START 9613445.0113 0044274

WASTE CONTROL PLAN

Work Scope Description: 200-ZP-1 O.U. DNAPL Investigation - Well Installations
(See Attachment 1 for waste streams covered by this plan)

List Constitutents of Concern: Carbon Tetrachloride, Chloroform, Trichloroethylene, Gross Alpha, Gross Beta

Site Description: 200-ZP-1 Groundwater Operable Unit, 200 West Area, Hanford Site, Richland, WA
Extraction well #ZP-1-DW

Reference: BHI-00183 Rev: A0 Date Approved:

Preparer/ Project/RI Coordinator (Print/Sign Name)	Date	Safety Class	Impact Level
JR Freeman-Pollard/DL Parker			

Field Team Leader/ Cognizant Engineer: GB Gould IDW Coordinator: GG Hopkins

Planned Drilling Start and Finish Dates: From: April 1995 To:

Waste Storage Facility ID Number(s): N/A

Field Screening Methods

Method	Frequency	Reference	Detection Range	Analyst
GM	Per RWP	IP-0718	0-100,000 CPM	RCT
PAM	Per RWP	IP-0718	0-100,000 CPM	RCT
GC	See Attachment 1			Geologist

Laboratory Methods (constituents of concern)

Method	Frequency	Reference	Detection Limits	Contract Lab
Vadose Zone (0-195')	See Attachment 1			
Soil Core Samples Total Organic Carbon	See Attachment 2			
Groundwater	See Attachment 2			

APPROVALS (Print/Sign Name and Date)

JR Freeman-Pollard/DL Parker 4/3/95
Project/RI Coordinator

GB Gould
Field Team Leader/Cognizant Engineer

GG Hopkins for GG Hopkins
IDW Coordinator

CH St. John 4/4/95
Safety Function (if required)

N/A
Quality Assurance (if required)

WASTE CONTROL PLAN

Drill Site Coordinate Location: <50 ft. due North of the 216-Z-9 trench.

Waste Container Storage Area(s) Coordinate Location(s): 200-ZP-1/ZP-2 O.U. Centralized Waste Container Storage Area (N38950, W76770)

Requirements for Soil Pile Sampling (if any): N/A

Nonregulated Material Disposal Location(s): Nonregulated materials (paper, plastic, trash, etc.) will be disposed at the Hanford Site Central Landfill.

SKETCH OF WORK SITE

See Attachment 3

APPROVALS (Print/Sign Name and Date)

DA Faulk 4-17-95
Lead Regulatory Agency Representative

DM Wanek 4/7/95
DOE-RL

JG Zoghbi 4/7/95
Project/RI Coordinator

ATTACHMENT 1

200-ZP-1 O.U. DNAPL INVESTIGATION - WELL INSTALLATION

WASTE CONTROL PLAN

This waste control plan (WCP) provides guidance for the management of waste generated as a result of the installation of well(s) for potential use in a partitioning interwell tracer test to be performed in the area of the 216-Z-9 Trench in fiscal year 1996. The trench received approximately 1.07 million gallons of low salt, acidic, aqueous and organic waste. It is estimated that 291,000 to 1,051,785 pounds of carbon tetrachloride were disposed to the sediment column at this site. The Dense Non-Aqueous phase Liquids (DNAPL) investigation will support design of the 200-ZP-1 Operable Unit (OU) Interim Remedial Measure (IRM). The drilling of these wells and associated testing comprise portions of Phases I and III of the DNAPL investigation.

Waste streams that will be potentially generated as a result of the well installations include vadose zone drill cuttings, groundwater slurries, purgewater, decontamination fluids, reusable equipment, and miscellaneous decontamination trash (wipes, plastic, disposable ppe, etc.). Specific waste streams will be managed as follows:

* VADOSE ZONE DRILL CUTTINGS - due to the proximity of the wells to the 216-Z-9 Trench and substantial process knowledge based on previous proximal soil sampling analytical results, the vadose zone drill cuttings will be considered as potentially hazardous waste. A minimum of three intervals (24-29 m, 33.5-35 m, and 42.7-45.7 m. depth) will be sampled for VOC's in well ZP1-DW using a gas chromatagraph headspace field screening technique. Up to an additional three vadose zone samples may be taken if unusual conditions are noted by the wellsite geologist. The vadose zone sampling will be conducted in support of 200-ZP-2 OU activities.
Due to the moderate potential for encounters with radioactive elements, the soils will be contained in galvanized drums with 10 mil nylon reinforced plastic liners as required for potentially "mixed" radioactive/hazardous waste. Health Physics will provide continuous radiological field screening of the drill cuttings or at an alternate frequency if so identified in the applicable Radiation Work Permit.
Waste drums may be staged at the drill site prior to transport to the 200-ZP-1/ZP-2 Central Waste Container Storage Area (CWCSA). Contained vadose zone soils will eventually be dispositioned with similar 200-ZP-2 soils.

