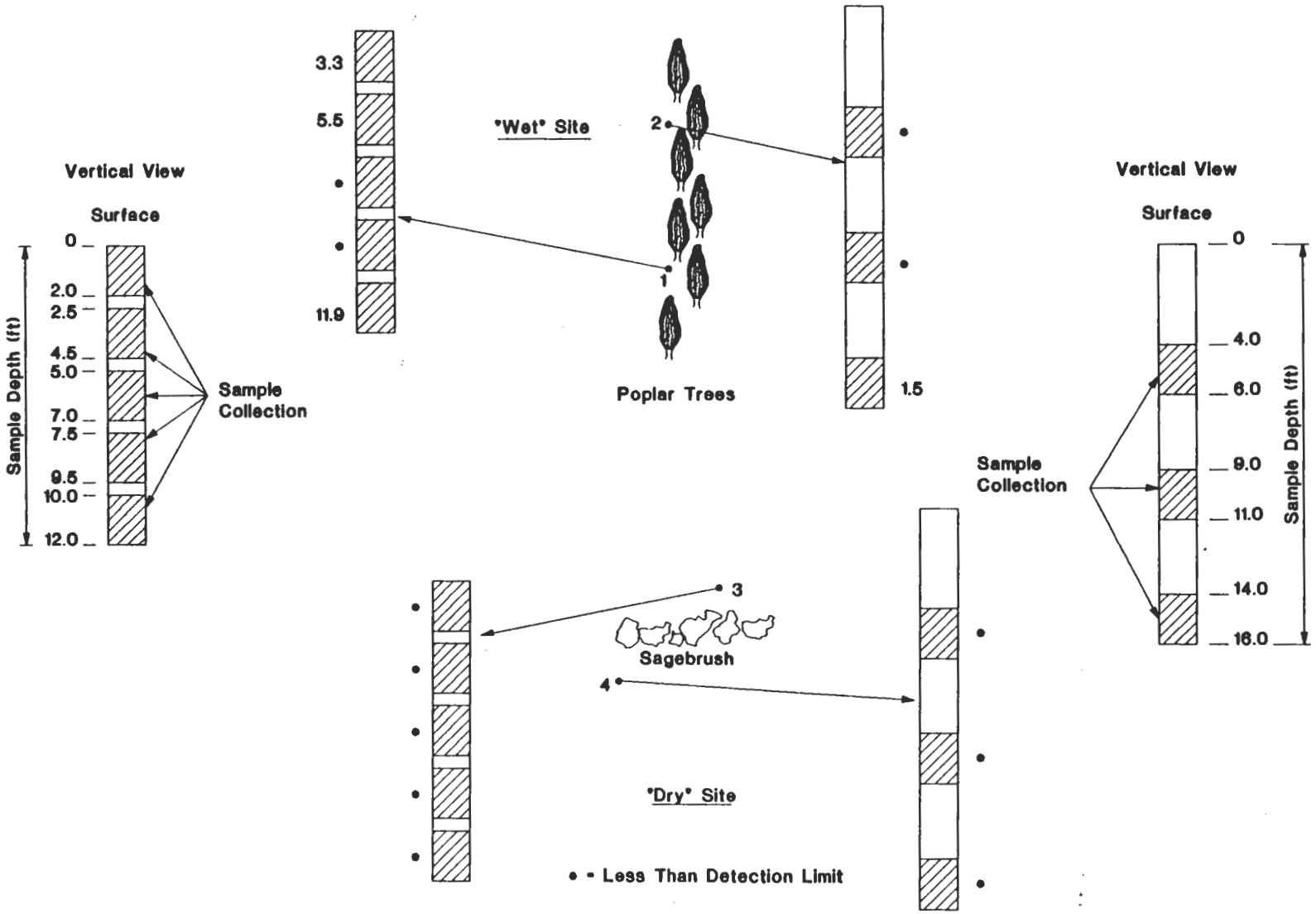
Chloride Values (ppm) for 2101-M Pond Soil Background.



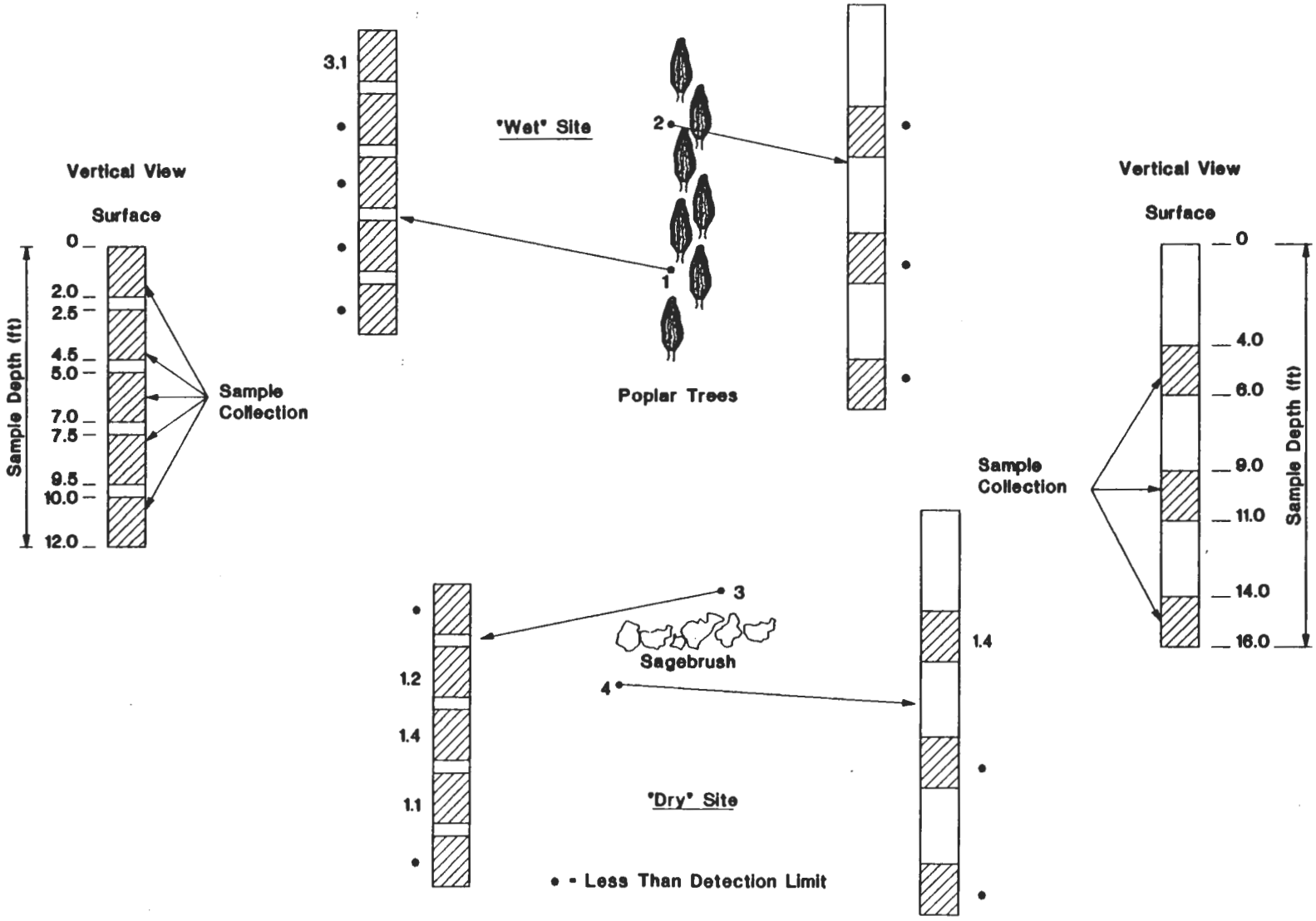
Chromium Values (ppm) for 2101-M Pond Soil Background.



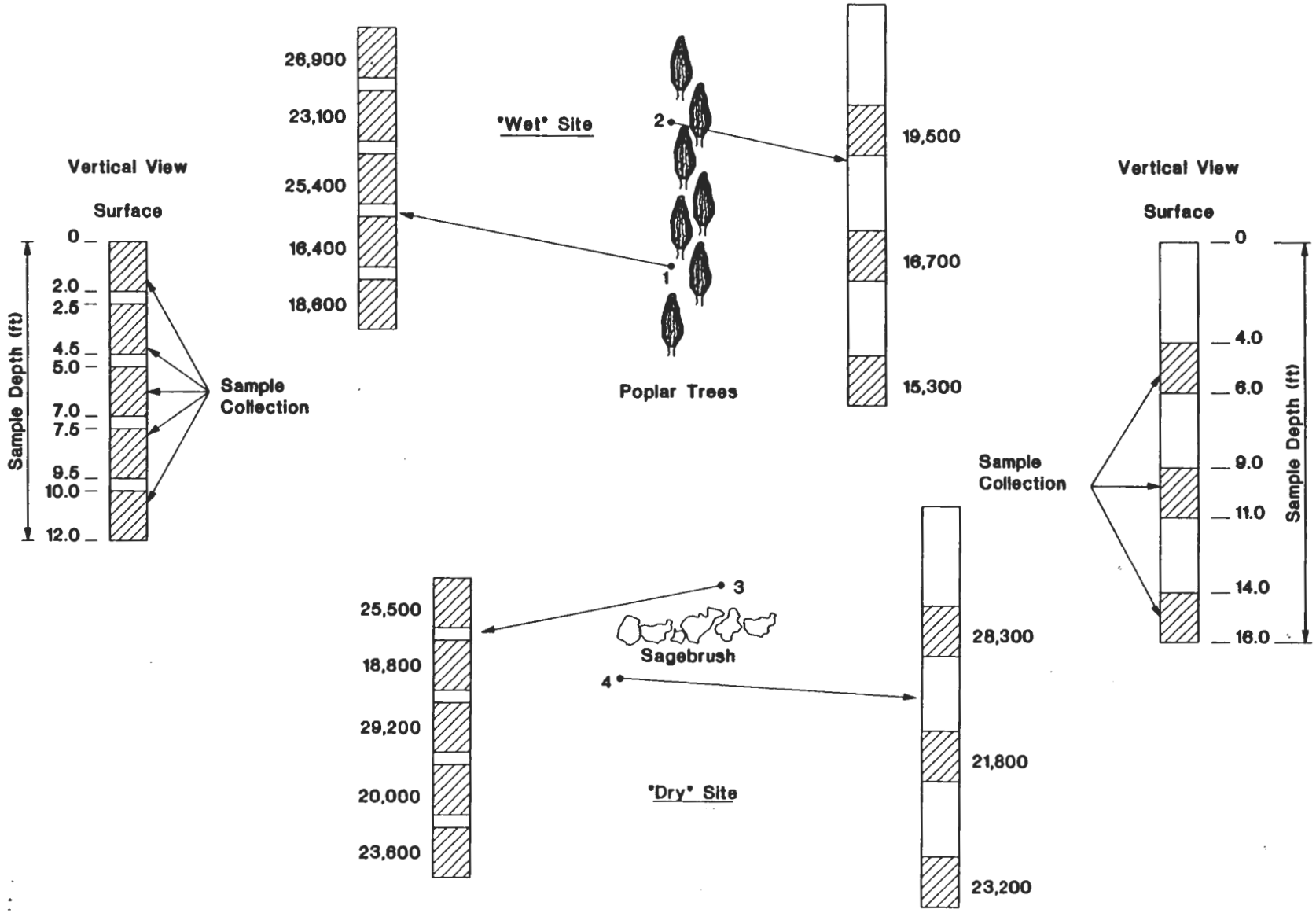
Conductivity Measurements for 2101-M Pond Soil Background.



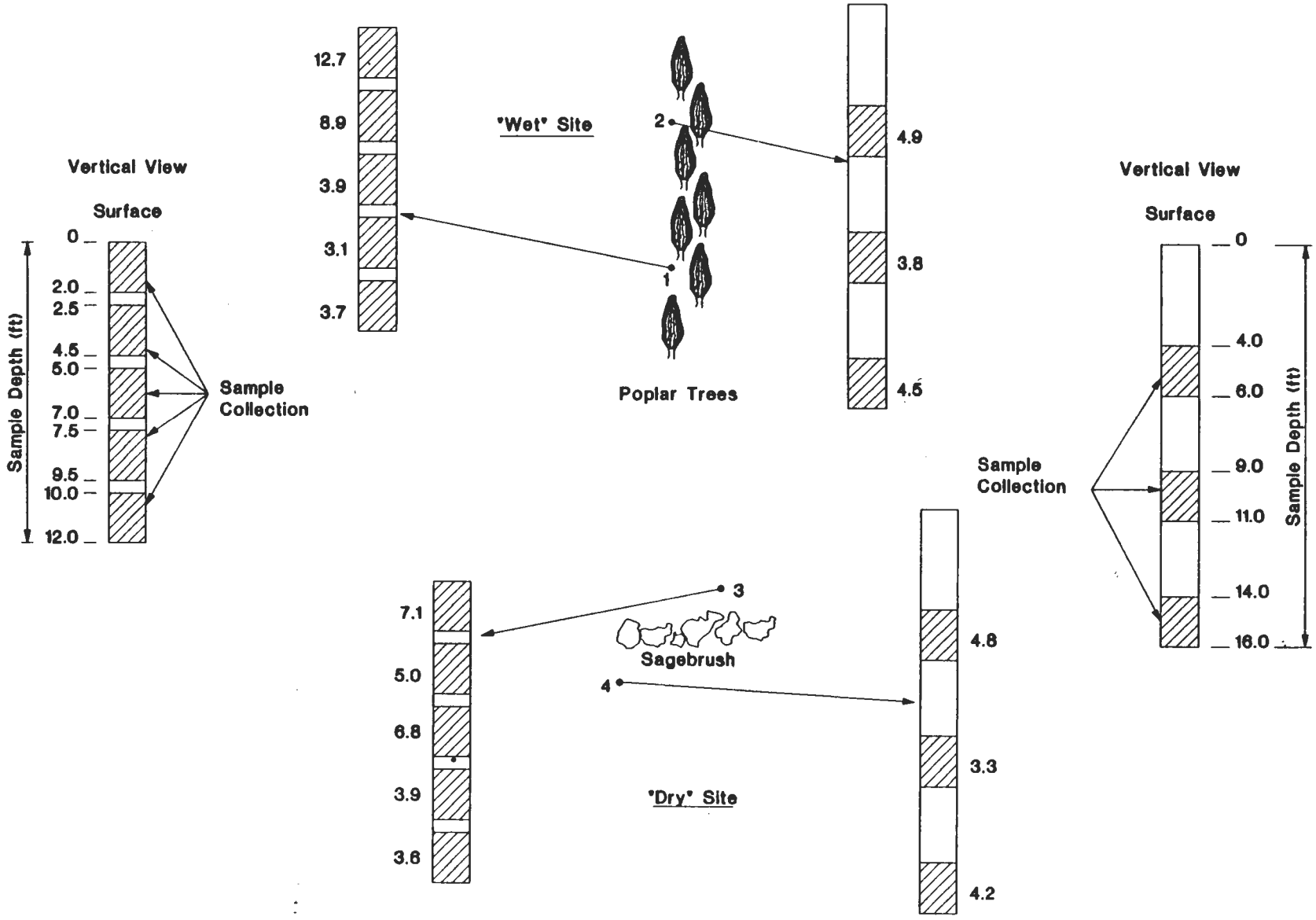
Copper Values (ppm) for 2101-M Pond Soil Background.



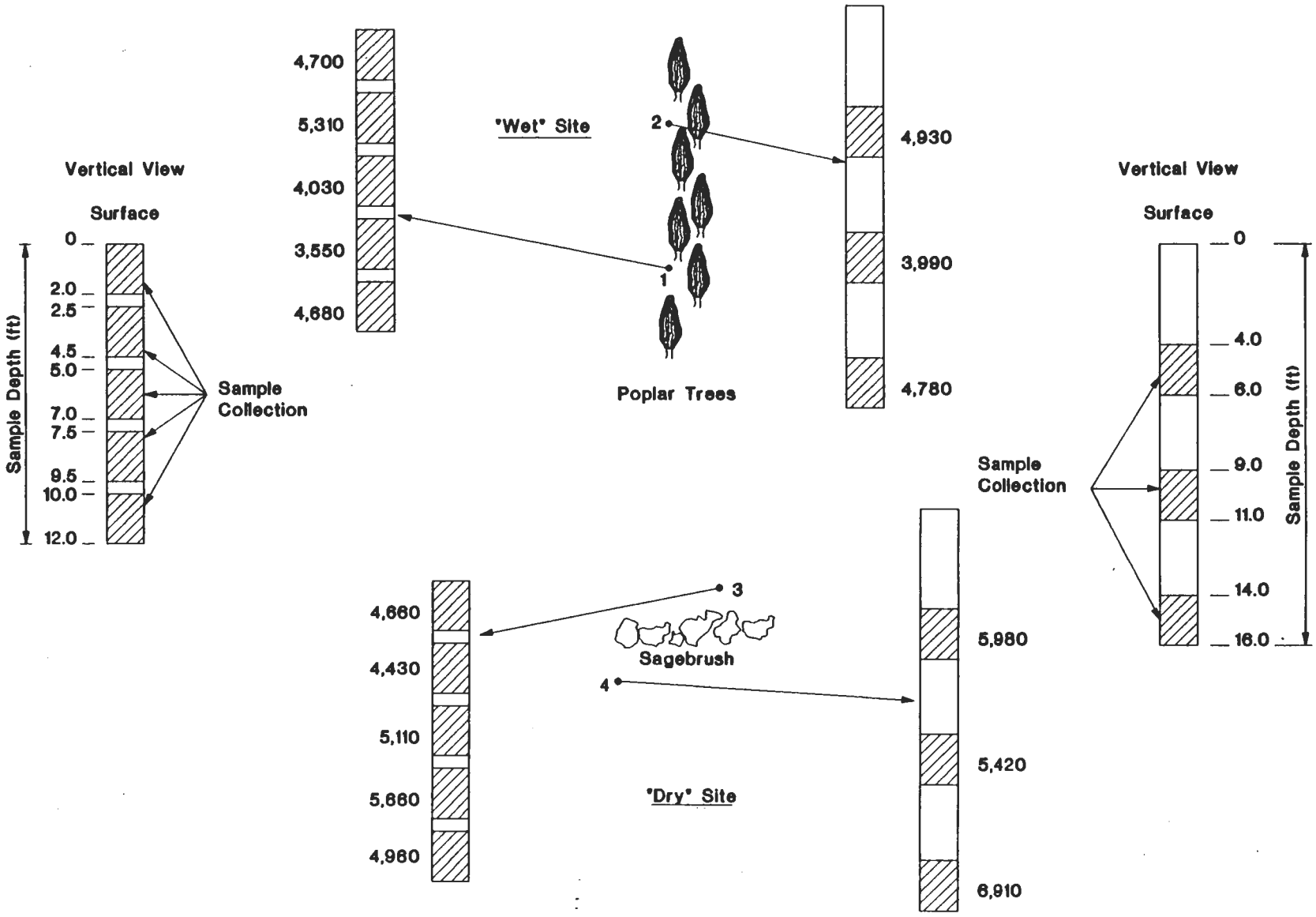
Fluoride Values (ppm) for 2101-M Pond Soil Background.



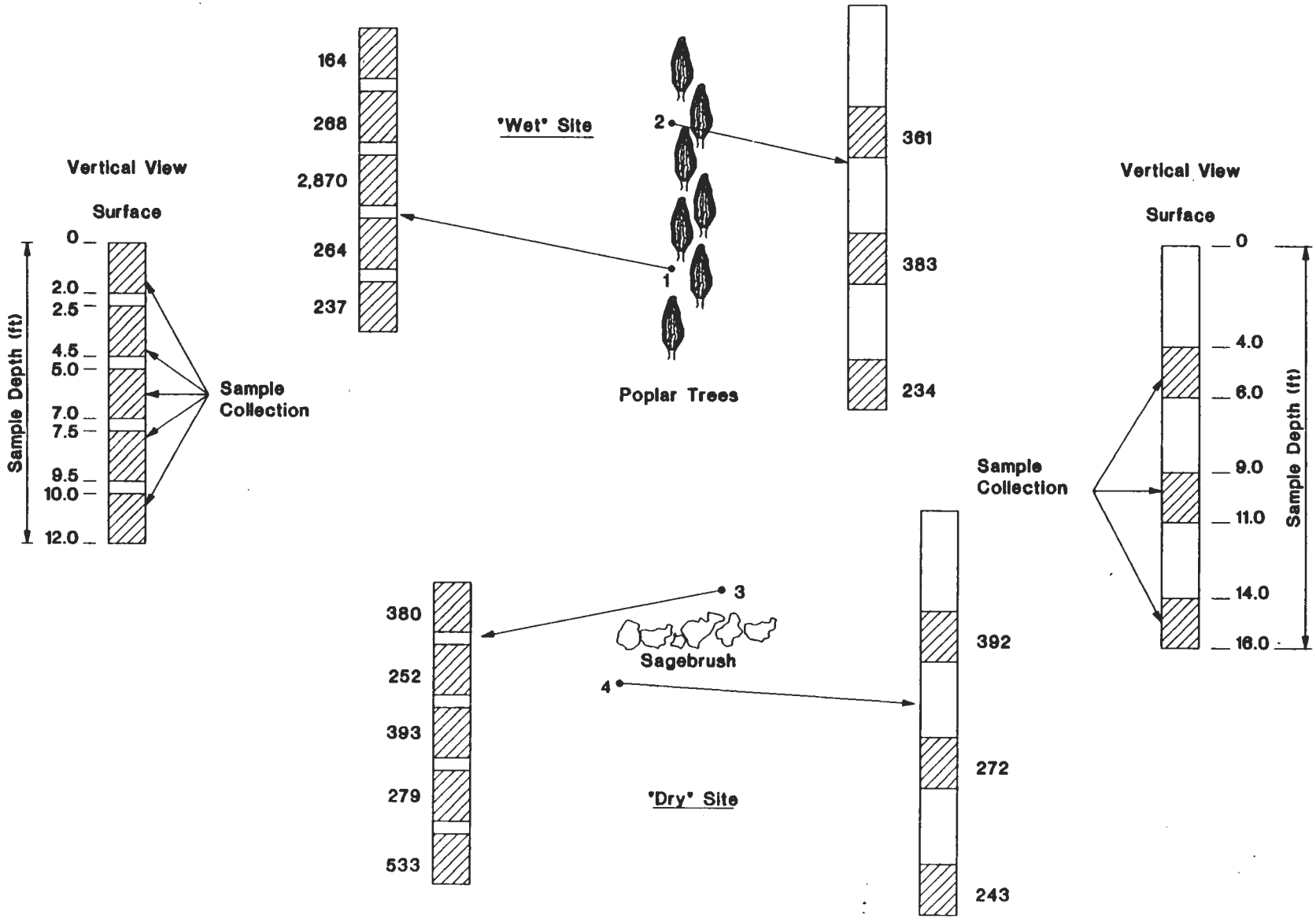
Iron Values (ppm) for 2101-M Pond Soil Background.



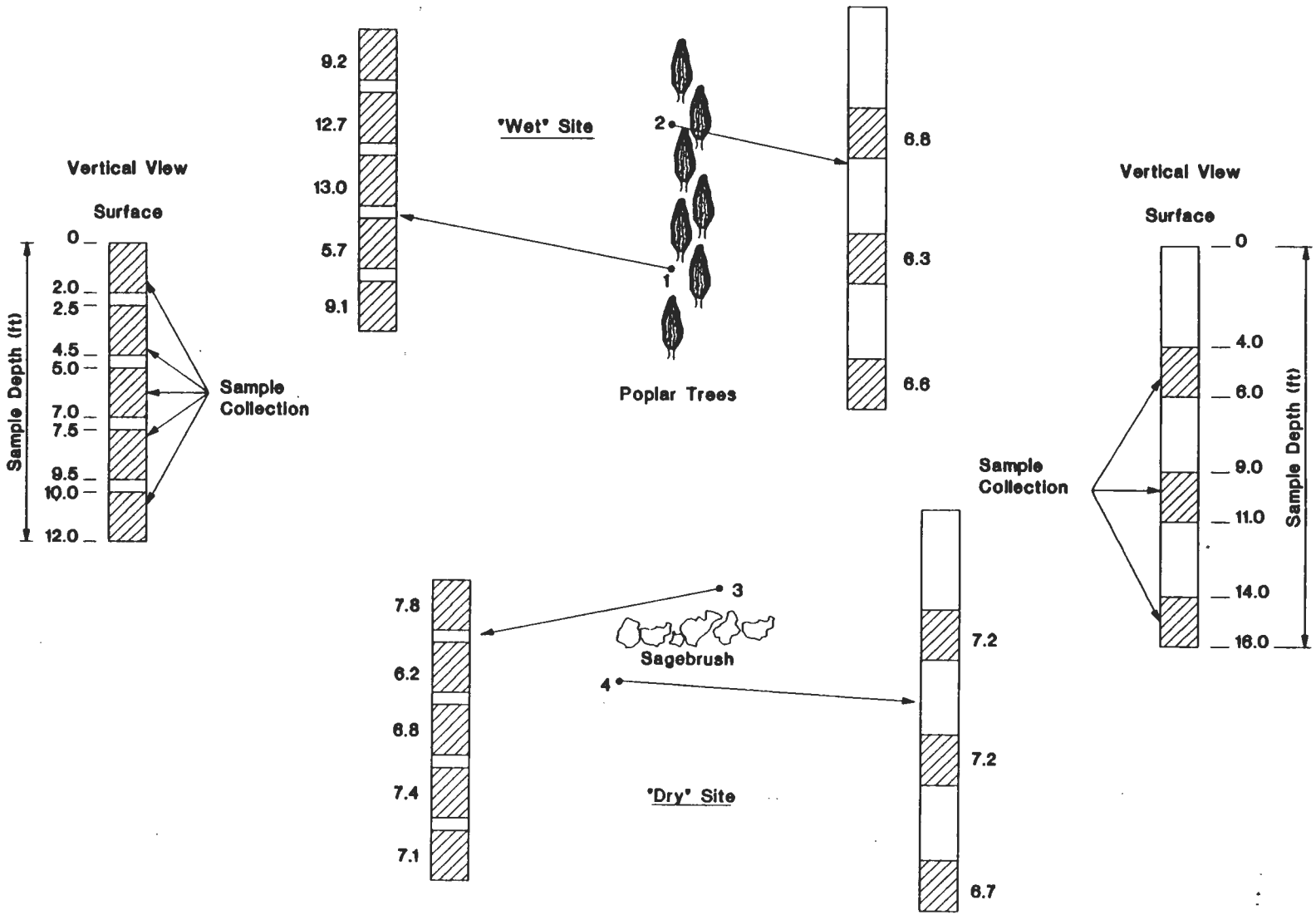
Lead Values (ppm) for 2101-M Pond Soil Background.



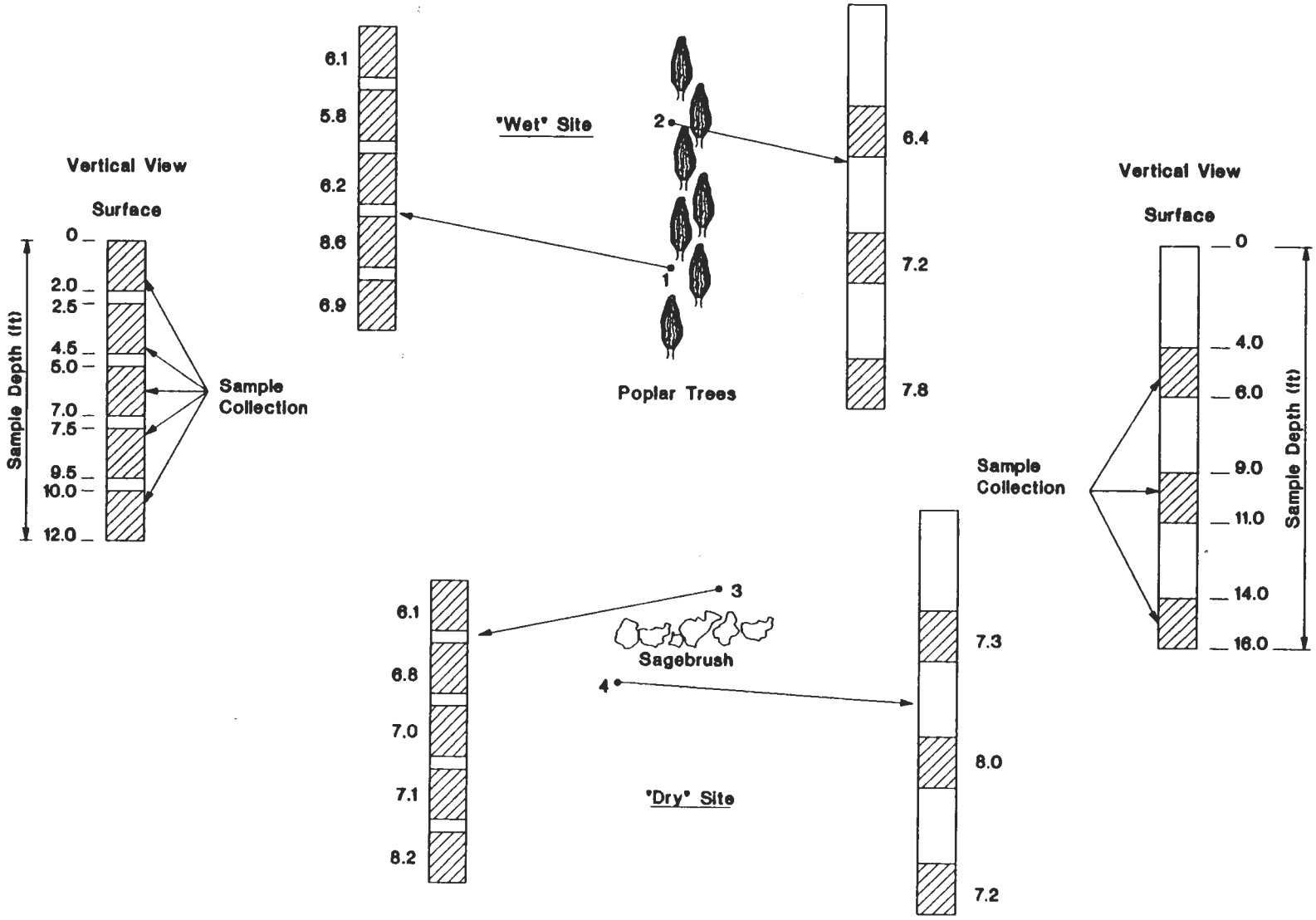
Magnesium Values (ppm) for 2101-M Pond Soil Background.



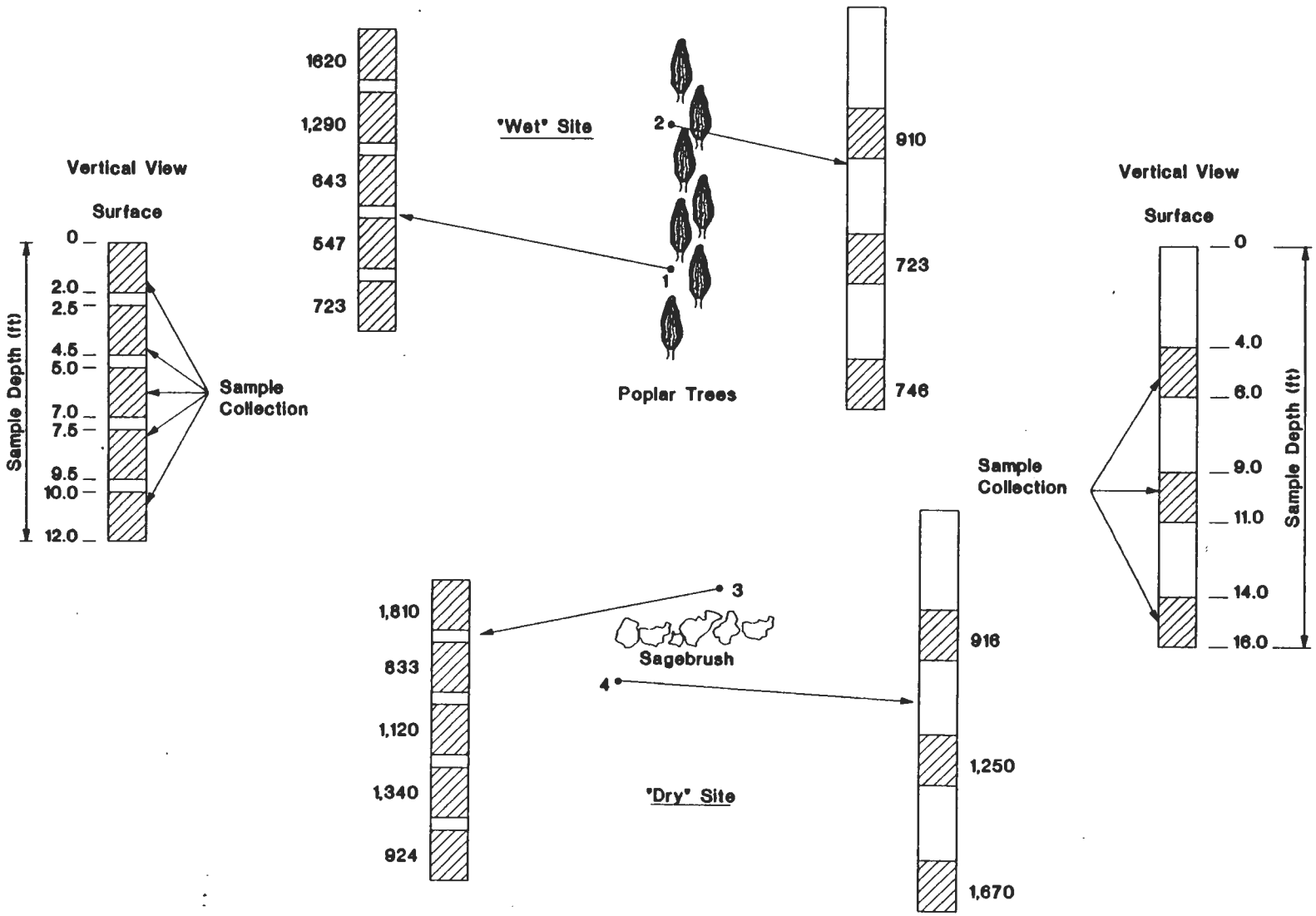
Manganese Values (ppm) for 2101-M Pond Soil Background.



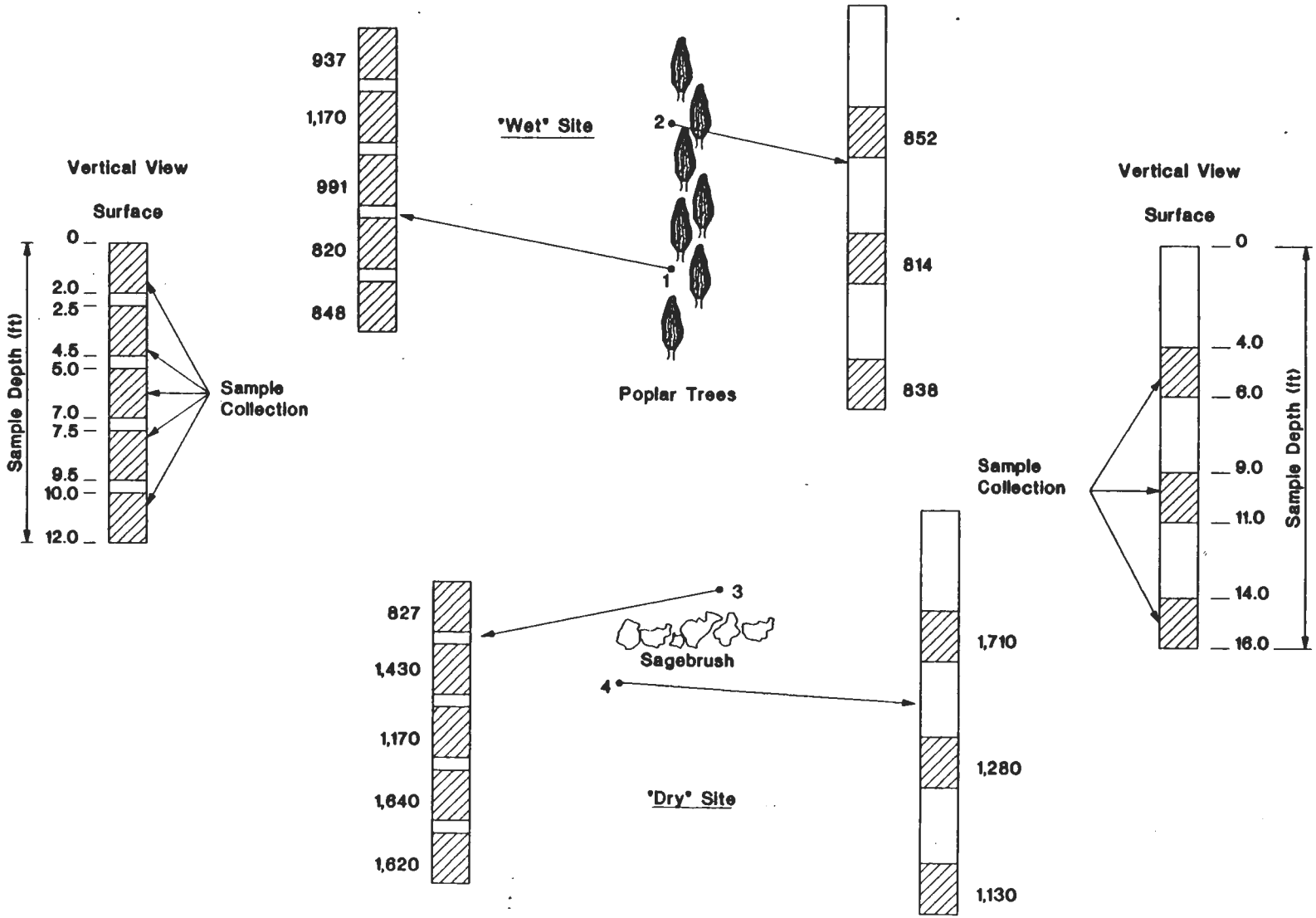
Nickel Values (ppm) for 2101-M Pond Soil Background.



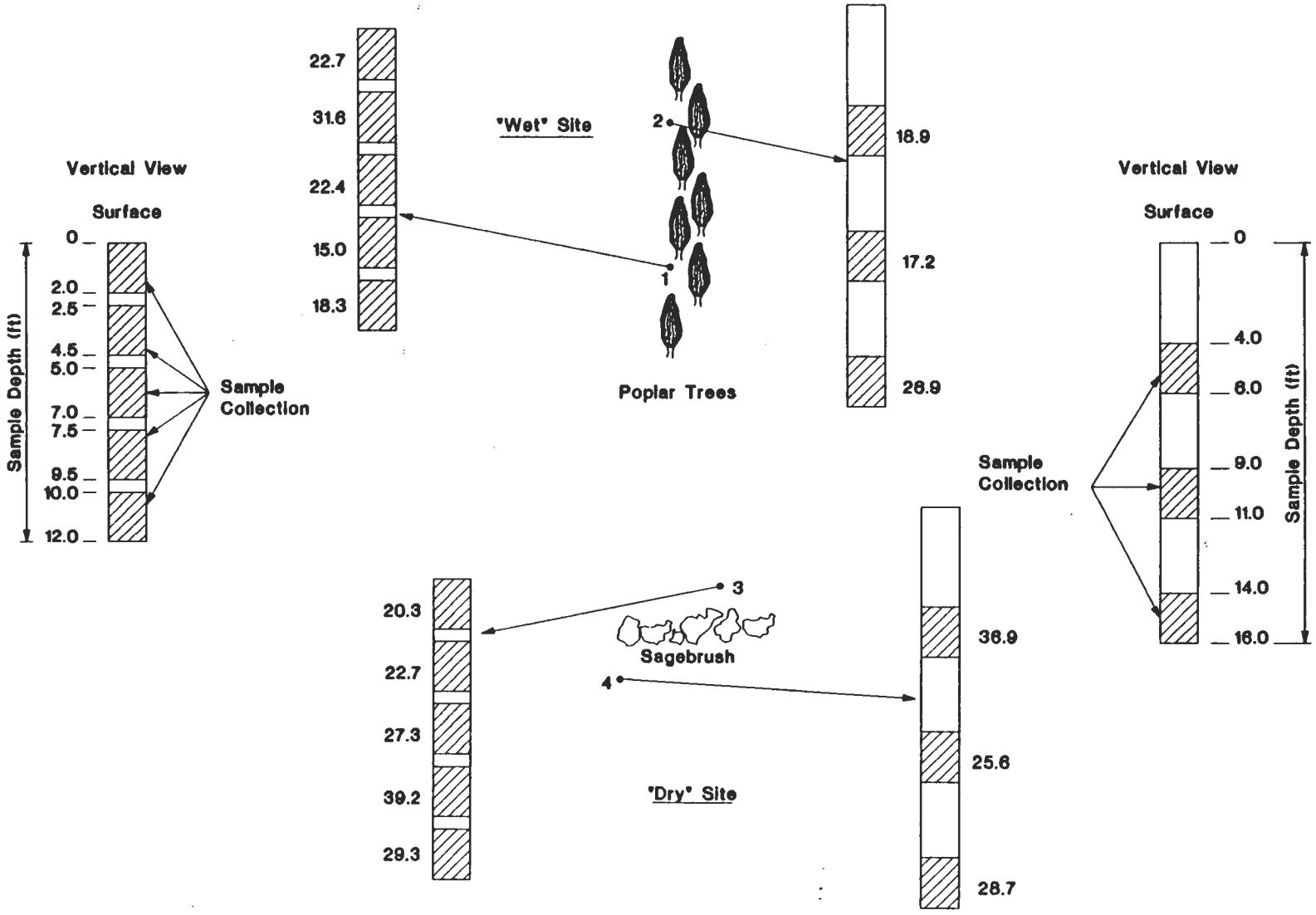
pH Measurements for 2101-M Pond Soil Background.



