SAMPLING PLAN FOR OBTAINING PITS 5, 6 AND CLEARWELL SAMPLES FOR OPERABLE UNIT 1 TREATABILITY STUDIES REVISION 2 AUGUST, 1991

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SAMPLING PLAN

for

OBTAINING PITS 5, 6 AND CLEARWELL SAMPLES

for

OPERABLE UNIT 1 TREATABILITY STUDIES

(Revision 2)

August, 1991

Westinghouse Environmental Management Company of Ohio
P. O. Box 398704
Cincinnati, Ohio 45239-8704

for

THE UNITED STATES DEPARTMENT OF ENERGY
FERNALD SITE OFFICE

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SAMPLING PLAN

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OBTAINING PIT 5, 6 AND CLEARWELL SAMPLES

for

OPERABLE UNIT 1 TREATABILITY STUDIES

1. NEED

Operable Unit 1 (OU-1) is one of five operable units comprising the Feed Materials Production Center (FMPC) Environmental Remedial Action (ERA) Project. The task for Operable Unit 1 is to remediate the Waste Pit Area. A Remedial Investigation & Feasibility Study (RI/FS) is underway to determine the best method to remediate the waste pits. Initial screening of alternatives has resulted in the selection of the following options for remediation:

a. Non-removal - physical stabilization, slurry wall, and cap

b. Removal - waste treatment and on-site disposal

c. Removal - waste treatment and off-site disposal

d. Waste removal, treatment, on-property disposal, and cap

e. Waste removal, treatment, on-property disposal, soil treatment and cap

All alternatives under consideration for OU-1 need treatability studies to demonstrate that the pit wastes can be stabilized and that the stabilized wastes will meet the requirements for the protection of the public and environment. All alternatives, except Alternative "a", currently offer solidification or vitrification as the treatment process. Because the wastes in the waste pits are unique for a given volume and location a standard design mix (formula) can be applied for their treatment.

The main treatment processes being considered in the RI/FS include solidification and vitrification. This sampling work plan addresses the collection of samples for use in the development of treatment protocols for Waste Pits 5, 6 and the Clearwell. Separate plans have been developed to collect samples from Waste Pits 1, 2, 3, 4, and the Burn Pit. Auger cuttings collected from these waste pit sampling activities will be used in solidification/vitrification development efforts. Separate plans are being developed for the conduct of all phases of the necessary treatability studies.

2. OBJECTIVE

The intent of this sampling effort is not to characterize Waste Pits 5, 6 or the Clearwell. The constituents of these pits are already known from previous sampling programs. Instead, the primary intent of this sampling effort is to obtain sufficient sample quantities for use by off-site laboratories to develop a method to treat or stabilize pit wastes into less hazardous forms to make them more easily manageable. The recent designation of Waste Pit 5 and the Clearwell as Hazardous Waste Management Units (HWMUs) under the Resource Conservation Recovery Act (RCRA) will, however, require some analytical characterization in support of corrective actions under this program. Samples that will be collected and analyzed in support of this effort will be in accordance with Appendix VIII and IX in 40 CFR 261 and 264.

Preliminary discussions with the contractors who will be conducting the treatability studies indicate that approximately six to eight 35-gallon drums will be collected from each waste pit to develop satisfactory design formulae.

3. WASTE PITS 5, 6 AND THE CLEARWELL HISTORY AND DESCRIPTION

Waste Pit 5 is basically an open pond which was constructed in 1968 and lined with a 60-mil-thick, Royal-Seal®, ethylene-propylene-diene monomer (EPDM), elastomeric membrane. Waste Pit 5 has an approximate 30-foot depth and a 161,103-square-foot area containing an estimated 98,841 cubic yards of waste. The pit/pond contains solids from raffinate, slag-leach slurry, sump-slurry, and lime-sludge. Radiologically, Pit 5 waste contains an estimated 110,911 pounds (50,309 kilograms) of uranium and 37,478 pounds (17,000 kilograms) of thorium. The pit was taken out of service in 1987, but remains open to the atmosphere. The level of surface water varies depending on the precipitation and evaporation rates from complete coverage of the pit with three feet of water near the pit's west end down to complete open-air exposure of approximately one-third of the length of the pit at the east end. Additional information on the physical and chemical characteristics of Waste Pit 5 is provided in Table 1.

Waste Pit 6, with a 24-foot depth, was constructed in 1979 in a manner similar to Waste Pit 5 and is lined with an EPDM elastomeric membrane. Waste Pit 6 has a 32,400 sq.ft. area with an estimated 11,556 cu.yds. of disposed waste. It contains green salt (uranium tetrafluoride), filter cake, slag, process residues, and asbestos. Within these materials is an estimated 1,858,790 million pounds (843,142 kilograms) of uranium. The pit was taken out of service in 1985 but remains open to the atmosphere. The pit surface is presently covered with up to two feet of standing water, the surface elevation of which varies depending on the amount of rainfall and evaporation rates. Until March 1987, rainfall that had collected in the pit was pumped to Waste Pit 5 for settlement before being discharged via the Clearwell. Presently, collected rainfall is transferred to nearby

waste water treatment facilities before discharge. Additional information on the physical and chemical characteristics of Waste Pit 6 is provided in Table 2.

Constructed at the time of the Waste Pit 1 excavation, the Clearwell currently receives surface water runoff from the surfaces of Pits 1, 2, and 3, as well as excess impounded stormwater from Pit 5. Before March 1987, the Clearwell was used as a final settling basin for process water that passed through Waste Pits 3 and 5 before discharge to the Great Miami River, a National Pollutant Discharge Elimination System (NPDES) discharge point. Water of varying depth remains in the Clearwell at all times. The depth of sediment in the Clearwell is presently estimated at 11 feet. Additional information on the physical and chemical characteristics of Clearwell is provided in Table 3.

4. SAMPLING STRATEGY

Five methods are proposed for collecting these samples from the pits in question. Multiple methods are being considered due to the differences noted in the form and consistency of pit wastes. It cannot be stated with absolute certainty at the present time that a single method will provide success in obtaining adequate samples from waste pits 5,6 and the Clearwell. It is felt, however, that one or a combination of the methods described will work for each of the individual pits. The five alternatives under consideration involve use of a slurry pump, a backhoe, a baler, a Vibra-Core system, and a clamshell-crane, respectively. The prioritized sampling method that will be employed for the waste pits and Clearwell are as follows.

	WASTE PIT 5	WASTE PIT 6	CLEARWELL
Primary Sampling Method	Slurry Pump and Backhoe[1]	Baler	Slurry Pump
Secondary Sampling Method	Clamshell-Crane	Vibra-Core	Clamshell-Crane
Tertiary Sampling Method	Baler	Clamshell-Crane	
Other Sampling Methods	Vibra-Core	Slurry Pump	

Figure 1 illustrates the locations of the Waste Pits and Clearwell as well as the established transitions, exclusion, sample collection, and sampling location areas. The details of the five sample collection options are summarized below.

[1] The backhoe will be used to collect samples from the east end of Waste Pit 5 where the terrain is level and the area is accessible.

4.1 Slurry Pump Sampling Operation

An illustration of the slurry pump operation is provided in Figure 2. The slurry pump system consists of a slurry pump mounted on a platform and placed into the waste pit. A hose runs from the pump platform to the bank where the hose discharges into a 35-gallon drum placed inside an 85-gallon overpack drum. The lower bung is removed from the overpack drum and decant liquid from the slurry pump discharge is allowed to drain back into the waste pit. When the 35-gallon drum has been filled with solids, it will be removed from the 85-gallon overpack and be allowed to settle for a 24-hour period at which time the liquid will again be decanted. When the 35-gallon drum has been filled with the required amount of material, it will be sealed, decontaminated at the site, and transported to Building 71. When the drums reach Building 71, the 35-gallon drum will have its exterior decontaminated and be overpacked into a radiologically clean drum and prepared for shipment. All shipments of material will be conducted in accordance with Department of Transportation (DOT) regulations and DOE Orders.

The following specific safety requirements will be in place to minimize the potential for environmental damage during this sampling activity:

a. The entire slurry exchange and handling area will be lined with a herculite liner and will be bermed to collect any material which may be released.

b. The positioning of the drums will be such that access to them can be achieved without damaging the integrity of the pit berms.

If it is determined that the use of this slurry pump system is technically not feasible, then an alternate method will be employed. The slurry pump system will be considered technically unfeasible if the volume of liquid generated is such that solids can not be obtained or if the density of the material encountered prevents the system from operating. It is anticipated that this system will be able to provide the required samples from the Clearwell and possibly Pit 5. This pump has been used in Waste Pit 5 before to relocate materials in the pit. The nature of materials in Pit 6 however, may not be amenable to use of the slurry pump method. A procedure outlining the sampling activity utilizing the slurry pump is provided in Appendix B.

4.2 Backhoe Sampling Operation

If it is determined that the slurry pump system cannot collect the required samples, material can be obtained using other methods. One such method is through the use of a backhoe. An illustration of the backhoe operation is provided in Figure 3.

