Advanced Cleanup Technologies, Inc.
ENVIRONMENTAL CONSULTANTS

VOLUNTARY CLOSURE PLAN
FORMER DRYWELLS

Award Packaging Company
Garden City, New York

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Prepared for:

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1.0 INTRODUCTION AND SCOPE OF WORK

The Award Packaging Company operates a facility in an industrial area of Garden City, New York for applying print to plastic packaging materials. The facility consists of a one-story brick building surrounded by an asphalt parking area in the central portion of Nassau County, New York.

Advanced Cleanup Technologies, Inc. (ACT) has been retained to remediate two abandoned drywells located in an outdoor drum storage area in the northwest portion of the property. The initial inspection of the property during June 1991 revealed that the drywells had been covered over with cement and asphalt.

This Voluntary Closure Plan has been prepared based upon the latest correspondence between Award Packaging and the United States Environmental Protection Agency (US EPA). A July 1, 1994 correspondence from the US EPA recommends that the contaminated sludge and soil be excavated. Therefore, the remedial action selected includes the removal and disposal of the contaminated soil and sludge as described in the following sections. An estimated 1,600 gallons of sludge and 100 tons of contaminated soil will be excavated as part of this workplan.

Section 2.0 documents the Remedial Action that was selected for the abandoned drywells. Section 3.0 documents the Health and Safety Plan that will be utilized throughout the Remedial Action. Section 4.0 documents the Project Schedule for the Remedial Action.

2.0 REMEDIAL ACTION

2.1 Site Preparation and Security

Figure 1 provides a diagram of the drum storage area. The two drywells are located within this area along with approximately 50 empty 55 gallon drums. Initially, all of the drums will be removed from storage area and staged in a temporary drum storage area. Next, the 6 foot high chain-link fence which surrounds the storage area will be removed. These actions will provide safe and secure access for the excavation of the drywells.

Throughout the remedial action, the entire work area will be made off-limits from non-authorized personnel. Any person entering the work area will require proper OSHA certification and will have to check in with the Site Safety Officer. See Section 3.0, Health and Safety Plan, for a further discussion of site security and safety.