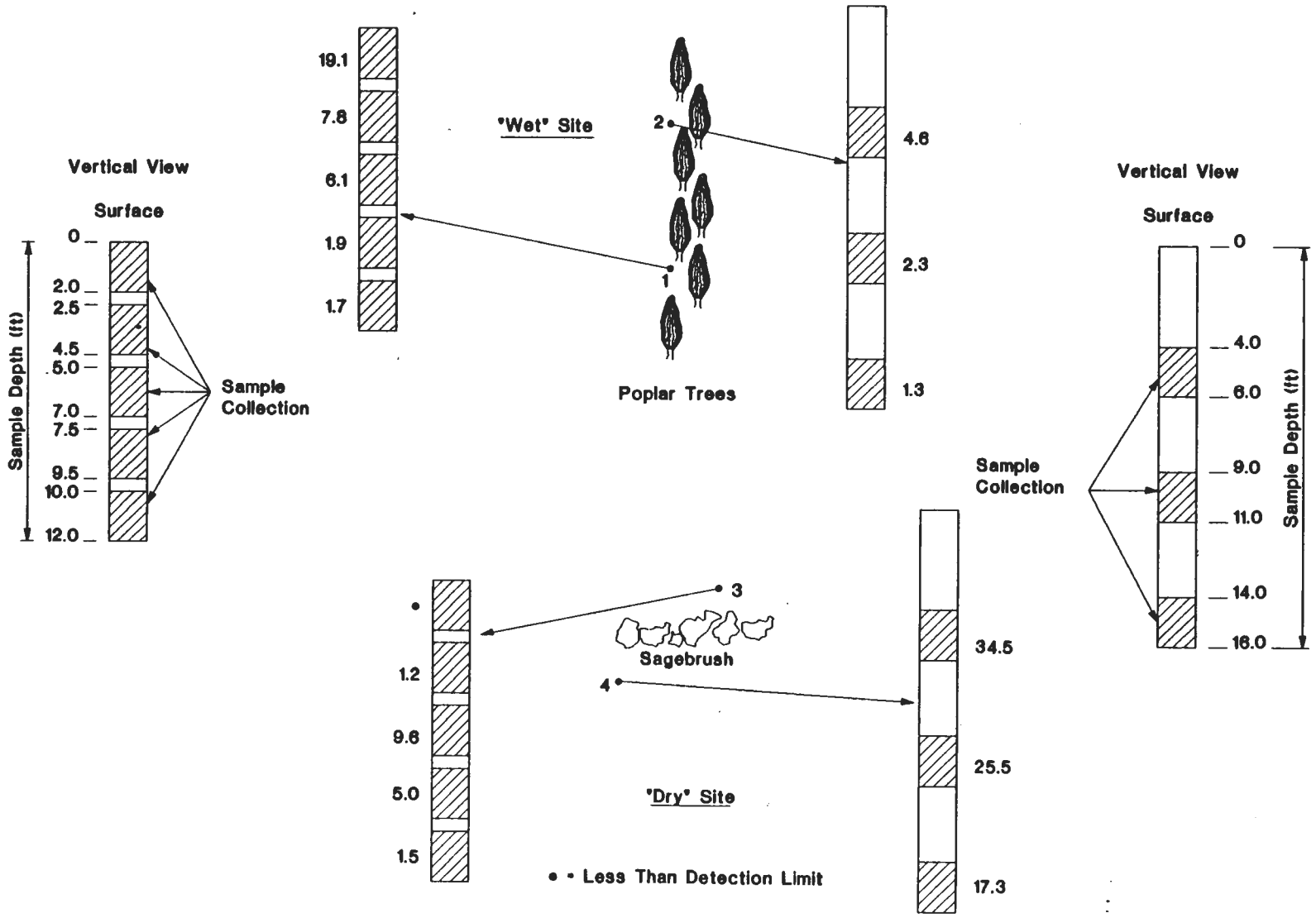
Potassium Values (ppm) for 2101-M Pond Soil Background.



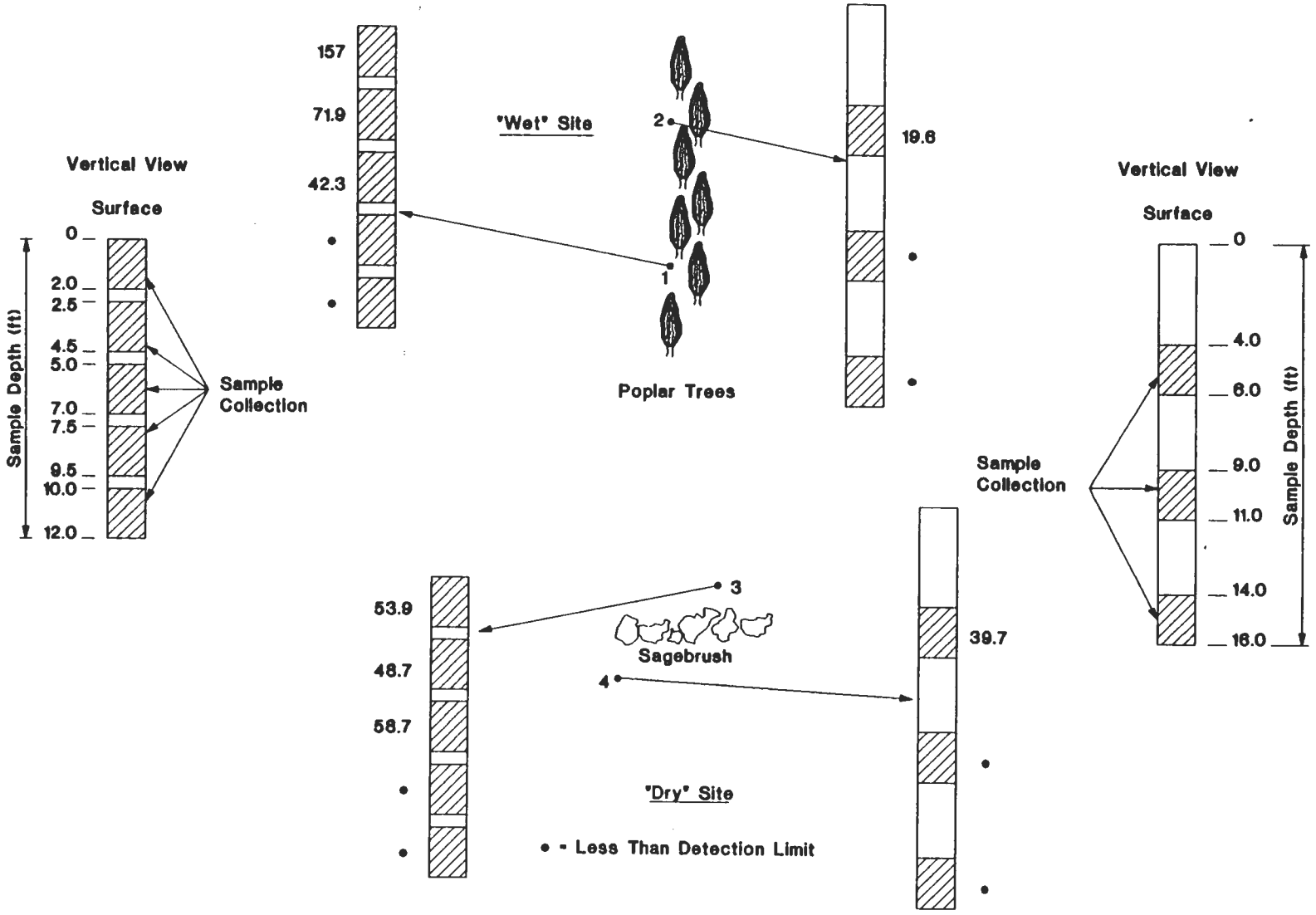
Sodium Values (ppm) for 2101-M Pond Soil Background.



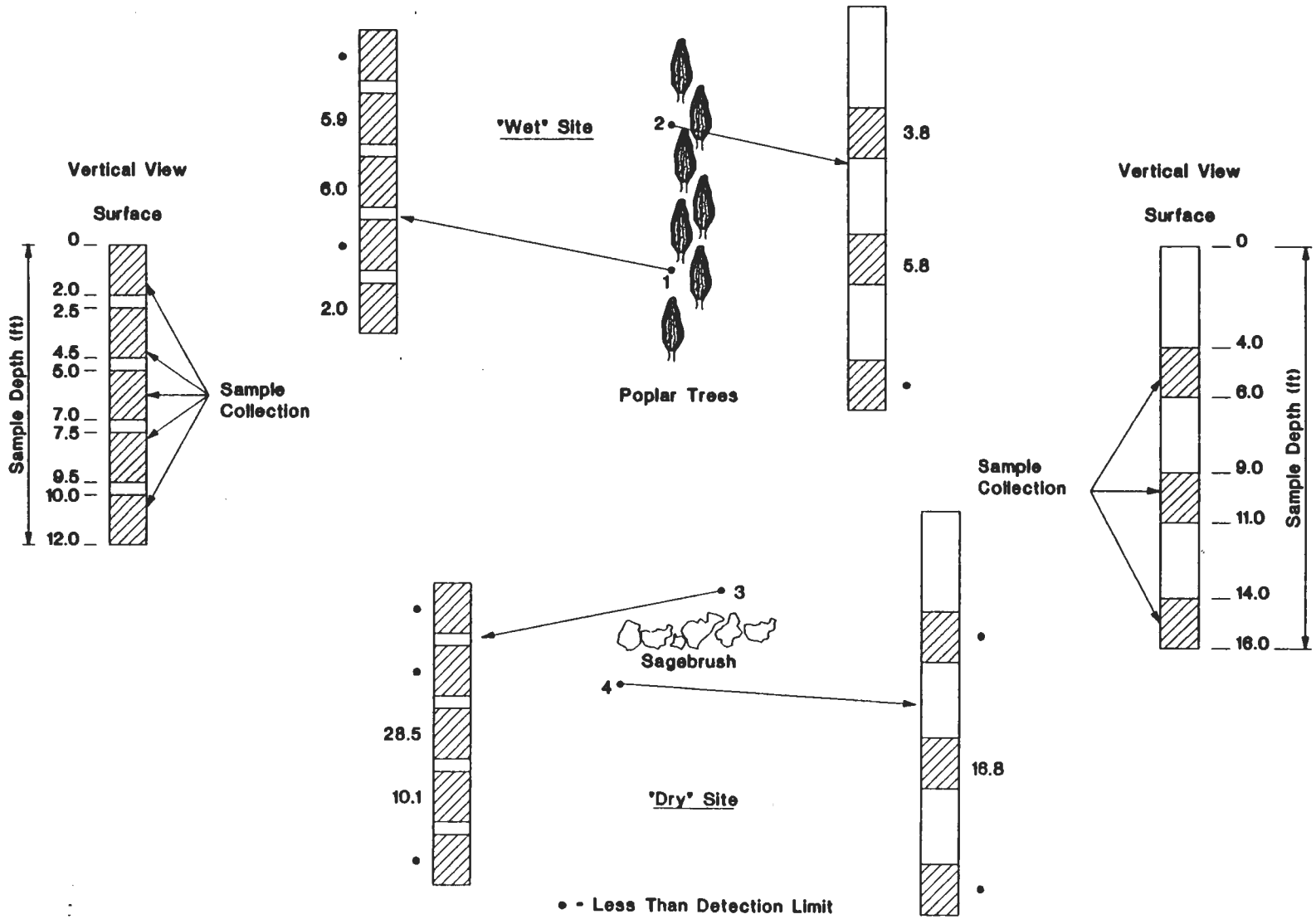
Strontium Values (ppm) for 2101-M Pond Soil Background.



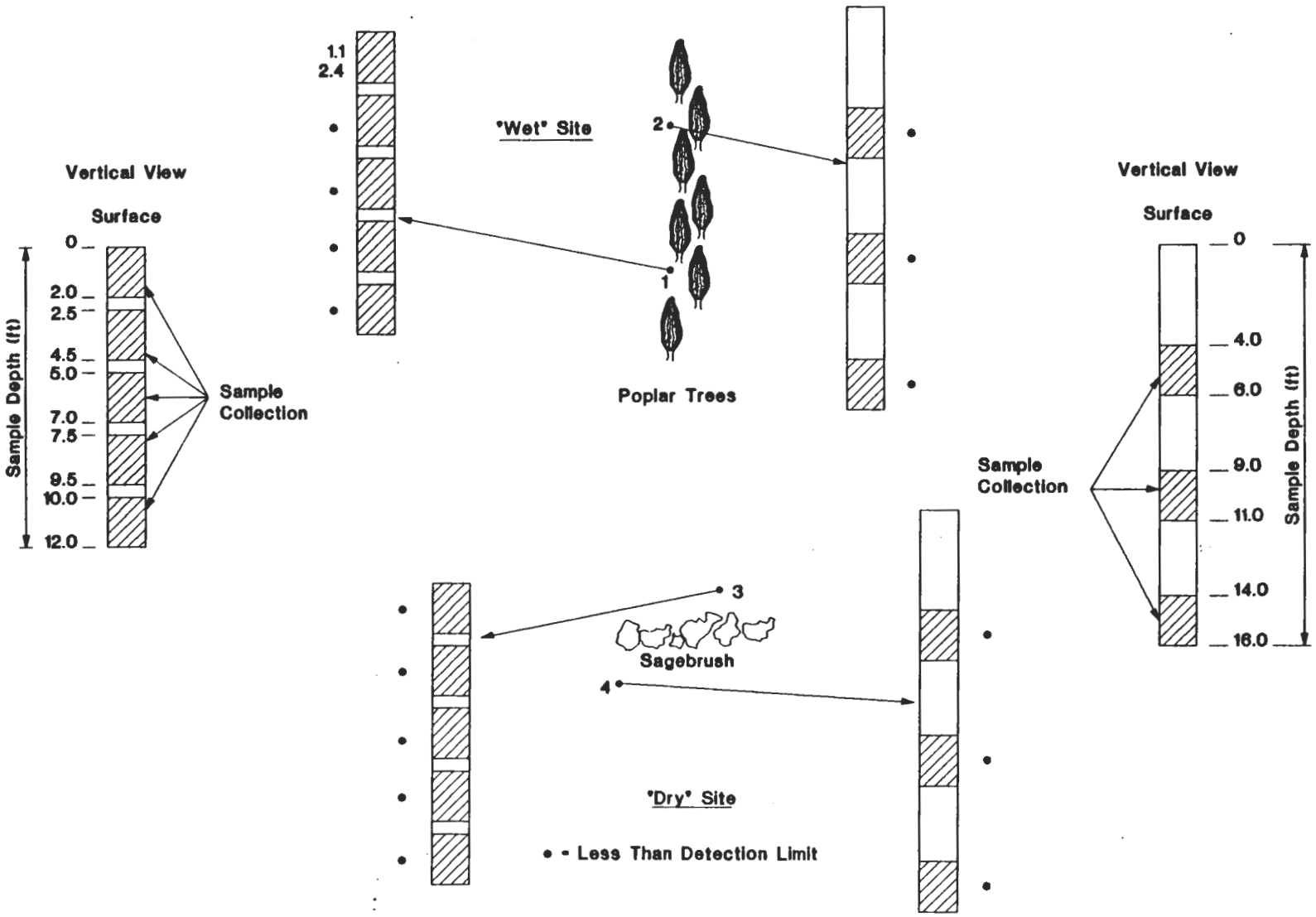
Sulfate Values (ppm) for 2101-M Pond Soil Background.



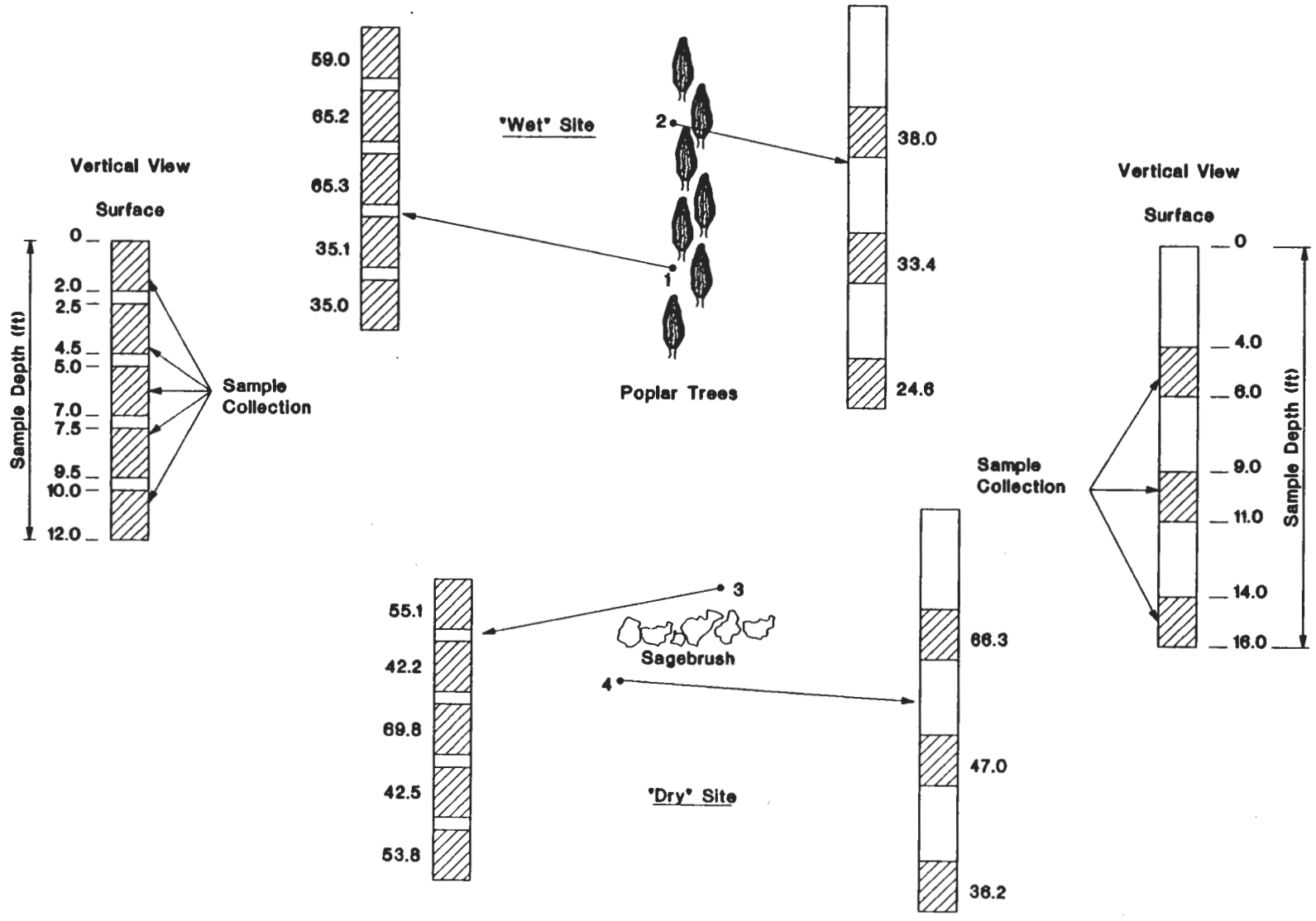
Total Organic Carbon Values (ppm) for 2101-M Pond Soil Background.



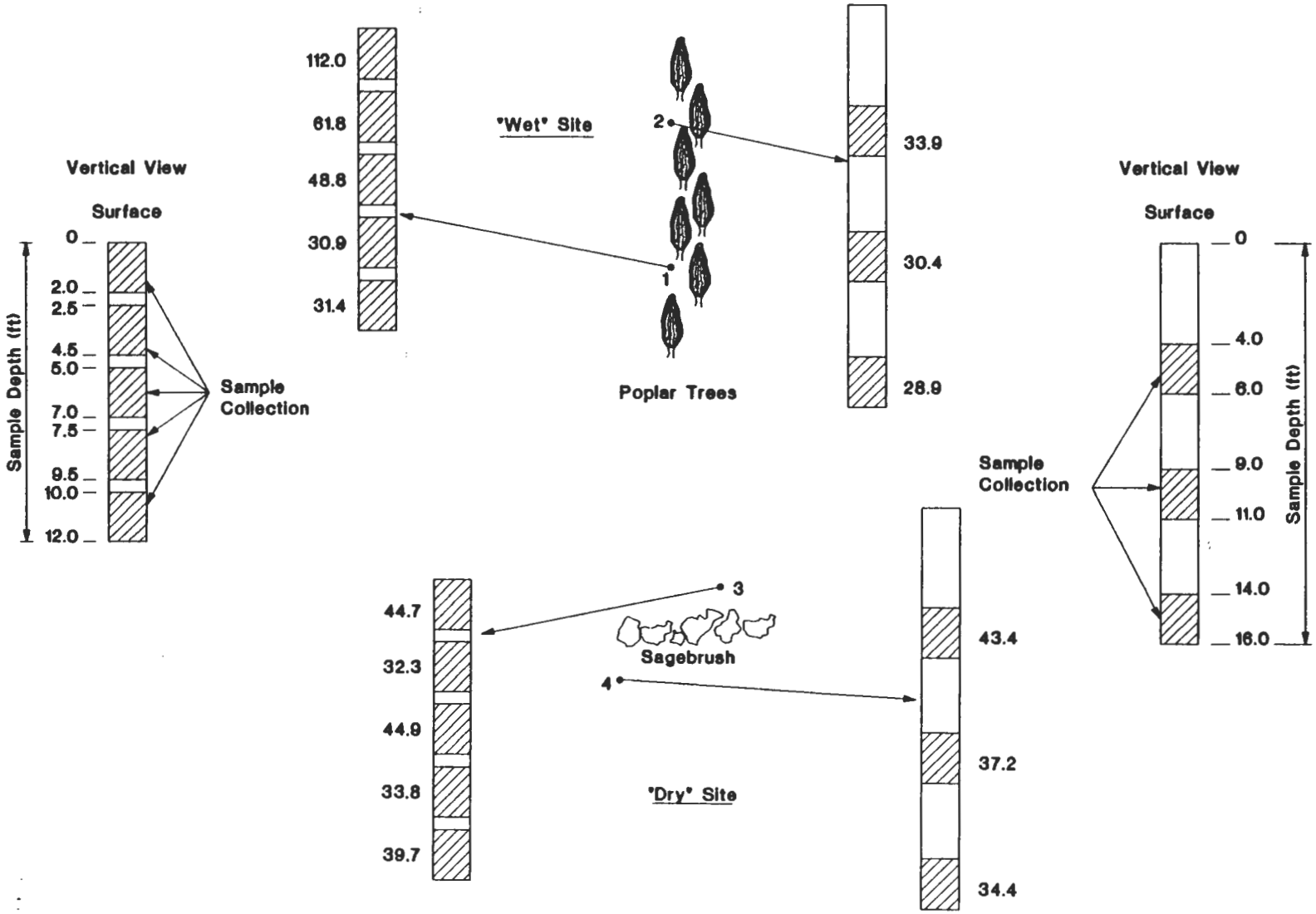
Total Organic Halogen Values (ppm) for 2101-M Pond Soil Background.



Unknown Organics Values (ppm) for 2101-M Pond Soil Background.



Vanadium Values (ppm) for 2101-M Pond Soil Background.



Zinc Values (ppm) for 2101-M Pond Soil Background.

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1

SAMPLE CODES KEY

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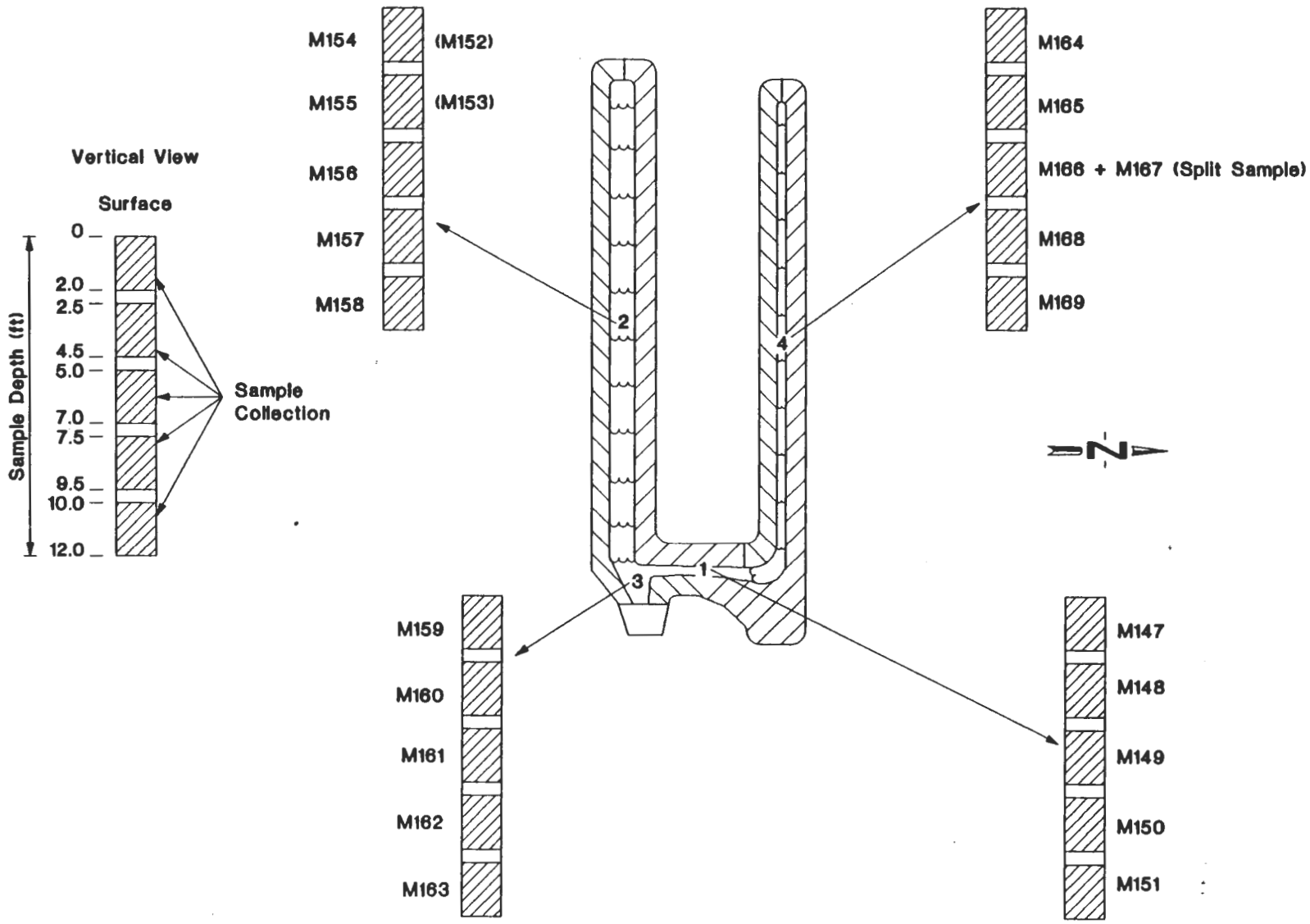
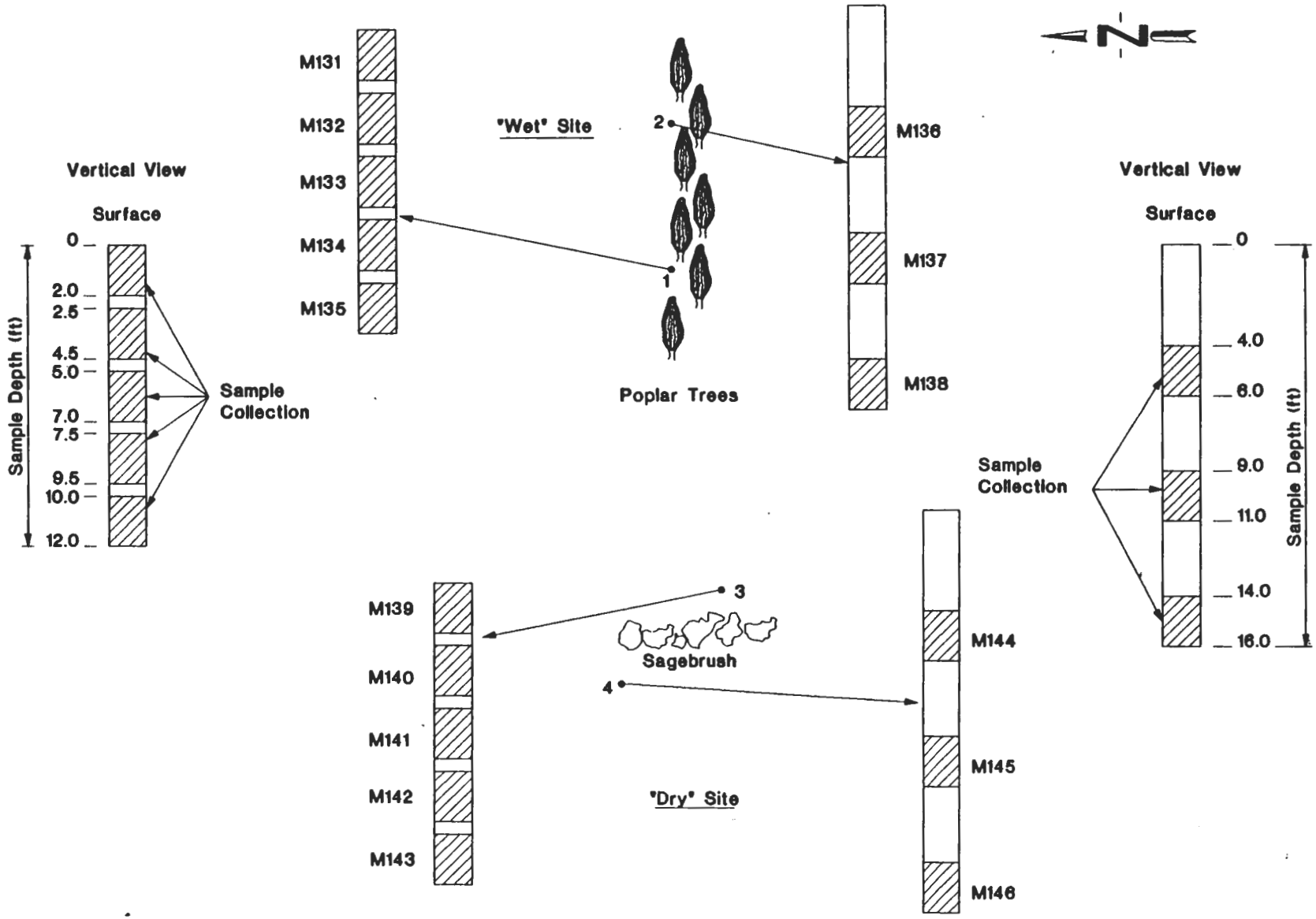


Location, Depth, and Codes for the 2101-M Pond Soil Samples.



Location, Depth, and Codes for the 2101-M Pond Soil Background Samples.
Not to Scale

APPENDIX C-3.

REQUIREMENTS AND PROCEDURE

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APPENDIX C-3

REQUIREMENTS AND PROCEDURE

FIELD PERSONNEL AND RESPONSIBILITIES

Sampling at the pond was conducted by a team of scientists and technicians and was structured as follows:

- Field team leader (scientist)
- Samplers (2) (scientists)
- Site safety officer (scientist)
- Transporter (technician)
- Driller (technician)
- Assistant sampler/helper (technician).

Each individual maintained the following responsibilities:

Field team leader

1. Direction of all field operations from mobilization to the sampling site to the completion of the sampling effort and demobilization
2. Onsite coordination of all driller or subcontracted site support activities
3. Direction of all presampling checks including:
   - Review of site-specific health and safety monitoring responsibilities with all field personnel
   - Checking the adequacy of personal protective and decontamination equipment that may be required for the expected contaminants
   - Ensuring that sufficient quantities of prepared containers and all required sampling equipment is available and properly decontaminated prior to the start of sampling activity
   - Reviewing the general scope of sampling operations with site personnel
4. Delegating sampler responsibilities to qualified personnel
5. Maintenance of field logbook
6. Ensuring that proper management controls are implemented for all records associated with the sampling activity.

Sampler(s)

1. Completing the sample analysis request and chain of custody forms as required for each sample

2. Ensuring that proper sample containers are used

3. Containerizing, labeling, and sealing individual soil or sediment samples

4. Field custody of all samples pending transportation to the analytical laboratory

5. Assisting in nonradiological chemical decontamination of sampling equipment at the direction of the field team leader.

Site Safety Officer

1. Determining, through appropriate monitoring techniques, potential health and safety hazards from volatile and/or toxic compounds during sampling, and assist in the field sample equipment decontamination

2. Reviewing specific potential health and safety issues with sampling personnel prior to initiating the sampling

3. Halt sampling activities when necessary due to health and safety hazards.

Transporter

1. Transporting the samples and analysis request forms, and providing a chain of custody to the next custodian

2. Ensuring proper storage of the samples during transportation to the analytical facility.

Driller

1. Operation and maintenance of the drilling equipment

2. Decontamination of drilling equipment prior and subsequent to its utilization on site.

Assistant Sampler/Helper

1. Assist the driller, sampler, safety officer or team leader at the direction of the field team leader.

DOCUMENTATION OF FIELD ACTIVITIES

Personnel conducting sampling maintained an official field logbook to document field activities. Each day's activity or separate sampling episode was recorded and signed, at a minimum, by the field team leader. The field

logbook was protected from loss and damage by the field team leader and retained as a permanent record. The types of information that were included as part of the record were:

- Site map, sketch, or other definitive site description
- Locations of all sampling points including reference points and scale
- Sample method
- Date and time of collection
- Collector's name
- Number, type, volume of sample taken
- Identification number of each sample
- Field observation (e.g., weather conditions, wetness and appearance of sample, etc.)
- Field decontamination method (if used)
- Field measurements
- Description of the soil or sediment being sampled
- Signature of recording personnel
- Other information as determined by responsible team members.

PERSONNEL TRAINING REQUIREMENTS

All field personnel were required to have completed, at a minimum, the following safety training:

- OSHA 40-hour Hazardous Materials Handling course or current update (29 CFR Part 1910.120) or
- Escape pack training (Westinghouse Hanford course #20032)
- Respiratory training and mask fit
- Radiation worker safety training (Westinghouse Hanford course #20001)
- Self-contained breathing apparatus (SCBA) training.

FIELD SAFETY

A health and safety plan has identified the overall hazard existing at the pond as low. The site is not located in a radiation zone, and therefore, radiation was not considered a potential hazard. The primary route of potential contamination of field personnel is cited as being through dermal contact. Hazards associated with chemical reactions such as reactivity, stability, or combustibility were not anticipated. Given the minimal hazards associated with the site, the personal protection level was set at Level D.

All onsite personnel directly associated with sample acquisition wore neoprene safety boots, gloves, safety glasses, and protective coveralls (Tyvex*, Saranax**, and/or cloth). Personnel working in the vicinity of the drill rig also wore a hard hat and steel-toed shoes.

As drilling and sample acquisition occurred at the pond, a calibrated HNU*** portable photoionizer was used to detect the concentration of gases from the borehole and the sample itself. Samples taken at the pond were surveyed as the split-tube core barrel assembly was opened and as the sample was placed in the mixing bowl. All reported readings indicated a gas concentration of <1 ppm. As a matter of course, an initial radiation survey was performed using a Geiger/Mueller with a P-11 probe. No radiation response was noted that was defined to be above background levels.

The site was sectioned by roping off and identifying an exclusion zone and contamination reduction zone. Prior to the start of sampling, a field safety meeting was conducted to review potential hazards, personnel responsibilities, appropriate emergency responses, availability of safety equipment, and outstanding safety concerns, and to delineate authority. Safety meetings were conducted by the site safety officer and field team leader.

SOIL SAMPLING PROCEDURE

The split-barrel sampler was inserted into the hollow-step auger pit and driven ahead into undisturbed soil. After the sampler had been driven the entire 2 ft, it was withdrawn from the auger bit and carried to the sampling table for extraction from the inner tube. The split tube was separated and the innertube withdrawn and placed over a precleaned stainless steel bowl. The sample was then removed by tapping the inner tube to allow the sample to fall freely into the bowl.

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*Tyvex is a trademark of E.I. du Pont de Nemours & Co., Inc.

**Saranax is a trademark of Saranac.

***HNU is a trademark of HNU Systems.

Specific methods were employed to collect a representative soil sample, particularly for VOA. A precleaned cork borer was used in an attempt to acquire a plug of soil directly from the inner tube but was difficult to press into the compacted sediments. Because mixing of the sample was considered undesirable for VOA, samples were obtained from the soil as it was extracted from the inner tube prior to mixing. Volatile organic samples were collected first by filling 40-mL or 60-mL bottles with soil as quickly as possible. After a volatile organic sample was acquired, the remaining sample was thoroughly mixed and the remaining containers filled. Macroscopic fragments of organic material (i.e., leaves, roots, twigs, etc.) were not placed in sample containers.

After all containers were filled for that particular sample interval, they were labeled, sealed with evidence tape, sealed in separate plastic bags, placed together in one bag, and then placed in an ice chest for storage at $\leq$4 °C. Sample analysis request forms were filled out to accompany the sample to the laboratory and chain-of-custody forms were completed as evidence of sample integrity.

All sample equipment used for a particular sample, including the split-barrel sampler, bowls, spoons, inner tube, retaining spring, etc., were placed in plastic bags for transport back to the decontamination facility. Each sample was collected and handled using a different set of laboratory-cleaned split-barrel sampler, inserts, and sampling tools. Used gloves, plastic sheeting, Tyvek suits, booties, etc. were placed in plastic bags and in a 55-gal drum for disposal. All samples were transported to the laboratory the same day as collection.

Hand augering was performed as part of a preliminary soils assessment at the 2101-M Pond. A stainless steel soil-recovery-type hand auger was used to acquire soils directly from the pond bottom. Polyvinylchloride pipe was used as a conduit for the auger to prevent the influx of pond water, thereby limiting cross-contamination problems. Handling of the sample followed the general procedure described above. Sampling tools and devices were precleaned under laboratory conditions.

SOIL DESCRIPTION

Sediments described in the field at the pond location are summarized here for information purposes. The description is a compilation of data taken from the field logbook and the upper 20 ft of the groundwater monitoring well borehole geologic logs for the three wells immediately adjacent to the 2101-M Pond (E18-2, E18-3, and E18-4). The vertical section that was sampled (0 to 12 ft) is described as layers of sand, gravelly sand, and silty sandy gravel. Fractional lithologic parameters are represented by up to 30% gravel (consisting of 80% to 95% basalt, and 5% to 20% quartz and quartzite) and 50% to 100% sand (consisting of 35% to 65% basalt, 20% to 65% quartz and quartzite, up to 14% feldspar, and minor amounts of caliche and mica). Silt accounted for as much as 20% of the sample volume.

CLEANING PROTOCOLS

SAMPLING EQUIPMENT

The following cleaning protocol was employed by the 222-S Analytical Laboratory, located in the 200 West Area of the Hanford Site, for the sampling devices described under Section B-5a(4).

1. Wash tools in distilled water and laboratory-grade nonphosphate detergent.

2. Rinse three times in distilled water.

3. Rinse with 1M nitric acid.

4. Rinse three times with ASTM Type I deionized water.

5. Rinse with chromatographic-grade hexane.

6. Oven dry at 100 °C.

7. Remove tools from the oven, and wrap each piece individually in aluminum foil.

8. Store in evidence locker until use.

Personnel performing this procedure wear clean surgical gloves during all operations to protect the tools from oils and perspiration from the hands.

The auger drill rig, used at both the pond and background locations, was cleaned prior to mobilization to the job site by high-pressure washing. Auger bits were steam cleaned and packaged in plastic until use at the sampling location. Although the auger bits are decontaminated to eliminate site-to-site contamination, the actual sample is unaffected by the condition of the auger bit because the sampler is driven ahead of the bit into undisturbed soil.

SAMPLE CONTAINERS

The following protocols, provided by I-Chem Research, were used for the preparation of sampling containers described under Section B-5a(2).

Protocol A (for 125- and 250-mL amber glass and 125-mL clear glass)

1. Wash containers, closures, and Teflon* liners in hot tap water with laboratory-grade nonphosphate detergent.

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*Teflon is a trademark of E.I. du Pont de Nemours & Co., Inc.

2. Rinse three times with tap water.

3. Rinse with 1:1 nitric acid.

4. Rinse three times with ASTM Type 1 deionized water.

5. Rinse with pesticide-grade methylene chloride.

6. Oven dry.

7. Remove containers, closures, and Teflon liners from oven.

8. Place Teflon liners in closures, and place closures on container. Attendant wears gloves, and containers are not to be removed from preparation room until sealed.

Protocol B (for 40-mL amber glass and 250-mL polyethylene)

1. Wash vials, septa, and closures in hot tap water with laboratory-grade nonphosphate detergent.

2. Rinse three times with tap water.

3. Rinse three times with ASTM Type 1 deionized water.

4. Oven-dry vials, septa, and closures.

5. Remove vials, septa, and closures from oven.

6. Place septa in closures, Teflon side down, and place on vials. Attendant wears gloves, and vials are not to be removed from preparation room until sealed.

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APPENDIX C-4.

QUALITY ASSURANCE/QUALITY CONTROL OF PHASE I ANALYSES

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APPENDIX C-4

QUALITY ASSURANCE/QUALITY CONTROL OF PHASE I ANALYSES

QUALITY ASSURANCE/QUALITY CONTROL OF INORGANICS--METALS

Data Qualifications

The following comments refer to laboratory performance in meeting EPA quality control specifications outlined in EPA (1988a).