Prior to the collection of samples from the waste pits, trial-runs will be performed by placing radiologically-clean soil or mud into 35-gallon drums under conditions simulating those where the actual samples will be collected. The trial-runs will simulate the backhoe-reach and conditions expected at the waste pits. If placing the materials in the drum proves too difficult, materials from the backhoe bucket will be placed onto a leak-proof tarp and the materials will then be manually shoveled from the tarp into the drums. A soil berm will be placed under the perimeter of the tarp to ensure that contaminated wastewater and debris are contained on the tarp. Sampling will not proceed until the trial-runs are successful. Trial-run success will be achieved when the spread of test-debris is confined to the work area on tarps and the backhoe operator can demonstrate backhoe dexterity sufficient to obtain the samples without damage to the pit liner. A procedure outlining the sampling activity utilizing the backhoe equipment is provided in Appendix C.

4.3 Baler Sampling Operation

Figure 4 illustrates the layout and set-up for the use of the crane baler system. Use of a baler is indicated in situations where the material to be collected is of a sludge-like or semi-solid consistency and where a slurry pumping operation removes too much fine suspended particulate matter from the sample material with the decant liquid. The baler used with a crane is also advantageous for retrieving sample material in situations where the reach of a backhoe may prove to be insufficient. This approach would have particular application in Pits 5 and 6 if adequate sample material cannot be obtained utilizing other methods.

The baler simply described, is a long hollow tube or pipe containing a check valve assembly on the advancing end. When connected to a crane with an extended boom, the baler is dropped in vertical free fall and allowed to advance into the material to be collected. As the baler progresses into the pit wastes, sample material will be forced into the tube past the check valve assembly. When the baler is extracted, the valve gate prevents the sample material from exiting the tube. The captured material can then be transferred from the baler into the sample drum by operating a release mechanism on the baler. Sample transfer operations will be performed with sample drums placed on a leak-proof tarp with a soil berm under the perimeter to ensure that contaminated wastewater and debris are contained. A procedure outlining the sampling activity utilizing the baler equipment is provided in Appendix D.

Prior to the collection of samples from the waste pits, trial-runs will be performed by placing radiologically-clean soil or mud into 35-gallon drums under conditions simulating those where the actual samples will be collected. The trial-runs will simulate the use of the baler reach and conditions expected at the waste pits. If placing the materials in the drum proves too difficult, materials from the baler

tube will be placed onto a leak-proof tarp and the materials will then be manually shoveled from the tarp into the drums. A soil berm will be placed under the perimeter of the tarp to ensure that contaminated wastewater and debris are contained on the tarp. Sampling will not proceed until the trial-runs are successful. Trial-runs success will be achieved when the spread of test-debris is confined to the work area on tarps and the crane operator can demonstrate dexterity sufficient to obtain the samples without damage to the pit liner.

4.4 Vibra-Core Sampling Operation

Figure 5 illustrates the layout and set-up for the use of the crane Vibra-Core system. Use of the Vibra-Core system is indicated in situations where the material to be collected is of a semi-solid or solid consistency and the baler equipment cannot penetrate the surface. The Vibra-Core used with a crane is also advantageous for retrieving sample material in situations where the reach of a backhoe may prove to be insufficient. This approach would have particular application in Pits 5 and 6 if adequate sample material cannot be obtained utilizing other systems or equipment.

The use of the Vibra-Core is similar in principle to the use of the baler in the sense that similar equipment is used. The Vibra-Core system consists of a 165-ton crane equipped with a 220-foot long boom. The crane is positioned on a flat grade away from the berms of the pits. The Vibra-Core sampling device consists of a cable driven head assembly connected to a pipe barrel with a threaded penetration probe containing an inner Lexan® sleeve used in the extraction of the samples. A cutter assembly may be connected to the bottom of the pipe barrel to be used to penetrate the sample residues depending upon the consistency of the material.

The Vibra-Core tube will be lowered into either of the waste pits until it rest firmly on the surface of the material collecting in the bottom of the waste pit at which time the power supply will be connected to the end. The power supply will be adjusted to allow for maximum penetration without adverse cracking of the residue material. As the Vibra-Core device progresses into the waste pits, material is captured and collected in the tube. When the tube is removed from the waste pit, the material is collected and placed in a laydown area where it will be sectioned off and placed into 35-gallon drums.

The Vibra-Core system utilizes acoustical vibrations imparted upon the collection tube. These vibrations combined with the weight of the equipment, liquifies the particles directly in contact with the collection tube instead of the churning or torquing as used in traditional drilling operations. The major advantage for the use of a Vibra-Core sampling system is (a) with the use of the crane, samples can be collected from the center of the waste pits thereby obtaining a more

characteristic sample; and (b) the sample collected will be useful in characterizing the stratified wastes within the pits. A procedure outlining the sampling activity utilizing the Vibra-Core and crane equipment is provided in Appendix E.

Prior to the collection of samples from the waste pits, trial-runs will be performed by placing radiologically-clean soil or mud into 35-gallon drums under conditions simulating those where the actual samples will be collected. The trial-run(s) will simulate the use of the Vibra-Core and crane equipment reach and conditions expected at the waste pits. Trial-run success will be achieved when the spread of test-debris is confined to the work area on tarps and the crane operator can demonstrate dexterity sufficient to obtain the samples without damage to the pit liner.

4.5 Clamshell-Crane Sampling Operation

An illustration depicting the use of the clamshell-crane equipment is provided in Figure 6. Use of the clamshell-crane system for collecting samples is indicated in situations where the material to be collected is of a semi-solid or solid consistency and the use of other equipment may prove unfeasible. The clamshell-crane system is also advantageous for retrieving sample material in situations where the reach of a backhoe may prove to be insufficient. This approach would have particular application in Pits 5 and 6 if adequate sample material cannot be obtained utilizing other systems or equipment.

The crane will be situated on level ground away from the waste pits due to the weight of the equipment. A marker will be placed on the crane cable to identify the maximum depth the clamshell bucket could be lowered into the pits without causing damage to the liner. The clamshell bucket shall be slowly lowered into the waste pit until it rests firmly on the surface of the waste material accumulating in the waste pit. This will verify that there is sufficient clearance between the sediment or accumulated material and the pit liner or bottom of the waste pit. The bucket shall then be raised 5-feet above the waste pit water line and allowed to free-fall into the pit. The material captured in the clamshell bucket shall be transferred to the sample collection area where it will either be loaded into the 35-gallon drums or onto a tarp for manual loading into the drums. If material is not collected, the bucket will be raised in 5-foot increments above the water-line to obtain the samples. A spotter will be present at all times to assure that the clamshell bucket is not lowered below the allowable depth. The procedure will be continued until six or eight 35-gallon drums of solid material are collected. A procedure outlining the sampling activity utilizing the Clamshell-Crane equipment is provided in Appendix F.

5. METHODOLOGY

Sample locations will be precisely marked on site-topographical and available Waste Characterization drawings and delivered to the OU-1 Manager/Project Engineer for records retention.

Close-up pictures (using a high-resolution, 35-mm or larger format camera) will be taken to document the sampling activities, the sampling locations, and appearance of the materials removed.

The drums will remain at the sample site for 24-hours to allow the excess water in the sample material to separate. Water in the drums will be decanted and returned to the pit. The 35-gallon drums of sample will be sealed, decontaminated (if necessary), and the appropriate identification labels applied prior to transporting to Building 71 for shipment off-site.

Each 35-gallon drum will be overpacked into an 85-gallon drum overpack and voids between the drums filled with Dicalite^{T} in accordance with DOT requirements since the materials in these drums will be damp. WMCO Transportation will affix the appropriate labels, complete the proper forms, and make the proper notifications for transport off-site to the laboratories where the samples will be used in treatability and development studies. All drums will be properly labeled in accordance with DOT and site policies and procedures. Samples will be shipped by WMCO Transportation in accordance with DOT regulations and established site policies and procedures for radioactive material shipments.

5.1 CLEANUP AND DECONTAMINATION

Minor decontamination of the drums may be necessary, but major decontamination should not be required because of the precaution of placing the drums in overpack liners. Sample collecting attachments (e.g., backhoe bucket, baler, clamshell bucket, and Vibra-Core tube) are expected to become contaminated and will be taken to the Decontamination Pad for decontamination if required. Precautions, such as rinsing and wrapping will be taken to prevent contaminating roads to the Decontamination Pad. If these items cannot be decontaminated to acceptable limits, their use will be restricted for future work involving contamination. All materials used in decontamination and cleaning of the sampling equipment will be collected in drums, labeled, and stored as RCRA hazardous wastes in accordance with plant policies and procedures.

5.2 REPAIR OF PUNCTURED LINER

During the collection of samples from Waste Pits 5 and 6 and from the Clearwell, every effort will be utilized to assure that neither the liner or the clay barrier is

jeopardized. Efforts to assure this include utilizing mapping of the waste pits and development of maximum sample collection depths. In the unlikely event that the liner is compromised, the liner repair procedure developed as part of the Waste Pit 5 Liner Repair Work Plan will be employed.