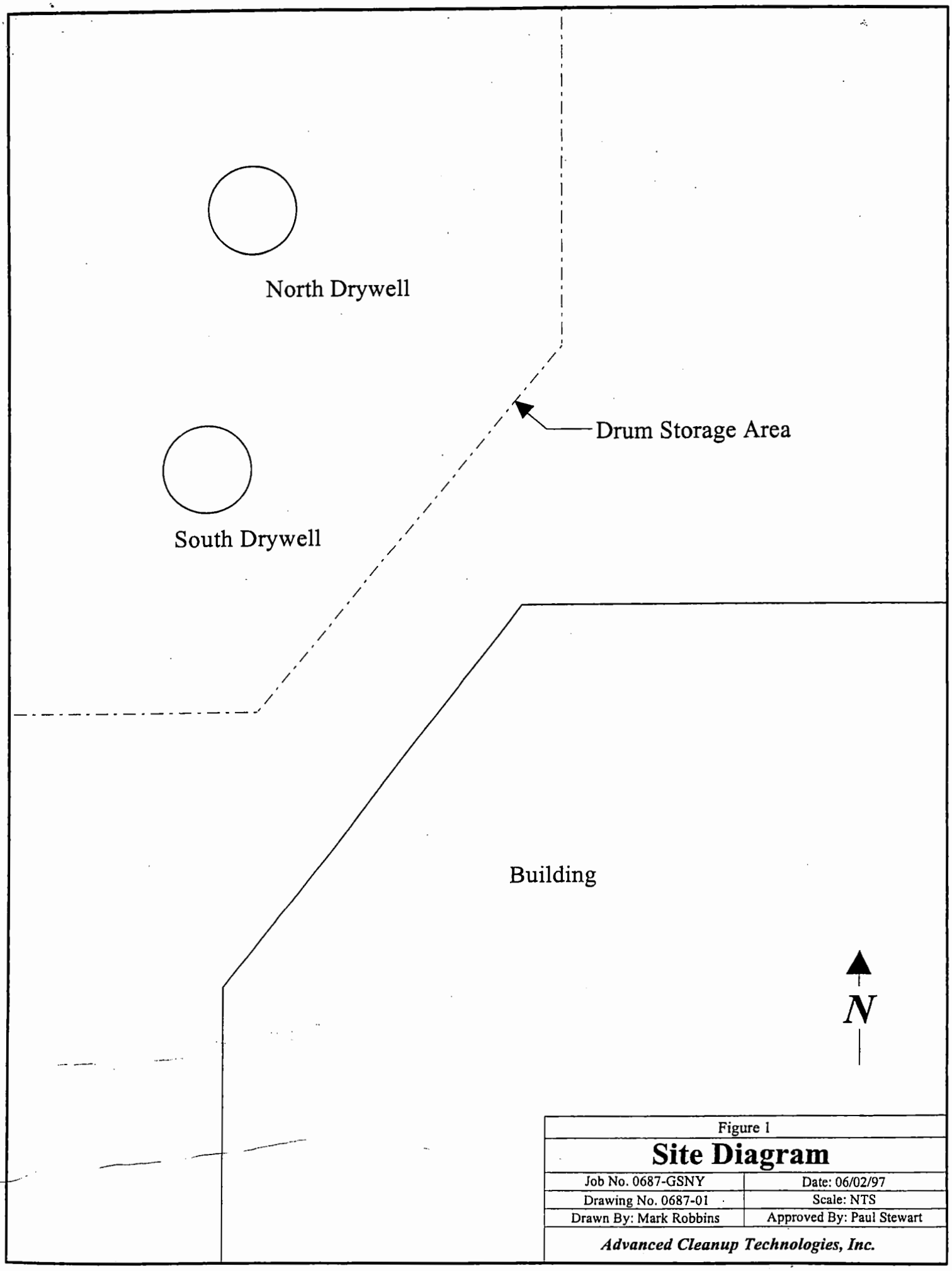

Figure 1

Site Diagram

Job No. 0687-GSNY	Date: 06/02/97
Drawing No. 0687-01	Scale: NTS
Drawn By: Mark Robbins	Approved By: Paul Stewart

Advanced Cleanup Technologies, Inc.

2.2 Excavation

After the drum storage area has been cleared, the excavation of the asphalt and clean material will commence with a large excavator. All of the asphalt and clean material encountered will be temporarily staged on-site for later use as backfill. The entire drum storage area will be excavated until contaminated soil and sludge inside the drywells is encountered.

The contaminated sludge inside the drywells will then be excavated. Due to its low flashpoint, the sludge will require excavation with the bronze bucket and placement into 55 gallon drums. If the sludge consistency does not allow for bucket excavation, the sludge will be removed with a vacuum truck and then placed into 55 gallon drums.

After the sludge has been removed from both drywells, the concrete rings of the drywells and any contaminated soil surrounding the drywell rings will be excavated. Upon removal, each concrete ring will be power washed. Both the concrete rings and the contaminated soil will be placed into pre-lined roll-off containers.

2.3 Disposal

The 55 gallon drums of sludge, the concrete rings and soil in the pre-lined roll-off containers will require disposal as hazardous waste due to their high lead levels and flashpoint. Representative waste characterization samples will be obtained and analyzed utilizing the TCLP procedure prior to disposal.

2.4 End Point Samples

Upon the completion of the excavation, representative end point soil samples will be obtained. As per the July 1, 1994 USEPA letter, one end point sample will be obtained from the bottom center of each drywell and analyzed for lead and cadmium by a total metals analysis, volatile organic compounds (VOCs) in accordance with EPA Method 8240 and semi-VOCs in accordance with EPA Method 8270.

2.5 Backfill

Once end point samples have been obtained, the excavation will be backfilled. Initially, all clean material that was previously removed will be placed back into the bottom of the excavation. Next, clean backfill from off-site will be brought to the site and placed into the excavation. The entire excavation will then be brought up to grade so the drum storage area can be later reconstructed.