1. Holding Time

Sample number	Sample date	Cyanide plasma analysis	Inductively coupled absorption analysis	Furnace atomic Mercury analysis	(CN) analysis
M131	6/27/88	8/4/88	8/5-10/88	7/13/88	8/4/88
M132	6/27/88	8/4/88	8/5-10/88	7/13/88	8/4/88
M133	6/27/88	8/4/88	8/5-10/88	7/13/88	8/4/88
M134	6/27/88	8/4/88	8/5-10/88	7/13/88	8/4/88
M135	6/27/88	8/4/88	8/5-10/88	7/13/88	8/4/88
M136	6/27/88	8/4/88	8/5-10/88	7/13/88	8/4/88
M137	6/27/88	8/4/88	8/5-10/88	7/13/88	8/4/88
M138	6/27/88	8/4/88	8/5-10/88	7/13/88	8/4/88
M139	6/27/88	8/4/88	8/5-10/88	7/13/88	8/4/88
M140	6/27/88	8/4/88	8/5-10/88	7/13/88	8/4/88
M141	6/27/88	8/4/88	8/5-10/88	7/13/88	8/4/88
M142	6/27/88	8/4/88	8/5-10/88	7/13/88	8/4/88
M143	6/27/88	8/4/88	8/5-10/88	7/13/88	8/4/88
M144	6/27/88	8/4/88	8/5-10/88	7/13/88	8/4/88
M145	6/27/88	8/4/88	8/5-10/88	7/13/88	8/4/88
M146	6/27/88	8/4/88	8/5-10/88	7/13/88	8/4/88
M147	6/27/88	8/4/88	8/5-10/88	7/13/88	8/4/88
M148	6/27/88	8/4/88	8/5-10/88	7/13/88	8/4/88
M149	6/27/88	8/4/88	8/5-10/88	7/13/88	8/4/88
M150	6/27/88	8/4/88	8/5-10/88	7/13/88	8/4/88
M151	6/27/88	8/4/88	8/5-10/88	7/13/88	8/4/88
M152	6/27/88	8/4/88	8/5-10/88	7/13/88	8/4/88
M153	6/27/88	8/4/88	8/5-10/88	7/13/88	8/4/88
M154	6/27/88	8/4/88	8/5-10/88	7/13/88	8/4/88
M155	8/2/88	8/9/88	8/10-11/88	8/3/88	8/2/88

Sample number	Sample date	Cyanide plasma analysis	Inductively coupled absorption analysis	Furnace atomic Mercury analysis	(CN) analysis
M156	8/2/88	8/9/88	8/10-11/88	8/3/88	8/2/88
M157	8/2/88	8/9/88	8/10-11/88	8/3/88	8/2/88
M158	8/2/88	8/9/88	8/10-11/88	8/3/88	8/2/88
M159	8/2/88	8/9/88	8/10-11/88	8/3/88	8/2/88
M160	8/2/88	8/9/88	8/10-11/88	8/3/88	8/2/88
M161	8/2/88	8/9/88	8/10-11/88	8/3/88	8/2/88
M162	8/2/88	8/9/88	8/10-11/88	8/3/88	8/2/88
M163	8/2/88	8/9/88	8/10-11/88	8/3/88	8/2/88
M164	8/2/88	8/9/88	8/10-11/88	8/3/88	8/2/88
M165	8/2/88	8/9/88	8/10-11/88	8/3/88	8/2/88
M166	8/2/88	8/9/88	8/10-11/88	8/3/88	8/2/88
M167	8/2/88	8/9/88	8/10-11/88	8/3/88	8/2/88
M168	8/2/88	8/9/88	8/10-11/88	8/3/88	8/2/88
M169	8/2/88	8/9/88	8/10-11/88	8/3/88	8/2/88

Holding times were acceptable for inductively coupled plasma, furnace atomic absorption, and cold vapor analyses. Cyanide holding times are outside EPA quality control limits of 14 days for samples M131 through M154. Positive results for these samples (M131 through M154) are estimates (no positive results reported).

2. Instrument Detection Limits--Acceptable

Instrument detection limits were below EPA contract-required detection limits.

Element	Contract-required detection limits soil (ppm)	U.S. Testing soil (ppm)
Aluminum	20.0	1.5
Antimony	6.0	1.0
Arsenic	1.0	0.05
Barium	20.0	0.06
Beryllium	0.05	0.05
Cadmium	0.05	0.02
Calcium	500.0	0.5

(Cont)

Element	Contract-required detection limits soil (ppm)	U.S. Testing soil (ppm)
Chromium	1.0	0.1
Cobalt	5.0	NA
Copper	2.5	0.1
Iron	10.0	0.5
Lead	0.05	0.5
Magnesium	500.0	0.5
Manganese	1.5	0.05
Mercury	0.2	0.02
Nickel	4.0	0.1
Potassium	500.0	1.0
Silver	1.0	0.1
Sodium	500.0	2.0
Selenium	0.5	0.05
Strontium	NA	0.2
Thallium	1.0	0.1
Vanadium	5.0	0.05
Zinc	2.0	0.05
Cyanide	5.0	0.5

3. **Blanks--Acceptable**

Blank results were within QC limits.

4. **Duplicates**

Sample	Element	Matrix	Percent	QC limits (%)
M132	Copper	Soil	83	65-135
M143	Barium	Soil	50	65-135
M144	Manganese	Soil	50	65-135

Copper, barium, and manganese have significant percent differences outside QC limits.

5. **Spike Sample Analysis**

Sample	Element	Matrix	Percent	QC limits (%)
M142	Arsenic	Soil	2/12	75-125
M142	Cadmium	Soil	65/65	75-125
M142	Antimony	Soil	0.0/0.0	75-125
M142	Lead	Soil	149/76	75-125
M142	Selenium	Soil	48/50	75-125

Arsenic, Cadium, Antimony, Lead, Selenium have percent recoveries outside QC limits.

6. **Sample Analysis**

Laboratory procedures were adequate. Problems with percent recoveries and percent difference most likely are caused by matrix interference and inhomogeneous nature of the soil.

7. **Laboratory Methodology**

Analytical methodology for inorganics follows EPA procedures, methods 6010, 7000 series, and 9010) (EPA 1988b).

QUALITY ASSURANCE/QUALITY CONTROL OF ORGANICS--TOX AND TOC

1. **Holding Times--Acceptable**

Sample number	Sample date	TOX analysis	TOC analysis
M131	6/27/88	8/8/88	8/8/88
M132	6/27/88	8/8/88	8/8/88
M133	6/27/88	8/8/88	8/8/88
M134	6/27/88	8/8/88	8/8/88
M135	6/28/88	8/4/88	8/4/88
M136	6/28/88	8/4/88	8/4/88
M137	6/28/88	8/4/88	8/4/88
M138	6/28/88	8/4/88	8/4/88
M139	6/28/88	8/4/88	8/4/88
M140	6/28/88	8/4/88	8/4/88
M141	6/28/88	8/4/88	8/4/88

(Cont)

Sample number	Sample date	TOX analysis	TOC analysis
M142	6/28/88	8/4/88	8/4/88
M143	6/28/88	8/4/88	8/4/88
M144	6/28/88	8/4/88	8/4/88
M145	6/30/88	8/4/88	8/4/88
M146	6/30/88	8/4/88	8/4/88
M147	7/27/88	8/4/88	8/4/88
M148	7/27/88	8/4/88	8/4/88
M149	7/27/88	8/4/88	8/4/88
M150	7/27/88	8/4/88	8/4/88
M151	7/27/88	8/4/88	8/4/88
M152	7/29/88	8/4/88	8/4/88
M153	7/29/88	8/4/88	8/4/88
M154	7/29/88	8/4/88	8/4/88
M155	7/29/88	8/4/88	8/4/88
M156	8/2/88	8/4/88	8/4/88
M157	8/2/88	8/4/88	8/4/88
M158	8/2/88	8/4/88	8/4/88
M159	8/2/88	8/4/88	8/4/88
M160	8/2/88	8/4/88	8/4/88
M161	8/2/88	8/4/88	8/4/88
M162	8/2/88	8/4/88	8/4/88
M163	8/3/88	8/4/88	8/4/88
M164	8/5/88	8/9/88	8/9/88
M165	8/5/88	8/9/88	8/9/88
M166	8/5/88	8/9/88	8/11/88
M167	8/5/88	8/9/88	8/12/88
M168	8/5/88	8/9/88	8/12/88
M169	8/5/88	8/9/88	8/12/88

2. **Blanks--Acceptable**

Blank concentrations for TOX and TOC are less than laboratory-reported detection limits.

3. Spike Sample Analysis

The percent spike recovery is outside laboratory-established QC limits in the following sample:

Sample number	Matrix	Element	Percent	QC limits percent
M146	TOX	Soil	59/55.6	75-125 (%)

Sample results associated with M146 should be considered as estimates due to low percent spike recoveries.

4. Laboratory Methodology

U.S. Testing Company Laboratories analyzed TOX and TOC by the following methods:

TOX EPA 9020
TOC EPA 9060

QUALITY ASSURANCE/QUALITY CONTROL OF ORGANICS--VOA, ABN, PESTICIDES, PCB

Data Qualifications

The following comments refer to laboratory performance in meeting EPA quality control specifications outlined in EPA (1988a).

1. Holding Times--Acceptable

Sample number	Sample date	Volatile organics analysis (VOA)	Acid-base neutralization analysis (ABN)	Pesticide polychlorinated biphenyl analysis (PCB)
M131	6/27/88	7/5/88	7/16/88	7/7-23/88
M132	6/27/88	7/5/88	7/16/88	7/7-23/88
M133	6/27/88	7/5/88	7/16/88	7/7-23/88
M134	6/27/88	7/5/88	7/16/88	7/7-23/88
M135	6/27/88	7/5/88	7/16/88	7/7-23/88
M136	6/27/88	7/5/88	7/16/88	7/7-23/88
M137	6/27/88	7/5/88	7/16/88	7/7-23/88
M138	6/27/88	7/5/88	7/16/88	7/7-23/88

(Cont)

Sample number	Sample date	Volatile organics analysis (VOA)	Acid-base neutralization analysis (ABN)	Pesticide polychlorinated biphenyl analysis (PCB)
M139	6/29/88	7/6/88	7/19/88	7/26-31/88
M140	6/29/88	7/6/88	7/19/88	7/26-31/88
M141	6/29/88	7/6/88	7/19/88	7/26-31/88
M142	6/29/88	7/6/88	7/19/88	7/26-31/88
M143	6/29/88	7/6/88	7/19/88	7/26-31/88
M144	6/29/88	7/6/88	7/19/88	7/26-31/88
M146	6/29/88	7/6/88	7/19/88	7/26-31/88
M147	6/27/88	8/3/88	8/8/88	8/9-12/88
M148	6/27/88	8/4/88	8/8/88	8/9-12/88
M152	7/29/88	8/3/88	8/8/88	8/9-12/88
M153	7/29/88	8/3/88	8/8/88	8/9-12/88
M158	8/2/88	8/5/88	8/11/88	8/10/88
M159	8/2/88	8/5/88	8/11/88	8/10/88
M161	8/3/88	8/5/88	8/12/88	8/12/88
M163	8/3/88	8/5/88	8/12/88	8/12/88
M164	8/5/88	8/10/88	8/13/88	8/20/88
M166	8/5/88	8/10/88	8/13/88	8/20/88
M167	8/5/88	8/10/88	8/13/88	8/20/88
M169	8/5/88	8/10/88	8/13/88	8/20/88

The holding times for VOAs are within QC limits. Holding for ABN/pesticides could not be verified because date of extraction was not provided (extraction within 7 days of sampling, and analysis 40 days after extraction).

2. Instrument Detection Limits--Acceptable

U.S. Testing Company Laboratories detection limits are equivalent to EPA contract required detection limits for VOAs, ABNs, and pesticides/PCBs (TCL compounds only).

3. Blanks--Acceptable

Blank contaminants are not greater than detection limits.

4. Surrogate Recoveries--Acceptable

Surrogate recoveries for VOAs, ABNs, and Pesticide/PCBs met EPA QC limits.

5. Spike Recoveries--Acceptable

Spike recoveries for VOAs and ABNs meet EPA QC limits.

6. Sample Analysis

The following samples have detectable concentrations of acetone, methylene chloride, and toluene:

Sample	Compound	Concentration (mg/kg)	Detection limit (mg/kg) (CRDL)
M147	Methylene chloride	0.022	0.005
M149	Methylene chloride	0.010	0.005
M151	Acetone	0.036	0.010
M152	Acetone	0.120	0.010
M154	Acetone	0.070	0.010
M154	Toluene	0.072	0.005
M159	Acetone	0.027	0.010
M161	Methylene chloride	0.072	0.005

The levels of methylene chloride and acetone in the above samples are at concentrations significantly above detection limits. The potential for these results to be positive for acetone and toluene (and not an analytical-laboratory-introduced contaminant) does exist in light of the fact that these chemicals may have been discharged to the pond.

It should also be noted that methylene chloride and acetone are common laboratory solvents used in the cleaning of glassware. The samples were all analyzed during a 72-hour period, which may indicate a short-lived analytical laboratory contamination, although methylene chloride and acetone were not detected in reagent blanks. Methylene chloride has not been identified as part of the BWIP Laboratory inventory.

7. Laboratory Contact

Analyses of organics by U.S. Testing Company were conducted under the following EPA methodologies.

VOAs EPA 8240
ABNs EPA 8270
Pesticides/PCB EPA 8140 and 8080

QUALITY ASSURANCE/QUALITY CONTROL OF INORGANICS--IONS

1. Holding Times

Although a portion of holding times could not be established, because it is not known when samples were prepared prior to analysis, the overall holding time is acceptable.

2. Blanks--Acceptable

Concentrations of analytes in blanks were less than laboratory-established detection limits.

3. Spike Recoveries

Sulfate, phosphate, and fluoride had percent spike recoveries outside laboratory QC limits.

Sample	Ion	Matrix	Percent R	QC limits (%)
M152	Sulfate	Soil	43.3	75-125
M136	Fluoride	Soil	2.3	75-125
M143	Fluoride	Soil	3.13	75-125
M152	Fluoride	Soil	3.51	75-125
M136	Phosphate	Soil	0.0	75-125
M143	Phosphate	Soil	0.0	75-125
M152	Phosphate	Soil	0.0	75-125

Samples associated with spike sample M152, analyzed for sulfate, are considered estimates due to low percent recoveries (M152 through M169). Fluoride and phosphate spike samples had very low percent recoveries. Positive sample results associated with spikes M136, M143, and M152 should be considered unusable.

4. Sample Analysis

U.S. Testing Company performed ion analyses by the following methodologies:

Ammonium	ASTM-D 1426-D
Sulfide	EPA 9030
Perchlorate	EPA 300.0
Nitrate	EPA 300.0
Nitrite	EPA 300.0
Chloride	EPA 300.0
Fluoride	EPA 300.0
Phosphate	EPA 300.0
Sulfate	EPA 300.0

REFERENCES

EPA, 1982, Test Methods for Evaluating Solid Waste - Physical/Chemical Methods, SW-846, Rev. 0, 2nd ed., U.S. Environmental Protection Agency, Washington, D.C.

EPA, 1986, "Rules and Regulations," Federal Register, Vol. 51, No. 43, March 5, 1986, pp. 7722, U.S. Environmental Protection Agency, Washington, D.C.

EPA, 1988a, USEPA Contract Laboratory Statement of Work for Organics Analysis, Multi-Media, Multi-Concentration, U.S. Environmental Protection Agency, Washington, D.C.

EPA, 1988b, USEPA Contract Laboratory Program, Statement of Work for Inorganics Analysis, Multi-Media, Multi-Concentration, U.S. Environmental Protection Agency, Washington, D.C.

1 Soil Matrix--Spike Recovery Data for Representative Upper and Mid-Range Quality Control (Organic Analytes).

PERIOD: From	To	Analyte	Method Procedure	Number Of Samples	Reference (True) Value (ug/g)	Mean Measured Value (ug/g)	% Recovery	ACCURACY Allowed %	Allowed % Std. Dev.	Allowable Range %	Accuracy Flag	PRECISION Mean Standard (%)	Measured Deviatic (ug/g)	Target Std. Dev. (%)	Precision Flag
Oct-87	Oct-87	A-BHC (Pesticides)	728	2	0.2	0.2	95	111	19.9	91.1 to 130.9		0	0.00	19.9	
Oct-87	Oct-87	Endrin	729	12	5	4.6	91	96.5	21.5	75 to 118		25.4	1.27	21.5	x
Jun-88	Oct-88	Methoxychlor	729	12	0.2	0.2	86.7	95.5	29.5	66 to 125		13.2	0.03	29.5	
Jun-88	Oct-88	Alpha-BNC	729	12	0.02	0.0	87.5	111	19.9	91.1 to 130.9	x	10.8	0.00	19.9	
Jun-88	Oct-88	Arochlor 1254	739	18	0.5	0.5	91.6	90	51	39 to 141		21.2	0.11	51	
Apr-88	Sep-88	Benzene	731	12	50	52.5	105	104	38	66 to 142		12.4	6.2	38	
Apr-88	Jul-88	Trichloroethylene	731	12	50	48.8	97.5	99.5	37.5	62 to 137		5.7	2.85	37.5	
Apr-88	Jul-88	Toluene	731	12	50	52.5	105	99	40	59 to 139		11.2	5.6	40	
Apr-88	Jul-88	Chlorobenzene	731	12	0.05	0.05	104	96.5	36.5	60 to 133		8.36	0.00	36.5	
Apr-88	Jul-88	1,1-Dichloroethylene	731	12	0.05	0.06	118	116	56.5	59.5 to 172.5		9.7	0.00	56.5	
Mar-88	Sep-88	P-Chloro-M-Cpesol	733	26	10	7.4	74.3	64.5	38.5	26 to 103		9.46	0.95	38.5	
Mar-88	Sep-88	2-Chlorophenenol*	733	27	10	7.7	76.9	63.5	38.5	25 to 102		14.8	1.48	38.5	
Mar-88	Sep-88	Di-N-Butyl Phthalate *	733	29	5	4.3	86.9	82	53	29 to 135		16.7	0.84	53	
Mar-88	Sep-88	1,4-Dichlorobenzene	733	29	5	3.5	69	66	38	28 to 104		16.3	0.82	38	
Mar-88	Sep-88	2,4-Dinitrotoluene *	733	26	5	3.3	66.1	58.5	30.5	28 to 89		12.8	0.64	30.5	
Mar-88	Sep-88	Di-N-Propylnitrosamine *	733	28	5	3.7	73.8	83.5	42.5	41 to 126		16	0.80	42.5	
Mar-88	Sep-88	4-Nitrophenol *	733	26	1	0.7	72	62.5	51.5	11 to 114		17.9	0.18	51.5	
Mar-88	Sep-88	Pentacholrophenol *	733	27	1	0.7	73	63	46	17 to 109		12.7	0.13	46	
Mar-88	Sep-88	1,2,4-Trichlorobenzene *	733	28	5	3.6	71	72.5	34.5	38 to 107		13.1	0.66	34.5	
Mar-88	Sep-88	Phenol *	733	26	1	0.7	72.9	58	32	26 to 90		5.85	0.06	32	
Mar-88	Sep-88	Acenaphthene *	733	28	5	361.0	7220	84	53	31 to 137	x	37800	1890	53	x
Mar-88	Sep-88	Pyrene *	733	26	5	5.5	110	88.5	53.5	35 to 142		131	6.55	53.5	x
Mar-88	Sep-88	Ethylene Glycol *	C81	16	40	36.5	91.2	100	25	75 to 125		14.7	5.88	25	
Mar-88	Sep-88	Dimethoate *	734	10	0.27	0.3	101	100	25	75 to 125		18.3	0.05	25	
Mar-88	Sep-88	Parathion *	734	2	0.2	0.1	57	100	25	75 to 125	x	0.707	0.001	25	
Mar-88	Sep-88	2,4-D *	737	16	0.004	0.0	67	54	23	31 to 77		36.7	0.001	23	x
Mar-88	Sep-88	Silvex *	737	16	0.004	0.0	49.6	67.5	18.5	49 to 86		18.4	0.001	18.5	
Mar-88	Sep-88	2,4,5-T*	737	16	0.004	0.0	53.9	58.5	27.5	31 to 86		22.8	0.001	27.5	

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Soil Matrix--Surrogate Spike Recoveries.

Analyte	Method	No. Samples	% Recovery	Mean Std. Dev.(%)	Allowed %	Allowed SD Std. Dev.(%)	Observed Recovery Range			Acceptance Recovery Range			Exceedance Flag
DBC	728	138	98.2	13.4	92	44	85	to	142	48	to	136	*
DBC	729	37	84	12.6	92	44	71	to	128	48	to	136	
1-2-Dichloroethane-D4	730	31	97.6	10.8	105	55	87	to	153	50	to	160	
Dibutylchlorndate	729	85	93	14.2	92	44	79	to	137	48	to	136	*
Toluene-D8	730	31	99.9	3.5	105	55	96	to	155	50	to	160	
P-Bromofluorobenzene	730	107	99.4	10.9	105	55	89	to	154	50	to	160	
2-Flourophenol	733	215	70.6	14.3	80	60	56	to	131	20	to	140	
Phenol-D6	733	213	66.8	18.8	80	60	48	to	127	20	to	140	
Nitrobenzene D5	733	223	69.7	18.8	80	60	51	to	130	20	to	140	
2-Flourobiphenyl	733	226	74	14.1	80	60	60	to	134	20	to	140	
2,4,6-Tribromophenol	733	224	67	21.7	75	65	45	to	132	10	to	140	
Terphenyl-D4	733	226	169	822	85	65	-653	to	234	20	to	150	*

1 Soil Matrix--Representative Low-Range Lab Quality Control
2 Blanks/Detection Limit Data.

PERIOD: From	To	Analyte	Blank Value (ug/g)	Blank Std. Dev. (ug/g)	Target MDL* (ug/g)	LOD (ug/g)	LOQ (ug/g)	Applicable Threshold (ug/g)
Apr-88	Sep-88	Ag	0.009	0.34	1	1.0	3.4	3.4
Apr-88	Sep-88	Al	1.230	2.21	15	7.9	23.3	23.3
Apr-88	Sep-88	Ba	0.000	0.37	0.6	1.1	3.7	3.7
Apr-88	Sep-88	Be	0.000	0.18	0.5	0.5	1.8	1.8
Apr-88	Sep-88	Ca	0.000	7.29	5	21.9	72.9	72.9
Apr-88	Sep-88	Cr	0.143	0.32	1	1.1	3.4	3.4
Apr-88	Sep-88	Cd	0.000	0.25	0.2	0.8	2.5	2.5
Apr-88	Sep-88	Cu	0.074	0.63	1	2.0	6.4	6.4
Apr-88	Sep-88	Fe	1.340	2.76	5	9.6	28.9	28.9
Apr-88	Sep-88	K	5.190	4.40	2	18.4	49.2	49.2
Apr-88	Sep-88	Mn	0.000	0.24	0.5	0.7	2.4	2.4
Apr-88	Sep-88	Mg	0.213	1.34	5	4.2	13.6	13.6
Apr-88	Sep-88	Na	2.980	2.60	10	10.8	29.0	29.0
Apr-88	Sep-88	Ni	0.074	0.22	1	0.7	2.3	2.3
Apr-88	Sep-88	Sb	0.000	0.59	10	1.8	5.9	10.0
Apr-88	Sep-88	Sr	0.035	0.24	2	0.8	2.4	2.4
Apr-88	Sep-88	V	0.022	0.34	0.5	1.0	3.4	3.4
Apr-88	Sep-88	Zn	0.291	0.54	0.5	1.9	5.7	5.7
Oct-87	Sep-88	Nitrate	0.000	0.00	1	0.0	0.0	1.0
Oct-87	Sep-88	Sulfate	0.195	1.17	1	3.7	11.9	11.9
Oct-87	Sep-88	Flouride	0.008	0.03	1	0.1	0.3	1.0
Oct-87	Sep-88	Chloride	0.005	0.01	1	0.0	0.1	1.0
Oct-87	Sep-88	Phosphate	0.000	0.00	2	0.0	0.0	2.0
Apr-88	Aug-88	Perchlorate						
Jun-88	Sep-88	Ammonium	0.282	0.06	0.5	0.5	0.9	0.9
Apr-88	Sep-88	Cyanide	0.044	0.17	1	0.6	1.8	1.8
Apr-88	Sep-88	As	0.000	0.11	0.5	0.3	1.1	1.1
Aug-88	Sep-88	Se	0.088	0.12	0.5	0.4	1.3	1.3
Aug-88	Sep-88	Tl	0.029	0.06	1	0.2	0.6	1.0
Apr-88	Sep-88	Pb	0.213	0.22	0.5	0.9	2.4	2.4
Apr-88	Sep-88	Hg	0.000	0.05	1	0.2	0.5	1.0
May-88	Aug-88	TOX*	0.031	0.15	1	0.5	1.5	1.5
Nov-87	Sep-88	TOC*	2.110	1.22	10	5.8	14.3	14.3
Aug-88	Aug-88	Sulfide	0.000	4.24	10	12.7	42.4	42.4
Apr-88	Apr-88	Hydrazine (LDL)	0.000	0.00	3	0.0	0.0	3.0
Oct-87	Oct-87	Coliform	0.000	0.00	2.2	0.0	0.0	2.2
Jul-88	Jul-88	Acetone	250.000	5.00	10	265.0	300.0	300.0

Soil Matrix--Spike Recovery Data for Representative Upper and Mid-Range Quality Control (Inorganic and Miscellaneous Analytes).

PERIOD: From	To	Analyte	Method Procedure	Number Of Samples	Reference (True) Value (ug/L)	Mean Measured Value (ug/g)	% Recovery	ACCURACY Difference From True Value (ug/g)	Difference From True Value %	Flag	PRECISION Mean Measured Standard Deviation (%)	(ug/g)	Target Std. Dev. (%)	Flag
Apr-88	Sep-88	Ag	726	31	50	40.2	80.3	9.85	19.7		31.3	15.65	25	x
Apr-88	Sep-88	Al	726	32	50	570.0	1140	-520	1040	x	1850	925	25	x
Apr-88	Sep-88	Ba	726	32	50	55.0	110	-5	10		27.7	13.85	25	x
Apr-88	Sep-88	Be	726	32	50	42.1	84.2	7.9	15.8		4.75	2.375	25	
Apr-88	Sep-88	Ca	726	32	1000	1260.0	126	-260	26	x	121	1210	25	x
Apr-88	Sep-88	Cr	726	32	50	45.5	90.9	4.55	9.1		79.3	39.65	25	x
Apr-88	Sep-88	Cd	726	32	35	28.5	81.5	6.475	18.5		19	6.65	25	
Apr-88	Sep-88	Cu	726	32	50	45.8	91.6	4.2	8.4		20.8	10.4	25	
Apr-88	Sep-88	Fe	726	32	50	760.0	1520	-710	1420	x	4720	2360	25	x
Apr-88	Sep-88	K	726	32	200	252.0	126	-52	26	x	76.7	153.4	25	x
Apr-88	Sep-88	Mn	726	32	500	565.0	113	-65	13		86.9	434.5	25	x
Apr-88	Sep-88	Mg	726	32	200	560.0	280	-360	180	x	337	674	25	x
Apr-88	Sep-88	Na	726	32	800	765.6	95.7	34.4	4.3		11.6	92.8	25	
Apr-88	Sep-88	Ni	726	32	50	44.7	89.3	5.35	10.7		4.7	2.35	25	
Apr-88	Sep-88	Sb	726	32	50	90.9	0	-40.9	81.8	x	90.9	45.45	25	x
Apr-88	Sep-88	Sr	726	32	50	47.2	94.4	2.8	5.6		15	7.5	25	
Apr-88	Sep-88	V	726	32	50	44.1	88.2	5.9	11.8		11.6	5.8	25	
Apr-88	Sep-88	Zn	726	32	50	42.1	84.2	7.9	15.8		106	53	25	x
Oct-87	Sep-88	Nitrate	735	26	4	4.2	106	-0.24	6		71.1	2.844	25	x
Oct-87	Sep-88	Sulfate	735	26	4	2.0	50.5	1.98	49.5	x	135	5.4	25	x
Oct-87	Sep-88	Flouride	735	26	1	0.6	57.2	0.428	42.8	x	33.8	0.338	25	x
Oct-87	Sep-88	Chloride	735	24	1	1.4	138	-0.38	38	x	103	1.03	25	x
Oct-87	Sep-88	Phosphate	735	14	4	1.6	40	2.4	60	x	18	0.72	25	
Apr-88	Aug-88	Perchlorate	C77	10	4	3.6	90	0.4	10		16.4	0.656	25	
Jun-88	Sep-88	Ammonium	C80	12	2	1.2	57.5		42.5	x	16.6	0.332	25	
Apr-88	Sep-88	Cyanide	C70	14	5	4.1	81.8	0.91	18.2		28.5	1.425	25	x
Apr-88	Sep-88	As	A20	25	10	8.2	81.8	1.82	18.2		106	10.6	25	x
Aug-88	Sep-88	Se	A22	10	5	2.5	50.5	2.476	49.52	x	19.3	0.96	25	
Aug-88	Sep-88	Tl	A23	10	5	4.7	93.8	0.309	6.18		8.6	0.43	25	
Apr-88	Sep-88	Pb	A51	34	10	18.6	186	-8.6	86	x	254	25.4	25	x
Apr-88	Sep-88	Hg	A21	30	1	1.0	102.6	-0.026	2.6		14.3	0.14	25	
May-88	Aug-88	TOX*	C68	14	50	45.4	90.7	4.65	9.3		44.8	22.4		x
Nov-87	Sep-88	TOC*	C69	34	100	97.8	97.8	2.2	2.2		13.2			x
Aug-88	Aug-88	Sulfide	C78	14	100	68.2	68.2	31.8	31.8	x	31.8	31.8	25.0	x
Apr-88	Apr-88	Hydrazine (LDL)	H62	1										
Oct-87	Oct-87	Coliform	109	4										
Jul-88	Jul-88	Acetone (Reagent Blank)	731	1										

Groundwater Quality Control: Detection/Quantitation Limits.
(sheet 1 of 10)

PERIOD From	PERIOD To	Analyte	Method	No. Samples	Blank (ppb)	Blank Std. Dev (%)	Target MDL (ppb)	LOD	LOQ	Applicable Threshold
6-Jul-88	27-Sep-88	COLIFORM	109	55	0	0	2.20E+00	0.0	0.0	2.2
7-Jul-88	30-Sep-88	BE	726	54	0	2.05	5.00E+00	6.2	20.5	20.5
7-Jul-88	30-Sep-88	SR	726	54	0	2.64	1.00E+01	7.9	26.4	26.4
7-Jul-88	30-Sep-88	ZN	726	54	1.44	4.32	5.00E+00	14.4	44.6	44.6
7-Jul-88	30-Sep-88	CA	726	54	0	36.4	5.00E+01	109.2	364.0	364.0
7-Jul-88	30-Sep-88	BA	726	54	0	3.89	6.00E+00	11.7	38.9	38.9
7-Jul-88	30-Sep-88	CD	726	54	0	2.51	2.00E+00	7.5	25.1	25.1
7-Jul-88	30-Sep-88	CR	726	54	0.446	2.72	1.00E+01	8.6	27.6	27.6
7-Jul-88	30-Sep-88	AG	726	54	0	2.7	1.00E+01	8.1	27.0	27.0
7-Jul-88	30-Sep-88	NA	726	54	34.2	35.7	2.00E+02	141.3	391.2	391.2
7-Jul-88	30-Sep-88	NI	726	54	0.507	2.56	1.00E+01	8.2	26.1	26.1
7-Jul-88	30-Sep-88	CU	726	54	0	6.01	1.00E+01	18.0	60.1	60.1
7-Jul-88	30-Sep-88	V	726	54	0	2.97	5.00E+00	8.9	29.7	29.7
7-Jul-88	30-Sep-88	SB	726	54	0	5.04	1.00E+02	15.1	50.4	100.0
7-Jul-88	30-Sep-88	AL	726	54	1.85	7.52	1.50E+02	24.4	77.0	150.0
7-Jul-88	30-Sep-88	MN	726	54	0	2.42	5.00E+00	7.3	24.2	24.2
7-Jul-88	30-Sep-88	K	726	54	2.04	16	1.00E+02	50.0	162.0	162.0
7-Jul-88	30-Sep-88	FE	726	54	2.67	6.33	3.00E+01	21.7	66.0	66.0
7-Jul-88	30-Sep-88	MG	726	54	0	10.9	5.00E+01	32.7	109.0	109.0
1-Jul-88	30-Sep-88	NO3	735	150	2.11	18.7	5.00E+02	58.2	189.1	500.0
1-Jul-88	30-Sep-88	SO4	735	150	289	3540	5.00E+02	10909.0	35689.0	35689.0
1-Jul-88	30-Sep-88	F	735	150	1.87	11.6	5.00E+02	36.7	117.9	500.0
1-Jul-88	30-Sep-88	CL	735	150	2.16	18.3	5.00E+02	57.1	185.2	500.0
1-Jul-88	30-Sep-88	PO4	735	150	0	0	1.00E+03	0.0	0.0	1000.0
30-Jul-88	10-Sep-88	NO3	742	4	0	0	5.00E+02	0.0	0.0	500.0
30-Jul-88	10-Sep-88	SO4	742	4	0	0	5.00E+02	0.0	0.0	500.0
30-Jul-88	10-Sep-88	F	742	4	0	0	5.00E+02	0.0	0.0	500.0
30-Jul-88	10-Sep-88	CL	742	4	18.8	37.5	5.00E+02	131.3	393.8	500.0
30-Jul-88	10-Sep-88	PO4	742	4	0	0	1.00E+03	0.0	0.0	1000.0
30-Jul-88	10-Sep-88	BR	742	4	0	0	1.00E+03	0.0	0.0	1000.0
30-Jul-88	10-Sep-88	NO2	742	4	0	0	1.00E+03	0.0	0.0	1000.0
1-Jul-88	13-Aug-88	AMMONIU	C80	6	23.5	5.75	5.00E+01	40.8	81.0	81.0
9-Jul-88	28-Sep-88	CYANIDE	C70	21	1.42	3.21	1.00E+01	11.1	33.5	33.5
16-Jul-88	23-Sep-88	AS	A20	19	0.211	0.713	5.00E+00	2.4	7.3	7.3
16-Jul-88	6-Sep-88	F_AS	H37	13	0	0.555	5.00E+00	1.7	5.5	5.5
6-Jul-88	23-Sep-88	SE	A22	19	0.474	0.681	5.00E+00	2.5	7.3	7.3

Groundwater Quality Control: Detection/Quantitation Limits.
(sheet 2 of 10)

PERIOD From	PERIOD To	Analyte	Method	No. Samples	Blank (ppb)	Blank Std. Dev (%)	Target MDL (ppb)	LOD	LOQ	Applicable Threshold
6-Jul-88	6-Sep-88	F_SE	H39	12	0.783	1.18	5.00E+00	4.3	12.6	12.6
20-Jul-88	20-Sep-88	TL	A23	6	0.6	0.906	5.00E+00	3.3	9.7	9.7
5-Aug-88	27-Aug-88	F_TL	H40	2	1	0.707	5.00E+00	3.1	8.1	8.1
7-Jul-88	20-Sep-88	PB	A51	20	0.405	0.804	5.00E+00	2.8	8.4	8.4
2-Jul-88	6-Sep-88	F_PB	H41	8	0.288	0.314	5.00E+00	1.2	3.4	5.0
6-Jul-88	26-Sep-88	HG	A21	24	0	0.0545	1.00E-01	0.2	0.5	0.5
9-Jul-88	27-Sep-88	TOX	C68	101	0.606	0.233	1.00E+02	1.3	2.9	100.0
8-Jul-88	30-Sep-88	TOXLDL	H42	307	0.613	0.249	1.00E+01	1.4	3.1	10.0
9-Jul-88	28-Sep-88	TOC	C69	23	219	106	1.00E+03	537.0	1279.0	1279.0
20-Jul-88	30-Sep-88	TC	H16	9	240	76.1	2.00E+03	468.3	1001.0	2000.0
13-Jul-88	30-Sep-88	SULFIDE	C78	11	0	45.1	1.00E+03	135.3	451.0	1000.0
27-Jul-88	27-Jul-88	LHYDRAZ	H62	1	0	0	3.00E+01	0.0	0.0	30.0
26-Sep-88	26-Sep-88	CITRUSR	C87	1	0	0	1.00E+03	0.0	0.0	1000.0
3-Oct-88	30-Dec-88	COLIFORM	109	41	0	0	2.20E+00	0.0	0.0	2.2
3-Oct-88	22-Dec-88	BE	726	37	0	1.45	5.00E+00	4.4	14.5	14.5
3-Oct-88	22-Dec-88	SR	726	37	0.151	0.675	1.00E+01	2.2	6.9	10.0
3-Oct-88	22-Dec-88	ZN	726	37	1.53	1.83	5.00E+00	7.0	19.8	19.8
3-Oct-88	22-Dec-88	CA	726	37	5.72	15.8	5.00E+01	53.1	163.7	163.7
3-Oct-88	22-Dec-88	BA	726	37	0.0927	1.39	6.00E+00	4.3	14.0	14.0
3-Oct-88	22-Dec-88	CD	726	37	0.0105	0.869	2.00E+00	2.6	8.7	8.7
3-Oct-88	22-Dec-88	CR	726	37	1.79	2.73	1.00E+01	10.0	29.1	29.1
3-Oct-88	22-Dec-88	AG	726	37	1.34	2.26	1.00E+01	8.1	23.9	23.9
3-Oct-88	22-Dec-88	NA	726	37	31.6	36.5	2.00E+02	141.1	396.6	396.6
3-Oct-88	22-Dec-88	NI	726	37	1.32	2.28	1.00E+01	8.2	24.1	24.1
3-Oct-88	22-Dec-88	CU	726	37	1.14	3.08	1.00E+01	10.4	31.9	31.9
3-Oct-88	22-Dec-88	V	726	37	0.354	2.79	5.00E+00	8.7	28.3	28.3
3-Oct-88	22-Dec-88	SB	726	37	0	4.13	1.00E+02	12.4	41.3	100.0
3-Oct-88	22-Dec-88	AL	726	37	0.606	10.7	1.50E+02	32.7	107.6	150.0
3-Oct-88	22-Dec-88	MN	726	37	0	1.76	5.00E+00	5.3	17.6	17.6
3-Oct-88	22-Dec-88	K	726	37	3.82	20.7	1.00E+02	65.9	210.8	210.8
3-Oct-88	22-Dec-88	FE	726	37	3.39	7.31	3.00E+01	25.3	76.5	76.5
3-Oct-88	22-Dec-88	MG	726	37	0	7.33	5.00E+01	22.0	73.3	73.3
4-Oct-88	30-Dec-88	NO3	735	87	0	0	5.00E+02	0.0	0.0	500.0
4-Oct-88	30-Dec-88	SO4	735	87	0	0	5.00E+02	0.0	0.0	500.0
4-Oct-88	30-Dec-88	F	735	87	0	0	5.00E+02	0.0	0.0	500.0
4-Oct-88	30-Dec-88	CL	735	87	0.218	2.04	5.00E+02	6.3	20.6	500.0

Groundwater Quality Control: Detection/Quantitation Limits.
(sheet 3 of 10)

PERIOD From	PERIOD To	Analyte	Method	No. Samples	Blank (ppb)	Blank Std. Dev (%)	Target MDL (ppb)	LOD	LOQ	Applicable Threshold
4-Oct-88	30-Dec-88	PO4	735	87	0	0	1.00E+03	0.0	0.0	1000.0
17-Oct-88	22-Dec-88	NO3	742	24	0	0	5.00E+02	0.0	0.0	500.0
17-Oct-88	22-Dec-88	SO4	742	24	0	0	5.00E+02	0.0	0.0	500.0
17-Oct-88	22-Dec-88	F	742	24	0	0	5.00E+02	0.0	0.0	500.0
17-Oct-88	22-Dec-88	CL	742	24	1.38	6.74	5.00E+02	21.6	68.8	500.0
17-Oct-88	22-Dec-88	PO4	742	24	0	0	1.00E+03	0.0	0.0	1000.0
17-Oct-88	22-Dec-88	BR	742	24	0	0	1.00E+03	0.0	0.0	1000.0
17-Oct-88	22-Dec-88	NO2	742	24	0	0	1.00E+03	0.0	0.0	1000.0
25-Oct-88	1-Nov-88	HNO3	H65	8	0	0		0.0	0.0	0.0
13-Oct-88	30-Dec-88	PERCHLO	C77	10	0	0	5.00E+02	0.0	0.0	500.0
12-Oct-88	30-Dec-88	CYANIDE	C70	24	0.753	2.22	1.00E+01	7.4	23.0	23.0
4-Oct-88	16-Dec-88	AS	A20	14	0.0714	0.267	5.00E+00	0.9	2.7	5.0
5-Oct-88	17-Nov-88	F_AS	H37	4	0.25	0.5	5.00E+00	1.8	5.3	5.3
4-Oct-88	16-Dec-88	SE	A22	15	1.6	1.5	5.00E+00	6.1	16.6	16.6
5-Oct-88	17-Nov-88	F_SE	H39	3	0.467	0.503	5.00E+00	2.0	5.5	5.5
10-Oct-88	20-Dec-88	TL	A23	12	0.333	0.651	5.00E+00	2.3	6.8	6.8
9-Nov-88	5-Dec-88	F_TL	H40	2	0	0	5.00E+00	0.0	0.0	5.0
4-Oct-88	19-Dec-88	PB	A51	18	0.833	1.04	5.00E+00	4.0	11.2	11.2
8-Nov-88	8-Nov-88	F_PB	H41	1	0.07	0	5.00E+00	0.1	0.1	5.0
5-Oct-88	29-Dec-88	HG	A21	18	0	0.0437	1.00E-01	0.1	0.4	0.4
3-Oct-88	31-Dec-88	TOXLDL	H42	485	5.82	1.49	1.00E+01	10.3	20.7	20.7
5-Oct-88	22-Dec-88	TOC	C69	26	199	69.2	1.00E+03	406.6	891.0	1000.0
3-Oct-88	30-Dec-88	TC	H16	7	265	100	2.00E+03	565.0	1265.0	2000.0
7-Oct-88	30-Dec-88	SULFIDE	C78	13	0	284	1.00E+03	852.0	2840.0	2840.0
13-Oct-88	13-Oct-88	LHYDRAZ	H62	1	0	0	3.00E+01	0.0	0.0	30.0
19-Oct-88	14-Nov-88	CITRUSR	C87	2	29	41	1.00E+03	152.0	439.0	1000.0
11-Jan-89	29-Mar-89	COLIFORM	109	27	0	0	2.20E+00	0.0	0.0	2.2
4-Jan-89	31-Mar-89	BE	726	50	0	3.15	5.00E+00	9.5	31.5	31.5
4-Jan-89	31-Mar-89	SR	726	50	0.1	0.58	1.00E+01	1.8	5.9	10.0
4-Jan-89	31-Mar-89	ZN	726	50	1.2	2.99	5.00E+00	10.2	31.1	31.1
4-Jan-89	31-Mar-89	CA	726	50	3.06	11.8	5.00E+01	38.5	121.1	121.1
4-Jan-89	31-Mar-89	BA	726	50	0.34	1.14	6.00E+00	3.8	11.7	11.7
4-Jan-89	31-Mar-89	CD	726	50	0	2.29	2.00E+00	6.9	22.9	22.9
4-Jan-89	31-Mar-89	CR	726	50	0.74	2.76	1.00E+01	9.0	28.3	28.3
4-Jan-89	31-Mar-89	AG	726	50	0.06	1.95	1.00E+01	5.9	19.6	19.6
4-Jan-89	31-Mar-89	NA	726	50	34.3	80	2.00E+02	274.3	834.3	834.3