A temporary patch will be applied to a punctured pit liner until efforts can be implemented to effect a permanent repair. The temporary patch will be applied by the following procedure:

a. Clean and dry the area around where the patch is to be applied, if possible,

b. Cut a patch from a polyvinyl chloride patching material to a size at least six inches larger than the puncture on all sides. Edges of the patch shall be rounded.

c. Apply liberal amounts of RTV (moisture-catalyzed, silicone rubber adhesive) to liner around the puncture and/or the patch.

d. Place the patch over the puncture and apply weight to the patch for 24 hours (If the puncture is below the water line, do not remove the weight. The weight will help plug the hole.)

e. Visually inspect the patch for potential leaks. Place additional patches over areas where repairs appear defective.

6. QUALITY ASSURANCE

Sampling of Waste Pits 5, 6, and the Clearwell will be conducted according to the requirements of the RI/FS QAPP and the overall quality assurance program at the FMPC which is described in the site Restoration QA Program Plan FMPC 2207. The Quality Assurance Plan is based on the criteria specified in ASME NQA-1, Federal EPA Guideline QAM-005/80 and DOE Orders 5600.6 and 5400.1. Specific quality assurance requirements will be incorporated into written and approved procedures and into personnel training. The WMCO Quality Department will conduct surveillance/ inspections and/or audits to verify compliance throughout the execution of this sampling plan.

7. HEALTH AND SAFETY

The work to be performed will be consistent with the RI/FS Health and Safety Plan. The plan identifies, evaluates and controls all identified safety and health hazards. In

addition, it provides for emergency response for hazardous operations. The plan is consistent with 29 CFR 1910.120 and the FMPC Site Health & Safety Plan. Safety documentation will be prepared according to FMPC-2116 Topical Manual "Implementing FMPC Policies and Procedures for System Safety Analysis." FMPC-2116 has been prepared to implement DOE Order 5481.1B, "Safety Analysis and Review System and DOE/OR-901 Guidance for Preparation of Safety Analysis Reports."

TABLES

OPERABLE UNIT 1 - WASTE PIT 5 CHARACTERISTICS

Table 1

Item No.	Description	Quantities and Units	References and/or Comments
1.	Area	161,103 ft.^{2} (3.70 acres)	
2.	Contents: Solids from neutralized raffinate, slag leach slurry, sump slurry, and lime sludge	98,841 yds.^{3}	Wastes deposited in Pit 5 are termed "wet" solid wastes
3.	Surface water	748,060 gallons	Approximate quantity, volume directly related to precipitation and evaporation
4.	Geotechnical data		
	Dry density	62.5 lbs./ft^3	
	Specific gravity	2.43	
	Moisture content	54.7%	
5.	Material consistency: This pit is still open with up to 3 ft. of standing surface water over a portion of the pit. The upper 4 ft. of the pit consists of watery material with some sand-sized grains. The remaining 25 ft. consists of a wet, semisolid material with very little cohesion.		
6.	Radioactive material concentrations		
	Radium-226	235 to 999 pCi/g	
	Uranium-235	14 to 79 pCi/g	
	Uranium-238	387 to 1,230 pCi/g	
	Thorium-230	3,080 to 20,200 pCi/g	
	Thorium-232	21 to 90 pCi/g	
	Technetium-99	423 to 2,990 pCi/g	

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OPERABLE UNIT 1 - WASTE PIT 5 CHARACTERISTICS

Table 1 continued

Item No.	Description	Quantities and Units	References and/or Comments
7.	Radioactive material quantities		
	Uranium-235	420 kg	
	Uranium	50,309 kg	
	Thorium	17,000 kg	
	Total curies	327 Ci	
8.	Volatile inorganics		
	Arsenic	139 to 2,800 mg/kg	
	Mercury	0.4 to 1.8 mg/kg	
9.	Organics		
	PCBs (Aroclor 1254)	750 ppb	
10.	HSL semivolatiles		The concentration level for HSL semivolatiles analyzed was below quantification level.
11.	HSL inorganics		
	Aluminum	6,374 to 15,400 mg/kg	
	Calcium	116,000 to 206,144 mg/kg	
	Iron	10,979 to 17,900 mg/kg	
	Magnesium	25,202 to 63,200 mg/kg	
	Arsenic	139 to 2,800 mg/kg	
	Mercury	0.4 to 1.8 mg/kg	
	Vanadium	792 to 5,380 mg/kg	

OPERABLE UNIT 1 - WASTE PIT 5 CHARACTERISTICS[2]

Table 1 continued

Item No.	Description	Quantities and Units	References and/or Comments
12.	Hazardous materials/wastes		All samples tested were within the established limits for corrosivity, reactivity, ignitability and EP toxicity.
13.	Listed hazardous materials		The concentration level for all listed hazardous materials analyzed was below quantification level.

[2] Reference:

IT Corporation, May 1991, "Feasibility Study Report for Operable Unit 1," prepared for Westinghouse Materials Company of Ohio, Cincinnati,OH

OPERABLE UNIT 1 - WASTE PIT 6 CHARACTERISTICS

Table 2

Item No.	Description	Quantities and Units	References and/or Comments
1.	Area	32,400 ft^2 (0.75 acres)	
2.	Contents: Depleted slag, scrap green salt, process residues, filter cake, and asbestos	11,556 $yds.^3$	
3.	Surface water	484,704 gallons	Approximate quantity, volume directly related to precipitation and evaporation
4.	Geotechnical data		
	Dry density	101.2 $lbs./ft^3$	
	Specific gravity	2.87	
	Moisture content	25.4%	
5.	Material consistency: Saturated, soft, coarse to fine, sand-sized, and clay-sized materials.		
6.	Radioactive material concentrations		
	Radium-226	16 to 30 pCi/g	
	Uranium-235	350 to 1,750 pCi/g	
	Uranium-238	12,500 to 18,700 pCi/g	
	Thorium-230	14 to 41 pCi/g	
	Thorium-232	0.2 to 1.2 pCi/g	
	Technetium-99	84 to 164 pCi/g	

OPERABLE UNIT 1 - WASTE PIT 6 CHARACTERISTICS

Table 2 continued

Item No.	Description	Quantities and Units	References and/or Comments
7.	Radioactive material quantities		
	Uranium-235	1,740 kg	
	Uranium	843,142 kg	
	Thorium	Unknown	
	Total curies	178 Ci	
8.	Volatile inorganics		
	Arsenic	7.61 mg/kg	
	Mercury	0.03 to 0.07 mg/kg	
9.	Organics		The concentration level for all organics analyzed was below quantification level.
10.	HSL semivolatiles		The concentration level for all HSL semivolatiles analyzed was below quantification level.
11.	HSL inorganics		
	Aluminum	4,730 mg/kg	
	Calcium	22,190 mg/kg	
	Iron	2,750 mg/kg	
	Magnesium	32,101 mg/kg	
	Lead	5 to 60 mg/kg	
	Silver	158 mg/kg	

OPERABLE UNIT 1 - WASTE PIT 6 CHARACTERISTICS[3]

Table 2 continued

Item No.	Description	Quantities and Units	References and/or Comments
12.	Hazardous materials/wastes		All samples tested were within the established limits for corrosivity, reactivity, ignitability and EP toxicity.
13.	Listed hazardous materials		
	1,1,2,2-tetrachloroethane (U209)	Maximum concentrations 29,000 ppb	

[3] Reference:

IT Corporation, May 1991, "Feasibility Study Report for Operable Unit 1," prepared for Westinghouse Materials Company of Ohio, Cincinnati,OH

OPERABLE UNIT 1 - CLEARWELL CHARACTERISTICS

Table 3

Item No.	Description	Quantities and Units	References and/or Comments
1.	Area	29,450 ft.^{2} (0.68 acres)	
2.	Contents: Clarified process effluents and surface runoff	Unknown	Clearwell was being used as a final setting basin for process water from other pits and storm-water runoff
3.	Surface water	1,546,265 gallons (estimated)	
4.	Geotechnical data	Unavailable	
5.	Material consistency	Unavailable	
6.	Radioactive material concentrations		
	Cesium-137	18.0 to 450 pCi/g	
	Radium-226	21.9 to 458 pCi/g	
	Uranium-235	24 to 49 pCi/g	
	Uranium-238	548 to 670 pCi/g	
	Thorium-230	0.3 to 5,600 pCi/g	
	Thorium-232	0.1 to 39 pCi/g	
	Technetium-99	0.40 to 278 pCi/g	
7.	Volatile inorganics		
	Arsenic	8.46 to 18.46 mg/kg	
	Mercury	0.42 to 4.38 mg/kg	
8.	Organics		
	PCBs (Aroclors 1248 and 1254)	308 to 737 ūg/kg	

OPERABLE UNIT 1 - CLEARWELL CHARACTERISTICS[4]