2.6 Closure Report

Upon the completion of the excavation, a formal Drywell Closure Report will be prepared. This report will contain the results of the excavation and the volumes of sludge, soil and debris removed and disposed of. The report will also contain the results of the end point analyses as compared to applicable Local, State and Federal cleanup values. Copies of the waste manifests will also be provided.

2.7 Equipment Decontamination

All equipment will be properly decontaminated after each use. Care will be taken to store and transport equipment away from cleaning solvents and gasoline. Sampling equipment will be cleaned between sampling events to prevent contamination of samples. Cleaned equipment will be handled as little as possible prior to use and disposable gloves will be worn during handling. Sampling equipment will be field decontaminated according to the following steps:

- wash with solution of non-phosphate detergent in tap water;
- rinse with tap water;
- rinse with distilled/de-ionized water;
- rinse with methanol;
- rinse with distilled/de-ionized water;
- air dry.

A decontamination area will be set up in a non-contaminated area of the site, away from the work area. A polyethylene tarp will be placed on the ground and the cleaning/rinsing solutions will be stored in laboratory wash bottles to reduce waste generation. Scrub brushes will be used to remove residue from equipment. All rinse solutions will be collected and disposed of properly.

2.8 Mobilization and Demobilization

All equipment which is used at the site will be removed at the close of the remedial action. This includes machinery, sampling equipment, sample containers, decontamination equipment, and refuse. The decontamination rinsate will be removed from the site for proper disposal.

3.0 HEALTH AND SAFETY PLAN

Introduction

Advanced Cleanup Technologies, Inc. (ACT) will be performing a Remedial Action at the Award Packaging Facility in Garden City, New York. The purpose of the action is to remediate sludge and soil contamination associated with two abandoned drywells in the facility's drum storage area. This will be achieved through the excavation, removal and disposal of the contaminated material inside and outside the drywells, as well as the drywells themselves. The date of the remedial action will be set once regulatory approval has been received for the project work plan.

The site is located at 625 South Street in Garden City, New York. The surrounding are is a mixture of industrial, commercial and residential property. The site is used for applying print to plastic packaging materials. This process involves the use of inks and solvents which are stored in 55-gallon drums inside and outside of the facility.

On-Site Personnel

The field team conducting the investigation will consist of a total of five (5) individuals. One individual will be designated as the On-Site Coordinator who will be responsible for executing the tasks described in the project work plan. Another individual will be designated the Site Safety Officer. This individual will have the responsibility for ensuring that the work environment remains safe at all times, that the project tasks are being performed in a safe manner and that the guidelines

set forth in this health and safety plan are observed. The Site Safety Officer shall have the authority to interrupt work at the site should they deem that working conditions have become unsafe. The remaining individuals will be a members of the field team who will assist in performing the tasks outlined in the work plan.

Site Control

In addition to the personnel mentioned above, other personnel who may be present at the site include employees of the facility, the property owners and representatives of regulatory agencies. The Site Safety Officer shall establish a safe perimeter around the work area and shall prohibit unauthorized personnel from this area. An on-site command post will be established a safe distance from the work area, in the upwind direction. Equipment decontamination will take place in the contamination reduction zone which will be located between the command post and the work area. The perimeter of these areas will be clearly marked with caution tape to discourage unauthorized entry.

Personnel Training

All personnel present at the site shall have training in accordance with the regulations codified at 29 CFR § 1910.120. This training will encompass an accredited 40-hour training course, refresher training as needed, and on-site training. All on-site personnel shall familiarize themselves with the contents of this work plan and attend a site-specific health and safety briefing prior to the commencement of work.

Hazard Evaluation

Chemical substances known to be hazardous to human health have been detected in the soil and air at the facility. A listing of those chemicals known or suspected of being present is provided below. The standards listed in the table represent Immediate Danger to Life and Health (IDLH), Time-Weighted Average (TWA) and Short-Term Exposure Limit (STEL).