Groundwater Quality Control: Detection/Quantitation Limits.
(sheet 4 of 10)

PERIOD From	PERIOD To	Analyte	Method	No. Samples	Blank (ppb)	Blank Std. Dev (%)	Target MDL (ppb)	LOD	LOQ	Applicable Threshold
4-Jan-89	31-Mar-89	NI	726	50	1.3	3.03	1.00E+01	10.4	31.6	31.6
4-Jan-89	31-Mar-89	CU	726	50	0.42	3.5	1.00E+01	10.9	35.4	35.4
4-Jan-89	31-Mar-89	V	726	50	0.14	2.46	5.00E+00	7.5	24.7	24.7
4-Jan-89	31-Mar-89	SB	726	50	0	4.07	1.00E+02	12.2	40.7	100.0
4-Jan-89	31-Mar-89	AL	726	50	2.46	7.96	1.50E+02	26.3	82.1	150.0
4-Jan-89	31-Mar-89	MN	726	50	0.22	1.25	5.00E+00	4.0	12.7	12.7
4-Jan-89	31-Mar-89	K	726	50	2.98	19.7	1.00E+02	62.1	200.0	200.0
4-Jan-89	31-Mar-89	FE	726	50	7.06	9.67	3.00E+01	36.1	103.8	103.8
4-Jan-89	31-Mar-89	MG	726	50	1.04	4.58	5.00E+01	14.8	46.8	50.0
5-Jan-89	31-Mar-89	B	726	49	6.92	10.1	1.00E+01	37.2	107.9	107.9
5-Jan-89	31-Mar-89	CO	726	49	0	1.35	2.00E+01	4.1	13.5	20.0
5-Jan-89	31-Mar-89	LI	726	49	0	0.52	1.00E+01	1.6	5.2	10.0
5-Jan-89	31-Mar-89	MO	726	49	0.404	1.54	4.00E+01	5.0	15.8	40.0
5-Jan-89	31-Mar-89	SI	726	49	7.94	26.7	2.00E+02	88.0	274.9	274.9
5-Jan-89	31-Mar-89	SN	726	49	1.59	4.17	3.00E+01	14.1	43.3	43.3
5-Jan-89	31-Mar-89	TI	726	49	4	15	6.00E+01	49.0	154.0	154.0
5-Jan-89	31-Mar-89	ZR	726	49	0.714	3.61	5.00E+01	11.5	36.8	50.0
3-Jan-89	31-Mar-89	NO3	742	81	2.62	23.6	5.00E+02	73.4	238.6	500.0
3-Jan-89	31-Mar-89	SO4	742	81	0	0	5.00E+02	0.0	0.0	500.0
3-Jan-89	31-Mar-89	F	742	81	1.62	8.52	5.00E+02	27.2	86.8	500.0
3-Jan-89	31-Mar-89	CL	742	81	1.16	10.4	5.00E+02	32.4	105.2	500.0
3-Jan-89	31-Mar-89	PO4	742	81	0	0	1.00E+03	0.0	0.0	1000.0
3-Jan-89	31-Mar-89	BR	742	81	0	0	1.00E+03	0.0	0.0	1000.0
3-Jan-89	31-Mar-89	NO2	742	81	0	0	1.00E+03	0.0	0.0	1000.0
6-Jan-89	31-Mar-89	CYANIDE	C70	31	0.138	1.44	1.00E+01	4.5	14.5	14.5
3-Jan-89	21-Mar-89	AS	A20	22	0.136	0.351	5.00E+00	1.2	3.6	5.0
3-Jan-89	21-Mar-89	SE	A22	22	0.636	0.953	5.00E+00	3.5	10.2	10.2
23-Jan-89	22-Mar-89	TL	A23	7	0.143	0.378	5.00E+00	1.3	3.9	5.0
27-Jan-89	25-Feb-89	F_TL	H40	2	0	0	5.00E+00	0.0	0.0	5.0
3-Jan-89	27-Mar-89	PB	A51	27	0.704	1.41	5.00E+00	4.9	14.8	14.8
9-Jan-89	31-Mar-89	HG	A21	16	0	0.0518	5.00E+00	0.2	0.5	5.0
7-Feb-89	28-Mar-89	F_HG	H38	9	0.0078	0.0041		0.0	0.0	0.0
4-Jan-89	31-Mar-89	TOXLDL	H42	800	6.3	1.45	1.00E+01	10.7	20.8	20.8
3-Jan-89	30-Mar-89	TOC	C69	36	206	78.9	1.00E+03	442.7	995.0	1000.0
20-Jan-89	17-Mar-89	TC	H16	9	284	95.3	2.00E+03	569.9	1237.0	2000.0
12-Jan-89	27-Mar-89	SULFIDE	C78	10	117	138	1.00E+03	531.0	1497.0	1497.0

Groundwater Quality Control: Detection/Quantitation Limits.
(sheet 5 of 10)

PERIOD From	PERIOD To	Analyte	Method	No. Samples	Blank (ppb)	Blank Std. Dev (%)	Target MDL (ppb)	LOD	LOQ	Applicable Threshold
7-Jan-89	7-Jan-89	DIOXIN	C86	3	0	0	1.00E-01	0.0	0.0	0.1
18-Apr-89	30-Jun-89	COLIFORM	109	44	0	0	2.20E+00	0.0	0.0	2.2
5-Apr-89	30-Jun-89	BE	726	37	0.486	1.17	5.00E+00	4.0	12.2	12.2
5-Apr-89	30-Jun-89	SR	726	37	0.297	0.618	1.00E+01	2.2	6.5	10.0
5-Apr-89	30-Jun-89	ZN	726	37	0	3.25	5.00E+00	9.8	32.5	32.5
5-Apr-89	30-Jun-89	CA	726	37	6.24	13.1	5.00E+01	45.5	137.2	137.2
5-Apr-89	30-Jun-89	BA	726	37	0	1.06	6.00E+00	3.2	10.6	10.6
5-Apr-89	30-Jun-89	CD	726	37	0	1.31	2.00E+00	3.9	13.1	13.1
5-Apr-89	30-Jun-89	CR	726	37	0	1.61	1.00E+01	4.8	16.1	16.1
5-Apr-89	30-Jun-89	AG	726	37	0.324	2.32	1.00E+01	7.3	23.5	23.5
5-Apr-89	30-Jun-89	NA	726	37	31.4	12.5	2.00E+02	68.9	156.4	200.0
5-Apr-89	30-Jun-89	NI	726	37	0.622	3.12	1.00E+01	10.0	31.8	31.8
5-Apr-89	30-Jun-89	CU	726	37	0.811	2.73	1.00E+01	9.0	28.1	28.1
5-Apr-89	30-Jun-89	V	726	37	0	3.1	5.00E+00	9.3	31.0	31.0
5-Apr-89	30-Jun-89	SB	726	37	0	5.27	1.00E+02	15.8	52.7	100.0
5-Apr-89	30-Jun-89	AL	726	37	3.81	10.7	1.50E+02	35.9	110.8	150.0
5-Apr-89	30-Jun-89	MN	726	37	0	1.57	5.00E+00	4.7	15.7	15.7
5-Apr-89	30-Jun-89	K	726	37	16.2	26.8	1.00E+02	96.6	284.2	284.2
5-Apr-89	30-Jun-89	FE	726	37	5.62	7.77	3.00E+01	28.9	83.3	83.3
5-Apr-89	30-Jun-89	MG	726	37	0.973	5.61	5.00E+01	17.8	57.1	57.1
5-Apr-89	30-Jun-89	B	726	37	14.4	7.65	1.00E+01	37.4	90.9	90.9
5-Apr-89	30-Jun-89	CO	726	37	0	1.8	2.00E+01	5.4	18.0	20.0
5-Apr-89	30-Jun-89	LI	726	37	0.189	0.877	1.00E+01	2.8	9.0	10.0
5-Apr-89	30-Jun-89	MO	726	37	0.892	2.02	4.00E+01	7.0	21.1	40.0
5-Apr-89	30-Jun-89	SI	726	37	22	40.7	2.00E+02	144.1	429.0	429.0
5-Apr-89	30-Jun-89	SN	726	37	2.05	6.15	3.00E+01	20.5	63.5	63.5
5-Apr-89	30-Jun-89	TI	726	37	0	1.26	6.00E+01	3.8	12.6	60.0
5-Apr-89	30-Jun-89	ZR	726	37	0.135	2.12	5.00E+01	6.5	21.3	50.0
4-Apr-89	30-Jun-89	NO3	742	118	0.466	5.06	5.00E+02	15.6	51.1	500.0
4-Apr-89	30-Jun-89	SO4	742	118	0	0	5.00E+02	0.0	0.0	500.0
4-Apr-89	30-Jun-89	F	742	118	5.94	23.6	5.00E+02	76.7	241.9	500.0
4-Apr-89	30-Jun-89	CL	742	118	1.99	11.9	5.00E+02	37.7	121.0	500.0
4-Apr-89	30-Jun-89	PO4	742	118	0	0	1.00E+03	0.0	0.0	1000.0
4-Apr-89	30-Jun-89	BR	742	118	0	0	1.00E+03	0.0	0.0	1000.0
4-Apr-89	30-Jun-89	NO2	742	118	0	0	1.00E+03	0.0	0.0	1000.0
30-May-89	30-May-89	HNO3	H65	1	0	0		0.0	0.0	0.0

Groundwater Quality Control: Detection/Quantitation Limits.
(sheet 6 of 10)

PERIOD From	PERIOD To	Analyte	Method	No. Samples	Blank (ppb)	Blank Std. Dev (%)	Target MDL (ppb)	LOD	LOQ	Applicable Threshold
21-Apr-89	21-Jun-89	PERCHLO	C77	6	0	0	5.00E+02	0.0	0.0	500.0
6-Apr-89	23-Jun-89	CYANIDE	C70	35	0.955	0.765	1.00E+01	3.3	8.6	10.0
11-Apr-89	30-Jun-89	AS	A20	31	0.71	0.864	5.00E+00	3.3	9.4	9.4
25-Apr-89	25-Apr-89	F_AS	H37	1	2	0	5.00E+00	2.0	2.0	5.0
11-Apr-89	30-Jun-89	SE	A22	28	0.321	0.476	5.00E+00	1.7	5.1	5.1
25-Apr-89	25-Apr-89	F_SE	H39	1	1	0	5.00E+00	1.0	1.0	5.0
18-Apr-89	28-Jun-89	TL	A23	22	0.182	0.395	5.00E+00	1.4	4.1	5.0
10-Apr-89	30-Jun-89	PB	A51	27	0.667	0.62	5.00E+00	2.5	6.9	6.9
17-Apr-89	17-Apr-89	F_PB	H41	1	1	0	5.00E+00	1.0	1.0	5.0
5-Apr-89	30-Jun-89	HG	A21	33	0.0059	0.0135	5.00E+00	0.0	0.1	5.0
24-Apr-89	2-Jun-89	F_HG	H38	3	0	0.00737		0.0	0.1	0.1
7-Apr-89	30-Jun-89	TOXLDL	H42	515	5.59	1.54	1.00E+01	10.2	21.0	21.0
7-Apr-89	30-Jun-89	TOC	C69	29	200	59.8	1.00E+03	379.4	798.0	1000.0
7-Apr-89	16-Jun-89	TC	H16	11	164	50.5	2.00E+03	315.5	669.0	2000.0
3-Apr-89	27-Jun-89	SULFIDE	C78	13	17.8	33.3	1.00E+03	117.7	350.8	1000.0
10-Jul-89	29-Sep-89	COLIFORM	109	30	0	0	2.20E+00	0.0	0.0	2.2
5-Jul-89	29-Sep-89	COLIMF	P19	46	0	0	1.00E+00	0.0	0.0	1.0
6-Jul-89	25-Sep-89	BE	726	43	0	1.48	5.00E+00	4.4	14.8	14.8
6-Jul-89	25-Sep-89	SR	726	43	0.256	0.621	1.00E+01	2.1	6.5	10.0
6-Jul-89	25-Sep-89	ZN	726	43	1.16	2.13	5.00E+00	7.6	22.5	22.5
6-Jul-89	25-Sep-89	CA	726	43	9.4	18.6	5.00E+01	65.2	195.4	195.4
6-Jul-89	25-Sep-89	BA	726	43	0.326	1.44	6.00E+00	4.6	14.7	14.7
6-Jul-89	25-Sep-89	CD	726	43	0	1.36	2.00E+00	4.1	13.6	13.6
6-Jul-89	25-Sep-89	CR	726	43	0	3.48	1.00E+01	10.4	34.8	34.8
6-Jul-89	25-Sep-89	AS	726	43	0.93	2.33	1.00E+01	7.9	24.2	24.2
6-Jul-89	25-Sep-89	NA	726	43	30.4	21.8	2.00E+02	95.8	248.4	248.4
6-Jul-89	25-Sep-89	NI	726	43	0.093	3.66	1.00E+01	11.1	36.7	36.7
6-Jul-89	25-Sep-89	CU	726	43	0.233	3.52	1.00E+01	10.8	35.4	35.4
6-Jul-89	25-Sep-89	V	726	43	0.581	1.84	5.00E+00	6.1	19.0	19.0
6-Jul-89	25-Sep-89	SB	726	43	0	4.89	1.00E+02	14.7	48.9	100.0
6-Jul-89	25-Sep-89	AL	726	43	4.16	5.97	1.50E+02	22.1	63.9	150.0
6-Jul-89	25-Sep-89	MN	726	43	0	1.32	5.00E+00	4.0	13.2	13.2
6-Jul-89	25-Sep-89	K	726	43	19.4	19.2	1.00E+02	77.0	211.4	211.4
6-Jul-89	25-Sep-89	FE	726	43	6.05	11.3	3.00E+01	40.0	119.0	119.0
6-Jul-89	25-Sep-89	MG	726	43	2.56	3.71	5.00E+01	13.7	39.7	50.0
6-Jul-89	25-Sep-89	B	726	43	8.26	6.97	1.00E+01	29.2	78.0	78.0

Groundwater Quality Control: Detection/Quantitation Limits.
(sheet 7 of 10)

PERIOD From	PERIOD To	Analyte	Method	No. Samples	Blank (ppb)	Blank Std. Dev (%)	Target MDL (ppb)	LOD	LOQ	Applicable Threshold
6-Jul-89	25-Sep-89	CO	726	43	0.0465	1.36	2.00E+01	4.1	13.6	20.0
6-Jul-89	25-Sep-89	LI	726	43	0.349	1.02	1.00E+01	3.4	10.5	10.5
6-Jul-89	25-Sep-89	MO	726	43	1.44	2.07	4.00E+01	7.6	22.1	40.0
6-Jul-89	25-Sep-89	SI	726	43	30.9	31.5	2.00E+02	125.4	345.9	345.9
6-Jul-89	25-Sep-89	SN	726	43	1.79	7.28	3.00E+01	23.6	74.6	74.6
6-Jul-89	25-Sep-89	TI	726	43	0.279	1.01	6.00E+01	3.3	10.4	60.0
6-Jul-89	25-Sep-89	ZR	726	43	1.47	2.52	5.00E+01	9.0	26.7	50.0
6-Jul-89	29-Sep-89	NO3	742	94	0	0	5.00E+02	0.0	0.0	500.0
6-Jul-89	29-Sep-89	SO4	742	94	0	0	5.00E+02	0.0	0.0	500.0
6-Jul-89	29-Sep-89	F	742	94	3.8	19.8	5.00E+02	63.2	201.8	500.0
6-Jul-89	29-Sep-89	CL	742	94	0	0	5.00E+02	0.0	0.0	500.0
6-Jul-89	29-Sep-89	PO4	742	94	0	0	1.00E+03	0.0	0.0	1000.0
6-Jul-89	29-Sep-89	BR	742	94	0	0	1.00E+03	0.0	0.0	1000.0
6-Jul-89	29-Sep-89	NO2	742	94	0	0	1.00E+03	0.0	0.0	1000.0
8-Aug-89	8-Aug-89	PERCHLO	C77	1	0	0	5.00E+02	0.0	0.0	500.0
13-Jul-89	22-Sep-89	CYANIDE	C70	15	1.69	1.06	1.00E+01	4.9	12.3	12.3
11-Jul-89	29-Sep-89	AS	A20	29	0.828	0.848	5.00E+00	3.4	9.3	9.3
5-Jul-89	29-Sep-89	SE	A22	30	0.4	0.724	5.00E+00	2.6	7.6	7.6
7-Jul-89	20-Sep-89	TL	A23	18	0.567	1.06	5.00E+00	3.7	11.2	11.2
13-Sep-89	13-Sep-89	F_TL	H40	1	0	0	5.00E+00	0.0	0.0	5.0
6-Jul-89	29-Sep-89	PB	A51	32	0.844	0.767	5.00E+00	3.1	8.5	8.5
6-Jul-89	29-Sep-89	HG	A21	30	0	0.0196	5.00E+00	0.1	0.2	5.0
6-Jul-89	29-Sep-89	TOXLDL	H42	774	5.9	1.67	1.00E+01	10.9	22.6	22.6
10-Jul-89	28-Sep-89	TOC	C69	35	256	89.3	1.00E+03	523.9	1149.0	1149.0
5-Jul-89	29-Sep-89	TC	H16	8	288	99.1	2.00E+03	585.3	1279.0	2000.0
12-Jul-89	16-Aug-89	SULFIDE	C78	7	36.3	23.9	1.00E+03	108.0	275.3	1000.0
19-Jul-89	19-Jul-89	TURB	H60	1	0	0		0.0	0.0	0.0
10-Oct-89	27-Dec-89	COLIFORM	109	20	0	0	2.20E+00	0.0	0.0	2.2
21-Oct-89	21-Dec-89	COLIMF	P19	28	0	0	1.00E+00	0.0	0.0	1.0
5-Oct-89	30-Dec-89	BE	726	68	0.176	2.34	5.00E+00	7.2	23.6	23.6
5-Oct-89	30-Dec-89	SR	726	68	0.206	0.703	1.00E+01	2.3	7.2	10.0
5-Oct-89	30-Dec-89	ZN	726	68	0.368	2.67	5.00E+00	8.4	27.1	27.1
5-Oct-89	30-Dec-89	CA	726	68	0	19.1	5.00E+01	57.3	191.0	191.0
5-Oct-89	30-Dec-89	BA	726	68	0.0735	1.27	6.00E+00	3.9	12.8	12.8
5-Oct-89	30-Dec-89	CD	726	68	0	1.5	2.00E+00	4.5	15.0	15.0
5-Oct-89	30-Dec-89	CR	726	68	0.25	2.93	1.00E+01	9.0	29.6	29.6

Groundwater Quality Control: Detection/Quantitation Limits.
(sheet 8 of 10)

PERIOD From	PERIOD To	Analyte	Method	No. Samples	Blank (ppb)	Blank Std. Dev (%)	Target MDL (ppb)	LOD	LOQ	Applicable Threshold
5-Oct-89	30-Dec-89	AG	726	68	0	3.38	1.00E+01	10.1	33.8	33.8
5-Oct-89	30-Dec-89	NA	726	68	21.6	17.6	2.00E+02	74.4	197.6	200.0
5-Oct-89	30-Dec-89	NI	726	68	0.809	2.99	1.00E+01	9.8	30.7	30.7
5-Oct-89	30-Dec-89	CU	726	68	1.44	3.45	1.00E+01	11.8	35.9	35.9
5-Oct-89	30-Dec-89	V	726	68	0.397	2.37	5.00E+00	7.5	24.1	24.1
5-Oct-89	30-Dec-89	SB	726	68	0	4.6	1.00E+02	13.8	46.0	100.0
5-Oct-89	30-Dec-89	AL	726	68	0	7.06	1.50E+02	21.2	70.6	150.0
5-Oct-89	30-Dec-89	MN	726	68	0	1.83	5.00E+00	5.5	18.3	18.3
5-Oct-89	30-Dec-89	K	726	68	11.2	25.6	1.00E+02	88.0	267.2	267.2
5-Oct-89	30-Dec-89	FE	726	68	0	5.68	3.00E+01	17.0	56.8	56.8
5-Oct-89	30-Dec-89	MG	726	68	0.426	3.83	5.00E+01	11.9	38.7	50.0
5-Oct-89	30-Dec-89	B	726	68	6.49	4.11	1.00E+01	18.8	47.6	47.6
5-Oct-89	30-Dec-89	CO	726	68	0	1.43	2.00E+01	4.3	14.3	20.0
5-Oct-89	30-Dec-89	LI	726	68	0.0294	1.06	1.00E+01	3.2	10.6	10.6
5-Oct-89	30-Dec-89	MO	726	68	0.735	2.32	4.00E+01	7.7	23.9	40.0
5-Oct-89	30-Dec-89	SI	726	68	62.8	38.4	2.00E+02	178.0	446.8	446.8
5-Oct-89	30-Dec-89	SN	726	68	0	5.04	3.00E+01	15.1	50.4	50.4
5-Oct-89	30-Dec-89	TI	726	68	0.206	1.36	6.00E+01	4.3	13.8	60.0
5-Oct-89	30-Dec-89	ZR	726	68	0.75	3.28	5.00E+01	10.6	33.6	50.0
3-Oct-89	28-Dec-89	NO3	742	133	0	0	5.00E+02	0.0	0.0	500.0
3-Oct-89	28-Dec-89	SO4	742	133	0	0	5.00E+02	0.0	0.0	500.0
3-Oct-89	28-Dec-89	F	742	133	2.1	12.4	5.00E+02	39.3	126.1	500.0
3-Oct-89	28-Dec-89	CL	742	133	4.02	17.5	5.00E+02	56.5	179.0	500.0
3-Oct-89	28-Dec-89	PO4	742	133	0	0	1.00E+03	0.0	0.0	1000.0
3-Oct-89	28-Dec-89	BR	742	133	0	0	1.00E+03	0.0	0.0	1000.0
18-Oct-89	18-Oct-89	LHYDRAZ	H62	1	0	0	3.00E+01	0.0	0.0	30.0
26-Oct-89	22-Dec-89	SULFIDE	C78	8	23.1	72.1	1.00E+03	239.4	744.1	1000.0
12-Oct-89	29-Dec-89	TC	H16	9	289	176	2.00E+03	817.0	2049.0	2049.0
2-Oct-89	29-Dec-89	TOC	C69	25	252	96.3	1.00E+03	540.9	1215.0	1215.0
2-Oct-89	29-Dec-89	TOXLDL	H42	471	6.53	1.58	1.00E+01	11.3	22.3	22.3
2-Oct-89	29-Dec-89	HG	A21	31	0	0.0081	5.00E+00	0.0	0.1	5.0
5-Oct-89	28-Dec-89	PB	A51	26	0.808	0.939	5.00E+00	3.6	10.2	10.2
19-Oct-89	20-Dec-89	TL	A23	16	0.563	0.727	5.00E+00	2.7	7.8	7.8
3-Oct-89	20-Dec-89	SE	A22	25	0.24	0.436	5.00E+00	1.5	4.6	5.0
3-Oct-89	20-Dec-89	AS	A20	25	1.24	0.831	5.00E+00	3.7	9.6	9.6
10-Oct-89	15-Dec-89	CYANIDE	C70	15	0.74	0.869	1.00E+01	3.3	9.4	10.0

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Groundwater Quality Control: Detection/Quantitation Limits.
(sheet 9 of 10)

PERIOD From	PERIOD To	Analyte	Method	No. Samples	Blank (ppb)	Blank Std. Dev (%)	Target MDL (ppb)	LOD	LOQ	Applicable Threshold
8-Nov-89	4-Dec-89	PERCHLO	C77	4	0	0	5.00E+02	0.0	0.0	500.0
3-Oct-89	28-Dec-89	NO2	742	133	0	0	1.00E+03	0.0	0.0	1000.0
31-Oct-89	21-Dec-89	2378TCD	752	15	0	0	1.00E-02	0.0	0.0	0.0
31-Oct-89	21-Dec-89	PCDF'S	752	15	0	0	1.00E-02	0.0	0.0	0.0
31-Oct-89	21-Dec-89	PCDD'S	752	15	0	0	1.00E-02	0.0	0.0	0.0
2-Jan-90	16-Mar-90	COLIFORM	109	39	0	0	2.20E+00	0.0	0.0	2.2
2-Jan-90	1-Mar-90	COLIMF	P19	32	0	0	1.00E+00	0.0	0.0	1.0
2-Jan-90	29-Mar-90	BE	726	100	0	1.42	5.00E+00	4.3	14.2	14.2
2-Jan-90	29-Mar-90	SR	726	100	0.06	0.343	1.00E+01	1.1	3.5	10.0
2-Jan-90	29-Mar-90	ZN	726	100	0.9	1.55	5.00E+00	5.5	16.4	16.4
2-Jan-90	29-Mar-90	CA	726	100	12.2	29.9	5.00E+01	101.9	311.2	311.2
2-Jan-90	29-Mar-90	BA	726	100	0.02	0.55	6.00E+00	1.7	5.5	6.0
2-Jan-90	29-Mar-90	CD	726	100	0	0.891	2.00E+00	2.7	8.9	8.9
2-Jan-90	29-Mar-90	CR	726	100	0.3	1.26	1.00E+01	4.1	12.9	12.9
2-Jan-90	29-Mar-90	AG	726	100	0.03	1.22	1.00E+01	3.7	12.2	12.2
2-Jan-90	29-Mar-90	NA	726	100	42.7	24.8	2.00E+02	117.1	290.7	290.7
2-Jan-90	29-Mar-90	NI	726	100	0.93	1.71	1.00E+01	6.1	18.0	18.0
2-Jan-90	29-Mar-90	CU	726	100	1.32	1.32	1.00E+01	5.3	14.5	14.5
2-Jan-90	29-Mar-90	V	726	100	0	1.39	5.00E+00	4.2	13.9	13.9
2-Jan-90	29-Mar-90	SB	726	100	0	4.51	1.00E+02	13.5	45.1	100.0
2-Jan-90	29-Mar-90	AL	726	100	0	7.94	1.50E+02	23.8	79.4	150.0
2-Jan-90	29-Mar-90	MN	726	100	0.16	0.825	5.00E+00	2.6	8.4	8.4
2-Jan-90	29-Mar-90	K	726	100	16.2	20.7	1.00E+02	78.3	223.2	223.2
2-Jan-90	29-Mar-90	FE	726	100	4.38	7.48	3.00E+01	26.8	79.2	79.2
2-Jan-90	29-Mar-90	MG	726	100	1.61	3.99	5.00E+01	13.6	41.5	50.0
2-Jan-90	29-Mar-90	B	726	100	12.2	9.69	1.00E+01	41.3	109.1	109.1
2-Jan-90	29-Mar-90	CO	726	100	0	1.41	2.00E+01	4.2	14.1	20.0
2-Jan-90	29-Mar-90	LI	726	100	0.15	0.968	1.00E+01	3.1	9.8	10.0
2-Jan-90	29-Mar-90	MO	726	100	0.9	1.24	4.00E+01	4.6	13.3	40.0
2-Jan-90	29-Mar-90	SI	726	100	81.5	40.5	2.00E+02	203.0	486.5	486.5
2-Jan-90	29-Mar-90	SN	726	100	0	4.51	3.00E+01	13.5	45.1	45.1
2-Jan-90	29-Mar-90	TI	726	100	0.35	0.892	6.00E+01	3.0	9.3	60.0
2-Jan-90	29-Mar-90	ZR	726	100	0.41	1.78	5.00E+01	5.8	18.2	50.0
3-Jan-90	30-Mar-90	NO3	742	177	0	0	5.00E+02	0.0	0.0	500.0
3-Jan-90	30-Mar-90	SO4	742	177	0	0	5.00E+02	0.0	0.0	500.0
3-Jan-90	30-Mar-90	F	742	177	1.41	11.1	5.00E+02	34.7	112.4	500.0

Groundwater Quality Control: Detection/Quantitation Limits.
(sheet 10 of 10)

PERIOD From	PERIOD To	Analyte	Method	No. Samples	Blank (ppb)	Blank Std. Dev (%)	Target MDL (ppb)	LOD	LOQ	Applicable Threshold
3-Jan-90	30-Mar-90	CL	742	177	3.63	33.8	5.00E+02	105.0	341.6	500.0
3-Jan-90	30-Mar-90	PO4	742	177	0	0	1.00E+03	0.0	0.0	1000.0
3-Jan-90	30-Mar-90	BR	742	177	0	0	1.00E+03	0.0	0.0	1000.0
3-Jan-90	30-Mar-90	NO2	742	177	0	0	1.00E+03	0.0	0.0	1000.0
2-Jan-90	2-Jan-90	PERCHLO	C77	2	0	0	5.00E+02	0.0	0.0	500.0
2-Jan-90	25-Mar-90	CYANIDE	C70	20	0.798	0.685	1.00E+01	2.9	7.6	10.0
2-Jan-90	28-Mar-90	AS	A20	42	0.5	0.506	5.00E+00	2.0	5.6	5.6
2-Jan-90	28-Mar-90	SE	A22	42	0.143	0.354	5.00E+00	1.2	3.7	5.0
4-Jan-90	28-Mar-90	TL	A23	21	0.429	0.598	5.00E+00	2.2	6.4	6.4
2-Jan-90	29-Mar-90	PB	A51	41	1.39	0.833	5.00E+00	3.9	9.7	9.7
4-Jan-90	30-Mar-90	HG	A21	34	0.0005	0.022	5.00E+00	0.1	0.2	5.0
2-Jan-90	30-Mar-90	TOXLDL	H42	739	5.49	1.38	1.00E+01	9.6	19.3	19.3
2-Jan-90	29-Mar-90	TOC	C69	36	236	76.2	1.00E+03	464.6	998.0	1000.0
9-Jan-90	30-Mar-90	TC	H16	12	217	57.7	2.00E+03	390.1	794.0	2000.0
2-Jan-90	23-Mar-90	SULFIDE	C78	7	0	78.3	1.00E+03	234.9	783.0	1000.0

Groundwater Quality Control: Surrogate Spike Recoveries.
(sheet 1 of 5)

PERIOD From	PERIOD To	Analyte	Method	No. Samples	% Recovery	Mean Std. Dev (%)	Allowed %	Allowed Std. Dev. (%)	Observed Recovery Range (%)	Acceptance Recovery Range (%)	Exceedance Flag	Notes
7-Jul-88	15-Sep-88	DBC	728	138	98.2	13.4	92	44	85 to 112	48 to 136		
7-Jul-88	15-Sep-88	DBC	729	37	84	12.6	92	44	71 to 97	48 to 136		
5-Jul-88	26-Sep-88	12DCAD4	730	176	97	6.03	98.5	21.5	91 to 103	77 to 120		
5-Jul-88	26-Sep-88	TOLUD8	730	176	101	5.09	99.5	13.5	96 to 106	86 to 113		
5-Jul-88	26-Sep-88	BFB	730	176	103	13.2	103	18	90 to 116	85 to 121		
5-Jul-88	30-Sep-88	12DCAD4	731	309	96.5	6.54	98.5	21.5	90 to 103	77 to 120		
5-Jul-88	30-Sep-88	TOLUD8	731	309	99.4	6.79	99.5	13.5	93 to 106	86 to 113		
5-Jul-88	30-Sep-88	BFB	731	309	100	10.1	103	18	90 to 110	85 to 121		
5-Jul-88	27-Sep-88	2FLPHEN	732	32	89.9	10.2	78	38	80 to 100	40 to 116		
5-Jul-88	27-Sep-88	PHEND6	732	32	73.6	10.9	64	37	63 to 85	27 to 101		
5-Jul-88	27-Sep-88	NITBN2	732	32	75.2	10.7	82	36	65 to 86	46 to 118		
5-Jul-88	27-Sep-88	2FLBIPH	732	32	73.7	9.18	80	30	65 to 83	50 to 110		
5-Jul-88	27-Sep-88	246TRI	732	32	66.2	12	73	38	54 to 78	35 to 111		
5-Jul-88	27-Sep-88	TERD14	732	32	79.5	13	85	36	67 to 93	49 to 121		
5-Jul-88	27-Sep-88	2FLPHEN	733	80	77.9	19.4	78	38	59 to 97	40 to 116		
5-Jul-88	27-Sep-88	PHEND6	733	80	62.4	24.6	64	37	38 to 87	27 to 101		
5-Jul-88	27-Sep-88	NITBN2	733	80	79.4	15.8	82	36	64 to 95	46 to 118		
5-Jul-88	27-Sep-88	2FLBIPH	733	80	75.4	8.36	80	30	67 to 84	50 to 110		
5-Jul-88	27-Sep-88	246TRI	733	77	60.1	18.5	73	38	42 to 79	35 to 111		
5-Jul-88	27-Sep-88	TERD14	733	80	80	12.9	85	36	67 to 93	49 to 121		
29-Jul-88	5-Aug-88	CHLOR37	C86	15	85.9	23.4	80	40	63 to 109	40 to 120		
27-Oct-88	16-Dec-88	DBC	729	90	75.8	19.7	92	44	56 to 96	48 to 136		
3-Oct-88	29-Dec-88	12DCAD4	730	127	96.2	4.06	98.5	21.5	92 to 100	77 to 120		
3-Oct-88	29-Dec-88	TOLUD8	730	127	100	3.38	99.5	13.5	97 to 103	86 to 113		
3-Oct-88	29-Dec-88	BFB	730	127	102	5.83	103	18	96 to 108	85 to 121		
3-Oct-88	29-Dec-88	12DCAD4	731	168	97.9	4.32	98.5	21.5	94 to 102	77 to 120		
3-Oct-88	29-Dec-88	TOLUD8	731	168	101	3.19	99.5	13.5	98 to 104	86 to 113		
3-Oct-88	29-Dec-88	BFB	731	168	102	5.33	103	18	97 to 107	85 to 121		
8-Nov-88	30-Nov-88	12DCAD4	761	24	95.7	4.91	98.5	21.5	91 to 101	77 to 120		
8-Nov-88	30-Nov-88	TOLUD8	761	24	95.6	18.3	99.5	13.5	77 to 114	86 to 113	•	
8-Nov-88	30-Nov-88	BFB	761	24	102	3.12	103	18	99 to 105	85 to 121		
12-Oct-88	30-Dec-88	2FLPHEN	732	8	79.4	12.8	78	38	67 to 92	40 to 116		
12-Oct-88	30-Dec-88	PHEND6	732	8	71	20.2	64	37	51 to 91	27 to 101		
12-Oct-88	30-Dec-88	NITBN2	732	8	71.4	10.8	82	36	61 to 82	46 to 118		
12-Oct-88	30-Dec-88	2FLBIPH	732	8	71.6	9.21	80	30	62 to 81	50 to 110		
12-Oct-88	30-Dec-88	246TRI	732	8	67.7	14.6	73	38	53 to 82	35 to 111		
12-Oct-88	30-Dec-88	TERD14	732	8	82.1	27.5	85	36	55 to 110	49 to 121		
6-Oct-88	30-Dec-88	2FLPHEN	733	136	74.9	19.8	78	38	55 to 95	40 to 116		
6-Oct-88	30-Dec-88	PHEND6	733	136	71.5	17.1	64	37	54 to 89	27 to 101		
6-Oct-88	30-Dec-88	NITBN2	733	136	71.7	19.8	82	36	52 to 92	46 to 118		
6-Oct-88	30-Dec-88	2FLBIPH	733	136	69.5	15.2	80	30	54 to 85	50 to 110		
6-Oct-88	30-Dec-88	246TRI	733	136	67.9	19.2	73	38	49 to 87	35 to 111		
6-Oct-88	30-Dec-88	TERD14	733	136	88.2	19.9	85	36	68 to 108	49 to 121		
20-Oct-88	17-Nov-88	CHLOR37	C86	57	84.5	16.7	80	40	68 to 101	40 to 120		
7-Jan-89	8-Mar-89	DBC	728	161	94.9	16.9	95	51	78 to 112	44 to 146		
7-Jan-89	27-Feb-89	DBC	729	14	121	80.6	95	51	40 to 202	44 to 146	•	
24-Mar-89	24-Mar-89	2,4-DB	737	8	98.8	4.87	100	25	94 to 104	75 to 125		
3-Jan-89	22-Mar-89	12DCAD4	730	154	97.4	9.22	95	19	88 to 107	76 to 114		
3-Jan-89	22-Mar-89	TOLUD8	730	154	99.8	3.35	99	11	96 to 103	88 to 110		

Groundwater Quality Control: Surrogate Spike Recoveries.
(sheet 2 of 5)

PERIOD From	PERIOD To	Analyte	Method	No. Samples	% Recovery	Mean Std. Dev (%)	Allowed %	Allowed Std. Dev. (%)	Observed Recovery Range (%)	Acceptance Recovery Range (%)	Exceedance Flag	Notes
3-Jan-89	22-Mar-89	BFB	730	154	107	14.1	101	14.5	93 to 121	86.5 to 116	*	
3-Jan-89	9-Mar-89	12DCAD4	731	47	94.1	76.8	95	19	17 to 171	76 to 114	*	
3-Jan-89	9-Mar-89	TOLUD8	731	47	97.4	6.92	99	11	90 to 104	88 to 110		
3-Jan-89	9-Mar-89	BFB	731	47	107	19.2	101	14.5	88 to 126	86.5 to 116	*	
28-Jan-89	3-Feb-89	12DCAD4	761	9	90.4	9.86	95	19	81 to 100	76 to 114		
28-Jan-89	3-Feb-89	TOLUD8	761	9	98.2	5.1	99	11	93 to 103	88 to 110		
28-Jan-89	3-Feb-89	BFB	761	9	100	8	101	14.5	92 to 108	86.5 to 116		
3-Jan-89	25-Mar-89	12DCAD4	750	169	34.5	6.56	95	19	28 to 41	76 to 114	*	
3-Jan-89	25-Mar-89	TOLUD8	750	169	100	6.32	99	11	94 to 106	88 to 110		
3-Jan-89	25-Mar-89	BFB	750	169				14.5	0 to 0	-15 to 14.5		Illegible data
3-Jan-89	7-Mar-89	2FLPHEN	732	18		15.7			-16 to 16	0 to 0	*	Illegible data
3-Jan-89	7-Mar-89	PHEND6	732	18		9.91			-10 to 10	0 to 0	*	Illegible data
3-Jan-89	7-Mar-89	NITBN2	732	18		11		39.5	-11 to 11	-40 to 39.5		Illegible data
3-Jan-89	7-Mar-89	2FLBIPH	732	18	80.1			36.5	80 to 80	-37 to 36.5	*	Illegible data
3-Jan-89	7-Mar-89	246TRI	732	18	74.5				75 to 75	0 to 0	*	Illegible data
3-Jan-89	7-Mar-89	TERD14	732	18	102		87		102 to 102	87 to 87	*	Illegible data
3-Jan-89	12-Jan-89	2FLPHEN	733	12	73.2	11	77	29	62 to 84	48 to 106		
3-Jan-89	12-Jan-89	PHEND6	733	12	66.9	10.1	72.5	37.5	57 to 77	35 to 110		
3-Jan-89	12-Jan-89	NITBN2	733	12	62.9	9.2	74.5	39.5	54 to 72	35 to 114		
3-Jan-89	12-Jan-89	2FLBIPH	733	12	74.5	11.2	79.5	36.5	63 to 86	43 to 116		
3-Jan-89	12-Jan-89	246TRI	733	12	55.5	14.3	66.5	56.5	41 to 70	10 to 123		
3-Jan-89	12-Jan-89	TERD14	733	12	102	11.7	87	54	90 to 114	33 to 141		
4-Jan-89	30-Mar-89	2FLPHEN	751	52	81.2	17.9	77	29	63 to 99	48 to 106		
4-Jan-89	30-Mar-89	PHEND6	751	52	72.3	15.9	72.5	37.5	56 to 88	35 to 110		
4-Jan-89	30-Mar-89	NITBN2	751	52	71.2	11.9	74.5	39.5	59 to 83	35 to 114		
4-Jan-89	30-Mar-89	2FLBIPH	751	52	77.6	12.6	79.5	36.5	65 to 90	43 to 116		
4-Jan-89	30-Mar-89	246TRI	751	52	78.8	22.9	66.5	56.5	56 to 102	10 to 123		
4-Jan-89	30-Mar-89	TERD14	751	52	97.9	19.3	87	54	79 to 117	33 to 141		
7-Jan-89	7-Jan-89	CHLOR37	C86	7	53.6	12.6	90	50	41 to 66	40 to 140		
31-Mar-89	31-Mar-89	CHLOR37	752	2	98	31.1	90	50	67 to 129	40 to 140		
3-Apr-89	30-Jun-89	DBC	728	107	138	58	95	51	80 to 196	44 to 146	*	
27-May-89	30-Jun-89	TCMX	728	33	68.9	10.5	95	51	58 to 79	44 to 146		
4-Apr-89	29-Jun-89	DBC	729	132	143	60	95	51	83 to 203	44 to 146	*	
19-May-89	29-Jun-89	TCMX	729	71	64.5	9.51	95	51	55 to 74	44 to 146		
5-Apr-89	28-Jun-89	DBCPCB	739	117	142	57.8	89	65	84 to 200	24 to 154	*	
28-Jun-89	28-Jun-89	TCMX	739	4	82.4	3.57	95	51	79 to 86	44 to 146		
18-May-89	28-Jun-89	TCMXPCB	739	86	65.6	11.6	95	51	54 to 77	44 to 146		
7-Apr-89	30-Jun-89	2,4-DB	737	155	107	14.8	100	25	92 to 122	75 to 125		
8-May-89	27-Jun-89	12DCAD4	730	40	96.5	5.82	95	19	91 to 102	76 to 114		
8-May-89	27-Jun-89	TOLUD8	730	40	102	4.08	99	11	98 to 106	88 to 110		
8-May-89	27-Jun-89	BFB	730	40	102	5.42	101	14.5	97 to 107	86.5 to 116		
2-Jun-89	30-Jun-89	12DCAD4	731	27	96.3	5.3	95	19	91 to 102	76 to 114		
2-Jun-89	30-Jun-89	TOLUD8	731	27	104	3.35	99	11	101 to 107	88 to 110		
2-Jun-89	30-Jun-89	BFB	731	27	103	6.08	101	14.5	97 to 109	86.5 to 116		
3-Apr-89	30-Jun-89	12DCAD4	750	426	96.8	5.32	95	19	91 to 102	76 to 114		
3-Apr-89	30-Jun-89	TOLUD8	750	426	102	3.76	99	11	98 to 106	88 to 110		
3-Apr-89	30-Jun-89	BFB	750	426	100	5.17	101	14.5	95 to 105	86.5 to 116		
7-Jun-89	28-Jun-89	2FLPHEN	732	13	71.8	13.2	77	29	59 to 85	48 to 106		
7-Jun-89	28-Jun-89	PHEND6	732	13	67.2	12.6	72.5	37.5	55 to 80	35 to 110		