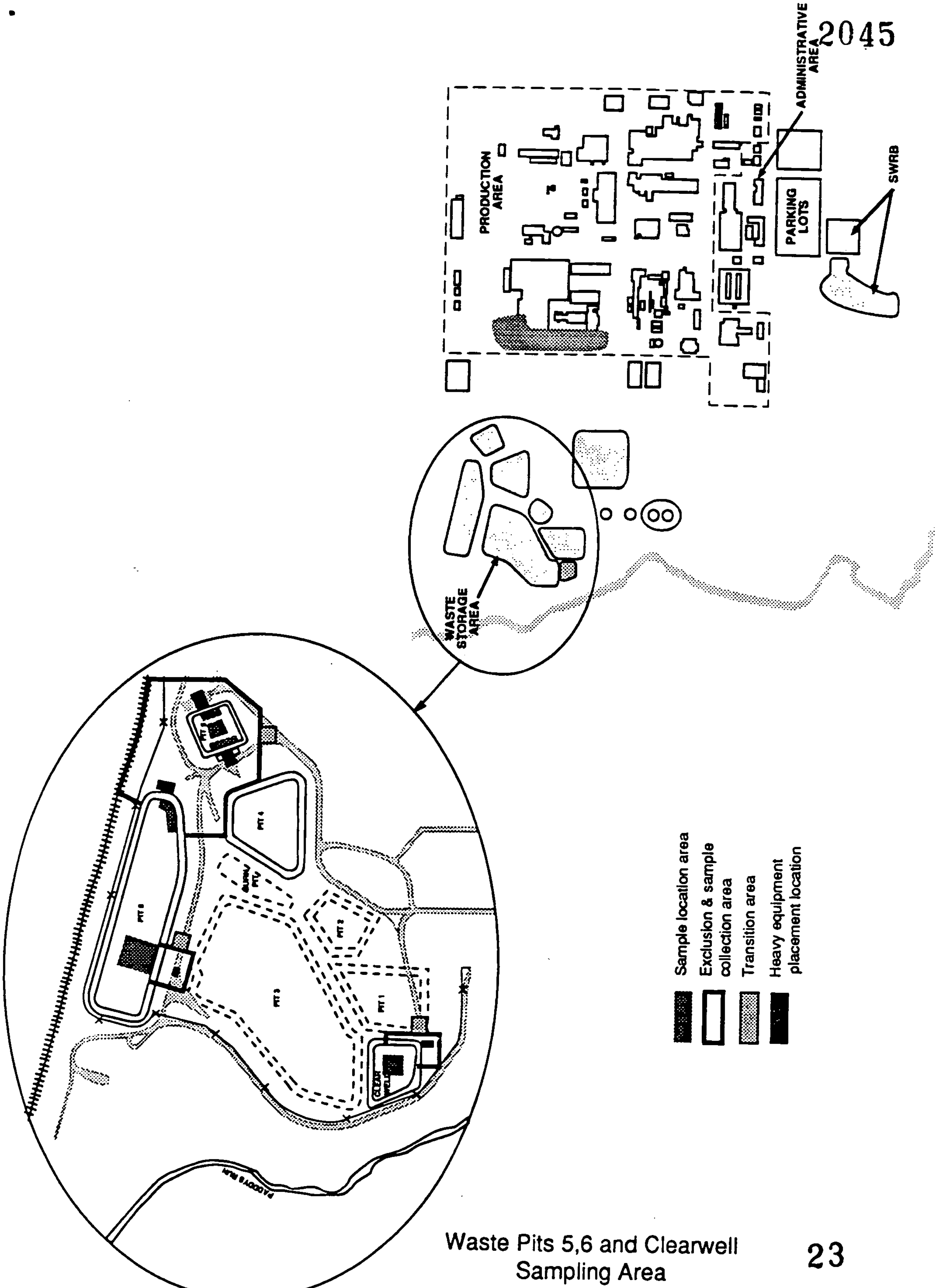
Table 3 continued

Item No.	Description	Quantities and Units	References and/or Comments
9.	HSL semivolatiles		The concentration level for all HSL semivolatiles analyzed was below quantification level.
10.	HSL inorganics		
	Aluminum	12,939 to 23,771 mg/kg	
	Magnesium	16,785 to 44,629 mg/kg	
	Calcium	129,305 to 183,078 mg/kg	
	Iron	19,618 to 21,067 mg/kg	
	Mercury	0.4 to 4.4 mg/kg	
	Arsenic	8 to 18 mg/kg	
11.	Hazardous materials/wastes		All samples tested were within the established limits for corrosivity, reactivity, ignitability, and EP toxicity.
12.	Listed hazardous materials		The concentration level for all listed hazardous materials analyzed was below quantification level.

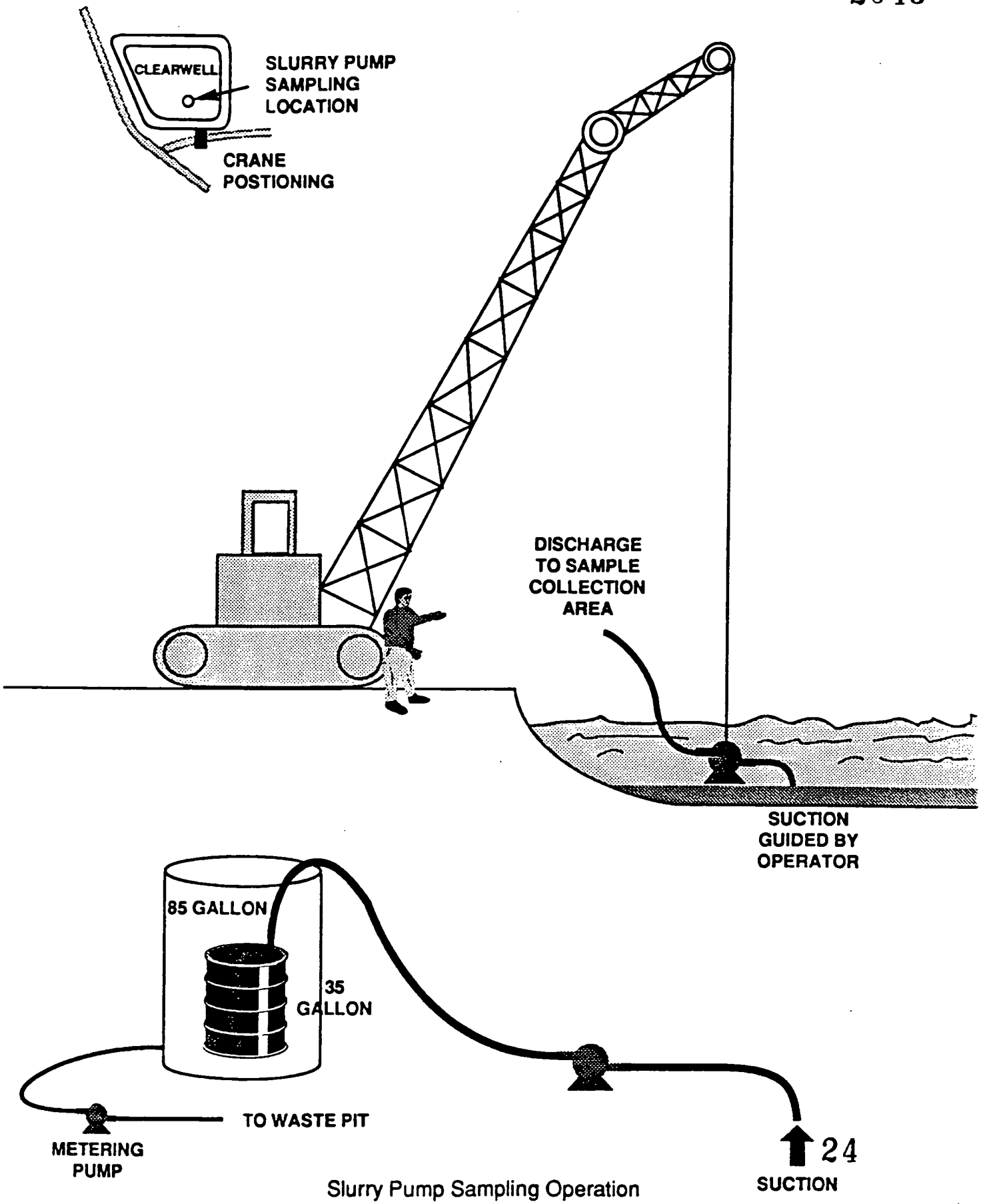
[4] Reference:

IT Corporation, May 1991, "Feasibility Study Report for Operable Unit 1," prepared for Westinghouse Materials Company of Ohio, Cincinnati,OH