* SLURRIES - groundwater slurries and perched water slurries will be contained in 90-mil poly liners inside of galvanized drums. A representative sample of each slurry drum will be sent to 222-S lab to facilitate radiological release. All contained slurries will be overpacked in poly drums prior to storage at the CWCSA. The sampling protocol for groundwater saturated waste will be as identified in ATTACHMENT 2 of this WCP. Contained slurries will eventually be dispositioned along with similar 200-ZP-1 wastes.

ATTACHMENT I (con't)

*PURGEWATER - purgewater will be managed in accordance with BHI-EE-01, Environmental Investigations Procedures, EIP 1.11 "Purgewater Management".

ATTACHMENT 1 (con't)

* DECONTAMINATION of REUSABLE EQUIPMENT - decontamination of reusable equipment will be accomplished in accordance with BHI-EE-01, Section 6.2, "Field Cleaning and/or Decontamination of Drilling Equipment." A mobile, enclosed unit utilizing filters and resin beds may be used to decontaminate reusable equipment. Successful decontamination of reusable tools and equipment generally requires visual verification that surfaces are free of visible contamination. However, the surfaces of some equipment cannot be completely inspected (e.g.,inside small diameter pipes, inside of pumps). For equipment with hidden surfaces that have directly contacted environmental media containing hazardous constituents, the equipment will be considered successfully decontaminated when hidden surfaces are triple-rinsed or steam/pressure cleaned.

* DECONTAMINATION FLUIDS - decontamination fluids used to decontaminate tools and equipment that have directly contacted environmental media containing F-listed constituents will be contained and managed as potentially F-listed hazardous waste. Decontamination fluids will be contained in 90-mil liners in galvanized drums and overpacked in poly drums. Decontamination fluids will be sampled for radiological release. Decontamination fluids will be stored at the 200-ZP-1/ZP-2 CWCSA pending reciept of sample analytical results and final dispositioning.

* MISCELLANEOUS TRASH - miscellaneous trash, such as wipes or rags, that have intimately contacted environmental media containing F-listed constituents will be contained in borehole specific galvanized drums with 10-mil nylon reinforced plastic liners and managed as potentially hazardous waste. Miscellaneous trash will be dispositioned using the analytical results or process knowledge associated with the contaminated media contacted.

The contained waste will be packaged, marked, labeled, and tracked in accordance with the BHI Field Support Procedure (FS) 4.14. If FS-4.14 is not issued for use prior to initiation of the well installation activities, the applicable packaging, marking, labeling, and tracking guidance provided in the WHC-CM-7-7 manual, procedure EII 4.3, may be used until FS-4.14 is issued.

At the discretion of the project leads, alternative waste management methods, authorized under CERCLA regulations, may be substituted for any portion of the guidance provided in this WCP.

ATTACHMENT II

SAMPLING IN THE SATURATED ZONE:

* Soil Core Samples -(195 ft. to Total Depth)

~~Total Organic Carbon (TOC) Analyses~~
~~start at 195 ft., then every 20 ft to Total Depth, and major lithology changes~~
~~EPA SW-846, 9060~~
~~Quanterra Lab~~

No longer necessary to support the partitioning interwell tracer test.

DNAPL Analyses (visual)
195 ft. to Total Depth - continuous
Submit to offsite lab (Quanterra) for verification if DNAPL is visually identified

* Groundwater Samples-

Carbon tetrachloride, chloroform, TCE (SW-846, 8240 or 8260)
Gross alpha, Gross beta (EPA 900, or lab specific)
Total activity (lab specific)
~~One sample at completion of well development~~
Quanterra

This sampling is being performed w/ the next round of Remedial Action Assessment Well Network sampling to decrease QA/QC sampling/analysis costs. This will allow sampling of the new well and the Remedial Action Assessment wells as a single sampling episode.

DNAPL Analyses (visual)
One or more sample during development
Submit to offsite lab (Quanterra) for verification if DNAPL is visually identified

* QA/QC-

Data quality is controlled by this DOW and the Quality Assurance Project Plan (QAPjP) presented in 200-ZP-1 Groundwater Sampling and Analysis/Project Quality Assurance Plan, Appendix A (BHI 1994i). The quality assurance (QA) documents that cover the test activities are the Quality Management Plan (BHI 1994). Quality control/verification samples for Level III analyses should be collected at the following frequency.

- One trip blank shall be collected to accompany each shipment of groundwater samples/sample bottles to the laboratory.
- One equipment blank shall be collected for every 20 groundwater/sediment samples submitted to the laboratory or per sampling episode.
- One duplicate sample shall be collected for every 20 groundwater/sediment samples submitted to the laboratory or per sampling episode.
- One split sample shall be collected for every 20 groundwater/sediment samples submitted to the laboratory or per sampling episode.

ATTACHMENT III