Groundwater Quality Control: Surrogate Spike Recoveries.
(sheet 3 of 5)

PERIOD From	PERIOD To	Analyte	Method	No. Samples	% Recovery	Mean Std. Dev (%)	Allowed %	Allowed Std. Dev. (%)	Observed Recovery Range (%)	Acceptance Recovery Range (%)	Exceedance Flag	Notes
7-Jun-89	28-Jun-89	NITBN2	732	13	74.8	8.48	74.5	39.5	66 to 83	35 to 114		
7-Jun-89	28-Jun-89	2FLBIPH	732	13	75.2	6.96	79.5	36.5	68 to 82	43 to 116		
7-Jun-89	28-Jun-89	246TRI	732	13	83.7	11	66.5	56.5	73 to 95	10 to 123		
7-Jun-89	28-Jun-89	TERD14	732	13	76.6	11.2	87	54	65 to 88	33 to 141		
5-Apr-89	29-Jun-89	2FLPHEN	751	226	69.5	13.9	77	29	56 to 83	48 to 106		
5-Apr-89	29-Jun-89	PHEND6	751	226	68.2	11.9	72.5	37.5	56 to 80	35 to 110		
5-Apr-89	29-Jun-89	NITBN2	751	226	73.8	13.1	74.5	39.5	61 to 87	35 to 114		
5-Apr-89	29-Jun-89	2FLBIPH	751	226	75.1	12.5	79.5	36.5	63 to 88	43 to 116		
5-Apr-89	29-Jun-89	246TRI	751	226	84	18.4	66.5	56.5	66 to 102	10 to 123		
5-Apr-89	29-Jun-89	TERD14	751	226	82.8	15.6	87	54	67 to 98	33 to 141		
4-Apr-89	14-Jun-89	CHLOR37	752	72	76.7	21.6	90	50	55 to 98	40 to 140		
17-Jul-89	29-Sep-89	DBC	728	227	88.5	24.1	95	51	64 to 113	44 to 146		
17-Jul-89	29-Sep-89	TCMX	728	227	65.9	16	95	51	50 to 82	44 to 146		
18-Jul-89	27-Sep-89	DBC	729	85	95.7	26.4	95	51	69 to 122	44 to 146		
18-Jul-89	27-Sep-89	TCMX	729	85	64.2	23.1	95	51	41 to 87	44 to 146		
25-Jul-89	27-Sep-89	DBCPCB	739	66	94.3	59.9	89	65	34 to 154	24 to 154		
25-Jul-89	27-Sep-89	TCMXPCB	739	65	64.4	18	95	51	46 to 82	44 to 146		
7-Jul-89	29-Sep-89	2,4-DB	737	275	100	13.3	107	44	87 to 113	63 to 151		
11-Jul-89	29-Sep-89	12DCAD4	730	127	100	6.56	95	19	93 to 107	76 to 114		
11-Jul-89	29-Sep-89	TOLUD8	730	127	100	2.84	99	11	97 to 103	88 to 110		
11-Jul-89	29-Sep-89	BFB	730	127	97.8	5.79	101	14.5	92 to 104	86.5 to 116		
14-Jul-89	29-Sep-89	12DCAD4	731	41	102	7.15	95	19	95 to 109	76 to 114		
14-Jul-89	29-Sep-89	TOLUD8	731	41	101	2.75	99	11	98 to 104	88 to 110		
14-Jul-89	29-Sep-89	BFB	731	41	98	5.05	101	14.5	93 to 103	86.5 to 116		
6-Jul-89	29-Sep-89	12DACD4	750	386	100	5.8	95	19	94 to 106	76 to 114		
6-Jul-89	29-Sep-89	TOLUD8	750	386	100	2.88	99	11	97 to 103	88 to 110		
8-Jul-89	29-Sep-89	BFB	750	386	99.5	4.73	101	14.5	95 to 104	86.5 to 116		
3-Aug-89	26-Sep-89	2FLPHEN	732	26	69.2	11.9	60.5	39.5	57 to 81	21 to 100		
3-Aug-89	26-Sep-89	PHEND6	732	26	64.2	9.66	67.5	42.5	55 to 74	25 to 110		
3-Aug-89	26-Sep-89	NITBN2	732	26	68	15.5	74.5	39.5	53 to 84	35 to 114		
3-Aug-89	26-Sep-89	2FLBIPH	732	26	70.6	12.7	79.5	36.5	58 to 83	43 to 116		
3-Aug-89	26-Sep-89	246TRI	732	26	78.1	11	66.5	56.5	67 to 89	10 to 123		
3-Aug-89	26-Sep-89	TERD14	732	26	66.3	14.8	87	54	52 to 81	33 to 141		
3-Aug-89	18-Sep-89	2FLPHEN	733	7	66.5	11.5	60.5	39.5	55 to 78	21 to 100		
3-Aug-89	18-Sep-89	PHEND6	733	7	63.1	12.7	67.5	42.5	50 to 76	25 to 110		
3-Aug-89	18-Sep-89	NITBN2	733	7	62.7	12.6	74.5	39.5	50 to 75	35 to 114		
3-Aug-89	18-Sep-89	2FLBIPH	733	7	60.5	8.89	79.5	36.5	52 to 69	43 to 116		
3-Aug-89	18-Sep-89	246TRI	733	7	74.9	16.7	66.5	56.5	58 to 92	10 to 123		
3-Aug-89	18-Sep-89	TERD14	733	7	75	20.6	87	54	54 to 96	33 to 141		
8-Jul-89	27-Sep-89	2FLPHEN	751	138	64	11.9	60.5	39.5	52 to 76	21 to 100		
6-Jul-89	27-Sep-89	PHEND6	751	138	63	11.4	67.5	42.5	52 to 74	25 to 110		
6-Jul-89	27-Sep-89	NITBN2	751	138	71.6	15.2	74.5	39.5	56 to 87	35 to 114		
6-Jul-89	27-Sep-89	2FLBIPH	751	138	73.9	15.1	79.5	36.5	59 to 89	43 to 116		
6-Jul-89	27-Sep-89	246TRI	751	138	78.1	16.1	66.5	56.5	62 to 94	10 to 123		
6-Jul-89	27-Sep-89	TERD14	751	138	74.1	14.9	87	54	59 to 89	33 to 141		
6-Jul-89	19-Sep-89	CHLOR37	752	45	129	70.3	90	50	59 to 199	40 to 140		
5-Oct-89	12-Dec-89	DBC	728	43	93.3	14.1	95	51	79 to 107	44 to 146		
5-Oct-89	12-Dec-89	TCMX	728	43	73.8	10.9	95	51	63 to 85	44 to 146		
5-Oct-89	29-Dec-89	DBC	729	138	93.2	18.1	95	51	75 to 111	44 to 146		

Groundwater Quality Control: Surrogate Spike Recoveries.
(sheet 4 of 5)

PERIOD From	PERIOD To	Analyte	Method	No. Samples	% Recovery	Mean Std. Dev (%)	Allowed %	Allowed Std. Dev. (%)	Observed Recovery Range (%)	Acceptance Recovery Range (%)	Exceedance Flag	Notes
5-Oct-89	29-Dec-89	TCMX	729	138	71.4	23.6	95	51	48 to 95	44 to 146		
4-Oct-89	18-Dec-89	DBCPCB	739	85	95.9	31.5	89	65	64 to 127	24 to 154		
4-Oct-89	18-Dec-89	TCMXPCB	739	84	102	98	89	65	4 to 200	24 to 154	*	
2-Oct-89	22-Dec-89	2,4-DB	737	124	95.6	64.2	107	44	31 to 160	63 to 151	*	
2-Oct-89	29-Dec-89	12DCAD4	730	73	97.8	5.9	95	19	92 to 104	76 to 114		
2-Oct-89	29-Dec-89	TOLUD8	730	73	101	2.66	99	11	98 to 104	88 to 110		
2-Oct-89	29-Dec-89	BFB	730	73	101	5.59	101	14.5	95 to 107	86.5 to 116		
2-Oct-89	30-Nov-89	12DCAD4	731	21	96.6	4.78	95	19	92 to 102	76 to 114		
2-Oct-89	30-Nov-89	TOLUD8	731	21	98.9	2.74	99	11	96 to 102	88 to 110		
2-Oct-89	30-Nov-89	BFB	731	21	101	3.77	101	14.5	97 to 105	86.5 to 116		
2-Oct-89	29-Dec-89	12DCAD4	750	388	96.9	6.61	95	19	90 to 104	76 to 114		
2-Oct-89	29-Dec-89	TOLUD8	750	388	100	3.35	99	11	97 to 103	88 to 110		
2-Oct-89	29-Dec-89	BFB	750	388	99.8	4.85	101	14.5	95 to 105	86.5 to 116		
3-Oct-89	31-Oct-89	2FLPHEN	732	8	69.6	13.1	60.5	39.5	57 to 83	21 to 100		
3-Oct-89	31-Oct-89	PHEND6	732	8	74.9	10.8	67.5	42.5	64 to 86	25 to 110		
3-Oct-89	31-Oct-89	NITBN2	732	8	77.5	10.4	74.5	39.5	67 to 88	35 to 114		
3-Oct-89	31-Oct-89	2FLBIPH	732	8	73.5	10.7	79.5	36.5	63 to 84	43 to 116		
3-Oct-89	31-Oct-89	246TRI	732	8	67.6	24.3	66.5	56.5	43 to 92	10 to 123		
3-Oct-89	31-Oct-89	TERD14	732	8	66.5	8.86	87	54	58 to 75	33 to 141		
3-Oct-89	22-Dec-89	2FLPHEN	751	177	66.5	13.8	60.5	39.5	53 to 80	21 to 100		
3-Oct-89	22-Dec-89	PHEND6	751	177	70.6	14.8	67.5	42.5	56 to 85	25 to 110		
3-Oct-89	22-Dec-89	NITBN2	751	177	80.7	13.2	74.5	39.5	68 to 94	35 to 114		
3-Oct-89	22-Dec-89	2FLBIPH	751	177	79.6	9.9	79.5	36.5	70 to 90	43 to 116		
3-Oct-89	22-Dec-89	246TRI	751	177	76.9	15.6	66.5	56.5	61 to 93	10 to 123		
3-Oct-89	22-Dec-89	TERD14	751	177	78.7	13.3	87	54	65 to 92	33 to 141		
31-Oct-89	21-Dec-89	CHLOR37	752	79	104	65.6	90	50	38 to 170	40 to 140	*	
30-Jan-90	23-Mar-90	DBC	728	208	97.8	12.6	95	51	85 to 110	44 to 146		
30-Jan-90	23-Mar-90	TCMX	728	150	82.6	17.2	95	51	65 to 100	44 to 146		
2-Jan-90	19-Mar-90	DBC	729	96	97.6	21.9	95	51	76 to 120	44 to 146		
2-Jan-90	19-Mar-90	TCMX	729	90	90.7	20.2	95	51	71 to 111	44 to 146		
1-Jan-90	22-Mar-90	DBCPCB	739	113	101	21.1	89	65	80 to 122	24 to 154		
1-Jan-90	22-Mar-90	TCMXPCB	739	113	92.6	34.4	89	65	58 to 127	24 to 154		
3-Jan-90	29-Mar-90	2,4-DB	737	312	92.1	85.2	107	44	7 to 177	63 to 151	*	
2-Jan-90	28-Mar-90	12DCAD4	730	204	97.1	7.12	95	19	90 to 104	76 to 114		
2-Jan-90	28-Mar-90	TOLUD8	730	204	99.3	3.29	99	11	96 to 103	88 to 110		
2-Jan-90	28-Mar-90	BFB	730	204	99.5	3.5	101	14.5	96 to 103	86.5 to 116		
2-Jan-90	1-Feb-90	12DCAD4	731	19	97.3	7.89	95	19	89 to 105	76 to 114		
2-Jan-90	1-Feb-90	TOLUD8	731	19	100	3	99	11	97 to 103	88 to 110		
2-Jan-90	1-Feb-90	BFB	731	19	99.6	5.73	101	14.5	94 to 105	86.5 to 116		
1-Jan-90	29-Mar-90	12DCAD4	750	511	96.7	6.12	95	19	91 to 103	76 to 114		
1-Jan-90	29-Mar-90	TOLUD8	750	511	99.7	2.83	99	11	97 to 103	88 to 110		
1-Jan-90	29-Mar-90	BFB	750	511	99.2	3.62	101	14.5	96 to 103	86.5 to 116		
24-Jan-90	26-Mar-90	2FLPHEN	732	30	67.7	14.2	60.5	39.5	54 to 82	21 to 100		
24-Jan-90	26-Mar-90	PHEND6	732	30	76.9	10.1	67.5	42.5	67 to 87	25 to 110		
24-Jan-90	26-Mar-90	NITBN2	732	30	75.8	16.8	74.5	39.5	59 to 93	35 to 114		
24-Jan-90	26-Mar-90	2FLBIPH	732	30	74.5	14.5	79.5	36.5	60 to 89	43 to 116		
24-Jan-90	26-Mar-90	246TRI	732	30	82.4	19.2	66.5	56.5	63 to 102	10 to 123		
24-Jan-90	26-Mar-90	TERD14	732	30	74.5	10.4	87	54	64 to 85	33 to 141		
6-Feb-90	9-Feb-90	2FLPHEN	733	5	72.8	8.14	60.5	39.5	65 to 81	21 to 100		

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Groundwater Quality Control: Surrogate Spike Recoveries.
(sheet 5 of 5)

PERIOD From	PERIOD To	Analyte	Method	No. Samples	% Recovery	Mean Std. Dev (%)	Allowed %	Allowed Std. Dev. (%)	Observed Recovery Range (%)	Acceptance Recovery Range (%)	Exceedance Flag	Notes
6-Feb-90	9-Feb-90	PHEND6	733	5	88.4	10.5	67.5	42.5	78 to 99	25 to 110		
6-Feb-90	9-Feb-90	NITBN2	733	5	80.4	7.67	74.5	39.5	73 to 88	35 to 114		
6-Feb-90	9-Feb-90	2FLBIPH	733	5	87.2	9.65	79.5	36.5	78 to 97	43 to 116		
6-Feb-90	9-Feb-90	246TRI	733	5	89	6.36	66.5	56.5	83 to 95	10 to 123		
6-Feb-90	9-Feb-90	TERD14	733	5	83.6	4.77	87	54	79 to 88	33 to 141		
3-Jan-90	26-Mar-90	2FLPHEN	751	191	71.1	15	60.5	39.5	56 to 86	21 to 100		
3-Jan-90	26-Mar-90	PHEND6	751	190	78.2	15.3	67.5	42.5	63 to 94	25 to 110		
3-Jan-90	26-Mar-90	NITBN2	751	192	80.4	15	74.5	39.5	65 to 95	35 to 114		
3-Jan-90	26-Mar-90	2FLBIPH	751	192	79.6	18	79.5	36.5	62 to 98	43 to 116		
3-Jan-90	26-Mar-90	146TRI	751	192	90.9	19.3	66.5	56.5	72 to 110	10 to 123		
3-Jan-90	26-Mar-90	TERD14	751	192	72.4	15.8	87	54	57 to 88	33 to 141		
9-Jan-90	15-Mar-90	CHLOR37	752	48	136	63.9	90	50	72 to 200	40 to 140		

Groundwater Quality Control: Matrix Spike Recoveries.
(sheet 1 of 14)

PERIOD From	PERIOD To	Analyte	Method	Number of Samples	Reference (True) Value (ug/L)	Mean Measured Value (ug/L)	% Recovery	Difference From True Value (ug/L)	ACCURACY Difference From True Value (%)	ACCURACY Target Recovery (%)	ACCURACY Exceedance Flag	PRECISION Mean Measured Std. Dev. (%)	PRECISION Target Std. Dev. (%)	PRECISION Exceedance Flag
12-Jul-88	23-Sep-88	ZN	725	14	500	489.5	97.9	10.5	2.1	20		7.72	25	
12-Jul-88	23-Sep-88	CA	725	14	10000	9640	96.4	360	3.6	20		10.7	25	
12-Jul-88	23-Sep-88	BA	725	14	500	494	98.8	6	1.2	20		9.93	25	
12-Jul-88	23-Sep-88	CD	725	14	350	347.2	99.2	2.8	0.8	20		8.36	25	
12-Jul-88	23-Sep-88	CR	725	14	500	530	106	-30	6	20		9.13	25	
12-Jul-88	23-Sep-88	AG	725	14	500	481	96.2	19	3.8	20		7	25	
12-Jul-88	23-Sep-88	NA	725	14	8000	7616	95.2	384	4.8	20		5.71	25	
12-Jul-88	23-Sep-88	NI	725	14	500	505	101	-5	1	20		7.21	25	
12-Jul-88	23-Sep-88	CU	725	14	500	493	98.6	7	1.4	20		7.67	25	
12-Jul-88	23-Sep-88	V	725	14	500	500	100	0	0	20		8.55	25	
12-Jul-88	23-Sep-88	AL	725	14	500	510	102	-10	2	20		6.74	25	
12-Jul-88	23-Sep-88	MN	725	14	500	499	99.8	1	0.2	20		9.4	25	
12-Jul-88	23-Sep-88	K	725	14	2000	1880	94	120	6	20		7.44	25	
12-Jul-88	23-Sep-88	FE	725	14	500	550	110	-50	10	20		28.8	25	*
12-Jul-88	23-Sep-88	MG	725	14	2000	1856	92.8	144	7.2	20		9.41	25	
21-Jul-88	16-Sep-88	F_ZN	740	12	500	496.5	99.3	3.5	0.7	20		6.8	25	
21-Jul-88	16-Sep-88	F_CA	740	12	10000	10200	102	-200	2	20		24.7	25	
21-Jul-88	16-Sep-88	F_BA	740	12	500	515	103	-15	3	20		9.97	25	
21-Jul-88	16-Sep-88	F_CD	740	12	350	353.5	101	-3.5	1	20		7.51	25	
21-Jul-88	16-Sep-88	F_CR	740	12	500	525	105	-25	5	20		10.3	25	
21-Jul-88	16-Sep-88	F_AG	740	12	500	500	100	0	0	20		11.1	25	
21-Jul-88	16-Sep-88	F_NA	740	12	8000	8000	100	0	0	20		13.9	25	
21-Jul-88	16-Sep-88	F_NI	740	12	500	510	102	-10	2	20		7.21	25	
21-Jul-88	16-Sep-88	F_CU	740	12	500	520	104	-20	4	20		8.72	25	
21-Jul-88	16-Sep-88	F_V	740	12	500	520	104	-20	4	20		8.44	25	
21-Jul-88	16-Sep-88	F_AL	740	12	500	535	107	-35	7	20		9.66	25	
21-Jul-88	16-Sep-88	F_MN	740	12	500	510	102	-10	2	20		7.68	25	
21-Jul-88	16-Sep-88	F_K	740	12	2000	2020	101	-20	1	20		15.7	25	
21-Jul-88	16-Sep-88	F_FE	740	12	400	404	101	-4	1	20		7.21	25	
21-Jul-88	16-Sep-88	F_MG	740	12	2000	1928	96.4	72	3.6	20		29.4	25	*
9-Jul-88	30-Sep-88	BE	726	25	500	495.5	99.1	4.5	0.9	20		7.49	25	
9-Jul-88	30-Sep-88	SR	726	25	500	505	101	-5	1	20		7.96	25	
9-Jul-88	30-Sep-88	ZN	726	25	500	483	96.6	17	3.4	20		8.23	25	
9-Jul-88	30-Sep-88	CA	726	25	10000	9360	93.6	640	6.4	20		28.6	25	*
9-Jul-88	30-Sep-88	CD	726	25	350	344.75	98.5	5.25	1.5	20		8.59	25	
9-Jul-88	30-Sep-88	BA	726	25	500	505	101	-5	1	20		9.37	25	
9-Jul-88	30-Sep-88	CR	726	25	500	515	103	-15	3	20		9.2	25	
9-Jul-88	30-Sep-88	AG	726	25	500	479	95.8	21	4.2	20		8.56	25	
9-Jul-88	30-Sep-88	NA	726	25	8000	7656	95.7	344	4.3	20		23	25	
9-Jul-88	30-Sep-88	NI	726	25	500	500	100	0	0	20		7.6	25	
9-Jul-88	30-Sep-88	CU	726	25	500	505	101	-5	1	20		7.3	25	
9-Jul-88	30-Sep-88	V	726	25	500	505	101	-5	1	20		7.8	25	
9-Jul-88	30-Sep-88	SB	726	25	500	431	86.2	69	13.8	20		32.8	25	*
9-Jul-88	30-Sep-88	AL	726	25	500	525	105	-25	5	20		9.55	25	
9-Jul-88	30-Sep-88	MN	726	25	500	525	105	-25	5	20		10.6	25	
9-Jul-88	30-Sep-88	K	726	25	2000	1876	93.8	124	6.2	20		19.3	25	
9-Jul-88	30-Sep-88	FE	726	25	500	740	148	-240	48	20	*	201	25	*

Groundwater Quality Control: Matrix Spike Recoveries.
(sheet 2 of 14)

PERIOD From	PERIOD To	Analyte	Method	Number of Samples	Reference (True) Value (ug/L)	Mean Measured Value (ug/L)	% Recovery	Difference From True Value (ug/L)	ACCURACY Difference From True Value (%)	ACCURACY Target Recovery (%)	ACCURACY Exceedance Flag	PRECISION Mean Measured Std. Dev. (%)	PRECISION Target Std. Dev. (%)	PRECISION Exceedance Flag
9-Jul-88	30-Sep-88	MG	726	25	2000	1794	89.7	206	10.3	20		35.4	25	•
13-Jul-88	26-Sep-88	F_ZN	741	40	500	498.5	99.7	1.5	0.3	20		9.42	25	
13-Jul-88	26-Sep-88	F_CA	741	40	10000	10500	105	-500	5	20		22.3	25	
13-Jul-88	26-Sep-88	F_BA	741	40	500	515	103	-15	3	20		10.4	25	
13-Jul-88	26-Sep-88	F_CD	741	40	350	357	102	-7	2	20		9.43	25	
13-Jul-88	26-Sep-88	F_CR	741	40	500	520	104	-20	4	20		9.55	25	
13-Jul-88	26-Sep-88	F_AG	741	40	500	494	98.8	6	1.2	20		9.59	25	
13-Jul-88	26-Sep-88	F_NA	741	40	8000	7792	97.4	208	2.6	20		16	25	
13-Jul-88	26-Sep-88	F_NI	741	40	500	510	102	-10	2	20		8.73	25	
13-Jul-88	26-Sep-88	F_CU	741	40	500	505	101	-5	1	20		7.96	25	
13-Jul-88	26-Sep-88	F_V	741	40	500	510	102	-10	2	20		8.3	25	
13-Jul-88	26-Sep-88	F_AL	741	40	500	520	104	-20	4	20		9.14	25	
13-Jul-88	26-Sep-88	F_MN	741	40	500	510	102	-10	2	20		9.11	25	
13-Jul-88	26-Sep-88	F_K	741	40	2000	1958	97.9	42	2.1	20		17.1	25	
13-Jul-88	26-Sep-88	F_FE	741	40	500	494	98.8	6	1.2	20		7.04	25	
13-Jul-88	26-Sep-88	F_MG	741	40	2000	1890	94.5	110	5.5	20		30.5	25	•
13-Jul-88	26-Sep-88	F_BE	741	40	500	505	101	-5	1	20		9.81	25	
13-Jul-88	26-Sep-88	F_SR	741	40	500	510	102	-10	2	20		7.95	25	
13-Jul-88	26-Sep-88	F_SB	741	40	500	505	101	-5	1	20		9.68	25	
8-Jul-88	29-Sep-88	NO3	735	82	4000	3928	98.2	72	1.8	20		18.6	25	
8-Jul-88	29-Sep-88	SO4	735	82	4000	3872	96.8	128	3.2	20		17.7	25	
8-Jul-88	29-Sep-88	F	735	82	1000	948	94.8	52	5.2	20		9.36	25	
8-Jul-88	29-Sep-88	CL	735	82	1000	993	99.3	7	0.7	20		14.8	25	
8-Jul-88	29-Sep-88	PO4	735	82	4000	3492	87.3	508	12.7	20		13.8	25	
14-Sep-88	14-Sep-88	NO3	742	2	4000	2960	74	1040	26	20	•	3.54	25	
14-Sep-88	14-Sep-88	SO4	742	2	4000	2840	71	1160	29	20	•	4.24	25	
14-Sep-88	14-Sep-88	F	742	2	1000	975	97.5	25	2.5	20		0.919	25	
14-Sep-88	14-Sep-88	CL	742	2	1000	933	93.3	67	6.7	20		0.212	25	
14-Sep-88	14-Sep-88	PO4	742	2	4000	2696	67.4	1304	32.6	20	•	6.24	25	
14-Sep-88	14-Sep-88	BR	742	0	1000	0	0	1000	100	20	•	0	25	
14-Sep-88	14-Sep-88	NO2	742	0	1000	0	0	1000	100	20	•	0	25	
8-Jul-88	27-Sep-88	H_NO2	H65	68	4000	3992	99.8	8	0.2	20		17.1	25	
9-Jul-88	13-Sep-88	L_F	H63	28	500	185.5	37.1	314.5	62.9	20	•	9.76	25	
1-Jul-88	21-Sep-88	AMMONIU	C80	39	200	185.2	92.6	14.8	7.4	20		8.3	25	
9-Jul-88	20-Sep-88	CYANIDE	C70	30	100	208	208	-108	108	20	•	445	25	•
16-Jul-88	20-Sep-88	ARSENIC	A20	30	50	46.6	93.2	3.4	6.8	20		6.9	25	
19-Jul-88	23-Sep-88	F_ARSENIC	H37	35	50	48.65	97.3	1.35	2.7	20		8.29	25	
27-Jul-88	20-Sep-88	SE	A22	28	50	39.05	78.1	10.95	21.9	20	•	13.8	25	
21-Jul-88	23-Sep-88	F_SE	H39	33	50	40.55	81.1	9.45	18.9	20		10.6	25	
27-Aug-88	20-Sep-88	TL	A23	10	50	37.1	74.2	12.9	25.8	20	•	25.9	25	•
5-Aug-88	20-Sep-88	F_TL	H40	8	50	28.05	56.1	21.95	43.9	20	•	34.3	25	•
7-Jul-88	20-Sep-88	PB	A51	43	50	49	98	1	2	20		9.65	25	
2-Jul-88	20-Sep-88	F_PB	H41	29	50	48.55	97.1	1.45	2.9	20		11.7	25	
9-Jul-88	14-Sep-88	HG	A21	36	0.3	0.2979	99.3	0.0021	0.7	20		13.3	25	
12-Jul-88	16-Sep-88	F_HG	H38	30	0.3	0.2979	99.3	0.0021	0.7	20		8.55	25	
12-Jul-88	28-Sep-88	TOX	C68	32	50	51.5	103	-1.5	3	20		39	25	•
8-Jul-88	29-Sep-88	TOXLDL	H42	64	50	53	106	-3	6	20		16.7	25	

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Groundwater Quality Control: Matrix Spike Recoveries.
(sheet 3 of 14)

PERIOD From	PERIOD To	Analyte	Method	Number of Samples	Reference (True) Value (ug/L)	Mean Measured Value (ug/L)	% Recovery	Difference From True Value (ug/L)	ACCURACY Difference From True Value (%)	ACCURACY Target Recovery (%)	ACCURACY Exceedance Flag	PRECISION Mean Measured Std. Dev. (%)	PRECISION Target Std. Dev. (%)	PRECISION Exceedance Flag
9-Jul-88	28-Sep-88	TOC	C69	77	5000	4960	99.2	40	0.8	20		9.21	25	
20-Jul-88	30-Sep-88	TC	H16	30	1000	975	97.5	25	2.5	20		10.9	25	
13-Jul-88	30-Sep-88	SULPHIDE	C78	23	5000	4490	89.8	510	10.2	20		12	25	
27-Jul-88	27-Jul-88	LHYDRAZ	H62	4	5	4.525	90.5	0.475	9.5	20		4.43	25	
14-Aug-88	29-Aug-88	THIOURA	727	8	500	412	82.4	88	17.6	20		5.2	25	
14-Aug-88	29-Aug-88	ACETREA	727	8	500	440	88	60	12	20		2.82	25	
14-Aug-88	29-Aug-88	CHLOREA	727	8	500	417	83.4	83	16.6	20		6.16	25	
14-Aug-88	29-Aug-88	DIETROL	727	8	500	443	88.6	57	11.4	20		7.98	25	
14-Aug-88	29-Aug-88	ETHYREA	727	8	500	500	100	0	0	20		7.88	25	
14-Aug-88	29-Aug-88	NAPHREA	727	8	500	397.5	79.5	102.5	20.5	20	*	3.67	25	
14-Aug-88	29-Aug-88	PHENREA	727	8	500	416	83.2	84	16.8	20		6.04	25	
7-Jul-88	15-Sep-88	ENDRIN	728	22	0.5	0.505	101	-0.005	1	20		8.48	25	
7-Jul-88	15-Sep-88	METHLOR	728	22	2	1.942	97.1	0.058	2.9	20		12	32.5	
7-Jul-88	15-Sep-88	A-BHC	728	22	0.2	0.1864	93.2	0.0136	6.8	20		6.82	30	
19-Aug-88	19-Aug-88	ENDRIN	729	4	0.5	0.4725	94.5	0.0275	5.5	20		3.42	25	
19-Aug-88	19-Aug-88	METHLOR	729	4	2	1.63	81.5	0.37	18.5	20		6.1	32.5	
19-Aug-88	19-Aug-88	A-BHC	729	4	0.2	0.185	92.5	0.015	7.5	20		2.89	30	
11-Jul-88	22-Sep-88	AR1254	739	8	5	4.98	99.6	0.02	0.4	20		6.19	25	
5-Jul-88	27-Sep-88	BENZENE	731	81	50	53	106	-3	6	20		10.1	25.5	
5-Jul-88	27-Sep-88	TOLUENE	731	81	50	50.5	101	-0.5	1	20		12	24.5	
5-Jul-88	27-Sep-88	TRICENE	731	81	50	52	104	-2	4	20		8.98	24.5	
5-Jul-88	27-Sep-88	CHLBENZ	731	81	50	51.5	103	-1.5	3	20		9.8	23	
25-Aug-89	27-Sep-88	DICETHY	731	81	50	53	106	-3	6	20		13.5	42	
6-Jul-88	31-Aug-88	CHLCRES	733	13	100	41.5	41.5	58.5	58.5	20	*	30.5	30	*
6-Jul-88	31-Aug-88	CHLPHEN	733	13	10	7.8	78	2.2	22	20	*	13	27	
6-Jul-88	31-Aug-88	DIBPHTH	733	13	50	15.6	31.2	34.4	68.8	20	*	15.4	53	
6-Jul-88	31-Aug-88	14-DBEN	733	13	50	32.2	64.4	17.8	35.6	20	*	11.3	30.5	
6-Jul-88	31-Aug-88	24-DINT	733	13	50	32.4	64.8	17.6	35.2	20	*	6.6	30	
6-Jul-88	31-Aug-88	DIPRNIT	733	13	50	41.1	82.2	8.9	17.8	20		22.9	92	
6-Jul-88	31-Aug-88	NITPHEN	733	8	100	52.5	52.5	47.5	47.5	20	*	34.2	35	
6-Jul-88	31-Aug-88	PENTCHP	733	13	100	78.5	78.5	21.5	21.5	20	*	10.6	35	
6-Jul-88	31-Aug-88	TRICHLB	733	13	50	32.7	65.4	17.3	34.6	20	*	9.68	29.5	
6-Jul-88	31-Aug-88	PHENOL	733	13	100	55.7	55.7	44.3	44.3	20	*	30.2	31.5	
6-Jul-88	31-Aug-88	ACENAPH	733	13	50	40.5	81	9.5	19	20		9	28	
6-Jul-88	31-Aug-88	PYRENE	733	13	50	48.1	96.2	1.9	3.8	20		10.6	43	
12-Jul-88	9-Sep-88	LPHENOL	H57	9	9.1	7.9352	87.2	1.1648	12.8	20		10.2	25	
4-Aug-88	4-Aug-88	ETHYGLY	C81	2	40000	36320	90.8	3680	9.2	20		0.28	25	
8-Aug-88	21-Sep-88	DIMETHO	734	4	2.1	2.856	136	-0.756	36	20	*	36.5	25	*
27-Aug-88	12-Sep-88	2,4-D	738	7	1	0.787	78.7	0.213	21.3	20	*	38	15	*
27-Aug-88	12-Sep-88	2,4,5TP	738	7	1	0.793	79.3	0.207	20.7	20	*	20.6	15	*
27-Aug-88	12-Sep-88	2,4,5-T	738	7	1	0.816	81.6	0.184	18.4	20		31.4	18	*
6-Jul-88	27-Aug-88	2.4-D	737	12	1	1.07	107	-0.07	7	20		17.2	15	*
6-Jul-88	27-Aug-88	2.4-5TP	737	12	1	0.874	87.4	0.126	12.6	20		20	15	*
6-Jul-88	27-Aug-88	2.4-5-T	737	12	1	0.996	99.6	0.004	0.4	20		12.6	18	
11-Oct-88	11-Oct-88	ZN	725	2	500	525	105	-25	5	20		0.14	25	
11-Oct-88	11-Oct-88	CA	725	2	10000	10900	109	-900	9	20		19.7	25	
11-Oct-88	11-Oct-88	BA	725	2	500	565	113	-65	13	20		0.283	25	

Groundwater Quality Control: Matrix Spike Recoveries.
(sheet 4 of 14)

PERIOD From	PERIOD To	Analyte	Method	Number of Samples	Reference (True) Value (ug/L)	Mean Measured Value (ug/L)	% Recovery	Difference From True Value (ug/L)	ACCURACY Difference From True Value (%)	ACCURACY Target Recovery (%)	ACCURACY Exceedance Flag	PRECISION Mean Measured Std. Dev. (%)	PRECISION Target Std. Dev. (%)	PRECISION Exceedance Flag
11-Oct-88	11-Oct-88	CD	725	2	350	374.5	107	-24.5	7	20		0.401	25	
11-Oct-88	11-Oct-88	CR	725	2	500	575	115	-75	15	20		0.28	25	
11-Oct-88	11-Oct-88	AG	725	2	500	515	103	-15	3	20		4.24	25	
11-Oct-88	11-Oct-88	NA	725	2	8000	9040	113	-1040	13	20		2.82	25	
11-Oct-88	11-Oct-88	NI	725	2	500	550	110	-50	10	20		0.706	25	
11-Oct-88	11-Oct-88	CU	725	2	500	555	111	-55	11	20		0.133	25	
11-Oct-88	11-Oct-88	V	725	2	500	570	114	-70	14	20		0.565	25	
11-Oct-88	11-Oct-88	AL	725	2	500	590	118	-90	18	20		1.56	25	
11-Oct-88	11-Oct-88	MN	725	2	500	540	108	-40	8	20		0.283	25	
11-Oct-88	11-Oct-88	K	725	2	2000	2180	109	-180	9	20		11	25	
11-Oct-88	11-Oct-88	FE	725	2	500	535	107	-35	7	20		0.848	25	
11-Oct-88	11-Oct-88	MG	725	2	2000	2100	105	-100	5	20		20.7	25	
12-Oct-88	12-Oct-88	F_ZN	740	4	500	505	101	-5	1	20		5.37	25	
12-Oct-88	12-Oct-88	F_CA	740	4	10000	8230	82.3	1770	17.7	20		7.44	25	
12-Oct-88	12-Oct-88	F_BA	740	4	500	545	109	-45	9	20		7.2	25	
12-Oct-88	12-Oct-88	F_CD	740	4	350	364	104	-14	4	20		5.94	25	
12-Oct-88	12-Oct-88	F_CR	740	4	500	570	114	-70	14	20		4.79	25	
12-Oct-88	12-Oct-88	F_AG	740	4	500	497.5	99.5	2.5	0.5	20		6.82	25	
12-Oct-88	12-Oct-88	F_NA	740	4	8000	8400	105	-400	5	20		7.36	25	
12-Oct-88	12-Oct-88	F_NI	740	4	500	520	104	-20	4	20		5.44	25	
12-Oct-88	12-Oct-88	F_CU	740	4	500	520	104	-20	4	20		4.75	25	
12-Oct-88	12-Oct-88	F_V	740	4	500	555	111	-55	11	20		5.63	25	
12-Oct-88	12-Oct-88	F_AL	740	4	500	540	108	-40	8	20		3.4	25	
12-Oct-88	12-Oct-88	F_MN	740	4	500	530	106	-30	6	20		4.93	25	
12-Oct-88	12-Oct-88	F_K	740	4	2000	1978	98.9	22	1.1	20		13.1	25	
12-Oct-88	12-Oct-88	F_FE	740	4	500	520	104	-20	4	20		5.52	25	
12-Oct-88	12-Oct-88	F_MG	740	4	2000	1674	83.7	326	16.3	20		9.71	25	
11-Oct-88	22-Dec-88	BE	726	27	500	520	104	-20	4	20		6.08	25	
11-Oct-88	22-Dec-88	SR	726	27	500	515	103	-15	3	20		6.23	25	
11-Oct-88	22-Dec-88	ZN	726	27	500	497	99.4	3	0.6	20		5.61	25	
11-Oct-88	22-Dec-88	CA	726	27	10000	9270	92.7	730	7.3	20		28.5	25	*
11-Oct-88	22-Dec-88	BA	726	27	500	530	106	-30	6	20		6.24	25	
11-Oct-88	22-Dec-88	CD	726	27	350	353.5	101	-3.5	1	20		7.24	25	
11-Oct-88	22-Dec-88	CR	726	27	500	550	110	-50	10	20		6.93	25	
11-Oct-88	22-Dec-88	AG	726	27	500	510	102	-10	2	20		5.75	25	
11-Oct-88	22-Dec-88	NA	726	27	8000	7552	94.4	448	5.6	20		30.6	25	*
11-Oct-88	22-Dec-88	NI	726	27	500	520	104	-20	4	20		5.97	25	
11-Oct-88	22-Dec-88	CU	726	27	500	520	104	-20	4	20		6.13	25	
11-Oct-88	22-Dec-88	V	726	27	500	525	105	-25	5	20		5.98	25	
11-Oct-88	22-Dec-88	SB	726	27	500	500	100	0	0	20		6.05	25	
11-Oct-88	22-Dec-88	AL	726	27	500	585	117	-85	17	20		27.9	25	*
11-Oct-88	22-Dec-88	MN	726	27	500	535	107	-35	7	20		7.23	25	
11-Oct-88	22-Dec-88	K	726	27	2000	1900	95	100	5	20		21.7	25	
11-Oct-88	22-Dec-88	FE	726	27	500	645	129	-145	29	20	*	49.3	25	*
11-Oct-88	22-Dec-88	MG	726	27	2000	1704	85.2	296	14.8	20		36.3	25	*
3-Oct-88	22-Dec-88	F_ZN	741	37	500	494	98.8	6	1.2	20		5.25	25	
3-Oct-88	22-Dec-88	F_CA	741	37	10000	10400	104	-400	4	20		32	25	*