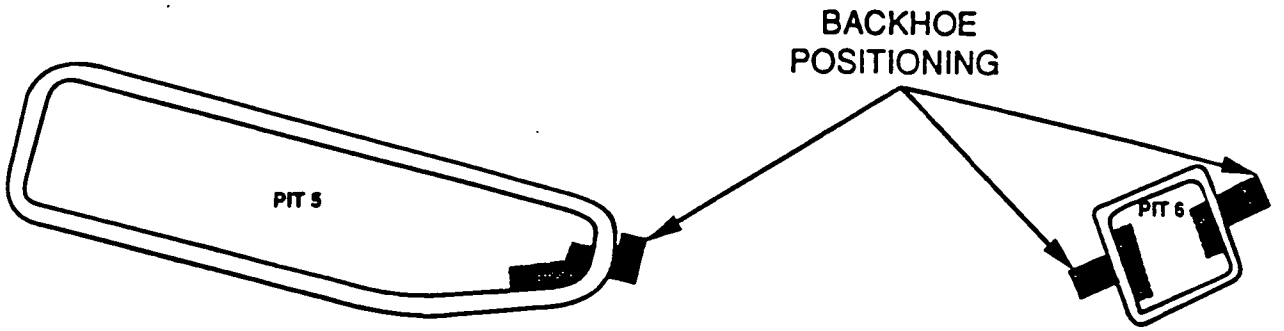
FIGURES

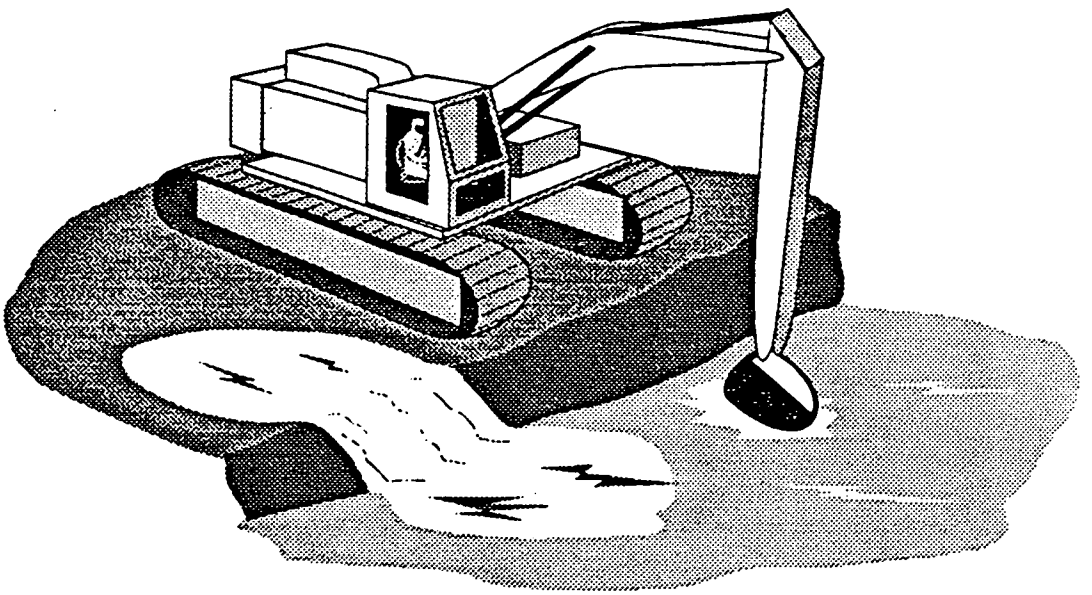


Waste Pits 5,6 and Clearwell
Sampling Area
Figure 1

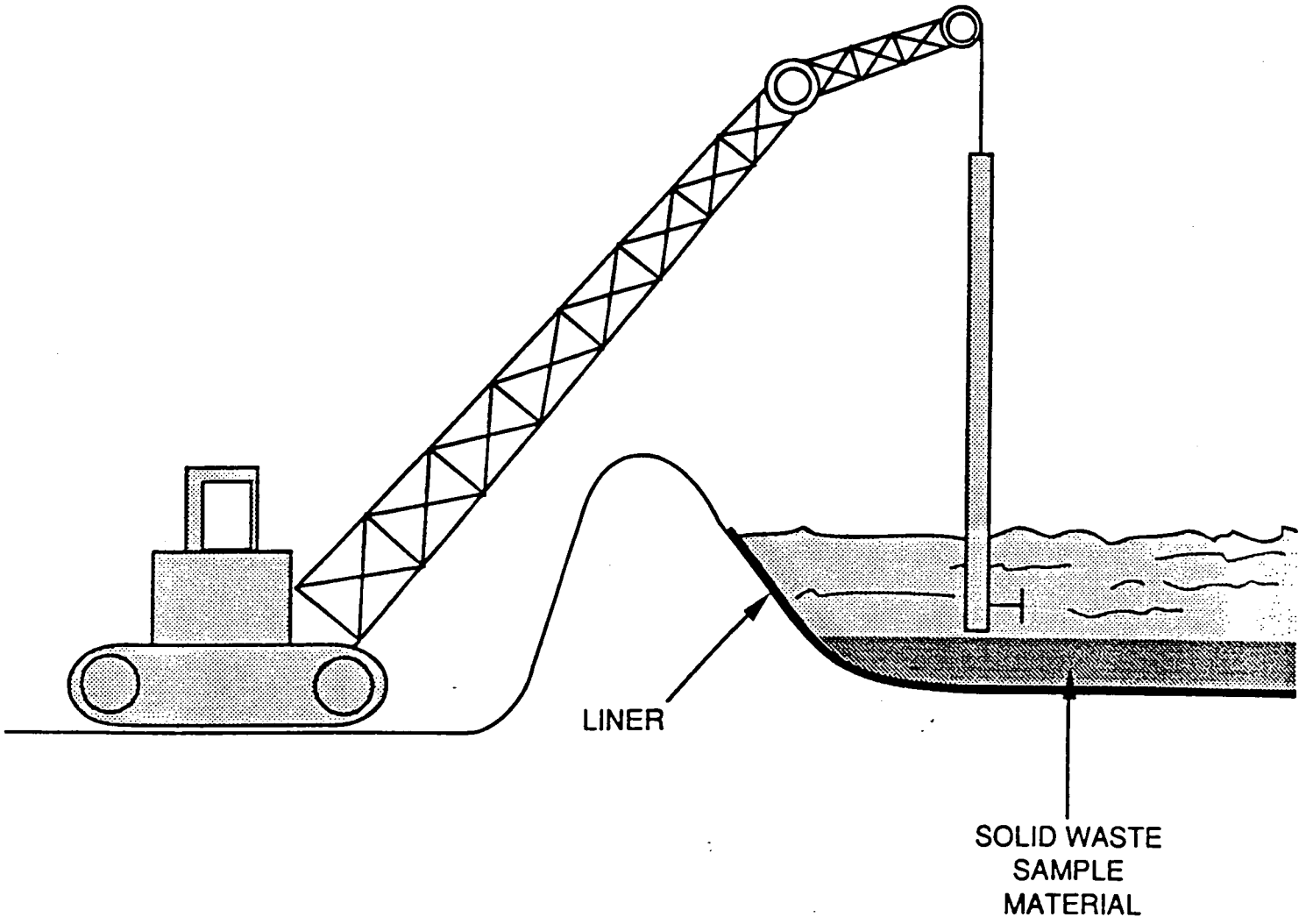


Slurry Pump Sampling Operation
Figure 2

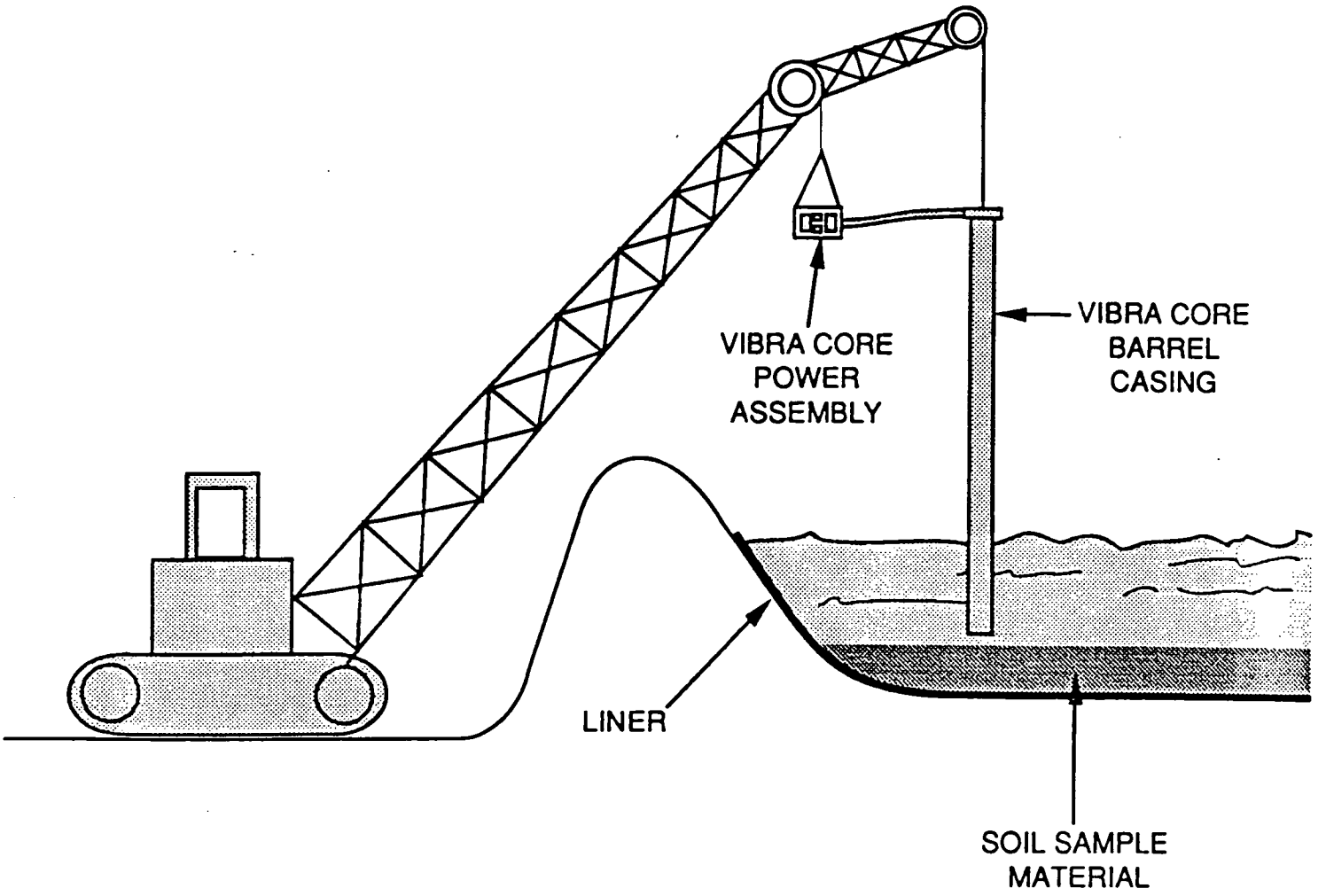




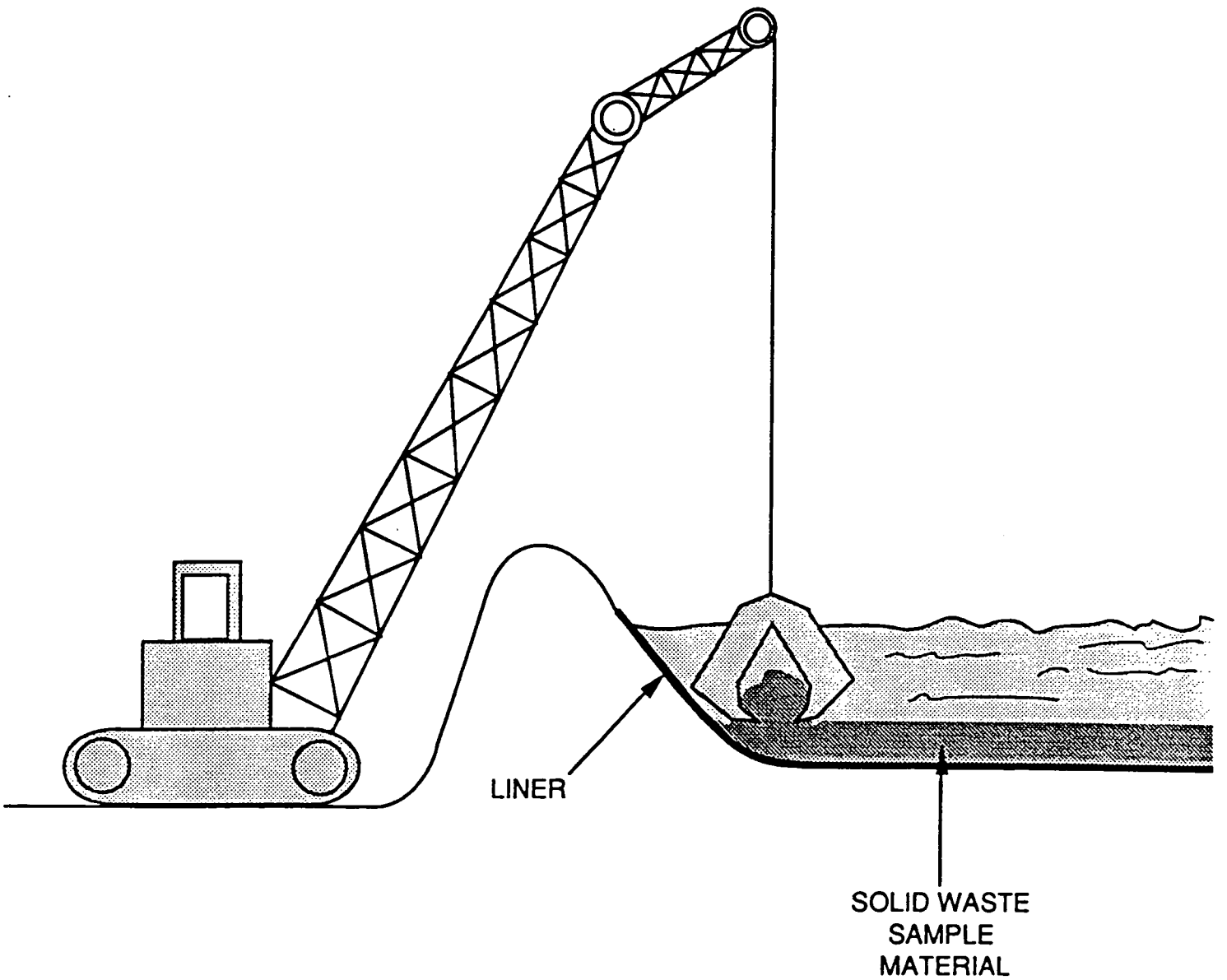
Backhoe Sampling Operation
Figure 3



Baler Crane Sampling Operation
Figure 4



Vibra-Core Sampling Operation
Figure 5



Clamshell-Crane Sampling Operation
Figure 6

APPENDIX A

General Sampling Requirements

General Requirements

The purpose of this procedure is to outline the general requirements and identify the operations necessary to perform the sampling activities in the Waste Pits 5 and 6 and the Clearwell irrelevant of the type of equipment or procedure used. The following requirements must be satisfied for all sampling operations.

- All personnel shall have successfully completed the required training as identified in the Health and Safety Plan and as required otherwise. All requirements identified in the Health and Safety Plan shall be adhered to at all times.

- All personnel will receive training in the use of all personnel protective equipment required to perform the sampling. All personnel shall be provided with the necessary personnel protective equipment to perform the sampling.

- All personnel shall be properly trained in the use of the equipment specifically required to perform the sampling.

Responsibilities

FIELD SUPERVISOR- The sampling activities will be done under the supervision of the Field Supervisor. The Field Supervisor or designated alternate shall ensure that all work performed is performed in accordance with the Radiation Work Permit (RWP) and the Task Specific Health and Safety Plan. The Field Supervisor shall also be responsible for (1) Promptly notifying the AEDO of abnormalities or unforseen situations, (2) maintaining a daily log of operations, (3) generating and maintaining an approved access list to the exclusion area, (4) conducting a daily pre-shift briefing of planned activities, and (5) maintaining a copy of all checklists and information required by this Sampling Plan or the Task Specific Health and Safety Plan.

RADIOLOGICAL SAFETY AND INDUSTRIAL HYGIENE TECHNICIANS - Shall be responsible for (1) monitoring personnel exposure and equipment contamination, (2) performing and documenting the required surveys and air monitoring, and (3) notifying the Heath and Safety Officer and supervisor of monitoring results or anomalies.

Procedure

Sampling Set-up

- Establish an exclusion zone for the waste pit where the samples will be collected as shown in Figure 1. A list of personnel certified to enter the exclusion zone will be developed by the Facility owner and posted. The exclusion zone will be roped off and clearly identified.