Compound	Primary Hazard	IDLH	TWA	STEL
Tetrachloroethylene	Carcinogen	500 ppm	50 ppm	200 ppm
Trichloroethylene	Carcinogen	1000 ppm	50 ppm	200 ppm
Trichloroethane	Inhalation	1000 ppm	350 ppm	450 ppm
1,1-Dichloroethane	Inhalation	4000 ppm	100 ppm	---
Methylene chloride	Carcinogen	5000 ppm	500 ppm	1000 ppm
Toluene	Flammable	2000 ppm	50 ppm	---
Ethylbenzene	Flammable	2000 ppm	100 ppm	125 ppm
Xylenes	Flammable	1000 ppm	100 ppm	150 ppm

The primary routes of exposure for these chemicals are inhalation, ingestion and absorption through the skin and mucous membranes. The health risks associated with exposure to these chemicals will be minimized through a combination of monitoring and protective equipment.

Continuous air monitoring will be performed in the work area to assess the inhalation hazard associated with the above chemicals. A Photovac Photoionization Detector will be used for monitoring air quality. The instrument will be calibrated with a standard of 10 ppm isobutylene.

Personal protective equipment has been selected to minimize skin contact and absorption of hazardous substances. Consumption of food, beverages, cigarettes, and chewing gum will be prohibited to prevent ingestion of chemicals in the ambient air.

Protective Equipment

Based on an evaluation of the potential hazards, Level D personal protective equipment has been designated for all of the tasks involved in this project. This will consist of normal work clothing, work boots, hard hats, and work gloves. In addition, personnel performing equipment decontamination will wear chemical resistant gloves and eye protection. All personnel will have Level C protective equipment (Tyvek suits and air-purifying respirators equipped with organic vapor cartridges) on-site in the unlikely event that it is necessary to upgrade the level of protection. Level C would be implemented for example, if organic vapor readings were continually elevated (above 10 ppm) in the work area or during any period determined by the Site Safety Officer.

Communications Procedures

The relatively small size of the work area makes normal verbal communication the primary mode of communication for this project. In the event that verbal communication is impossible, the following hand signs will be used:

- gripping a partner's wrist = "Leave area immediately"
- hands on top of head = "I need assistance"
- thumbs up = "OK; I'm alright; I understand".
- thumbs down = "No; Negative"

Emergency Medical Care

In the event of serious injury, emergency medical care is available at the nearby Nassau County Medical Center located on Hempstead Turnpike in East Meadow, New York. The directions to this hospital from the site are as follows:

- Exit the site onto South Street
- At the end of the street, make a left continuing on South Street
- At the next main intersection make a left onto Stewart Avenue (Eastbound)
- Proceed 1.25 miles and make a right onto Merrick Ave (Southbound)
- Proceed 1.75 miles and make a left onto Hempstead Turnpike (Route 24 East)
- Proceed 1 mile to the Nassau County Medical Center which is on the left (north) side of the road.

A copy of these directions and a map of the area will be maintained at the command post for reference. First aid equipment for the treatment of minor injuries will also be available on-site at the command post.

Emergency Phone Numbers

Ambulance:	**911**
Fire Department:	**(516) 746-2800**
N.C. Med. Center Emergency. Room:	**(516) 542-3311**
Police:	**911**
Poison Control Center:	**(516) 542-2323**

Emergency Procedures

The Site Safety Officer shall be notified immediately of any on-site emergencies and shall be responsible for ensuring that the appropriated procedures are followed. In the event of serious personal injury to on-site personnel, an ambulance will be summoned to remove the injured personnel to the nearest medical facility for treatment. In the event of a fire or explosion, all personnel will be evacuated from the site and the fire department will be notified.

4.0 PROJECT SCHEDULE

The Remedial Action is anticipated to commence in the Spring of 1998 and should require approximately five days to complete. The US EPA will be notified at least 10 days prior to the commencement of the excavation. Turnaround time for certified laboratory analyses take approximately two weeks on the assumption that faster turnaround (at premium rate) is not warranted. Waste manifests are normally available 1 to 2 weeks after completion of the excavation. Report preparation will require approximately five days. Hence, it is anticipated that the results from the soil remedial action will be fully available approximately 5 weeks after initiation of work. A more detailed project schedule will be provided upon formal approval of this Closure Plan.

Dated: November 20, 1997

By:

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