Groundwater Quality Control: Matrix Spike Recoveries.
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PERIOD From	PERIOD To	Analyte	Method	Number of Samples	Reference (True) Value (ug/L)	Mean Measured Value (ug/L)	% Recovery	Difference From True Value (ug/L)	ACCURACY Difference From True Value (%)	ACCURACY Target Recovery (%)	ACCURACY Exceedance Flag	PRECISION Mean Measured Std. Dev. (%)	PRECISION Target Std. Dev. (%)	PRECISION Exceedance Flag
3-Oct-88	22-Dec-88	F_BA	741	37	500	520	104	-20	4	20		5.69	25	
3-Oct-88	22-Dec-88	F_CD	741	37	350	353.5	101	-3.5	1	20		4.89	25	
3-Oct-88	22-Dec-88	F_CR	741	37	500	525	105	-25	5	20		5.45	25	
3-Oct-88	22-Dec-88	F_AG	741	37	500	515	103	-15	3	20		5.09	25	
3-Oct-88	22-Dec-88	F_NA	741	37	8000	8320	104	-320	4	20		56.2	25	*
3-Oct-88	22-Dec-88	F_NI	741	37	500	505	101	-5	1	20		5.11	25	
3-Oct-88	22-Dec-88	F_CU	741	37	500	510	102	-10	2	20		4.93	25	
3-Oct-88	22-Dec-88	F_V	741	37	500	520	104	-20	4	20		5.61	25	
3-Oct-88	22-Dec-88	F_AL	741	37	500	520	104	-20	4	20		5.93	25	
3-Oct-88	22-Dec-88	F_MN	741	37	500	515	103	-15	3	20		6.12	25	
3-Oct-88	22-Dec-88	F_K	741	37	2000	1944	97.2	56	2.8	20		26.9	25	*
3-Oct-88	22-Dec-88	F_FE	741	37	500	510	102	-10	2	20		6.16	25	
3-Oct-88	22-Dec-88	F_MG	741	37	2000	1914	95.7	86	4.3	20		38.5	25	*
3-Oct-88	22-Dec-88	F_BE	741	37	500	515	103	-15	3	20		6.22	25	
3-Oct-88	22-Dec-88	F_SR	741	37	500	510	102	-10	2	20		6.24	25	
3-Oct-88	22-Dec-88	F_SB	741	37	500	498.5	99.7	1.5	0.3	20		4.78	25	
6-Oct-88	30-Dec-88	NO3	735	50	4000	3872	96.8	128	3.2	20		12.5	25	
6-Oct-88	30-Dec-88	SO4	735	50	4000	3892	97.3	108	2.7	20		16.7	25	
6-Oct-88	30-Dec-88	F	735	50	1000	966	96.6	34	3.4	20		17.3	25	
6-Oct-88	30-Dec-88	CL	735	52	1000	940	94	60	6	20		19.4	25	
6-Oct-88	30-Dec-88	PO4	735	50	4000	3740	93.5	260	6.5	20		13.7	25	
17-Oct-88	22-Dec-88	NO3	742	12	4000	4000	100	0	0	20		4.41	25	
17-Oct-88	22-Dec-88	SO4	742	12	4000	3900	97.5	100	2.5	20		4.17	25	
17-Oct-88	22-Dec-88	F	742	12	1000	938	93.8	62	6.2	20		6.03	25	
17-Oct-88	22-Dec-88	CL	742	12	1000	987	98.7	13	1.3	20		5.1	25	
17-Oct-88	22-Dec-88	PO4	742	12	4000	3760	94	240	6	20		8.27	25	
17-Oct-88	22-Dec-88	BR	742	12	1000	1000	100	0	0	20		4.74	25	
17-Oct-88	22-Dec-88	NO2	742	12	1000	991	99.1	9	0.9	20		5.26	25	
4-Oct-88	12-Dec-88	H_NO3	H65	72	4000	3760	94	240	6	20		13.6	25	
13-Oct-88	30-Dec-88	PERCHLO	C77	14	4000	3416	85.4	584	14.6	20		16.1	25	
7-Oct-88	16-Dec-88	LFLUORD	H63	14	500	476	95.2	24	4.8	20		6.38	25	
18-Oct-88	7-Dec-88	AMMONIU	C80	28	200	179.6	89.8	20.4	10.2	20		8.26	25	
12-Oct-88	15-Dec-88	CYANIDE	C70	18	100	94.1	94.1	5.9	5.9	20		16.3	25	
4-Oct-88	16-Dec-88	AS	A20	24	50	46.8	93.6	3.2	6.4	20		7.27	25	
4-Oct-88	16-Dec-88	F_AS	H37	26	50	47.2	94.4	2.8	5.6	20		8.76	25	
4-Oct-88	16-Dec-88	SE	A22	24	50	42.45	84.9	7.55	15.1	20		9.24	25	
4-Oct-88	16-Dec-88	F_SE	H39	26	50	43	86	7	14	20		7.81	25	
10-Oct-88	9-Dec-88	TL	A23	10	50	49.8	99.6	0.2	0.4	20		11.5	25	
11-Oct-88	28-Nov-88	F_TL	H40	11	50	54	108	-4	8	20		7.12	25	
4-Oct-88	19-Dec-88	PB	A51	30	50	46.6	93.2	3.4	6.8	20		16.5	25	
4-Oct-88	14-Dec-88	F_PB	H41	25	50	46.45	92.9	3.55	7.1	20		20.1	25	
5-Oct-88	29-Dec-88	HG	A21	30	0.3	0.315	105	-0.015	5	20		15.8	25	
5-Oct-88	29-Dec-88	F_HG	H38	28	0.3	0.2979	99.3	0.0021	0.7	20		9.22	25	
3-Oct-88	31-Dec-88	TOXLDL	H42	83	50	51	102	-1	2	20		20	25	
5-Oct-88	22-Dec-88	TDC	C69	108	5000	4875	97.5	125	2.5	20		3.76	25	
3-Oct-88	30-Dec-88	TC	H16	34	10000	9620	96.2	380	3.8	20		7.14	25	
7-Oct-88	30-Dec-88	SULFIDE	C78	26	5000	4840	96.8	160	3.2	20		10.7	25	

Groundwater Quality Control: Matrix Spike Recoveries.
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PERIOD From	PERIOD To	Analyte	Method	Number of Samples	Reference (True) Value (ug/L)	Mean Measured Value (ug/L)	% Recovery	Difference From True Value (ug/L)	ACCURACY Difference From True Value (%)	ACCURACY Target Recovery (%)	ACCURACY Exceedance Flag	PRECISION Mean Measured Std. Dev. (%)	PRECISION Target Std. Dev. (%)	PRECISION Exceedance Flag
13-Oct-88	13-Oct-88	LHYDRAZ	H62	2	50	53	106	-3	6	20		2.83	25	
7-Oct-88	18-Dec-88	ENDRIN	728	12	0.5	0.4425	88.5	0.0575	11.5	20		8.71	25	
7-Oct-88	18-Dec-88	METHLOR	728	12	2	2.12	106	-0.12	6	20		28.9	32.5	
7-Oct-88	18-Dec-88	A-BHC	728	12	0.2	0.1756	87.8	0.0244	12.2	20		10.3	30	
27-Oct-88	14-Dec-88	ENDRIN	729	14	0.5	0.3635	72.7	0.1365	27.3	20	*	21.3	25	
27-Oct-88	14-Dec-88	METHLOR	729	14	2	1.562	78.1	0.438	21.9	20	*	37.5	32.5	*
27-Oct-88	14-Dec-88	A-BHC	729	14	0.2	0.1396	69.8	0.0604	30.2	20	*	23.4	30	
28-Nov-88	23-Dec-88	AR1254	739	10	5	4.44	88.8	0.56	11.2	20		13.5	25	
3-Oct-88	29-Dec-88	BENZENE	731	47	50	51.5	103	-1.5	3	20		7.97	25.5	
3-Oct-88	29-Dec-88	TOLUENE	731	47	50	49.1	98.2	0.9	1.8	20		5.77	24.5	
3-Oct-88	29-Dec-88	TRICENE	731	47	50	45.7	91.4	4.3	8.6	20		12	24.5	
3-Oct-88	29-Dec-88	CHLBENZ	731	47	50	50.5	101	-0.5	1	20		3.89	23	
3-Oct-88	29-Dec-88	DICETHY	731	47	50	40.75	81.5	9.25	18.5	20		10.1	42	
6-Oct-88	19-Dec-88	CHLCRES	733	13	100	80.6	80.6	19.4	19.4	20		18.2	30	
6-Oct-88	19-Dec-88	CHLPHEN	733	13	100	81.6	81.6	18.4	18.4	20		11.7	27	
6-Oct-88	19-Dec-88	DIBPHTH	733	12	50	12.15	24.3	37.85	75.7	20	*	30	53	
6-Oct-88	19-Dec-88	14-DBEN	733	13	50	28.05	56.1	21.95	43.9	20	*	8.86	30.5	
6-Oct-88	19-Dec-88	24-DINT	733	13	50	32.7	65.4	17.3	34.6	20	*	24.5	30	
6-Oct-88	19-Dec-88	DIPRNIT	733	12	50	35.65	71.3	14.35	28.7	20	*	12.9	92	
6-Oct-88	19-Dec-88	NITPHEN	733	12	100	37.6	37.6	62.4	62.4	20	*	17.3	35	
6-Oct-88	19-Dec-88	PENTCHP	733	13	100	65.4	65.4	34.6	34.6	20	*	10.4	35	
6-Oct-88	19-Dec-88	TRICHLB	733	13	50	29.65	59.3	20.35	40.7	20	*	12.4	29.5	
6-Oct-88	19-Dec-88	PHENOL	733	13	100	71.8	71.8	28.2	28.2	20	*	9.77	31.5	
6-Oct-88	19-Dec-88	ACENAPH	733	13	50	37.4	74.8	12.6	25.2	20	*	13.7	28	
6-Oct-88	19-Dec-88	PYRENE	733	13	50	47.6	95.2	2.4	4.8	20		26.5	43	
10-Oct-88	21-Dec-88	LPHENOL	H57	5	9.1	7.1617	78.7	1.9383	21.3	20	*	12.2	25	
11-Oct-88	11-Oct-88	ETHYGLY	C81	6	40000	40800	102	-800	2	20		12.7	25	
21-Nov-88	8-Dec-88	DIMETHO	734	7	2.09	1.93743	92.7	0.15257	7.3	20		9.11	25	
10-Oct-88	28-Dec-88	2,4-D	737	32	1	0.871	87.1	0.129	12.9	20		14.1	15	
10-Oct-88	28-Dec-88	2,4,STP	737	32	1	0.923	92.3	0.077	7.7	20		15.9	15	*
10-Oct-88	28-Dec-88	2,4,5-T	737	33	1	0.903	90.3	0.097	9.7	20		14.3	18	
5-Jan-89	31-Mar-89	AG	726	40	500	493.5	98.7	6.5	1.3	20		5.2	25	
5-Jan-89	31-Mar-89	AL	726	40	500	530	106	-30	6	20		4.93	25	
5-Jan-89	31-Mar-89	BA	726	40	500	535	107	-35	7	20		4.38	25	
5-Jan-89	31-Mar-89	CA	726	40	10000	11200	112	-1200	12	20		23.3	25	
5-Jan-89	31-Mar-89	CD	726	40	250	236.25	94.5	13.75	5.5	20		6.12	25	
5-Jan-89	31-Mar-89	CR	726	40	500	530	106	-30	6	20		24.7	25	
5-Jan-89	31-Mar-89	CU	726	40	500	510	102	-10	2	20		4.07	25	
5-Jan-89	31-Mar-89	FE	726	40	500	520	104	-20	4	20		34.5	25	*
5-Jan-89	31-Mar-89	K	726	40	2000	2080	104	-80	4	20		20.6	25	
5-Jan-89	31-Mar-89	MG	726	40	500	565	113	-65	13	20		27.6	25	*
5-Jan-89	31-Mar-89	MN	726	40	2000	2080	104	-80	4	20		3.58	25	
5-Jan-89	31-Mar-89	NA	726	40	8000	8720	109	-720	9	20		20.5	25	
5-Jan-89	31-Mar-89	NI	726	40	500	515	103	-15	3	20		8.76	25	
5-Jan-89	31-Mar-89	SB	726	40	500	510	102	-10	2	20		3.92	25	
5-Jan-89	31-Mar-89	SR	726	40	500	540	108	-40	8	20		4.51	25	
5-Jan-89	31-Mar-89	V	726	40	500	535	107	-35	7	20		3.43	25	

Groundwater Quality Control: Matrix Spike Recoveries.
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PERIOD From	PERIOD To	Analyte	Method	Number of Samples	Reference (True) Value (ug/L)	Mean Measured Value (ug/L)	% Recovery	Difference From True Value (ug/L)	ACCURACY Difference From True Value (%)	ACCURACY Target Recovery (%)	ACCURACY Exceedance Flag	PRECISION Mean Measured Std. Dev. (%)	PRECISION Target Std. Dev. (%)	PRECISION Exceedance Flag
5-Jan-89	31-Mar-89	ZN	726	40	500	505	101	-5	1	20		4.38	25	
6-Jan-89	28-Mar-89	H_NO3	H65	46	4000?	#VALUE!	100	#VALUE!	#VALUE!	20	#VALUE!	6.11	25	Illegible data
6-Jan-89	30-Mar-89	F_AG	741	50	500	492	98.4	8	1.6	20		5.87	25	
6-Jan-89	30-Mar-89	F_AL	741	50	500	535	107	-35	7	20		5.14	25	
6-Jan-89	30-Mar-89	F_BA	741	50	500	535	107	-35	7	20		4.53	25	
6-Jan-89	30-Mar-89	F_BE	741	50	500	500	100	0	0	20		6.92	25	
6-Jan-89	30-Mar-89	F_CA	741	50	10000	10200	102	-200	2	20		21.4	25	
6-Jan-89	30-Mar-89	F_CD	741	50	200	187.6	93.8	12.4	6.2	20		5.11	25	
6-Jan-89	30-Mar-89	F_CR	741	50	500	530	106	-30	6	20		5.06	25	
6-Jan-89	30-Mar-89	F_CU	741	50	500	510	102	-10	2	20		4.22	25	
6-Jan-89	30-Mar-89	F_FE	741	50	500	530	106	-30	6	20		4.99	25	
6-Jan-89	30-Mar-89	F_K	741	50	2000	2040	102	-40	2	20		13.5	25	
6-Jan-89	30-Mar-89	F_MG	741	50	500	500	100	0	0	20		30.3	25	•
6-Jan-89	30-Mar-89	F_MN	741	50	2000	2040	102	-40	2	20		3.81	25	
6-Jan-89	30-Mar-89	F_NA	741	50	8000	8720	109	-720	9	20		18.6	25	
6-Jan-89	30-Mar-89	F_NI	741	50	500	520	104	-20	4	20		4.53	25	
6-Jan-89	30-Mar-89	F_SB	741	50	500	510	102	-10	2	20		4.22	25	
6-Jan-89	30-Mar-89	F_SR	741	50	500	530	106	-30	6	20		6.15	25	
6-Jan-89	30-Mar-89	F_V	741	50	500	530	106	-30	6	20		4.47	25	
6-Jan-89	30-Mar-89	F_ZN	741	50	500	498.5	99.7	1.5	0.3	20		4.18	25	
13-Jan-89	21-Mar-89	L_F	H63	8	500	470	94	30	6	20		9.03	25	
6-Feb-89	31-Mar-89	B	726	26	500	510	102	-10	2	20		3.41	25	
6-Feb-89	31-Mar-89	CO	726	26	500	520	104	-20	4	20		3.31	25	
6-Feb-89	31-Mar-89	LI	726	26	500	535	107	-35	7	20		5.38	25	
6-Feb-89	31-Mar-89	MO	726	26	500	530	106	-30	6	20		3.71	25	
6-Feb-89	31-Mar-89	SI	726	26	500	700	140	-200	40	20	•	150	25	•
6-Feb-89	31-Mar-89	SN	726	26	500	520	104	-20	4	20		6.23	25	
6-Feb-89	31-Mar-89	TI	726	26	500	535	107	-35	7	20		3.94	25	
6-Feb-89	31-Mar-89	ZR	726	26	500	535	107	-35	7	20		4.13	25	
8-Feb-89	30-Mar-89	F_B	741	34	5	5.1	102	-0.1	2	20		3.76	25	
8-Feb-89	30-Mar-89	F_CO	741	34	500	525	105	-25	5	20		4.83	25	
8-Feb-89	30-Mar-89	F_LI	741	34	500	535	107	-35	7	20		4.5	25	
8-Feb-89	30-Mar-89	F_MO	741	34	500	535	107	-35	7	20		4.87	25	
8-Feb-89	30-Mar-89	F_SI	741	34	500	665	133	-165	33	20	•	163	25	•
8-Feb-89	30-Mar-89	F_SN	741	34	500	525	105	-25	5	20		7.49	25	
8-Feb-89	30-Mar-89	F_TI	741	34	500	530	106	-30	6	20		4.17	25	
8-Feb-89	30-Mar-89	F_ZR	741	34	500	535	107	-35	7	20		4.05	25	
3-Jan-89	23-Mar-89	CL	742	48	1000	995	99.5	5	0.5	20		9.5	25	
3-Jan-89	23-Mar-89	PO4	742	48	4000	3600	90	400	10	20		7.29	25	
3-Jan-89	23-Mar-89	BR	742	48	1000	0		1000	100	20	•	5.12	25	
6-Jan-89	23-Mar-89	NO2	742	44	1000	962	96.2	38	3.8	20		5.61	25	
5-Jan-89	27-Mar-89	AMMONIU	C80	38	200	214	107	-14	7	20		10.4	25	
6-Jan-89	31-Mar-89	CYANIDE	C70	30	100	94.5	94.5	5.5	5.5	20		25.1	25	•
3-Jan-89	21-Mar-89	AS	A20	36	50	47.1	94.2	2.9	5.8	20		4.65	25	
3-Jan-89	21-Mar-89	F_AS	H37	36	50	47.3	94.6	2.7	5.4	20		6.5	25	
3-Jan-89	21-Mar-89	SE	A22	36	50	46.25	92.5	3.75	7.5	20		7	25	
3-Jan-89	20-Mar-89	F_SE	H39	36	50	45.1	90.2	4.9	9.8	20		6.97	25	

Groundwater Quality Control: Matrix Spike Recoveries.
(sheet 8 of 14)

PERIOD From	PERIOD To	Analyte	Method	Number of Samples	Reference (True) Value (ug/L)	Mean Measured Value (ug/L)	% Recovery	Difference From True Value (ug/L)	ACCURACY Difference From True Value (%)	ACCURACY Target Recovery (%)	ACCURACY Exceedance Flag	PRECISION Mean Measured Std. Dev. (%)	PRECISION Target Std. Dev. (%)	PRECISION Exceedance Flag
23-Jan-89	16-Mar-89	TL	A23	8	50	44.9	89.8	5.1	10.2	20		30.8	25	*
23-Jan-89	22-Mar-89	F_TL	H40	8	50	48.65	97.3	1.35	2.7	20		18.9	25	
3-Jan-89	27-Mar-89	PB	A51	44	50	47.9	95.8	2.1	4.2	20		9	25	
3-Jan-89	23-Mar-89	F_PB	H41	42	50	48.15	96.3	1.85	3.7	20		7.06	25	
9-Jan-89	27-Mar-89	HG	A21	32	0.3	0.306	102	-0.006	2	20		5.22	25	
9-Jan-89	20-Mar-89	F_HG	H38	28	0.3	0.315	105	-0.015	5	20		8.99	25	
9-Jan-89	29-Mar-89	TOXLDL	H42	160	50	48.45	96.9	1.55	3.1	20		11.6	25	
3-Jan-89	30-Mar-89	TDC	C69	152	5000	4990	99.8	10	0.2	20		3.68	25	
20-Jan-89	17-Mar-89	TC	H16	30	10000	9530	95.3	470	4.7	20		17.4	25	
12-Jan-89	27-Mar-89	SULFIDE	C78	34	5000	4170	83.4	830	16.6	20		13.3	25	
24-Jan-89	15-Mar-89	LHYDRAZ	H62	8	50	58.5	117	-8.5	17	20		1.83	25	
8-Jan-89	8-Mar-89	ENDRIN	728	20	0.5	0.51	102	-0.01	2	20		15.1	58.5	
8-Jan-89	15-Feb-89	METHLOR	728	18	2	1.812	90.6	0.188	9.4	20		11.4	32.5	
8-Jan-89	15-Feb-89	A-BHC	728	18	0.2	0.1692	84.6	0.0308	15.4	20		7.07	48.5	
8-Mar-89	8-Mar-89	6-BHC	728	2	0.2	0.1686	84.3	0.0314	15.7	20		0.354	47.5	
30-Jan-89	30-Jan-89	ENDRIN	729	2	0.5	0.492	98.4	0.008	1.6	20		8.77	58.5	
30-Jan-89	30-Jan-89	METHLOR	729	2	2	1.866	93.3	0.134	6.7	20		1.06	32.5	
30-Jan-89	30-Jan-89	A-BHC	729	2	0.2	0.1876	93.8	0.0124	6.2	20		12.4	48.5	
10-Mar-89	10-Mar-89	AR1254	739	4	5	4.04	80.8	0.96	19.2	20		1.41	51	
27-Jan-89	19-Mar-89	DIMETHO	734	5	2	2.12	106	-0.12	6	20		7.56	25	
10-Jan-89	20-Mar-89	2,4-D	737	30	1	0.848	84.8	0.152	15.2	20		5.2	15	
10-Jan-89	20-Mar-89	2,4,5TP	737	30	1	0.819	81.9	0.181	18.1	20		6.27	19	
10-Jan-89	20-Mar-89	2,4,5-T	737	30	1	0.831	83.1	0.169	16.9	20		7.95	24	
9-Mar-89	20-Mar-89	CHLOFRN	749	2	20	18.66	93.3	1.34	6.7	20		2.47	42	
9-Mar-89	20-Mar-89	1,1-DCLE	749	2	4	3.7	92.5	0.3	7.5	20		3.54	42.5	
9-Mar-89	20-Mar-89	TRICELNE	749	2	4	2.972	74.3	1.028	25.7	20	*	5.3	55.5	
9-Jan-89	29-Mar-89	LPHENOL	H57	13	10	7.68	76.8	2.32	23.2	20	*	6.57	42.5	
21-Feb-89	21-Feb-89	ETHYGLY	C81	2	50000	47900	95.8	2100	4.2	20		8.12	25	
3-Jan-89	20-Jan-89	BENZENE	731	6	50	50.5	101	-0.5	1	20		6.48	57	
3-Jan-89	20-Jan-89	TOLUENE	731	6	50	48.8	97.6	1.2	2.4	20		4.91	51.5	
3-Jan-89	20-Jan-89	TRICENE	731	6	50	43.6	87.2	6.4	12.8	20		5.59	43	
3-Jan-89	20-Jan-89	CHLBENZ	731	6	50	50.5	101	-0.5	1	20		5.09	61.5	
3-Jan-89	20-Jan-89	DICETHY	731	6	50	37.6	75.2	12.4	24.8	20	*	7.65	117	
17-Feb-89	21-Mar-89	BENZENE	750	29	50	49.25	98.5	0.75	1.5	20		7.57	57	
17-Feb-89	21-Mar-89	TOLUENE	750	29	50	47.2	94.4	2.8	5.6	20		7.19	51.5	
17-Feb-89	21-Mar-89	TRICENE	750	29	50	48	96	2	4	20		8.49	43	
17-Feb-89	21-Mar-89	CHLBENZ	750	29	50	50	100	0	0	20		5.9	61.5	
17-Feb-89	21-Mar-89	DICETHY	750	29	50	34.45	68.9	15.55	31.1	20	*	6.34	117	
5-Jan-89	12-Jan-89	CHLCRES	733	2	100	70.3	70.3	29.7	29.7	20	*	6.72	62.5	
5-Jan-89	12-Jan-89	CHLPHEN	733	2	100	84.1	84.1	15.9	15.9	20		1.13	55.5	
5-Jan-89	12-Jan-89	DIBPHTH	733	2	50	16.15	32.3	33.85	67.7	20	*	25.6	58.5	
5-Jan-89	12-Jan-89	14-DBEN	733	2	50	30.6	61.2	19.4	38.8	20	*	12.7	52	
5-Jan-89	12-Jan-89	24-DINT	733	2	50	23.95	47.9	26.05	52.1	20	*	2.12	50	
5-Jan-89	12-Jan-89	DIPRNIT	733	2	50	29.9	59.8	20.1	40.2	20	*	9.33	115	
5-Jan-89	12-Jan-89	NITPHEN	733	2	100	38.3	38.3	61.7	61.7	20	*	8.2	66	
5-Jan-89	12-Jan-89	PENTCHP	733	2	100	65.9	65.9	34.1	34.1	20	*	2.97	81	
5-Jan-89	12-Jan-89	TRICHLB	733	2	50	25.65	51.3	24.35	48.7	20	*	0.1	49	

Groundwater Quality Control: Matrix Spike Recoveries.
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PERIOD From	PERIOD To	Analyte	Method	Number of Samples	Reference (True) Value (ug/L)	Mean Measured Value (ug/L)	% Recovery	Difference From True Value (ug/L)	ACCURACY Difference From True Value (%)	ACCURACY Target Recovery (%)	ACCURACY Exceedance Flag	PRECISION Mean Measured Std. Dev. (%)	PRECISION Target Std. Dev. (%)	PRECISION Exceedance Flag
5-Jan-89	12-Jan-89	PHENOL	733	2	100	75.8	75.8	24.2	24.2	20	*	2.33	53.5	
5-Jan-89	12-Jan-89	ACENAPH	733	2	50	44.15	88.3	5.85	11.7	20		18.8	49	
5-Jan-89	12-Jan-89	PYRENE	733	2	50	60	120	-10	20	20		8.2	33	
13-Feb-89	30-Mar-89	CHLCRES	751	4	100	96.2	96.2	3.8	3.8	20		15	62.5	
13-Feb-89	30-Mar-89	CHLPHEN	751	4	100	82.7	82.7	17.3	17.3	20		10.7	55.5	
13-Feb-89	30-Mar-89	DIBPHTH	751	3	50	24.75	49.5	25.25	50.5	20	*	33.1	58.5	
13-Feb-89	30-Mar-89	14-DBEN	751	4	50	31.25	62.5	18.75	37.5	20	*	10.5	52	
13-Feb-89	30-Mar-89	24-DINT	751	4	50	26.5	53	23.5	47	20	*	31.3	50	
13-Feb-89	30-Mar-89	DIPRNIT	751	4	50	39.15	78.3	10.85	21.7	20	*	9.24	115	
13-Feb-89	30-Mar-89	NITPHEN	751	4	100	63.8	63.8	36.2	36.2	20	*	47.7	66	
13-Feb-89	30-Mar-89	PENTCHP	751	4	100	65.4	65.4	34.6	34.6	20	*	37.8	31	*
13-Feb-89	30-Mar-89	TRICHLB	751	4	50	32.8	65.6	17.2	34.4	20	*	8.96	49	
13-Feb-89	30-Mar-89	PHENOL	751	4	100	79.3	79.3	20.7	20.7	20	*	7.77	53.5	
13-Feb-89	30-Mar-89	ACENAPH	751	4	50	40.8	81.6	9.2	18.4	20		9.91	49	
13-Feb-89	30-Mar-89	PYRENE	751	4	50	47.55	95.1	2.45	4.9	20		27.9	33	
14-Apr-89	30-Jun-89	BE	726	36	50	52	104	-2	4	20		17.2	25	
14-Apr-89	30-Jun-89	SR	726	36	500	499.5	99.9	0.5	0.1	20		7.01	25	
14-Apr-89	30-Jun-89	ZN	726	36	500	480.5	96.1	19.5	3.9	20		5.68	25	
14-Apr-89	30-Jun-89	BA	726	36	2000	2060	103	-60	3	20		5.56	25	
14-Apr-89	30-Jun-89	CR	726	36	200	210	105	-10	5	20		7.68	25	
14-Apr-89	30-Jun-89	NA	726	36	8000	8160	102	-160	2	20		10.3	25	
14-Apr-89	30-Jun-89	NI	726	36	500	510	102	-10	2	20		5.49	25	
14-Apr-89	30-Jun-89	CU	726	36	250	252.5	101	-2.5	1	20		8.45	25	
14-Apr-89	30-Jun-89	V	726	36	500	515	103	-15	3	20		8.23	25	
14-Apr-89	30-Jun-89	SB	726	36	500	491	98.2	9	1.8	20		7.44	25	
14-Apr-89	30-Jun-89	AL	726	36	2000	2220	111	-220	11	20		26.5	25	*
14-Apr-89	30-Jun-89	MN	726	36	500	550	110	-50	10	20		34.8	25	*
14-Apr-89	30-Jun-89	K	726	36	2000	1924	96.2	76	3.8	20		13.2	25	
14-Apr-89	30-Jun-89	FE	726	36	1000	1140	114	-140	14	20		51.8	25	*
14-Apr-89	30-Jun-89	MG	726	36	2000	2100	105	-100	5	20		32.3	25	*
14-Apr-89	30-Jun-89	B	726	36	500	495.5	99.1	4.5	0.9	20		5.92	25	
14-Apr-89	30-Jun-89	CO	726	36	500	505	101	-5	1	20		7.61	25	
14-Apr-89	30-Jun-89	LI	726	36	500	520	104	-20	4	20		4.8	25	
14-Apr-89	30-Jun-89	MO	726	36	500	505	101	-5	1	20		5.03	25	
14-Apr-89	30-Jun-89	SI	726	36	500	675	135	-175	35	20	*	326	25	*
14-Apr-89	30-Jun-89	SN	726	36	500	482	96.4	18	3.6	20		4.99	25	
14-Apr-89	30-Jun-89	TI	726	36	500	520	104	-20	4	20		14.4	25	
14-Apr-89	30-Jun-89	ZR	726	36	500	505	101	-5	1	20		5.39	25	
6-Apr-89	27-Jun-89	F_ZN	741	30	500	477.5	95.5	22.5	4.5	20		3.71	25	
6-Apr-89	27-Jun-89	F_CA	741	30	10000	9260	92.6	740	7.4	20		24.7	25	
6-Apr-89	27-Jun-89	F_BA	741	30	2000	2040	102	-40	2	20		4.48	25	
6-Apr-89	27-Jun-89	F_CD	741	30	50	47.65	95.3	2.35	4.7	20		5.13	25	
6-Apr-89	27-Jun-89	F_CR	741	30	200	204	102	-4	2	20		4.82	25	
6-Apr-89	27-Jun-89	F_AG	741	30	50	41.75	83.5	8.25	16.5	20		26.3	25	*
6-Apr-89	27-Jun-89	F_NA	741	30	8000	8960	112	-960	12	20		54.2	25	*
6-Apr-89	27-Jun-89	F_NI	741	30	500	500	100	0	0	20		4.4	25	
6-Apr-89	27-Jun-89	F_CU	741	30	250	247.25	98.9	2.75	1.1	20		3.59	25	

Groundwater Quality Control: Matrix Spike Recoveries.
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PERIOD From	PERIOD To	Analyte	Method	Number of Samples	Reference (True) Value (ug/L)	Mean Measured Value (ug/L)	% Recovery	Difference From True Value (ug/L)	ACCURACY Difference From True Value (%)	ACCURACY Target Recovery (%)	ACCURACY Exceedance Flag	PRECISION Mean Measured Std. Dev. (%)	PRECISION Target Std. Dev. (%)	PRECISION Exceedance Flag
6-Apr-89	27-Jun-89	F_V	741	30	500	505	101	-5	1	20		4.4	25	
6-Apr-89	27-Jun-89	F_AL	741	30	2000	2120	106	-120	6	20		11.9	25	
6-Apr-89	27-Jun-89	F_MN	741	30	500	500	100	0	0	20		3.78	25	
6-Apr-89	27-Jun-89	F_K	741	30	2000	1918	95.9	82	4.1	20		24.9	25	
6-Apr-89	27-Jun-89	F_FE	741	30	1000	1070	107	-70	7	20		19.1	25	
6-Apr-89	27-Jun-89	F_MG	741	30	2000	1886	94.3	114	5.7	20		27.4	25	
6-Apr-89	27-Jun-89	F_BE	741	30	50	49.4	98.8	0.6	1.2	20		7.75	25	
6-Apr-89	27-Jun-89	F_SR	741	30	500	493.5	98.7	6.5	1.3	20		5.89	25	
6-Apr-89	27-Jun-89	F_SB	741	30	500	498	99.6	2	0.4	20		4.11	25	
6-Apr-89	27-Jun-89	F_B	741	30	500	490	98	10	2	20		6	25	
6-Apr-89	27-Jun-89	F_CO	741	30	500	505	101	-5	1	20		6.31	25	
6-Apr-89	27-Jun-89	F_LI	741	30	500	515	103	-15	3	20		3.9	25	
6-Apr-89	27-Jun-89	F_MO	741	30	500	505	101	-5	1	20		4.29	25	
6-Apr-89	27-Jun-89	F_SI	741	30	500	442	88.4	58	11.6	20		169	25	
6-Apr-89	27-Jun-89	F_SN	741	30	500	486.5	97.3	13.5	2.7	20		4.55	25	
6-Apr-89	27-Jun-89	F_TI	741	30	500	505	101	-5	1	20		4.94	25	
6-Apr-89	27-Jun-89	F_ZR	741	30	500	500	100	0	0	20		4.77	25	
5-Apr-89	28-Jun-89	NO3	742	76	4000	3936	98.4	64	1.6	20		6.07	25	
5-Apr-89	28-Jun-89	SO4	742	76	4000	3996	99.9	4	0.1	20		6.18	25	
5-Apr-89	28-Jun-89	F	742	76	1000	969	96.9	31	3.1	20		6.22	25	
5-Apr-89	28-Jun-89	CL	742	76	1000	962	96.2	38	3.8	20		8.23	25	
5-Apr-89	28-Jun-89	PO4	742	76	4000	3748	93.7	252	6.3	20		7.08	25	
5-Apr-89	28-Jun-89	BR	742	76	1000	1020	102	-20	2	20		5.36	25	
5-Apr-89	28-Jun-89	NO2	742	76	1000	1020	102	-20	2	20		6.28	25	
4-Apr-89	30-Jun-89	H_NO3	H65	46	4000	3944	98.6	56	1.4	20		4.6	25	
21-Apr-89	21-Jun-89	PERCHLO	C77	8	4000	4280	107	-280	7	20		3.07	25	
4-Apr-89	21-Jun-89	L_F	H63	24	500	473	94.6	27	5.4	20		4.49	25	
11-Apr-89	19-Jun-89	AMMONIU	C80	38	200	197.6	98.8	2.4	1.2	20		10.3	25	
19-Apr-89	15-Jun-89	CYANIDE	C70	36	100	84.8	84.8	15.2	15.2	20		19.1	25	
11-Apr-89	28-Jun-89	AS	A20	39	50	45.65	91.3	4.35	8.7	20		4.84	25	
11-Apr-89	30-Jun-89	F_AS	H37	36	50	45.15	90.3	4.85	9.7	20		3.8	25	
11-Apr-89	28-Jun-89	SE	A22	39	50	46.35	92.7	3.65	7.3	20		6.8	25	
11-Apr-89	30-Jun-89	F_SE	H39	34	50	45.95	91.9	4.05	8.1	20		5.22	25	
18-Apr-89	28-Jun-89	TL	A23	26	50	49.25	98.5	0.75	1.5	20		7.72	25	
19-Apr-89	28-Jun-89	F_TL	H40	17	50	49.8	99.6	0.2	0.4	20		7.72	25	
10-Apr-89	27-Jun-89	PB	A51	34	50	52	104	-2	4	20		6.82	25	
10-Apr-89	30-Jun-89	F_PB	H41	31	50	53	106	-3	6	20		9.53	25	
18-Apr-89	30-Jun-89	HG	A21	40	0.3	0.306	102	-0.006	2	20		7.04	25	
5-Apr-89	26-Jun-89	F_HG	H38	28	0.3	0.303	101	-0.003	1	20		7.87	25	
10-Apr-89	29-Jun-89	TOXLDL	H42	110	50	48.7	97.4	1.3	2.6	20		13.8	25	
17-Apr-89	30-Jun-89	TOC	C69	108	5000	4930	98.6	70	1.4	20		8.97	25	
25-Apr-89	16-Jun-89	TC	H16	34	5000	4830	96.6	170	3.4	20		8.74	25	
3-Apr-89	27-Jun-89	SULFIDE	C78	50	5000	4600	92	400	8	20		11	25	
12-May-89	30-Jun-89	LHYDRAZ	H62	20	50	47.4	94.8	2.6	5.2	20		9	25	
6-Apr-89	29-Jun-89	THIDURA	727	10	500	515	103	-15	3	20		2.84	25	
6-Apr-89	29-Jun-89	ACETREA	727	10	500	510	102	-10	2	20		10.6	25	
6-Apr-89	29-Jun-89	CHLOREA	727	10	500	520	104	-20	4	20		6.68	25	

Groundwater Quality Control: Matrix Spike Recoveries.
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PERIOD From	PERIOD To	Analyte	Method	Number of Samples	Reference (True) Value (ug/L)	Mean Measured Value (ug/L)	% Recovery	Difference From True Value (ug/L)	ACCURACY Difference From True Value (%)	ACCURACY Target Recovery (%)	ACCURACY Exceedance Flag	PRECISION Mean Measured Std. Dev. (%)	PRECISION Target Std. Dev. (%)	PRECISION Exceedance Flag
6-Apr-89	29-Jun-89	DIETROL	727	10	500	449.5	89.9	50.5	10.1	20		18.4	25	
6-Apr-89	29-Jun-89	ETHYREA	727	10	500	498	99.6	2	0.4	20		9.62	25	
6-Apr-89	29-Jun-89	NAPHREA	727	10	500	499.5	99.9	0.5	0.1	20		6.34	25	
6-Apr-89	29-Jun-89	PHENREA	727	10	500	640	128	-140	28	20	*	55	25	*
3-Apr-89	14-Jun-89	ENDRIN	728	12	0.5	0.51	102	-0.01	2	20		26.9	58.5	
3-Apr-89	14-Jun-89	6-BHC	728	12	0.2	0.185	92.5	0.015	7.5	20		10.3	47.5	
4-Apr-89	21-Jun-89	ENDRIN	729	13	0.5	0.51	102	-0.01	2	20		17.3	58.5	
4-Apr-89	21-Jun-89	6-BHC	729	13	0.2	0.1846	92.3	0.0154	7.7	20		13	47.5	
4-Apr-89	21-Jun-89	DDT	729	13	0.5	0.4505	90.1	0.0495	9.9	20		7.78	67.5	
4-Apr-89	21-Jun-89	HEPTLOR	729	13	0.2	0.175	87.5	0.025	12.5	20		6.45	38.5	
4-Apr-89	21-Jun-89	DIELRIN	729	13	0.5	0.455	91	0.045	9	20		6.99	55	
4-Apr-89	21-Jun-89	ALDRIN	729	13	0.2	0.1656	82.8	0.0344	17.2	20		6	40	
5-Apr-89	28-Jun-89	AR1254	739	10	5	4.505	90.1	0.495	9.9	20		14.3	51	
2-May-89	13-Jun-89	DIMETHO	734	6	2	1.736	86.8	0.264	13.2	20		5.11	25	
7-Apr-89	21-Jun-89	2,4-D	737	20	3	2.583	86.1	0.417	13.9	20		8.06	15	
7-Apr-89	21-Jun-89	2,4,5TP	737	20	3	2.553	85.1	0.447	14.9	20		6.27	19	
7-Apr-89	21-Jun-89	2,4,5-T	737	20	3	2.784	92.8	0.216	7.2	20		4.8	24	
10-Apr-89	25-Jun-89	CHLOFRN	749	4	2	1.812	90.6	0.188	9.4	20		6.57	42	
10-Apr-89	25-Jun-89	1,1-DCLE	749	4	4	3.076	76.9	0.924	23.1	20	*	12	42.5	
10-Apr-89	25-Jun-89	TRICELNE	749	4	4	3.524	88.1	0.476	11.9	20		8.75	55.5	
6-Apr-89	27-Jun-89	LPHENOL	H57	4	2	1.642	82.1	0.358	17.9	20		9.33	42.5	
10-May-89	10-May-89	ETHYGLY	C81	2	40000	42800	107	-2800	7	20		1.13	25	
4-Apr-89	29-Jun-89	BENZENE	750	58	5	4.64	92.8	0.36	7.2	20		9.67	57	
4-Apr-89	29-Jun-89	TOLUENE	750	58	5	5	100	0	0	20		11.3	51.5	
4-Apr-89	29-Jun-89	TRICENE	750	58	5	4.755	95.1	0.245	4.9	20		12.3	43	
4-Apr-89	29-Jun-89	CHLBENZ	750	58	5	5.25	105	-0.25	5	20		14.1	61.5	
4-Apr-89	29-Jun-89	DICETHY	750	58	5	3.135	62.7	1.865	37.3	20	*	32	117	
7-Apr-89	22-Jun-89	CHLCRES	751	14	100	78.1	78.1	21.9	21.9	20	*	8.34	62.5	
7-Apr-89	22-Jun-89	CHLPHEN	751	14	100	73.7	73.7	26.3	26.3	20	*	9.32	55.5	
7-Apr-89	22-Jun-89	DIBPHTH	751	14	50	31.4	62.8	18.6	37.2	20	*	12	58.5	
7-Apr-89	22-Jun-89	14-DBEN	751	14	50	25.9	51.8	24.1	48.2	20	*	11.5	52	
7-Apr-89	22-Jun-89	24-DINT	751	14	50	33.6	67.2	16.4	32.8	20	*	23.8	50	
7-Apr-89	22-Jun-89	DIPRNIT	751	14	50	51	102	-1	2	20		41.2	115	
7-Apr-89	22-Jun-89	NITPHEN	751	13	100	74.2	74.2	25.8	25.8	20	*	25.5	66	
7-Apr-89	22-Jun-89	PENTCHP	751	13	100	75.3	75.3	24.7	24.7	20	*	13.7	81	
7-Apr-89	22-Jun-89	TRICHLB	751	14	50	29.8	59.6	20.2	40.4	20	*	13.9	49	
7-Apr-89	22-Jun-89	PHENDL	751	14	100	67.4	67.4	32.6	32.6	20	*	7.71	53.5	
7-Apr-89	22-Jun-89	ACENAPH	751	14	50	33.5	67	16.5	33	20	*	11.5	49	
7-Apr-89	22-Jun-89	PYRENE	751	14	50	33.95	67.9	16.05	32.1	20	*	12.7	33	
6-Dec-89	30-Dec-89	AG	726	66	50	43.15	86.3	6.85	13.7	20		8.59	25	
5-Oct-89	30-Dec-89	NA	726	66	8000	8480	106	-480	6	20		147	25	*
5-Oct-89	30-Dec-89	NI	726	66	500	505	101	-5	1	20		5.96	25	
5-Oct-89	30-Dec-89	CU	726	66	250	243	97.2	7	2.8	20		3.81	25	
5-Oct-89	30-Dec-89	V	726	66	500	510	102	-10	2	20		4.41	25	
5-Oct-89	30-Dec-89	SB	726	66	500	482	96.4	18	3.6	20		9.57	25	
5-Oct-89	30-Dec-89	AL	726	66	2000	2060	103	-60	3	20		20.9	25	
5-Oct-89	30-Dec-89	MN	726	66	500	499	99.8	1	0.2	20		5.28	25	