- Clearly identify and mark the locations where the samples will be collected for the waste pits or Clearwell as identified in Figure 1. The location of all sampling collections will be clearly identified on the site available Waste Characterization maps.

- Establish a sample collection area. The sample collection area will be where the 35-gallon drums will be situated. The area immediately surrounding the sample collection area will be situated on a leakproof tarp with a 6" soil berm placed under the tarp to ensure that water and debris are collected. The area directly in line between the sampling equipment and the sampling collection area will be required to have a leakproof bermed tarp to ensure the containment of all water and debris.

- Establish a sample and equipment laydown area. The laydown area will be designated as the area where

all equipment (excluding large heavy equipment) will be decontaminated and where contaminated PPE will be collected for disposal. The laydown area will be situated on a leakproof tarp with a 6" soil berm placed under the tarp to ensure that water and debris are collected.

- Establish a transition area through which personnel accessing the exclusion area will be required to pass.

- A chain-of-custody procedure shall be established by the Project Engineer to ensure proper tracking of samples. The chain-of-custody procedure will outline the (1) identification and markings required for the samples collected, (2) requirements for the chain-of custody record, (3) requirements for a sample collection log, and (4) laboratory request analysis protocol requirements. This procedure shall be consistent with the existing RI/FS procedure.

Sampling Pre-Operational Requirements

- Prior to the start of any sampling, the Field Supervisor or designated representative shall ensure that all personnel to be performing the sampling have received the proper training.

- Prior to the start of any sampling, the Facility Owner (or designated representative) shall ensure that all required PPE as identified by the Radiological Safety Technician, Industrial Hygiene Technician, and/or the Task Specific Health and Safety Plan are available for all personnel.

- Prior to the start of any sampling, the Field Supervisor or designated representative shall ensure that all equipment required to perform the sampling is available for all personnel.

APPENDIX B

Slurry Pump Sampling Operation Procedure

SLURRY PUMP SAMPLING OPERATION

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Requirements

The purpose of this procedure is to outline the specific requirements and identify the operations necessary to perform the sampling activities in the Waste Pits 5 and 6 and the Clearwell using the slurry pump equipment. This procedure will apply for the sampling that is performed in any of the three locations identified. The general requirements identified in Appendix A must be met prior to any specific sampling.