Groundwater Quality Control: Matrix Spike Recoveries.
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PERIOD From	PERIOD To	Analyte	Method	Number of Samples	Reference (True) Value (ug/L)	Mean Measured Value (ug/L)	% Recovery	Difference From True Value (ug/L)	ACCURACY Difference From True Value (%)	ACCURACY Target Recovery (%)	ACCURACY Exceedance Flag	PRECISION Mean Measured Std. Dev. (%)	PRECISION Target Std. Dev. (%)	PRECISION Exceedance Flag
5-Oct-89	30-Dec-89	K	726	66	200	191	95.5	9	4.5	20		17.1	25	
5-Oct-89	30-Dec-89	FE	726	66	1000	1170	117	-170	17	20		91	25	*
5-Oct-89	30-Dec-89	MG	726	66	2000	1852	92.6	148	7.4	20		90.5	25	*
5-Oct-89	30-Dec-89	B	726	66	500	492	98.4	8	1.6	20		4.19	25	
5-Oct-89	30-Dec-89	CO	726	66	500	505	101	-5	1	20		4.94	25	
5-Oct-89	30-Dec-89	LI	726	66	500	525	105	-25	5	20		5.11	25	
5-Oct-89	30-Dec-89	MO	726	66	500	510	102	-10	2	20		4.39	25	
5-Oct-89	30-Dec-89	SI	726	66	500	335	67	165	33	20	*	178	25	*
5-Oct-89	30-Dec-89	SN	726	66	500	438.5	87.7	61.5	12.3	20		31.2	25	*
5-Oct-89	30-Dec-89	TI	726	66	500	515	103	-15	3	20		8.92	25	
5-Oct-89	30-Dec-89	ZR	726	66	500	500	100	0	0	20		8.38	25	
5-Oct-89	30-Dec-89	F_ZN	741	44	500	492.5	98.5	7.5	1.5	20		7.09	25	
5-Oct-89	30-Dec-89	F_CA	741	44	10000	10700	107	-700	7	20		24.3	25	
5-Oct-89	30-Dec-89	F_BA	741	44	2000	2020	101	-20	1	20		5.06	25	
5-Oct-89	30-Dec-89	F_CD	741	44	50	48.15	96.3	1.85	3.7	20		6.72	25	
5-Oct-89	30-Dec-89	F_CR	741	44	200	204	102	-4	2	20		5.24	25	
5-Oct-89	30-Dec-89	F_AG	741	44	50	45.8	91.6	4.2	8.4	20		8.33	25	
5-Oct-89	30-Dec-89	F_NA	741	44	8000	7920	99	80	1	20		12.6	25	
5-Oct-89	30-Dec-89	F_NI	741	44	500	510	102	-10	2	20		5.88	25	
5-Oct-89	30-Dec-89	F_CU	741	44	200	196.4	98.2	3.6	1.8	20		5.4	25	
5-Oct-89	30-Dec-89	F_V	741	44	500	515	103	-15	3	20		4.88	25	
5-Oct-89	30-Dec-89	F_AL	741	44	2000	2000	100	0	0	20		3.73	25	
5-Oct-89	30-Dec-89	F_MN	741	44	500	505	101	-5	1	20		4.34	25	
5-Oct-89	30-Dec-89	F_K	741	44	2000	1992	99.6	8	0.4	20		10.7	25	
5-Oct-89	30-Dec-89	F_FE	741	44	1000	996	99.6	4	0.4	20		5.77	25	
5-Oct-89	30-Dec-89	F_MG	741	44	2000	1926	96.3	74	3.7	20		24.9	25	
5-Oct-89	30-Dec-89	F_BE	741	44	50	48.05	96.1	1.95	3.9	20		6.46	25	
5-Oct-89	30-Dec-89	F_SR	741	44	500	520	104	-20	4	20		4.62	25	
5-Oct-89	30-Dec-89	F_SB	741	44	500	498	99.6	2	0.4	20		4.12	25	
5-Oct-89	30-Dec-89	F_B	741	44	500	496.5	99.3	3.5	0.7	20		4.37	25	
5-Oct-89	30-Dec-89	F_CO	741	44	500	515	103	-15	3	20		5.21	25	
5-Oct-89	30-Dec-89	F_LI	741	44	500	520	104	-20	4	20		7.15	25	
5-Oct-89	30-Dec-89	F_MO	741	44	500	515	103	-15	3	20		4.96	25	
5-Oct-89	30-Dec-89	F_SI	741	44	500	419	83.8	81	16.2	20		162	25	*
5-Oct-89	30-Dec-89	F_SN	741	44	500	476	95.2	24	4.8	20		6.57	25	
5-Oct-89	30-Dec-89	F_TI	741	44	500	515	103	-15	3	20		5.29	25	
5-Oct-89	30-Dec-89	F_ZR	741	44	500	515	103	-15	3	20		5.76	25	
4-Oct-89	28-Dec-89	NO3	742	72	4000	3884	97.1	116	2.9	20		7.01	25	
4-Oct-89	28-Dec-89	SO4	742	72	4000	4040	101	-40	1	20		76.3	25	*
4-Oct-89	28-Dec-89	F	742	72	1000	991	99.1	9	0.9	20		6.83	25	
4-Oct-89	28-Dec-89	CL	742	72	1000	924	92.4	76	7.6	20		42.6	25	*
4-Oct-89	28-Dec-89	PO4	742	72	4000	3788	94.7	212	5.3	20		10.3	25	
4-Oct-89	28-Dec-89	BR	742	70	1000	1010	101	-10	1	20		5.67	25	
4-Oct-89	28-Dec-89	NO2	742	72	1000	1020	102	-20	2	20		7.07	25	
5-Oct-89	20-Dec-89	H_NO3	H65	30	4000	3900	97.5	100	2.5	20		7.33	25	
8-Nov-89	4-Dec-89	PERCHLO	C77	8	4000	4040	101	-40	1	20		7.43	25	
18-Oct-89	28-Dec-89	L_F	H63	20	500	474.5	94.9	25.5	5.1	20		3.81	25	

Groundwater Quality Control: Matrix Spike Recoveries.
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PERIOD From	PERIOD To	Analyte	Method	Number of Samples	Reference (True) Value (ug/L)	Mean Measured Value (ug/L)	% Recovery	Difference From True Value (ug/L)	ACCURACY Difference From True Value (%)	ACCURACY Target Recovery (%)	ACCURACY Exceedance Flag	PRECISION Mean Measured Std. Dev. (%)	PRECISION Target Std. Dev. (%)	PRECISION Exceedance Flag
2-Oct-89	13-Dec-89	AMMONIU	C80	44	200	216	108	-16	8	20		7.42	25	
16-Oct-89	15-Dec-89	CYANIDE	C70	22	100	80.5	80.5	19.5	19.5	20		37.9	25	*
3-Oct-89	20-Dec-89	AS	A20	44	50	44.25	88.5	5.75	11.5	20		6.75	25	
3-Oct-89	19-Dec-89	F_AS	H37	26	50	44.55	89.1	5.45	10.9	20		4.05	25	
3-Oct-89	20-Dec-89	SE	A22	46	50	46.6	93.2	3.4	6.6	20		5.9	25	
3-Oct-89	19-Dec-89	F_SE	H39	26	50	45.9	91.8	4.1	8.2	20		6.7	25	
19-Oct-89	20-Dec-89	TL	A23	20	50	50.5	101	-0.5	1	20		7.29	25	
8-Nov-89	16-Dec-89	F_TL	H40	6	50	49.35	98.7	0.65	1.3	20		13.1	25	
5-Oct-89	28-Dec-89	PB	A51	46	50	48.4	96.8	1.6	3.2	20		4.85	25	
5-Oct-89	16-Dec-89	F_PB	H41	26	50	46.65	93.3	3.35	6.7	20		7.96	25	
2-Oct-89	29-Dec-89	HG	A21	58	0.3	0.306	102	-0.006	2	20		5.82	25	
3-Oct-89	29-Dec-89	F_HG	H38	18	0.3	0.3	100	0	0	20		5.88	25	
2-Oct-89	29-Dec-89	TOXLDL	H42	76	50	48.85	97.7	1.15	2.3	20		10.2	25	
2-Oct-89	29-Dec-89	TOC	C89	92	5000	4995	99.9	5	0.1	20		5.72	25	
12-Oct-89	22-Dec-89	TC	H16	30	10000	9570	95.7	430	4.3	20		5.98	25	
6-Oct-89	22-Dec-89	SULFIDE	C78	40	5000	4410	88.2	590	11.8	20		6.35	25	
16-Oct-89	21-Dec-89	LHYDRAZ	H62	33	50	49.6	99.2	0.4	0.8	20		14.4	25	
27-Nov-89	14-Dec-89	THIDURA	727	14	500	495	99	5	1	20		10.6	25	
27-Nov-89	14-Dec-89	ACETREA	727	14	500	510	102	-10	2	20		8.91	25	
27-Nov-89	14-Dec-89	CHLOREA	727	14	500	520	104	-20	4	20		9.86	25	
27-Nov-89	14-Dec-89	DIETROL	727	14	500	495	99	5	1	20		7.94	25	
27-Nov-89	14-Dec-89	ETHYREA	727	14	500	500	100	0	0	20		13.7	25	
27-Nov-89	14-Dec-89	NAPHREA	727	14	500	565	113	-65	13	20		7.38	25	
27-Nov-89	14-Dec-89	PHENREA	727	14	500	520	104	-20	4	20		9.75	25	
6-Oct-89	23-Oct-89	ENDRIN	728	4	0.5	0.69	138	-0.19	38	20	*	35	58.5	
6-Oct-89	23-Oct-89	6-BHC	728	4	0.2	0.1448	72.4	0.0552	27.6	20	*	12.9	47.5	
6-Oct-89	29-Dec-89	ENDRIN	729	20	0.5	0.565	113	-0.065	13	20		30.2	58.5	
6-Oct-89	29-Dec-89	6-BHC	729	20	0.2	0.1698	84.9	0.0302	15.1	20		11.2	47.5	
6-Oct-89	29-Dec-89	DDT	729	20	0.5	0.55	110	-0.05	10	20		29.3	67.5	
6-Oct-89	29-Dec-89	HEPTLDR	729	20	0.2	0.2	100	0	0	20		16.1	38.5	
6-Oct-89	29-Dec-89	DIELRIN	729	20	0.5	0.4445	88.9	0.0555	11.1	20		15.2	55	
6-Oct-89	29-Dec-89	ALDRIN	729	20	0.2	0.1598	79.9	0.0402	20.1	20	*	10.6	40	
4-Nov-89	18-Dec-89	AR1254	739	6	5	4.95	99	0.05	1	20		21.6	51	
3-Nov-89	21-Dec-89	DIMETHO	734	10	5	5.1	102	-0.1	2	20		9.35	36.5	
4-Oct-89	18-Dec-89	2,4-D	737	18	3	3.33	111	-0.33	11	20		124	15	*
4-Oct-89	18-Dec-89	2,4,5TP	737	18	3	2.28	76	0.72	24	20	*	21	19	*
4-Oct-89	18-Dec-89	2,4,5-T	737	18	3	2.469	82.3	0.531	17.7	20		23.5	24	
19-Oct-89	5-Nov-89	CHLOFRM	749	4	20	15.76	78.8	4.24	21.2	20	*	9.07	42	
19-Oct-89	5-Nov-89	1,1-DCLE	749	4	4	3.724	93.1	0.276	6.9	20		11.4	42.5	
19-Oct-89	5-Nov-89	TRICELNE	749	4	4	3.976	99.4	0.024	0.6	20		3.75	55.5	
2-Oct-89	20-Nov-89	LPHENOL	H57	8	20	17.88	89.4	2.12	10.6	20		4.75	42.5	
1-Dec-89	18-Dec-89	PARALDE	763	8	50800	57404	113	-6604	13	20		22.7	25	
1-Dec-89	18-Dec-89	ACRYIDE	763	8	51000	10353	20.3	40647	79.7	20	*	2.19	6	
14-Nov-89	14-Nov-89	ETHCYAN	763	8	50000	48950	97.9	1050	2.1	20		3.37	25	
14-Nov-89	14-Nov-89	ISOBUTY	763	8	50000	51000	102	-1000	2	20		3.55	25	
14-Nov-89	18-Dec-89	PROPYLA	763	16	50000	58000	116	-8000	16	20		33.3	66	
14-Nov-89	18-Dec-89	MBP	763	16	19000	17955	94.5	1045	5.5	20		13.7	25	

Groundwater Quality Control: Matrix Spike Recoveries.
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PERIOD From	PERIOD To	Analyte	Method	Number of Samples	Reference (True) Value (ug/L)	Mean Measured Value (ug/L)	% Recovery	Difference From True Value (ug/L)	ACCURACY Difference From True Value (%)	ACCURACY Target Recovery (%)	ACCURACY Exceedance Flag	PRECISION Mean Measured Std. Dev. (%)	PRECISION Target Std. Dev. (%)	PRECISION Exceedance Flag
14-Nov-89	18-Dec-89	DBP	763	16	23000	21873	95.1	1127	4.9	20		14.4	25	
14-Nov-89	18-Dec-89	ETHGLYC	763	16	50000	44700	89.4	5300	10.6	20		12.3	36	
1-Dec-89	18-Dec-89	I-BUTYN	763	8	492000	490032	99.6	1968	0.4	20		2.61	25	
2-Oct-89	29-Dec-89	BENZENE	750	68	20	21.2	106	-1.2	6	20		15.7	57	
2-Oct-89	29-Dec-89	TOLUENE	750	68	20	21.8	109	-1.8	9	20		27.5	51.5	
2-Oct-89	29-Dec-89	TRICENE	750	68	20	20.6	103	-0.6	3	20		24.7	43	
2-Oct-89	29-Dec-89	CHLBENZ	750	68	20	21	105	-1	5	20		9.84	61.5	
2-Oct-89	29-Dec-89	DICETHY	750	68	20	16.58	82.9	3.42	17.1	20		17.7	117	
9-Oct-89	19-Dec-89	CHLCRES	751	12	100	69.4	69.4	30.6	30.6	20	*	16.8	62.5	
9-Oct-89	19-Dec-89	CHLPHEN	751	12	100	65.5	65.5	34.5	34.5	20	*	13.4	55.5	
9-Oct-89	19-Dec-89	DIBPHTH	751	12	50	27.75	55.5	22.25	44.5	20	*	11.4	58.5	
9-Oct-89	19-Dec-89	14-DBEN	751	12	50	27.5	55	22.5	45	20	*	6.52	52	
9-Oct-89	19-Dec-89	24-DINT	751	12	50	32.85	65.7	17.15	34.3	20	*	6.49	50	
9-Oct-89	19-Dec-89	DIPRNIT	751	12	50	38.1	76.2	11.9	23.8	20	*	15	115	
9-Oct-89	19-Dec-89	NITPHEN	751	12	100	49.6	49.6	50.4	50.4	20	*	16.3	66	
9-Oct-89	19-Dec-89	PENTCHP	751	12	100	68.9	68.9	31.1	31.1	20	*	12.5	81	
9-Oct-89	19-Dec-89	TRICHLB	751	12	50	29.75	59.5	20.25	40.5	20	*	12	49	
9-Oct-89	19-Dec-89	PHENOL	751	12	100	61.5	61.5	38.5	38.5	20	*	13.7	53.5	
9-Oct-89	19-Dec-89	ACENAPH	751	12	50	41.6	83.2	8.4	16.8	20		11	49	
9-Oct-89	19-Dec-89	PYRENE	751	12	50	44.4	88.8	5.6	11.2	20		10.2	33	
31-Oct-89	21-Dec-89	2378TCD	752	13	0.02	0.022	110	-0.002	10	20		17	50	

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APPENDIX C-5.

STATISTICAL METHODS FOR EVALUATING SOIL DATA

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APPENDIX C-5

1.0 INPUT DATA

The 2101-M Pond is a U-shaped ditch. The east arm, the south arm, the north arm, and the effluent discharge, were sampled at the 2101-M Pond. At each location, five intervals were sampled at increasing depths from the surface. These sample intervals were 0 to 2.0 ft, 2.5 to 4.5 ft, 5.0 to 7.0 ft, 7.5 to 9.5 ft, and 10.0 to 12.0 ft. Background samples were taken at four locations with soil and sediment profiles similar to the pond, but far enough from the pond so as not to be influenced by any effluent discharged to the pond. Ten background samples were collected at a similar depth as the pond samples; another 6 background samples were obtained at depth from 4.0 to 6.0 ft, 9.0 to 11.0 ft, and 14.0 to 16.0 ft (Section B-5a 1.3). The analytical analysis results of the 2101-M Pond samples and that of the background are presented in Tables C5-1 and C5-2.

The elements aluminum, iron, calcium, manganese, magnesium, and potassium are excluded from the list of constituents to be analyzed statistically because they are primary constituents in native rocks and soils, and occur at concentrations far in excess of those in the waste inventory of the site. The analytical results for these constituents were listed in Tables C5-1 and C5-2 for purpose of completeness only.

Classifications of the 2101-M Pond samples by locations and by depth intervals, respectively, are listed as follows:

- Location 1 (east arm): M147, M148, M149, M150, M151
- Location 2 (south arm): M152, M153, M154, M155, M156, M157, M158
- Location 3 (effluent discharge): M159, M160, M161, M162, M163
- Location 4 (north arm): M164, M165, M166, M167, M168, M169.
- Depth 1 (0.0 to 2.0 ft): M147, M152, M154, M159, M164
- Depth 2 (2.5 to 4.5 ft): M148, M153, M155, M160, M165
- Depth 3 (5.0 to 7.0 ft): M149, M156, M161, M166, M167
- Depth 4 (7.5 to 9.5 ft): M150, M157, M162, M168
- Depth 5 (10.0 to 12.0 ft): M151, M158, M163, M169.

Classifications of the background samples by locations and by depth intervals, respectively, are listed as follows:

- Location 1 (wet site): M131, M132, M133, M134, M135
- Location 2 (wet site): M136, M137, M138

- Location 3 (dry site): M139, M140, M141, M142, M143
- Location 4 (dry site): M144, M145, M146
- Depth 1 (0.0 to 2.0 ft): M131, M139
- Depth 2 (2.5 to 4.5 ft): M132, M140
- Depth 3 (5.0 to 7.0 ft): M133, M141
- Depth 4 (7.5 to 9.5 ft): M134, M142
- Depth 5 (10.0 to 12.0 ft): M135, M143
- Depth 6 (4.0 to 6.0 ft): M136, M144
- Depth 7 (9.0 to 11.0 ft): M137, M145
- Depth 8 (14.0 to 16.0 ft): M138, M146.

Table C5-1. Input Data--Sampling Results at the 2101-M Pond.
(sheet 1 of 3)

Sample No.	Constituent (ppm)								
	Strontium	Zinc	Calcium	Barium	Chromium	Sodium	Nickel	Copper	Silver
M147	24.1	104.0	7710.0	102.0	9.4	1280.0	8.1	19.0	--
M148	22.7	70.1	5210.0	104.0	9.1	1310.0	7.3	--	--
M149	24.4	37.7	6860.0	72.2	8.2	1060.0	7.2	--	--
M150	29.8	51.0	8450.0	53.3	9.0	1180.0	7.2	6.4	--
M151	25.8	137.0	8210.0	48.6	11.6	1210.0	8.7	--	--
M152	31.8	43.2	4570.0	93.8	11.3	1250.0	7.8	--	--
M153	27.9	39.0	7730.0	80.3	8.0	1250.0	7.0	--	--
M154	20.3	60.0	3990.0	80.9	9.1	287.0	6.6	51.6	--
M155	23.6	52.2	4480.0	75.6	10.2	241.0	8.1	42.9	--
M156	28.3	31.7	5010.0	71.6	8.3	292.0	7.3	1.6	--
M157	27.5	31.6	5540.0	59.1	7.5	154.0	6.1	--	--
M158	21.5	28.7	8370.0	53.9	9.5	120.0	8.0	1.2	--
M159	30.7	220.0	5520.0	151.01	5.7	312.0	13.0	1340.0	2.2
M160	22.2	39.3	3360.0	75.3	9.4	166.0	6.4	9.3	--
M161	18.8	30.9	5040.0	69.5	10.1	200.0	7.1	--	--
M162	28.0	30.0	12000.0	65.5	7.3	160.0	6.6	--	--
M163	24.6	28.0	8890.0	44.4	11.0	168.0	7.7	1.8	--
M164	40.0	83.4	16400.0	96.7	12.1	309.0	10.4	270.0	--
M165	20.3	30.9	2830.0	70.0	8.9	163.0	6.9	--	--
M166[a]	55.3	29.1	5210.0	81.0	10.5	195.0	8.1	1.7	--
M167[a]	32.5	31.2	5000.0	66.3	9.8	240.0	8.2	--	--
M168	18.7	27.0	14400.0	49.4	6.4	136.0	5.3	1.6	--
M169	28.2	32.9	14900.0	62.4	10.8	143.0	7.2	6.1	--

NOTE: -- = data values are less than detection limits.
[a]Split samples.

Table C5-1. Input Data--Sampling Results at the 2101-M Pond.
(sheet 2 of 3)

Sample No.	Constituent (ppm)							
	Vanadium	Aluminum	Manganese	Potassium	Iron	Magnesium	pH	Conductivity[b]
M147	71.0	9740.0	418.0	1400.0	32900.0	6090.0	7.4	641.0
M148	86.8	9890.0	481.0	843.0	38800.0	6130.0	7.0	124.0
M149	50.7	7690.0	364.0	856.0	23000.0	4860.0	7.8	197.0
M150	40.9	7020.0	253.0	770.0	19600.0	4590.0	8.1	197.0
M151	36.9	7150.0	255.0	886.0	18800.0	5100.0	8.2	197.0
M152	55.9	8790.0	333.0	1290.0	24700.0	5050.0	7.6	141.0
M153	52.6	7570.0	338.0	703.0	25000.0	5060.0	8.2	146.0
M154	77.6	6970.0	302.0	896.0	26300.0	4030.0	6.8	265.0
M155	67.6	7060.0	278.0	946.0	24100.0	4200.0	7.1	354.0
M156	39.4	7040.0	235.0	596.0	20300.0	4720.0	8.0	199.0
M157	38.1	7830.0	261.0	958.0	21400.0	5610.0	8.2	190.0
M158	28.4	7300.0	226.0	1280.0	17900.0	5770.0	8.5	147.0
M159	74.1	14000.0	475.0	1880.0	39200.0	7450.0	6.9	395.0
M160	47.6	7780.0	307.0	937.0	22800.0	5040.0	7.1	67.7
M161	42.8	5660.0	245.0	732.0	18500.0	4370.0	7.7	169.0
M162	35.9	7450.0	271.0	895.0	20000.0	5510.0	8.0	164.0
M163	25.8	6010.0	229.0	1000.0	13600.0	5000.0	8.0	187.0
M164	49.0	10200.0	332.0	1580.0	24800.0	6290.0	7.7	623.0
M165	37.4	6710.0	255.0	806.0	17500.0	4330.0	8.0	168.0
M166[a]	37.2	7980.0	270.0	886.0	21000.0	4990.0	8.1	172.0
M167[a]	42.4	8700.0	271.0	859.0	23100.0	5320.0	8.0	171.0
M168	34.8	7000.0	230.0	675.0	21700.0	5280.0	8.0	168.0
M169	32.3	10300.0	286.0	1770.0	25000.0	6930.0	8.1	158.0

[a]Split samples.
[b]Measuring unit is micromhos/cm.

Table C5-1. Input Data--Sampling Results at the 2101-M Pond.
(sheet 3 of 3)

Sample No.	Constituent (ppm)							
	Sulfate	Chloride	Arsenic	Lead	TOC	TOX	Ammonium	Fluoride
M147	39.5	14.5	1.8	7.8	112.0	15.60	1.7	--
M148			1.8	5.6	18.4	--		
M149	2.7	--	1.2	4.7	--	2.15	1.6	--
M150			0.8	4.2	--	--		
M151	2.1	--	3.6	4.2	--	4.00	1.6	--
M152	25.5	3.8	1.5	5.3	13.6	--	1.7	--
M153			0.7	3.6	--	--		
M154	4.1	6.8	--	5.5	116.0	2.30	2.0	3.3
M155			0.5	5.6	98.7	19.30		
M156	1.7	1.3	--	3.9	17.8	2.10	2.6	--
M157			1.0	4.7	--	10.10		
M158	--	--	2.5	6.4	--	--	1.7	--
M159	12.3	13.3	2.7	35.2	318.0	8.50	2.3	15.2
M160			0.8	5.8	16.8	4.20		
M161	1.7	--	0.7	3.0	--	7.50	1.7	--
M162			1.3	4.9	--	21.50		
M163	2.8	--	2.7	6.6	--	--	3.8	--
M164	101.0	7.2	3.5	8.8	137.0	--	4.3	2.0
M165			1.6	4.1	--	5.10		
M166[a]	4.0	--	1.0	3.9	--	8.00	3.6	--
M167[a]	2.0	--	1.6	4.0	--	--	3.2	--
M168			1.2	4.2	--	--		
M169	--	--	2.9	6.9	--	--	2.5	--

NOTE: -- = data values are less than detection limits. Blank spaces shown in this table indicate that this chemical analysis was not requested for the corresponding sample.

[a]Split samples.

Blank cell = chemical analysis was not requested

TOC = total organic carbon

TOX = total organic halogen.

Table C5-2. Input Data--Background Sampling Results at the 2101-M Pond. (sheet 1 of 3)

Sample No.	Constituent (ppm)								
	Strontium	Zinc	Calcium	Barium	Chromium	Sodium	Nickel	Copper	Silver
M131	22.7	112.0	3770.0	61.7	16.6	937.0	9.2	3.3	--
M132	31.6	61.8	4750.0	88.8	15.5	1170.0	12.7	5.5	--
M133	22.4	48.8	4540.0	205.0	8.0	991.0	13.1	--	--
M134	15.0	30.9	2770.0	63.0	5.9	820.0	5.7	--	--
M135	18.3	31.4	2800.0	55.9	8.3	848.0	9.1	11.9	--
M136	18.9	33.9	3050.0	77.0	7.5	852.0	6.8	--	--
M137	17.2	30.4	2790.0	96.1	6.8	814.0	6.3	--	--
M138	26.9	28.9	7040.0	81.5	8.6	838.0	6.6	1.5	--
M139	20.3	44.7	3550.0	85.9	8.5	827.0	7.8	--	--
M140	22.7	32.3	8340.0	46.3	8.3	1430.0	6.2	--	--
M141	27.3	44.9	14000.0	97.3	6.6	1170.0	6.8	--	--
M142	39.2	33.81	10600.0	65.6	9.0	1170.0	7.4	--	--
M143	29.3	39.7	8440.01	117.0	8.3	1620.0	7.1	--	--
M144	36.9	43.41	10700.0	80.4	8.1	1710.0	7.2	--	--
M145	25.6	37.2	5890.0	57.9	8.6	1280.0	7.2	--	--
M146	28.7	34.4	9700.0	46.6	10.1	1130.0	6.7	--	--

NOTE: -- = data values are less than detection limits.

Table C5-2. Input Data--Background Sampling Results at the 2101-M Pond. (sheet 2 of 3)

Sample No.	Constituent (ppm)						
	Vanadium	Aluminum	Manganese	Potassium	Iron	Magnesium	pH
M131	59.0	10100.0	164.0	1620.0	26900.0	4700.0	6.1
M132	65.2	8870.0	268.0	1290.0	23100.0	5310.0	5.8
M133	65.3	5770.0	2870.0	643.0	25400.0	4030.0	6.2
M134	35.1	5060.0	264.0	547.0	16400.0	3550.0	6.6
M135	35.0	6570.0	237.0	723.0	18600.0	4680.0	6.9
M136	38.0	7210.0	361.0	910.0	19500.0	4930.0	6.4
M137	33.4	5920.0	383.0	723.0	16700.0	3990.0	7.2
M138	24.6	6290.0	234.0	746.0	15300.0	4780.0	7.8
M139	55.1	8560.0	380.0	1810.0	25500.0	4660.0	6.1
M140	42.2	6050.0	252.0	833.0	18800.0	4430.0	6.8
M141	69.8	7230.0	393.0	1120.0	29200.0	5110.0	7.0
M142	42.5	7740.0	279.0	1340.0	20000.0	5860.0	7.1
M143	53.8	7260.0	533.0	924.0	23600.0	4980.0	8.2
M144	66.3	8910.0	392.0	916.0	28300.0	5980.0	7.3
M145	47.0	7960.0	272.0	1250.0	21800.0	5420.0	8.0
M146	36.2	8710.0	243.0	1670.0	23200.0	6910.0	7.2

Table C5-2. Input Data--Background Sampling Results at the 2101-M Pond. (sheet 3 of 3)

Sample No.	Conductivity[a]	Constituent (ppm)							
		Sulfate	Chloride	Arsenic	Lead	TOC	TOX	Ammonium	Fluoride
M131	688.0	19.1	37.0	1.7	12.7	157.0	--	2.6	3.1
M132	80.0	7.8	4.1	3.3	8.9	71.9	5.9	0.9	--
M133	94.0	6.1	--	8.1	3.9	42.3	6.0	1.2	--
M134	30.0	1.9	--	1.2	3.1	--	--	1.5	--
M135	38.0	1.7	--	1.4	3.7	--	2.0	1.6	--
M136	57.0	4.6	2.3	2.6	4.9	19.6	3.8	1.2	--
M137	46.0	2.3	1.8	1.3	3.8	--	5.8	1.5	--
M138	222.0	1.3	--	1.6	4.5	--	--	2.0	--
M139	371.0	--	28.3	1.1	7.1	53.6	--	1.9	--
M140	258.0	1.2	--	1.9	5.0	48.7	--	1.9	1.2
M141	376.0	9.6	--	2.1	6.8	58.7	28.5	2.0	1.4
M142	326.0	5.0	--	1.7	3.9	--	10.1	2.0	1.1
M143	254.0	1.5	--	1.1	3.6	--	--	2.0	--
M144	587.0	34.5	7.1	1.6	4.8	39.7	--	1.6	1.4
M145	290.0	25.5	9.9	3.6	3.3	--	16.8	1.4	1.0
M146	674.0	17.3	37.1	1.3	4.2	--	--	2.2	1.0

NOTE: -- = data values are less than detection limits.
[a]Measuring unit is micromhos/cm.
TOC = total organic carbon
TOX = total organic halogen.

2.0 STATISTICAL ANALYSES

2.1 Objectives

The following are the main objectives of the statistical analyses for each constituent of concern.

- Determine a reasonable upper limit for soil background based on existing data (for pH both the upper and lower limits are considered).
- Evaluate whether soil samples from the 2101-M Pond exceed the background threshold level.
- Provide guidance for subsequent sampling, as necessary.

Statistical tolerance intervals are used to estimate the background threshold levels because they define a range within which some proportion (90, 95, 99%) of the background population will fall some percent (90, 95, 99%) of the time. Steps used in the statistical evaluations are presented in Figure C5-1.

2.2 Calculation of Summary Statistics

Calculated summary statistics for the background samples are presented in Table C5-3. STATGRAPHICS* (Version 2.6) was used to generate these summary statistics. Summary statistics are not calculated for the 2101-M Pond samples because sampling location at the effluent discharge was not randomly selected. Therefore, pooling data together as if they were samples from a random population is misleading.

The formulas for the summary statistics are listed in Snedecor and Cochran (1980). Some of the background data are below the contractual detection limits required of U.S. Testing Company of Richland. In such cases, less than values were replaced by half their contractual detection limits and summary statistics were calculated in the usual manner. No attempt is made to use Cohen's method (Cohen 1961) for less than values because the validity of its assumption (that data are normally distributed) is in doubt. Summary statistics were not calculated for silver because all of the background values are less than the limit of detection.

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*STATGRAPHICS is a trademark of Statistical Graphics Corporation.

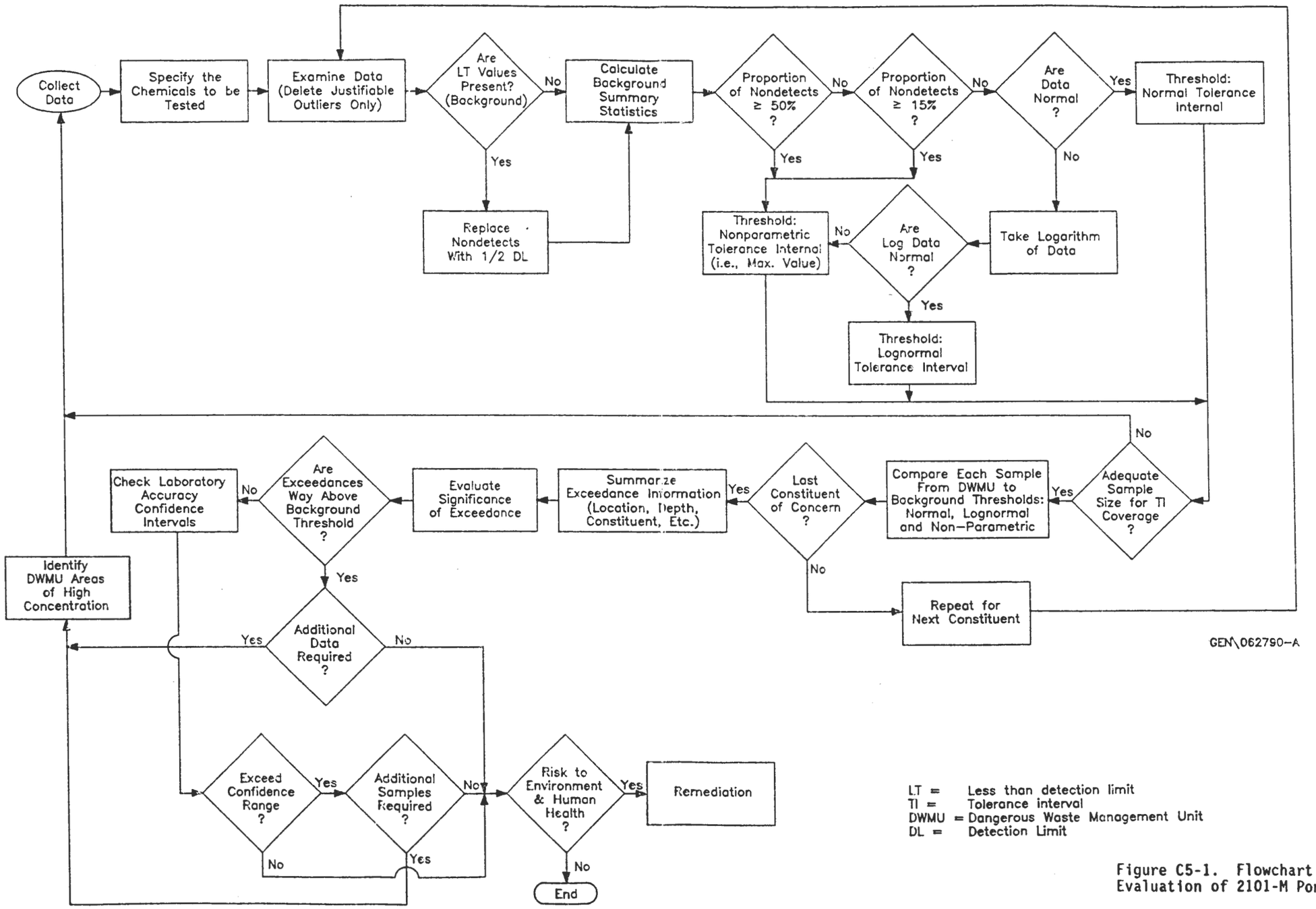
Table C5-3. Summary Statistics--2101-M Pond Background Samples.

Analyte	No. of GTDL values	No. of LTDL values	Mean (ppm)	Median (ppm)	Std dev (ppm)	CV (%)	Minimum (ppm)	Maximum (ppm)
Strontium	16	0	25.19	24.15	6.88	27.3	15.00	39.20
Zinc	16	0	43.03	35.80	20.32	47.2	28.90	112.00
Barium	16	0	82.88	78.70	38.03	45.9	46.30	205.00
Chromium	16	0	9.04	8.30	2.92	32.3	5.90	16.60
Sodium	16	0	1129.81	1060.50	320.28	28.4	814.00	1710.00
Nickel	16	0	7.86	7.15	2.16	27.5	5.70	13.00
Copper[b]	4	12	1.76	BDL	3.04	172.7	BDL	11.90
Silver	0	16	BDL	BDL	NC	NC	BDL	BDL
Vanadium	16	0	48.03	44.75	14.17	29.5	24.60	69.80
pH	16	0	6.92	6.95	0.704	10.2	5.80	8.20
Conductivity[b]	16	0	274.44	256.00	222.09	80.9	30.00	688.00
Sulfate[b]	15	1	8.74	4.80	10.12	115.8	BDL	34.50
Chloride[b]	8	8	8.23	1.15	13.27	161.2	BDL	37.10
Arsenic	16	0	2.23	1.65	1.73	77.6	1.10	8.10
Lead	16	0	5.26	4.35	2.53	48.1	3.10	12.70
TOC[b]	8	8	33.22	12.30	40.66	122.4	BDL	157.00
TOX[b]	8	8	5.18	1.25	7.71	148.8	BDL	28.50
Ammonium	16	0	1.72	1.75	0.43	25.0	0.90	2.60
Fluoride	5	11	BDL	BDL	NC	NC	BDL	3.10

[a]Measuring unit for conductivity is micromhos/cm.

[b]Less than detection limit values were replaced by 1/2 of the contractual required detection limits in the calculation of summary statistics.

BDL = below detection limit
CV = coefficient of variation
GTDL = greater than detection limit
LTDL = less than detection limit
NC = not calculated because of insufficient above detection limit data
TOC = total organic carbons
TOX = total organic halogens.



LT = Less than detection limit
TI = Tolerance interval
DWMU = Dangerous Waste Management Unit
DL = Detection Limit

Figure C5-1. Flowchart for Statistical Evaluation of 2101-M Pond Soil Data.

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2.3 Testing the Assumption of Normality

Various statistical intervals are used to 'bracket' background levels. The usefulness of these statistics depends on the validity of the assumption that data are drawn from a normal population. The statistical tests used for evaluating whether or not the data follow a specified distribution are called 'goodness-of-fit' tests. One problem with statistical goodness-of-fit tests is that few tests are useful with small samples sizes (i.e., number of observations). One statistical goodness-of-fit test, which performs well on small sample sizes and tests the null hypothesis that the data values are random samples from a normal population against an unspecified alternative distribution, is the Shapiro-Wilk, W statistic (Shapiro and Wilk 1965). The background data of 2101-M Pond were evaluated by using the Shapiro-Wilk test for normality.

Procedures to perform the Shapiro-Wilk test for normality can be found in Conover (1980). The hypothesis of normality is rejected at 5% level of significance, if the computed value of W-statistic is less than the $W_{0.05}$ value (for a given sample size), as shown in Conover (1980, pages 468-469). The general approach used in the statistical goodness-of-fit test for each 2101-M Pond constituent of concern is as follows.

- Apply the Shapiro-Wilk test for normality procedures to the raw data (e.g., unit of measurement is parts per million).

- If raw data are not normally distributed, then the Shapiro-Wilk test is applied to the logarithms (natural logarithms) of the data to examine whether the logarithm of the concentrations (natural logarithms parts per million) has a normal distribution. This is equivalent to testing the hypothesis that the constituent has a lognormal distribution.

- If the proportions of less than detection limit values are more than 50%, a goodness-of-fit test is not performed and a nonparametric tolerance interval will be calculated, to the extent possible.

The results of the Shapiro-Wilk test for normality, using 2101-M Pond background samples, are presented in Table C5-4. Based on the test results, appropriate background threshold levels can be calculated.

2.4 Establishing Soil Background Levels

Background constitutes a range of values rather than a single value. To determine compliance with regulations, one is not interested in comparisons to average background values, but rather on comparison of data from the hazardous waste management unit (e.g., 2101-M Pond) to the possible range of background concentrations. This is accomplished by computing an upper tolerance interval for the background concentrations and determining if each sample from 2101-M Pond lies in that interval.

Table C5-4. Results of the Shapiro-Wilk Test for Normality (2101-M Pond Background Samples).

Analyte	W-Statistic Raw Data	W-Statistic log-values	Comment	Type of TI
Strontium	0.9594 n.s.	N/A	Normal	Parametric
Zinc	0.6334 s.	0.8007 s.	Neither	Nonparametric
Barium	0.7608 s.	0.9276 n.s.	Lognormal	Parametric
Chromium	0.7243 s.	0.8295 s.	Neither	Nonparametric
Sodium	0.8573 s.	0.8758 s.	Neither	Nonparametric
Nickel	0.7606 s.	0.8372 s.	Neither	Nonparametric
Copper	N/A	N/A	ND > 50%	Nonparametric
Silver	N/A	N/A	ND = 100%	Neither
Vanadium	0.9312 n.s.	N/A	Normal	Parametric
pH	0.9647 n.s.	N/A	Normal	Parametric
Conductivity[a]	0.8862 s.	0.9074 n.s.	Lognormal	Parametric
Sulfate[b]	0.7846 s.	0.9598 n.s.	Lognormal	Parametric
Chloride	N/A	N/A	ND > 50%	Nonparametric
Arsenic	0.6264 s.	0.8546 s.	Neither	Nonparametric
Lead	0.7549 s.	0.8783 s.	Neither	Nonparametric
TOC	N/A	N/A	ND > 50%	Nonparametric
TOX	N/A	N/A	ND > 50%	Nonparametric
Ammonium	0.9672 n.s.	N/A	Normal	Parametric
Fluoride	N/A	N/A	ND > 50%	Nonparametric

[a]Measuring unit for conductivity is micromhos/cm.
[b]Less than detection limit value was replace by 1/2 of the contractual detection limit.

n.s. = not significant at 0.05 level of significance
s. = significant at 0.05 level of significance
TI = tolerance interval
N/A = not applicable
ND = not detected
TOC = total organic carbon
TOX = total organic halogen.

A tolerance interval is defined as a range of concentrations that contains at least a specified proportion (coverage) of the population with a specified probability (confidence level). Both the upper and lower bounds of the interval (two-sided) are calculated for pH. For other constituents of concern, only the upper bounds of the intervals (one-sided) are calculated.

If a normal (or a lognormal) distribution is a reasonable approximation of the background concentrations, a parametric tolerance interval of the following form is calculated:

$$\bar{X}_b \pm K\ S_b \text{ (two-sided) or } \quad \bar{X}_b + K\ S_b \text{ (one-sided)}$$

where $\bar{X}_b$ denotes the background mean; S_b denotes the background standard deviation; and K is a normal tolerance factor which depends on sample size (n), coverage (P%), and confidence level (Y).

A coverage of 95% and confidence level of 95% are recommended (EPA 1989). With 16 background samples, P = 95%, and Y = 95%, K is 2.523 for a one-sided normal tolerance interval and K is 2.903 for a two-sided normal tolerance interval (Natrella 1966).

If background concentrations do not follow a normal or a lognormal distribution, a nonparametric tolerance interval can be constructed (Conover 1980). A two-sided nonparametric tolerance interval is just the range (largest minus smallest datum) of the observed data. An upper one-sided nonparametric tolerance limit is the largest observation. The number of observations determine the coverage (P%) and the probability level (Y) associated with that proportion. For a one-sided 95% (P = 95%) tolerance interval (nonparametric) with 95% (Y = 95%) probability, the number of background samples required is 59 (Conover 1980). With only 16 background samples for 2101-M Pond, the coverage is 90% and the confidence level is 80%. That is, the one-sided tolerance limit defined by the largest background concentration contains at least 90% of the background population with 80% probability. More background samples are needed for constituents such as copper, if a larger coverage and/or a larger probability level is desired.

All of the background values for silver are less than the limit of detection. In such case, no data are available to estimate the background variance. The background threshold value was determined to be 3.4 ppm, which was the LOQ using laboratory QA/QC data (Appendix C-4). The use of LOQ to establish a threshold criteria, in such a situation, is recommended by EPA (EPA 1986, page 123).

The calculated background threshold levels (normal, lognormal, and nonparametric) are shown in Table C5-5. For lognormal tolerance interval, a limit based on the logarithms of the data was calculated and converted back to the original scale by taking its antilogarithms. For example, the upper tolerance limit calculated for barium is 5.2846 ln ppm. The antilogarithms of this value is 197.3 ppm.

Table C5-5. Calculated 2101-M Pond Background Threshold Levels[a].

Analyte	Normal TI (ppm)	Lognormal TI (ln ppm)(ppm)	Nonparametric TI (ppm)	LOQ (ppm)
Strontium	42.5	N/A	N/A	N/A
Zinc	N/A	N/A	112	N/A
Barium	N/A	5.2846 197.3	N/A	N/A
Chromium	N/A	N/A	16.6	N/A
Sodium	N/A	N/A	1,710	N/A
Nickel	N/A	N/A	13	N/A
Copper	N/A	N/A	11.9	N/A
Silver	N/A	N/A	N/A	3.4
Vanadium	83.8	N/A	N/A	N/A
pH[c]	(4.9,10.0)	N/A	N/A	N/A
Conductivity[b]	N/A	7.8586 2,588	N/A	N/A
Sulfate[d]	N/A	4.6583 105.5	N/A	N/A
Chloride	N/A	N/A	37.1	N/A
Arsenic	N/A	N/A	8.1	N/A
Lead	N/A	N/A	12.7	N/A
TOC	N/A	N/A	157.0	N/A
TOX	N/A	N/A	28.5	N/A
Ammonium	2.8	N/A	N/A	N/A
Fluoride	N/A	N/A	3.1	N/A

[a]For normal distribution and log-normal distribution the threshold values will cover at least 95% of the background population with 95% level of confidence.

For distributions other than normal or log-normal the threshold values will cover at least 90% of the background population with 80% level of confidence.

For silver, the threshold value is the limit of quantitation.

[b]Measuring unit for conductivity is micromhos/cm.

[c]A two-sided tolerance interval is calculated for pH.

[d]Less than detection limit value was replaced by 1/2 of the contractual detection limit.

TOC = total organic carbons

TOX = total organic halogens.

2.5 Comparisons of 2101-M Pond Samples With Background

The purpose of the tolerance interval approach is to define a concentration range from background data, within which a large proportion of the soil samples from the 2101-M Pond should fall with high probability. Once this is done, individual samples are checked to see whether they fall into the tolerance interval. If an exceedance is found, the sample number and sample value is provided. In addition, a quantifiable threshold value (for each analyte where exceedance is noted) obtained from laboratory QA/QC results is provided also to assist evaluation. Only exceedances that are above quantifiable thresholds warrant further investigation. Results of aforementioned comparisons are presented in Table C5-6. A summary of the exceedance information (by location, depth, and constituents) is shown in Tables C5-7a and C5-7b.

It can be shown from Table C5-6 that the threshold value for barium (197.3 ppm) was exceeded by background sample M133. Further examination of soil background samples obtained from other hazardous management area (i.e., 1100-EM-1 operable unit) revealed that the barium value of 205 ppm (2101-M background datum) was not inconsistent with results obtained from 1100 Area (DOE 1990).

2.6 Evaluation of Significance of Exceedance

There are 17 occurrences of exceedance in the 2101-M Pond soil data (Tables C5-7a and C5-7b). Six exceedances occurred at the effluent discharge (location 3) to the pond. Ten exceedances occurred at the depth interval 0 to 2.0 ft. Copper was the constituent most frequently exceeded (five times). Copper was also the constituent that had the largest relative magnitude of exceedance. Although ammonium's threshold value 2.8 ppm has been exceeded four times, the magnitudes of exceedances were small.

Results of the statistical analyses indicated that copper is the constituent of concern when determining the closure strategy for the 2101-M Pond (as stated previously in Section B-5g). In order to characterize the extent of contamination and to determine to what extent remediation may be required, more soil samples should be obtained in the area near the effluent discharge point within the top 2 ft of soil. The number of pond samples to be collected should decrease with increasing distance from the effluent discharge point. This can be accomplished through the use of a systematic sampling scheme that divides the 2101-M Pond into different zones for sampling purposes.

Table C5-6. Number of Exceedances (2101-M Pond Data).

Analyte	Threshold levels (ppm)	Number of exceedance		Quantifiable threshold[a]
		Background	2101-M Pond	
Strontium	42.5	0	1 (M166, 55.3)	2.4
Zinc	112	0	2 (M151, 137) (M159, 220)	5.7
Barium	197.3	1[b]	0	3.7
Chromium	16.6	0	0	
Sodium	1,710	0	0	
Nickel	13	0	0	
Copper	11.9	0	5 (M147, 19.0) (M154, 51.6) (M155, 42.9) (M159, 1,340) (M164, 270)	6.4
Silver	3.4	0	0	
Vanadium	83.8	0	1 (M148, 86.8)	3.4
pH[c]	(4.9, 10.0)	0	0	
Conductivity[c]	2,588	0	0	
Sulfate[d]	105.5	0	0	
Chloride	37.1	0	0	
Arsenic	8.1	0	0	
Lead	12.7	0	1 (M159, 35.2)	2.4
TOC	157	0	1 (M159, 318)	14.3
TOX	28.5	0	0	
Ammonium	2.8	0	4 (M163, 3.8) (M164, 4.3) (M166, 3.6) (M167, 3.2)	0.9
Fluoride	3.1	0	2 (M154, 3.3) (M159, 15.2)	1.0
Total number of exceedance	1	17		

[a]Quantifiable threshold values are obtained from QA/QC table for soil data (Appendix C-4).

[b]Exceedance in background occurred in sample number M133.

[c]Measuring unit for conductivity is micromhos/cm. A two-sided tolerance interval is calculated for pH.

[d]Less than detection limit value was replaced by 1/2 of the contractual required detection limit.

Table C5-7a. Summary of Exceedances - By Locations
2101-M Pond Soil Sampling Results.

Location	Number of exceedances	Analyte
1 (East arm)	3	Copper, vanadium, zinc.
2 (South arm)	3	Copper, fluoride.
3 (Effluent discharge)	6	Copper, lead, TOC, fluoride, zinc, ammonium.
4 (North arm)	5	Copper, ammonium, strontium.
Total	17	

Table C5-7b. Summary of Exceedances - by Depths
2101-M Pond Soil Sampling Results.

Depth (ft)	Number of exceedances	Analyte
0.0 - 2.0	10	Copper, lead, TOC, fluoride, zinc, ammonium.
2.5 - 4.5	2	Copper, vanadium.
5.0 - 7.0	3	Strontium, ammonium.
7.5 - 9.5	0	
10.0 - 12.0	2	Ammonium, zinc.
Total	17	

TOC = total organic carbon.

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APPENDIX D-1.

PHASE II SAMPLING PLAN FOR 2101-M POND AND ADJACENT RAINWATER RUN-OFF DITCH

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APPENDIX D-1

1.0 PHASE II SAMPLING PLAN FOR 2101-M POND AND ADJACENT RAINWATER RUN-OFF DITCH

1.1 INTRODUCTION

This sampling plan is designed to complement the original site characterization effort at the 2101-M Pond done during 1988 (see Section B-5). If there is sufficient water present, the pond water will be sampled to determine the presence of any soluble constituents. Based on the statistical analysis of the initial sampling data, the top 2 ft of the pond soil need further evaluation (see Section B-5f and Appendix C-5 for further information). To do this, the pond soil will be sampled to a depth of 2 ft. There will be two samples taken from each sampling point. The first sample will be from 0 - 6 in., and the second sample will be from 18 - 24 in.

During the 1988 sampling effort the rainwater run-off ditch located south of the pond, was sampled to determine if its soils had been contaminated by any of the water from the 2101-M Pond. Because of problems with laboratory holding times, some of the data obtained from these samples were useful only as information. Therefore, the rainwater run-off ditch also will be sampled to close the data gaps that exist from the 1988 effort.

The sampling plan is laid out in the following way:

- Background Information
- Pond Water Sampling Design
- Soil Sampling Design
- Sampling Quality Assurance and Quality Control.

2.0 BACKGROUND INFORMATION

The 2101-M Pond environment is a unique environment on the Hanford Site. The average annual discharge volume to the pond is roughly 1.3 M gal. (Section B, Table B-1). Visually, the site is best described as a U-shaped surface impoundment, as opposed to a pond. The banks have low to moderate slopes, depending on location. This, along with heavy vegetation, make getting large equipment on site without radically disturbing the area difficult (as was learned during the 1988 sampling effort). This uniqueness also leads to challenges in sampling the soil on a small interval while maintaining sample integrity.

2.1 SOIL DESCRIPTION

The near surface soils at 2101-M Pond range in texture from a gravelly-muddy sand to a slightly muddy-fine to very-fine sand. These soils have an approximate hydraulic conductivity (K) of about 1.1×10^{-2} to 3.5×10^{-5} cm/sec (Chamness et al. 1990). This sandy soil lends itself well to percolation of liquids because of high hydraulic conductivity. The soils beneath the 2101-M Pond vary in texture from coarse, medium, and fine sands in the upper 200 ft, to gravels and sandy gravels below this depth. The depth to groundwater in the area is 311 ft (95 m) below ground surface (Chamness et al. 1990).

2.2 SITE TOPOGRAPHY

The 2101-M Pond area has a general topography that is extremely flat, averaging roughly 3 ft of slope change in 1,000 ft of distance. The 2101-M Pond and the rainwater run-off ditch are the only major topographic points of consequence to natural surface drainage patterns. This natural topography has been altered by the construction of buildings, streets, and parking lots to the south and east end of the pond area. The drainage of these features is taken care of through subsurface drains that empty into the rainwater run-off ditch at its southern end (see Figures I-4 and I-8).

2.3 EFFLUENT SOURCES

There is one source of known inflow to the 2101-M Pond, and one potential source of inflow. These are the 2101-M Building drain (which is known), and surface waters by way of surface run-off and subsurface drains leading to the rainwater run-off ditch (that is indeterminate). Surface run-off into the pond is generally limited to precipitation off the berms to the north and south of the pond and the dirt road east of the pond.

The rainwater run-off ditch, as reviewed in previous sections, does not appear to currently be, or appear to have ever been, connected to the 2101-M Pond system. This ditch receives surface run-off water as described previously. The movement of this water through the barrier that separates the 2101-M Pond and the rainwater run-off ditch, is an unlikely occurrence as discussed in Section I.

3.0 POND WATER SAMPLING DESIGN

This section details the procedures and criteria that will be used in the sampling of surface waters at the 2101-M Pond. The following are informational objectives to the sampling of the pond water:

- Comparison of pond water analysis to historical effluent stream data

- Use pond water analyses as a screening device for the potential determination of any additional soil analytes.

In the case of 2101-M Pond, where the effluent water has been previously characterized at the effluent point, the relative composition of the pond water will be assumed to be consistent with the results of this characterization effort (see Section B-3a(4) for further discussion). To establish validity of this assumption, the samples will be analyzed for constituents found in Appendix IX of 40 CFR 264 plus certain constituents specific to the Hanford Site. Table D1-1 lists the target compounds or group of compounds to be evaluated in 2101-M Pond water.

3.1 POND WATER SAMPLE DESIGN

The nature of the 2101-M Pond environment will affect the method of sampling chosen. The following factors were considered in the development of this sampling plan:

- Pond size, shape, and dimensions
- Rates of inflows and outflows from the sample environment
- Flow velocities within the sample environment
- Accessibility of the sample locations.

Each of these bring about the selection of a sampling method by influencing the number of sampling points, the location of the sampling points, and the extent of the sampling.

3.1.1 Size, Shape, and Dimensions

From a water sampling standpoint, the 2101-M Pond is more accurately described as a ditch. The bottom of the south arm is at a higher elevation than that of the north arm. Also, it is wider and slightly longer than the north arm. The east arm is basically at the same base elevation as the south arm, and the width is roughly 5 to 10 ft. Because of their proximity to the effluent discharge pipe, the east and south arm contain water on a perennial (or nearly so) basis. The north arm contains water only during those periods when discharge to the pond exceeds the carrying capacity of the other two arms. Therefore, sampling of pond water will most likely occur in the south and potentially the east arms, unless at the time of sampling the north arm also contains a sufficient amount of water.

Table D1-1. Analyte List for 2101-M Pond Water.

Ammonium	Sulfide
Arsenic	Thallium
Cyanide	Total organic carbon (TOC)
ICP Metals[a]	Total organic halides (TOX)
Fluoride[b]	pH
Lead	Reactivity
Mercury	Volatile organics
Selenium	
Semi-volatile organics	

NOTE: Information on the method of chemical analysis and the required precision, accuracy, and minimum detection limits can be found in Table D2-1.

[a]ICP targeted metals include:

Barium	Sodium
Chromium	Strontium
Copper	Vanadium
Nickel	Zinc.
Silver	

[b]Ion chromatography, includes bromide, chloride, fluoride, nitrate, nitrite, phosphate, and sulfate, but only fluoride is targeted because of its concentration level in the 2101-M Pond soils.

3.1.2 Inflow and Outflow Rates

The only established, consistent source of inflow to the 2101-M Pond is the 2101-M Building effluent pipe. An average flow rate from the pipe has never been measured. To determine an average flow rate into the pond from the discharge pipe, the average annual inflow to the pond from Table B-1 is used. This average estimate is 1,391,296 million gal/yr. This average is suspected to have varied over the 6 yr period of estimated quantities, and throughout each year because of variations in seasonal and diurnal demands on the building HVAC system.

There are no outlets from the pond to other surface water bodies. This makes the only points of discharge from the pond to the atmosphere by way of evaporation, and to the soil and underlying sediments by way of percolation. The rate of evaporation on the Hanford Site is estimated to be 60 in./yr (Field et al. 1990). For a facility the size of 2101-M Pond this would equate to roughly 60,780 gal/yr of evaporation. This is based on a 250-ft long trench, with a average width of 6.5 ft (a length of only 250 ft is used because the entire pond does not contain water on a perennial basis). Precipitation over the same time frame would add roughly 12,760 gal/yr of water, based on the Hanford Site average annual precipitation of 6.3 in./yr (Stone et al. 1983), and a surface area of 500 ft x 6.5 ft (the average surface area of the entire pond). Evapotranspiration through the local plant community is another source of water loss. The 2101-M Pond plant life consists of grasses, reeds, cattails, shrubs and trees. The annual evapotranspiration rate for the Hanford Site is calculated to be 54.75 in. which is roughly 0.15 in./d (Field et al. 1990). Assuming plant life occupies an area equal to approximately three-quarters that of the pond, 88,200 gal/yr of water evapotranspirate. By summing these three components, the annual water loss; other than percolation, would be calculated as follows:

Evaporation	60,780
Precipitation	-12,760 (inflow)
Evapotranspiration	88,200
Total	136,220 gal/yr (370 gal/d)

The minimum average annual inflow to the pond for the years 1982 - 1988 is 1,391,296 gal/yr as stated earlier. If 136,216 gal/yr of water leaves the 2101-M Pond environment through evaporation and evapotranspiration an estimated annual total of 1,255,080 gal/yr percolates through the soils beneath the pond. Assuming that the soils beneath the 2101-M Pond have achieved a state of moisture content equilibrium over the 30 - 40 years that the pond has received discharges, and is not in a state of annual flux, the total contribution to the groundwater from the 2101-M Pond is 2-3 gpm.

These numbers seem to indicate that the inflow and outflow rates of the pond are virtually equal during average conditions. The only difference being in the location of the flows. While the outflow is from the entire pond

surface or through the pond soil, the inflow is concentrated at a single point. The water at this point is potentially chemically different from the water in the rest of the pond. Therefore, it is concluded that the water at the discharge must be evaluated separately from the rest of the pond.

3.1.3 Flow Velocities

The source of any measurable flow velocity within the pond is at the effluent pipe. But, because of the size of the effluent depression (1.5-ft deep) formed by over 30+ yr of service (roughly 8 - 10 ft in diameter) the water within the depression, and the pond, remains fairly still.

The previous information indicates inflow to the pond under average conditions is roughly 2.6 gpm. This yields an average retention time in the depression area of roughly 3.5 hr. Therefore, flow velocities out of the depression area are very small. Because the 2101-M Pond has no outlet other than to groundwater or to the atmosphere, flow velocities are determined to not be of concern when designing the sampling plan.

3.1.4 Sampling Point Accessibility

The accessibility of the desired sample points is a concern when selecting a sampling method. The 2101-M Pond is an excavated impoundment with both gradual to steep embankments depending on location. To avoid unnecessary contact with the pond water, and to avoid the accidental disturbance of the pond soils or the bank soils during sampling, sampling will need to be performed so that minimal disturbance to the surrounding soils is achieved.

3.1.5 Sample Point Selection

The previous information indicates that the pond should be divided into two areas for taking water samples. These two areas would be the area that is in the immediate vicinity of the discharge pipe, and the rest of the pond.

The entire pond, outside of the 10-ft radius of the discharge pipe, was candidate for these sample sites. There is a high probability that the north arm of the pond will not have any water in it at the time of sampling. Therefore, any sample area randomly selected in the north arm also will have a substitute area for it located in either the south or east arm. The east arm areas also may require that a substitute area be selected depending on the time of the year and the amount of water present at the time of sampling. If there is water present in the east arm, but not of sufficient depth or quantity, a substitution area may be required. All such selections will be documented in the field logbook with justification for the selection of the substitute sample area.

Because the linear dimension of the pond is roughly 500 ft, four random numbers between 1 and 50 were selected from a random number table. The random numbers table used to generate these numbers is presented in Table D1-2. To determine the random numbers, the process described in Section B5-a (1.1) was used. The starting point in the table was the 2nd row, 8th column. Each number represents a 10-ft section of the pond (the first 10 ft, the second 10 ft, and so on) from which a sample can be taken. Numbers for which a duplicate were required were 14, 20, 26; numbers not eligible for selection because of proximity to the discharge pipe were 27 and 28. Figure D1-1 shows the selected water sampling areas. Those areas followed by an (*) are substitutes for north arm areas, those followed by (**) are substitutes for east arm areas. A fifth water sample will be taken at the effluent.

3.1.6 Sampling Methods

To achieve proper sampling of the pond water while minimizing sources of error is complicated by the sometimes shallow depth of the 2101-M Pond. The preferred sampling method will be the use of a pair of tongs to hold the sample bottle while a sample is collected by submerging the sample bottle. If it is determined that there is insufficient depth to use this method, then a secondary method will be used at the same site. The substitute method to sample the pond water will involve the use of glass pipettes and a way of pulling the water into the pipettes by means of a pipette suction bulb. An array of pipettes of differing volumes will be employed so that each sample container can be filled with one use of the pipette if possible. The filling of the sample bottle with a pipette also will minimize the amount of disturbance to the water as it is put into the sample container. The pipette will be placed at the bottom of the sample bottle, and then the water will be slowly released into the container with the pipette remaining submerged.

4.0 SOIL SAMPLING DESIGN

This section details the procedures and criteria that will be used in the sampling of soils in the 2101-M Pond. The site has previously been characterized to a depth of 12 ft. For a discussion of that sampling effort, refer to Section B-5.

The objectives of Phase II sampling are described as follows:

- Characterize the top 2 ft of soils to identify any location or depth effects of target analytes in these soils

Table D1-2. Random Numbers Table.

03	47	43	73	86	36	96	47	36	61	46	98	63	71	62
97	74	24	67	62	42	81	14	57	20	42	53	32	37	32
16	76	62	27	66	56	50	26	71	07	32	90	79	78	53
12	56	85	99	26	96	96	68	27	31	05	03	72	93	15
55	59	56	35	64	38	54	82	46	22	31	62	43	09	90
16	22	77	94	39	49	54	43	54	82	17	37	93	23	78
84	42	17	53	31	57	24	55	06	88	77	04	74	47	67
63	01	63	78	59	16	95	55	67	19	98	10	50	71	75
33	211	12	34	29	78	64	56	07	82	52	42	07	44	38
57	60	86	32	44	09	47	27	96	54	49	17	46	09	62
18	18	07	92	46	44	17	16	58	09	79	83	86	19	62
26	62	38	97	75	84	16	07	44	99	83	11	46	32	24
23	42	40	64	74	82	97	77	77	81	07	45	32	14	08
52	36	28	19	95	50	92	26	11	97	00	56	76	31	38
37	85	94	35	12	83	39	50	08	30	42	34	07	96	88
70	29	17	12	13	40	33	20	38	26	13	89	51	03	74
56	62	18	37	35	96	83	50	87	75	97	12	25	93	47
99	49	57	22	77	88	42	95	45	72	16	64	36	16	00
16	08	15	04	72	33	27	14	34	09	45	59	34	68	49
31	16	93	32	43	50	27	89	87	19	20	15	37	00	49

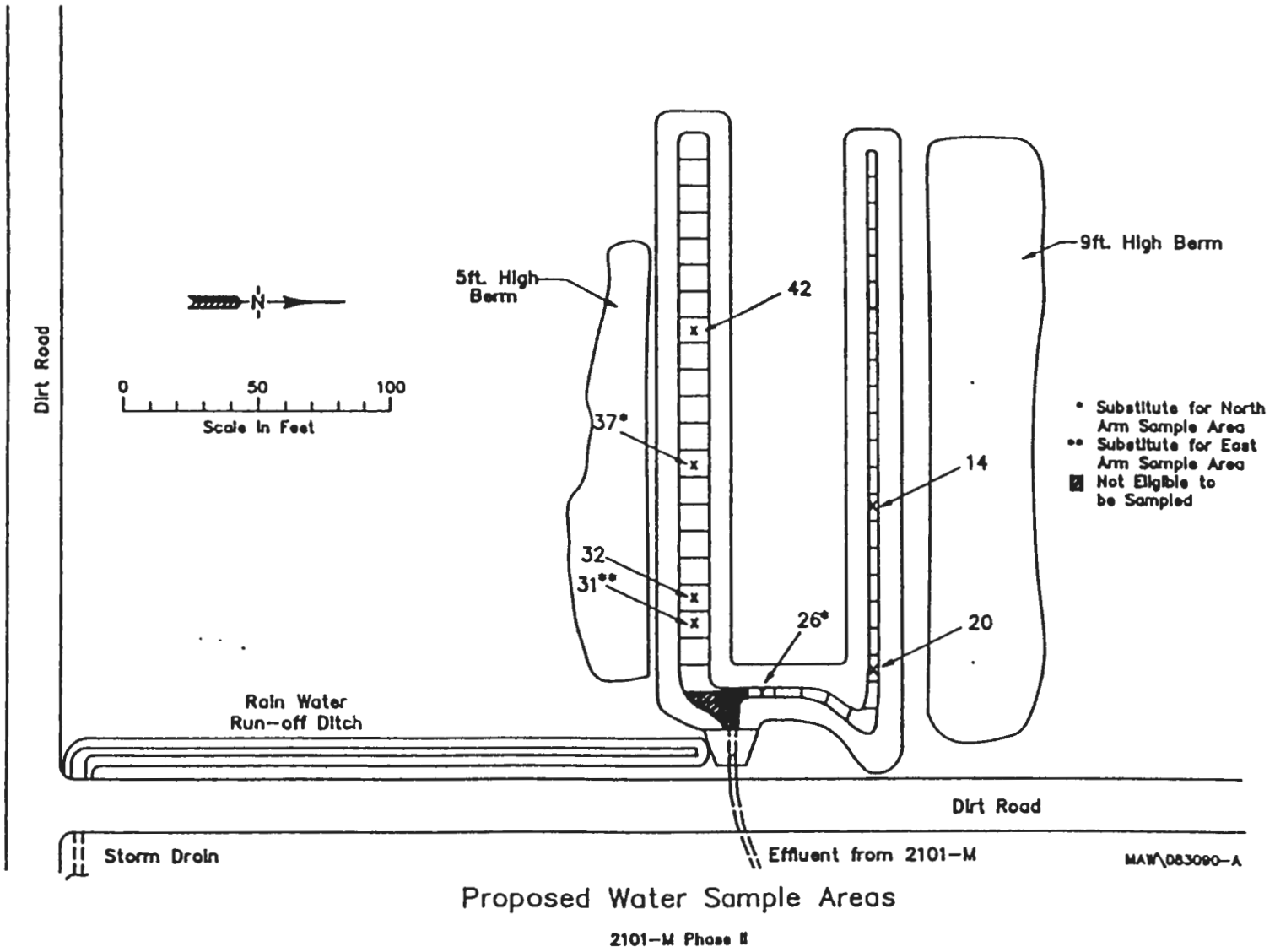


Figure D1-1. Proposed Pond Water Sample Areas.

- Analyze soil samples from the rainwater run-off ditch for those compounds whose holdings times were exceeded during the initial sampling effort

- Corroborate Phase I soil sample data analysis.

This previous sampling effort (summer 1988) seems to indicate a variability with location for some of the analytes. To pinpoint these potential variabilities, characterization of the top 2 ft of pond soil on a smaller sampling interval and greater spatial detail, is necessary.

The one basic criterion analyzed to choose the sampling strategy was pond geometry. The 2101-M Pond is a U-shaped ditch, into which the flows are unequal. As described earlier, the south arm of the system is the arm of preferential flow. It is wider, and slightly longer than the north arm. It is also the area of heavier vegetative growth. However, from the statistical analysis done for the first round of sampling this area of the pond has fewer background exceedances than the other areas. It is theorized that this is because of the leaching effects of the water, that this arm experiences.

The north arm has historically only contained water when the discharge volume is highest. The statistical analysis would seem to support the theory that because there is variable flow to this arm, there is less leaching of constituents, and therefore, potential buildup.

The discharge depression area deserves attention for entirely different reasons. Because it is the initial point of discharge and contains water on a perennial basis, preferential sorbing of constituents (especially metals) is theorized in this area. This is supported by the number of exceedances noted in the initial round of sampling (Section B-5).

4.1 SAMPLING DESIGN

Simple random, stratified random, judgmental, and systematic sampling were evaluated as possible methods for sampling the 2101-M Pond soil and rainwater run-off ditch. Based on statistical information from the initial round of sampling, a combination of judgmental and systematic sampling will be used.

This approach is based on the information from the initial round of sampling that suggests that the areas of greatest concern are in order: (1) the effluent discharge, (2) the north arm, (3) the east arm, and (4) the south arm. With this knowledge, sampling emphasis will be placed on the discharge area with the rest of the pond receiving uniform coverage.

4.2 SAMPLE LOCATIONS

4.2.1 Effluent Depression

The effluent depression point will be sampled once at its center (point G) and twice at its outer perimeter points F and H (Figure D1-2). The outer perimeter sample sites will be on the edges leading into the east and south arms. The next sample points (E and I) will be 10 ft beyond the perimeter points.

4.2.2 Pond Arms

The three arms of the pond will each contain a minimum of two sample points. The initial sample points (D and J) will be located 50 ft from the sample points E and I, along the centerline of the arm. Subsequent sampling points (A, B, C, K, L) will be located 50 ft apart (Figure D1-2). This configuration will yield 12 sample points and provide a spatial picture of the surface soils in the pond.

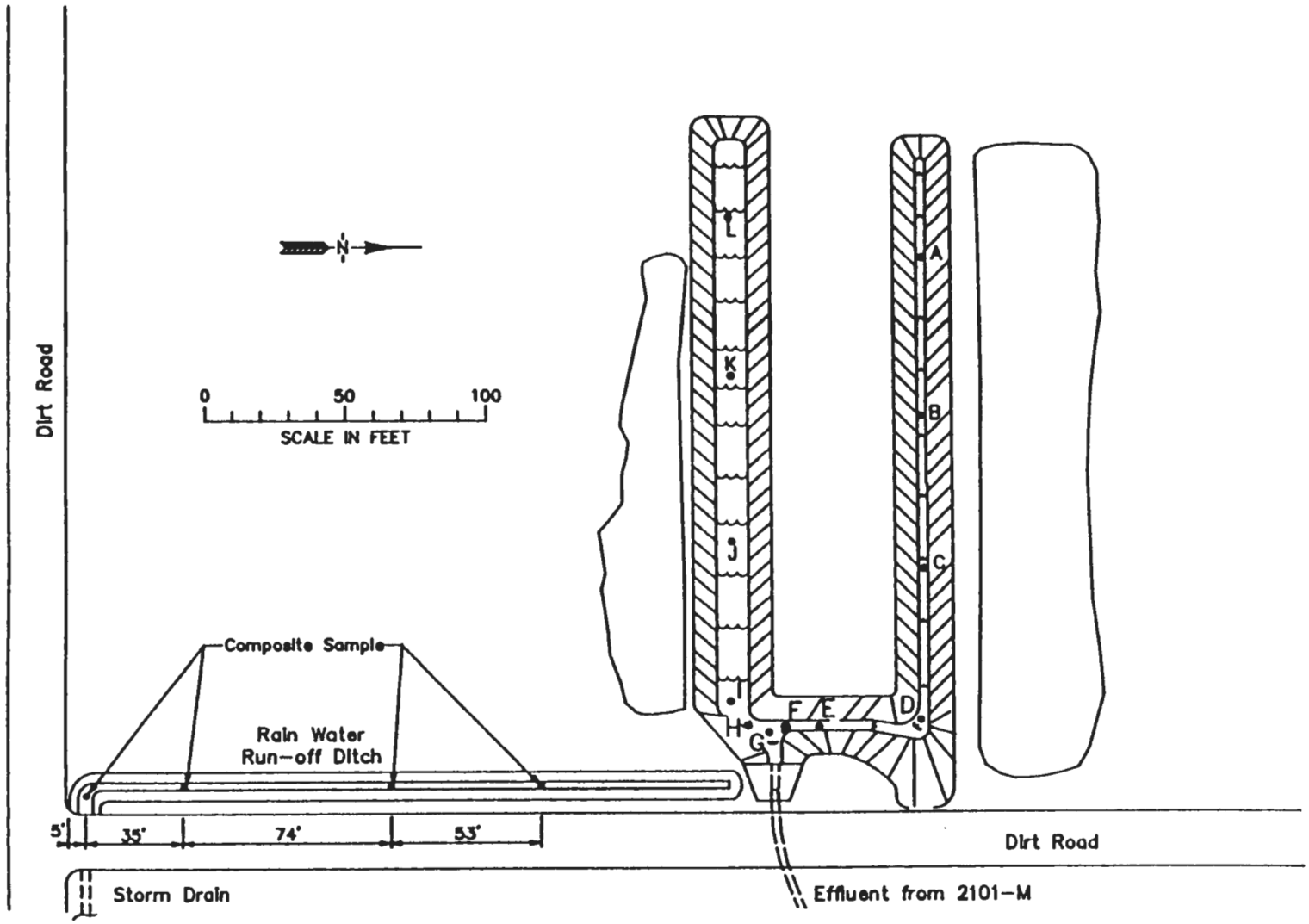
The sampling points will be located as close to the centerlines of the pond arms as possible. At points where the pond configuration or cobbles make it impossible to obtain an adequate volume of material to perform analysis, a point as close as possible to the original one will be used.

4.2.3 Rainwater Run-off Ditch

Because the objective in resampling the rainwater run-off ditch is to close data gaps that exist because of exceeded sample holding times, the sampling effort for the ditch in this phase will duplicate the first effort. The sample points will be as close as possible to those used in the initial effort (Figure D1-2). A 1-ft sample will be taken from these points and homogenized, and then a composite taken.

4.3 SELECTION OF SAMPLING METHOD

The sampling method chosen to collect samples from the top 2 ft of the 2101-M Pond soil and the top foot of the rainwater run-off ditch is ASTM method D 1452-80 [Standard Practice for Soil Investigations and Sampling by Auger Borings (ASTM 1990)]. At each sampling site, two samples will be taken: One from 0-6 in. and the other at 18-24 in. To ensure adequate soil for laboratory analysis, more than one core may need to be taken at each site. Samples will be combined with their respective depths. The type of auger bit to be used will be an open tubular or orchard barrel type auger made of stainless steel and fitted with solid stainless-steel inner rings or a split sleeve. This method provides a disturbed but representative soil sample. Because of the vegetation and the steep banks that are present at the site, a mobile drill rig will not be used to drive the sampling



Proposed Soil Sample Points
2101-M Phase II

MAW\071190-A

Figure D1-2. Sample Points for 2101-M Pond.

equipment. The basic sampling methodology is described in WHC-CM-7-7, Environmental Investigations and Site Characterization Manual (WHC 1989) (Table D2-2).

4.4 SELECTION OF ANALYTICAL PARAMETERS FOR 2101-M POND SOIL

Section B-5 of the 2101-M Pond Closure Plan gives a detailed explanation of the principles used in the initial round of sampling activities at 2101-M Pond. The data from this initial sampling effort suggests that there are only a few potential constituents of concern because of exceedances of background threshold values in the soils at the 2101-M Pond (Appendix C-5). This should not be construed to exempt other constituents from further evaluation. Constituents that will compose the target analyte list for this Phase II sampling plan include the following general list:

- Constituents known to have been discharged to the pond
- Constituents determined to have exceeded the background threshold value (Phase I sampling data)
- Constituents whose presence in the initial sample results is of questionable validity or are present for unknown reasons
- Metals, because of theorized preferential sorbing
- Any constituents that are detected in 2101-M Pond water above established drinking water standard maximum contamination levels.

A list of those constituents that meet any of the above criteria, except for the last one, appear in Table D1-3.

There are six organic compounds that were identified in the initial round of sampling as being present in the 2101-M Pond soils (acetone, toluene, methylene chloride, ethanol, propanol, and butanoic acid). Three of which are naturally occurring organic compounds. These three are butanoic acid, ethanol, and propanol. Butanoic acid occurs naturally at concentrations of up to 600 ppb, ethanol at concentrations up to 52 ppm, and propanol at concentrations up to 54 ppm (Dragun 1988). For ethanol and propanol, the concentration levels found in the first round of sampling are more than 3 orders of magnitude below naturally occurring levels. Therefore, ethanol and propanol are not being proposed for revaluation in this phase of soil sampling. Because butanoic acid was detected at twice a natural level, it will be revaluated.

Table D1-3. Selected Constituents for Analysis in 2101-M Pond Soils.

Constituent	Criteria met
Acids (nitric, hydrochloric)[a]	1
Acetone	3
Methylene chloride	3
Toluene	3
Butanoic acid	3
Cyanide	3
Copper	2,4
Barium	1,4
Manganese	4
Silver	3,4
Strontium	2,4
Zinc	2,4
Calcium	2,4
Chromium	4
Sodium	4
Nickel	4
Vanadium	2,4
Aluminum	2,4
Potassium	4
Iron	2,4
Magnesium	2,4
Lead	2,4
Fluoride	2
Ammonium	2
TOC	2

[a]Because detection of a specific acid so long after discharge is not possible, pH is used to indicate acidic conditions.

TOC = total organic carbon

1 = known or highly suspected discharge to pond

2 = exceedance of background threshold level

3 = validity of presence in samples from initial sampling effort is questionable or is present for unknown reason

4 = metal (preferential sorbing in upper 2 ft suspected).

4.5 APPENDIX IX SAMPLE ANALYSIS

In addition to the target compound analyses that will be requested for the 2101-M Pond soil samples, a specified portion of the 2101-M Pond soil samples will be tested for constituents listed in Appendix IX of 40 CFR 264. This will be done to corroborate the data from the initial sampling effort. Sample points, which will have the Appendix IX list requested, will be the top 6 in. of sample points G and B (Figure D1-2). In addition, the top 2 ft of the dry background site also will be resampled on the same sample interval as the pond and have the Appendix IX analysis run on these two samples. The dry background location can be seen in Figure B-4 and Appendix C-2.

4.6 SAMPLING AND DATA ANALYSIS SCHEDULE

Figure B-21 (in Section B) establishes a sampling and data analysis schedule for 2101-M Phase II sampling. This schedule is preliminary in nature and will be dependant upon variables such as regulatory concurrence, analytical laboratory procurement, weather, etc.

5.0 SAMPLING QUALITY ASSURANCE AND QUALITY CONTROL

5.1 SAMPLE HANDLING

The handling of soil samples will follow the procedures outlined in WHC-CM-7-7, EII 5.2 (WHC 1989). Included in this environmental investigation instruction (EII) are outlines for addressing the following topics:

- Safety
- Records management
- Training
- Sampling procedure.

5.2 SAMPLE PACKAGING AND SHIPPING

Sample packaging and shipping procedures will be followed as required in WHC-CM-7-7 (WHC 1989).

5.3 CHAIN OF CUSTODY

Chain of Custody will be followed as required by WHC-CM-7-7 (WHC 1989).

5.4 FIELD LOGBOOK

A field logbook will maintained as required by WHC-CM-7-7 (WHC 1989).

5.5 QUALITY ASSURANCE/QUALITY CONTROL SAMPLES

The following sampling quality assurance/quality control (QA/QC) steps will be used to establish sample data integrity and to identify any anomalies within the sampling activities. This is in accordance with "EPA Administered Permit Programs: The Hazardous Waste Permit Program" (EPA 1989).

Control	Frequency of occurrence
Trip blanks (Pond water samples only)	1/d
Equipment blanks	1/20 samples
Split/duplicate samples	1/20 samples

All QA/QC samples will be handled as outlined above.

6.0 DATA ANALYSIS

Data analysis will follow the steps outlined in Section B-5c.

7.0 REFERENCES

ASTM, 1990, Standard Practice for Soil Investigations and Sampling by Auger Borings,

Chamness, M. A., S. P. Luttrell, and W. J. Martin, 1990, 2101-M Pond Hydrogeologic Characterization Report, PNL-7468, Pacific Northwest Laboratory, Richland, Washington.

Dragun, J., 1988, The Soil Chemistry of Hazardous Materials, Hazardous Materials Control Research Institute, Silver Spring, Maryland, pp. 343-345.

EPA, 1989, "EPA Administered Permit Programs: The Hazardous Waste Permit Program", Federal Register, (Proposed Rules), Vol. 54, No. 13, p. 3227, Environmental Protection Agency, Washington, D.C.

Field, J. G., J. M. Frain, M. A. Olascoaga, 1990, Engineering Study for Purgewater Treatment, WHC-SD-EN-ES-001, Westinghouse Hanford Company, p. 61.

Stone, W. A., J. M. Thorp, O. P. Gifford, and D. J. Hoitink, 1983, Climatological Summary for the Hanford Area, PNL-4622, Pacific Northwest Laboratory, Richland, Washington, p. IV-2.

WHC, 1989, Environmental Investigations and Site Characterization Manual, WHC-CM-7-7, Westinghouse Hanford Company, Richland, Washington.

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APPENDIX D-2.

QUALITY ASSURANCE PROJECT PLAN FOR NEAR SURFACE SOIL SAMPLING AND SURFACE WATER SAMPLING AT THE 2101-M POND AND RAINWATER RUN-OFF DITCH

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