Waste Pits and Clearwell Sampling

- Position the 35-gallon sampling drum in the sampling collection area as identified. Place the 35-gallon drum inside the 85-gallon drum after removing the drum upper bung for the drum to allow the overflow water to decant off into the 85-gallon drum. Assure that all sampling collection equipment is located completely within the collection area so that water and debris does not overflow the tarp and spill onto the ground.

- Position a metering pump inside the tarped sample collection area. The discharge from the metering pump will discharge back to the waste pit where the sample will be collected. The suction of the metering pump will be controlled manually to prevent the potential for water overflow of the sample collection area.

- Position the crane in the location identified in Figure 2. The crane will not be situated any closer than 5 feet from the liner to prevent the potential for liner damage. Connect the submersible slurry pump to the crane boom and slowly lower the pump into the center of the waste pit until it rests firmly on the surface of the waste material to be pumped (care should be used to assure that the pump is not lowered too quickly). The submersible slurry pump will be controlled by an operator positioned on the side of the waste pit area.

- Secure the discharge of submersible slurry pump to the top of the 35-gallon sample collection drum. The suction of the pump will be controlled by an Operator positioned on the edge of the waste pit.

- Turn on the submersible slurry pump and slowly move the suction line over the bottom of the waste pit. As the sample collection drum fills up, the solids will collect in the bottom and the water will decant off into the 85-gallon drum. Start the metering pump and pump the excess water back into the waste pit as the water level in the 85-gallon drum reaches the 50% mark.

- Intermittently turn off the submersible slurry pump and allow the water to decant off and separate from the solids. Use the metering pump to return the decant water to the waste pit.

- Continue this operation until eight 35-gallon drums of solids are collected from the waste pit.

Decontamination and Clean-up

- At the end of each work day, all waste in the sample collection area will either be returned to the waste pit or sealed in the drum and transferred to a designated storage area. All tarps and other disposable materials used in the sample collection area will be collected and disposed of or retained for future use in accordance with accepted practices.

- At the end of each work day, all hand tools will be decontaminated in the sample collection area using accepted practices and procedures with the water to be returned to the waste pit. The tools will be stored at the site.

- At the completion of the sampling effort, all heavy equipment will be cleaned and decontaminated either at the sample location or at the Decontamination Pad. If the equipment cannot be decontaminated at the site then the part that was contacted with the waste pit will be sealed to allow for the transport to the Decontamination Pad. All materials used in decontamination and cleaning of the sampling equipment will be collected in drums, labeled, and stored in accordance with plant policies and procedures.

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APPENDIX C

Backhoe Sampling Operation Procedure

Requirements

The purpose of this procedure is to outline the requirements and identify the operations necessary to perform the sampling activities in the Waste Pit 5 using the backhoe equipment. This procedure will apply for the sampling that is performed in any of the three locations identified. This procedure will apply for the sampling that is performed in any of the three locations identified. The general requirements identified in Appendix A must be met prior to any specific sampling.

Waste Pits and Clearwell Sampling

- The backhoe operator will be required to have successfully completed 3 mock trial runs prior to the start of any actual sampling. The mock trial runs will consist of the placement of clean soil or mud into 35-gallon drums under conditions simulating those which the samples will be taken. If placing the material in the drum proves difficult, then material from the backhoe will be placed on a leak-proof tarp and the material will be manually shovelled into the drums. The trial runs will simulate the backhoe reach and conditions expected for the collection of the samples from the waste pits.

- Position the 35-gallon sampling drum in the sampling collection area as identified. Assure that all sampling collection equipment is located completely within the collection area so that water and debris does not overflow the tarp and spill onto the ground.

- Position a metering pump inside the tarped sample collection area. The discharge from the metering pump will discharge back to the waste pit where the sample will be collected. The suction of the metering pump will be controlled manually to prevent the potential for water overflow of the sample collection area.

- Position the backhoe in the location identified in Figure 3. The backhoe footings will be positioned as close to the liner as possible without resting on it. Rubber tires will be placed under the front footers of the backhoe to prevent any damage of the liner. Precautions must be taken to assure that the liner is not damaged.

- Extend the arm of the backhoe to its fullest extent and lower the arm until the bucket touches the top of the solids.

- Once the bucket touches the top of the solids, do not flex the elbow or shoulder joints while collecting the samples. Samples shall be collected by flexing the bucket joint and "pawing" the sample material into the bucket. Care must be taken to assure that the bucket is not extended more than 6" below the surface of the solids to assure sufficient clearance from the liner.

- Place the sample material either in the drums or in the sample collection containment area as best determined in the mock trials. Allow the drummed material to stand for several hours to allow sufficient time for the water to decant from the solids. Connect the metering pump to the top of the drum and pump all excess water back to the waste pit. Pump all excess water that may have collected in the sample collection area back to the pit. The end of each work day return all excess soils and solids to the waste pits.

- Continue this operation until eight 35-gallon drums of solids are collected from the waste pit.

- After each drum is filled with solids, seal the top on the drum, clean the exterior, and transport the drum to the appropriate location for final decontamination and packaging. This must be performed in accordance with all acceptable practices and chain-of-custody procedures.

- At the end of each work day, all waste in the sample collection area will either be returned to the waste pit or sealed in the drum and transferred to a designated storage area. All tarps and other disposable materials used in the sample collection area will be collected and disposed of or retained for future use in accordance with accepted practices.

- At the end of each work day, all hand tools will be decontaminated in the sample collection area using accepted practices and procedures with the water to be returned to the waste pit. The tools will be stored at the site.

- At the completion of the sampling effort, all heavy equipment will be cleaned and decontaminated either at the sample location or at the Decontamination Pad. If the equipment cannot be decontaminated at the site then the part that was contacted with the waste pit will be sealed to allow for the transport to the Decontamination Pad. All materials used in decontamination and cleaning of the sampling equipment will be collected in drums, labeled, and stored in accordance with plant policies and procedures.

APPENDIX D

Baler Crane Sampling Operation Procedure

Requirements

The purpose of this procedure is to outline the requirements and identify the operations necessary to perform the sampling activities in the Waste Pits 5 and 6 and the Clearwell using the baler and crane equipment. This procedure will apply for the sampling that is performed in any of the three locations identified.

Waste Pits and Clearwell Sampling

- The crane operator will be required to have successfully completed several mock trial runs prior to the start of any actual sampling. The mock trial runs will consist of the collection and placement of clean soil or mud into 35-gallon drums under conditions simulating those which the samples will be taken. If placing the material in the drum proves difficult, then material from the baler will be emptied out onto a leak-proof tarp and the material will be manually shovelled into the drums. The trial runs will simulate the baler crane reach and conditions expected for the collection of the samples from the waste pits.

- Position the 35-gallon sampling drum in the sampling collection area as identified. Assure that all sampling collection equipment is located completely within the collection area so that water and debris does not overflow the tarp and spill onto the ground.

- Position a metering pump inside the tarped sample collection area. The discharge from the metering pump will discharge back to the waste pit where the sample will be collected. The suction of the metering pump will be controlled manually to prevent the potential for water overflow of the sample collection area.

- Position the baler crane in the location identified in Figure 4. The crane will be positioned on a flat surface with the boom extending over the waste pit berm towards the center of the waste pit. If the area immediately adjacent to the waste pit is of proper contour and accessible, then the crane footings will be positioned on the side of the waste pit but no closer than 5 feet to the edge of the liner to prevent any potential for damage. Precautions must be taken to assure that the liner is not damaged.

- Extend the boom of the crane to its fullest allowable extent and identify where in the waste pit the samples will be collected. Based upon the sample location and from the waste pit design drawings, determine the maximum depth from the water line to the liner. Providing for a 5-foot clearance to the waste pit liner, place a mark on the crane cable identifying the maximum that the baler can be lowered into the waste pit.

- Connect the baler assembly onto the crane cable and move the crane boom over the sample area. Slowly lower the baler into the waste pit until it rests firmly on the bottom of the pit to assure that the marking is not below the water line. If the marking falls below the water line, remove the baler and identify another location as the sample point.

- Raise the baler bottom 5 feet above the water surface and allow it to free-fall into the waste pit assuring that the mark does not fall below the water line. Remove the baler from the waste pit and move the boom to the sample collection area to collect any material. The baler height may be raised in 5 foot increments when no sample material is collected.

- Place the sample material either in the drums or in the sample collection containment area as best determined in the mock trials. Allow the drummed material to stand for several hours to allow sufficient time for the water to decant from the solids. Connect the metering pump to the top of the drum and pump all excess water back to the waste pit. Pump all excess water that may have collected in the sample collection area back to the pit. The end of each work day return all excess soils and solids to the waste pits.

- Continue this operation until eight 35-gallon drums of solids are collected from the waste pit. 38

- After each drum is filled with solids, seal the top on the drum, clean the exterior, and transport the drum

to the appropriate location for final decontamination and packaging. This must be performed in accordance with all acceptable practices and chain-of-custody procedures. 2045

Decontamination and Clean-up

- At the end of each work day, all waste in the sample collection area will either be returned to the waste pit or sealed in the drum and transferred to a designated storage area. All tarps and other disposable materials used in the sample collection area will be collected and disposed of or retained for future use in accordance with accepted practices.

- At the end of each work day, all hand tools will be decontaminated in the sample collection area using accepted practices and procedures with the water to be returned to the waste pit. The tools will be stored at the site.

- At the completion of the sampling effort, all heavy equipment will be cleaned and decontaminated either at the sample location or at the Decontamination Pad. If the equipment cannot be decontaminated at the site then the part that was contacted with the waste pit will be sealed to allow for the transport to the Decontamination Pad. All materials used in decontamination and cleaning of the sampling equipment will be collected in drums, labeled, and stored in accordance with plant policies and procedures.

APPENDIX E

Vibra-Core Sampling Operation Procedure

Requirements

The purpose of this procedure is to outline the requirements and identify the operations necessary to perform the sampling activities in the Waste Pits 5 and 6 and the Clearwell using the Vibra-Core Sampling equipment. This procedure will apply for the sampling that is performed in any of the three locations identified. This procedure will apply for the sampling that is performed in any of the three locations identified. The general requirements identified in Appendix A must be met prior to any specific sampling.

Waste Pits and Clearwell Sampling

- The crane operator will be required to have successfully completed several mock trial runs prior to the start of any actual sampling. The mock trial runs will consist of the collection and placement of clean soil or mud into 35-gallon drums under conditions simulating those which the samples will be taken. If placing the material in the drum proves difficult, then material from the baler will be emptied out onto a leak-proof tarp and the material will be manually shovelled into the drums. The trial runs will simulate the use of the Vibra-Core sampling equipment utilizing the crane reach and conditions expected for the collection of the samples from the waste pits.

- Position the 35-gallon sampling drum in the sampling collection area as identified. Assure that all sampling collection equipment is located completely within the collection area so that water and debris does not overflow the tarp and spill onto the ground.

- Position a metering pump inside the tarped sample collection area. The discharge from the metering pump will discharge back to the waste pit where the sample will be collected. The suction of the metering pump will be controlled manually to prevent the potential for water overflow of the sample collection area.

- Position the Vibra-Core crane with a sample barrel casing attached in the location identified in Figure 5. The crane will be positioned on a flat surface with the boom extending over the waste pit berm towards the center of the waste pit. If the area immediately adjacent to the waste pit is of proper contour and accessible, then the crane footings will be positioned on the side of the waste pit but no closer than 5 feet to the edge of the liner to prevent any potential for damage. Precautions must be taken to assure that the liner is not damaged.

- Extend the boom of the crane to an area over the center of the waste pit and identify where in the waste pit the samples will be collected. Based upon the sample location and from the waste pit design drawings, determine the maximum depth from the water line to the liner. Providing for a 5-foot clearance to the waste pit liner, place a mark on the crane cable identifying the maximum that the vibra-core casing can be lowered into the waste pit.

- Connect the LEXAN® tube and insert it into the sampling barrel casing. Connect the cutter assembly onto the barrel casing, if desired or required (depending upon the consistency of the material to be sampled). Attach the crane lines to the sampling barrel tube and the Vibra-Corer Head.

- Test the Vibra-Core Head power assembly prior to lowering the sample tube into the waste pit. Move the crane boom over the sample area and SLOWLY lower the sample collection tube into the waste pit. Slowly lower the sample tube into the waste pit until it rests firmly on the surface of the pit waste sample material to assure that the marking is not below the water line (a spotter will assist the crane operator in performing this operation). If the marking falls below the water line, remove the baler and identify another location as the sample point.

- Start the throttle mechanism and slowly lower the sampling barrel into the pit but no closer than 5-feet from the waste pit liner. Sample material will be collected in the sample tube. Remove the sample barrel from the waste pit and lower it into the laydown or sample collection area.

- Place the sample material either in the drums or in the sample collection containment area as best determined in the mock trials. Allow the drummed material to stand for several hours to allow sufficient time for the water to decant from the solids. Connect the metering pump to the top of the drum and pump all excess water back to the waste pit. Pump all excess water that may have collected in the sample collection area back to the pit. The end of each work day return all excess soils and solids to the waste pits.

- Continue this operation until eight 35-gallon drums of solids are collected from the waste pit.

- After each drum is filled with solids, seal the top on the drum, clean the exterior, and transport the drum to the appropriate location for final decontamination and packaging. This must be performed in accordance with all acceptable practices and chain-of-custody procedures.

Decontamination and Clean-up

- At the end of each work day, all waste in the sample collection area will either be returned to the waste pit or sealed in the drum and transferred to a designated storage area. All tarps and other disposable materials used in the sample collection area will be collected and disposed of or retained for future use in accordance with accepted practices.

- At the end of each work day, all hand tools will be decontaminated in the sample collection area using accepted practices and procedures with the water to be returned to the waste pit. The tools will be stored at the site.

- At the completion of the sampling effort, all heavy equipment will be cleaned and decontaminated either at the sample location or at the Decontamination Pad. If the equipment cannot be decontaminated at the site then the part that was contacted with the waste pit will be sealed to allow for the transport to the Decontamination Pad. All materials used in decontamination and cleaning of the sampling equipment will be collected in drums, labeled, and stored in accordance with plant policies and procedures.

APPENDIX F

Clamshell-Crane Sampling Operation Procedure

Requirements

The purpose of this procedure is to outline the requirements and identify the operations necessary to perform the sampling activities in the Waste Pits 5 and 6 and the Clearwell using the Clamshell-Crane sampling equipment. This procedure will apply for the sampling that is performed in any of the three locations identified. This procedure will apply for the sampling that is performed in any of the three locations identified. The general requirements identified in Appendix A must be met prior to any specific sampling.

Waste Pits and Clearwell Sampling

- The crane operator will be required to have successfully completed several mock trial runs prior to the start of any actual sampling. The mock trial runs will consist of the collection and placement of clean soil or mud into 35-gallon drums under conditions simulating those which the samples will be taken. If placing the material in the drum proves difficult, then material from the clamshell bucket will be emptied out onto a leak-proof tarp and the material will be manually shovelled into the drums. The trial runs will simulate the crane reach and conditions expected for the collection of the samples from the waste pits.

- Position the 35-gallon sampling drum in the sampling collection area as identified. Assure that all sampling collection equipment is located completely within the collection area so that water and debris does not overflow the tarp and spill onto the ground.

- Position a metering pump inside the tarped sample collection area. The discharge from the metering pump will discharge back to the waste pit where the sample will be collected. The suction of the metering pump will be controlled manually to prevent the potential for water overflow of the sample collection area.

- Position the crane in the location identified in Figure 6. The crane will be positioned on a flat surface with the boom extending over the waste pit berm towards the center of the waste pit. If the area immediately adjacent to the waste pit is of proper contour and accessible, then the crane footings will be positioned on the side of the waste pit but no closer than 5 feet to the edge of the liner to prevent any potential for damage. Precautions must be taken to assure that the liner is not damaged.

- Extend the boom of the crane to its fullest allowable extent and identify where in the waste pit the samples will be collected. Based upon the sample location and from the waste pit design drawings, determine the maximum depth from the water line to the liner. Providing for a 5-foot clearance to the waste pit liner, place a mark on the crane cable identifying the maximum that the clamshell bucket can be lowered into the waste pit.

- CLOSE THE CLAMSHELL BUCKET AND move the crane boom over the sample area. Slowly lower the clamshell bucket into the waste pit until it rests firmly on the bottom of the pit to assure that the marking is not below the water line. If the marking falls below the water line, remove the clamshell bucket and identify another location as the sample point.

- Raise the clamshell bucket 5-feet above the water surface and allow it to free-fall into the waste pit assuring that the mark does not fall below the water line (a spotter will assist the crane operator in performing this operation). Remove the clamshell from the waste pit and move the boom to the sample collection area to collect any material. The clamshell bucket height may be raised in 5 foot increments when no sample waste material is collected.

- Place the sample material either in the drums or in the sample collection containment area as best determined in the mock trials. Allow the drummed material to stand for several hours to allow sufficient time for the water to decant from the solids. Connect the metering pump to the top of the drum and pump all excess water back to the waste pit. Pump all excess water that may have collected in the sample collection area back to the pit. The end of each work day return all excess soils and solids to the waste pits.

- Continue this operation until eight 35-gallon drums of solids are collected from the waste pit. 2045

- After each drum is filled with solids, seal the top on the drum, clean the exterior, and transport the drum to the appropriate location for final decontamination and packaging. This must be performed in accordance with all acceptable practices and chain-of-custody procedures.

Decontamination and Clean-up

- At the end of each work day, all waste in the sample collection area will either be returned to the waste pit or sealed in the drum and transferred to a designated storage area. All tarps and other disposable materials used in the sample collection area will be collected and disposed of or retained for future use in accordance with accepted practices.

- At the end of each work day, all hand tools will be decontaminated in the sample collection area using accepted practices and procedures with the water to be returned to the waste pit. The tools will be stored at the site.

- At the completion of the sampling effort, all heavy equipment will be cleaned and decontaminated either at the s ample location or at the Decontamination Pad. If the equipment cannot be decontaminated at the site then the part that was contacted with the waste pit will be sealed to allow for the transport to the Decontamination Pad. All materials used in decontamination and cleaning of the sampling equipment will be collected in drums, labeled, and stored in accordance with plant policies and procedures.