CLOSURE REPORT

Griffiss Air Force Base, Rome, NY. Source Removal Project. Building 100 UST Removal Report

January 98

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SOURCE REMOVAL PROJECT
GRIFFISS AIR FORCE - ROME, NEW YORK

BUILDING 100 CLOSURE REPORT

This report has been prepared in accordance with the Technical Specification Section 02071, Part 3.8. All services used on this site to successfully complete this work have been performed in accordance with the terms and conditions pertaining to Contract No. DACA41-96-C-8015.

Thomas K. Pelis, Vice President
Licensed Professional Engineer, State of New York

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SECTION 1

Summary of UST Closure

Introduction

This closure report has been written in conformance with the Technical Specification Section 02071. This report pertains only to the Underground Storage Tank associated with Building 100 located at Griffiss Air Force Base in Rome, New York.

Background Information (based on information provided in "Action Memorandum" dated March 1996)

The Building 100 site is located within the boundries of the Griffiss Air Force Base in Rome New York. The site consisted of a refueling system that was in service until the late 1960's. The main features of the refueling system were a 25,000 gallon salvage UST, truck fill stand and pump, and jet fuel transfer pipeline which extended from a former tank farm area (Tank Farm 3), through a filtering and metering pit where it was split into three pipelines that serviced six hydrant pits located in the concrete airfield apron. The UST and associated pump and piping, and the underground fuel transfer / distribution system and hydrant pit were located in the concrete airfield apron and adjacent grass areas just off the southeast corner of the Bulding 100 hangar. The UST and associated piping system was installed in 1953. The only modification to the system that was recorded was the addition of a manway in 1969. Subsequently the tank had been used to store Isopropanol that was used during aircraft deicing operations. Until the start of this source removal project, the tank contained approximately 25,000 gallons of the Isopropanol - water mixture. Removal and disposal of the tank contents was included with the Source removal scope of work.

Although this site has not been historically monitored for contamination, Building 100 was designated as a source removal Area of Concern (AOC) under the FFA Resolution of Disputes. Site investigations had to be conducted in order to determine whether source removal efforts would be necessary. In late 1992 and mid 1993, soil samples from along the pipeline beneath the airfield apron, each hydrant pit, and from the filter pit southeast of Building 100 were analyzed for TCLP - volatile and semi-volatile organic constituents. Analytical results indicated that leachable concentrations of these contaminants were not present in these soils. In December of 1993, a soil gas survey was conducted along the abandoned pipeline, adjacent to the UST and hydrant pits. An area that exhibited signs of contamination was isolated along the pipeline that lies burried along the eastern side of Otis Street. Soil gas survey results in this area showed the presence of TVHC and or xylenes. Confirmatory soil samples collected in this area indicated the the presence of petroleum contaminants in the soil. The soils in this area were then recommended for removal as part of the source removal action for the Building 100 site.

JG

TO: Mr. Douglas Pocze, USEPA
FAX: 212-637-4360

Mr. Jonathan Greco, NYSDEC
FAX: 518-457-4198

FROM: Cathy Jerrard
Air Force Base Conversion Agency
AFBCA/DA - Griffiss
Environmental Section
153 Brooks Road
Rome NY 13441-4105

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cc: Brett Gorham FAX: 315-772-5834 (cover sheet only)

DATE: 29 May 98
No. of pages including cover sheet: 7

MESSAGE: Attached are revised pages for the Building 100 UST Removal Closure Report. Please insert these pages into the reports previously issued to you.

SECTION 2
Revision - I
Site Conditions and Activities

Condition of UST

Prior to excavation and removal, the interior of the UST was triple rinsed using a steam cleaner operated from outside the tank. The rancid generated during cleaning operations was collected into drums and properly disposed of. Disposal information is discussed in Section 4 of this report. Once the UST had been removed from the excavation, the exterior was inspected for corrosion and possible leak sites. It was discovered that the tank had been coated with a tar like mastic. The coating preserved the tank and there was no apparent corrosion. The tank was then cut into sections using hot work methods, and shipped to the scrap facility for disposal. Documentation for tank disposal at the scrap facility can be found in Appendix - A.

Evidence of Leakage

The tank appeared to be in good condition and there was no visible evidence of leakage from the tank. As the excavation advanced in depth, the loose granular soil exhibited visual sign of contamination as we approached the ground water level. The contamination in the soil appeared to be from contaminated ground water migration. The source of the contamination in the groundwater was not evident.

Vapor Monitoring Results

Vapor Monitoring was conducted periodically throughout the tank removal activities. Monitoring was conducted utilizing a PID meter. Readings were to be taken at the downwind perimeter of the site approximately 50 feet from the edge of the excavation. Due to rainy weather conditions during the UST removal, air monitoring operations were suspended.

Quantities of Materials Removed

Contaminated soils removed from the excavation at Building 100 were stockpiled on plastic sheeting, tested, and loaded on to dump trucks and transported to a land farm located on the apron area adjacent to the Building 771 site. The soil generated from this excavation was very loose granular material. Analytical reports for this soil are included in this report in Appendix - B. Prior to delivery to the land farm, the trucks were weighed on an on-site state certified scale The soil scale log is enclosed in this report in Appendix - C.

Reasons for Backfilling Site

Excavation at Building 100 proceeded to the extent necessary to remove the tank. Once the tank was removed from the excavation, the soil was sampled and the results turned over to the USACE and AFBCA (this data is attached in section 3). During progress meeting No. 6, held on June 11, 1997 (held prior to excavation of this tank) the issue of backfilling was discussed. Based on information obtained from soil boring logs taken in the area, we expected to encounter high ground water levels and loose soil conditions. In addition, the proximity of the excavation as related to the aircraft apron were of great concern. It was proposed by Abscope Environmental that the excavation be backfilled immediately after the tank was removed and the soil samples taken. During actual removal operations, high ground water levels were in-fact encountered. The ground water level and rapid rate of recovery prevented further excavation. After discussing these issues with the CO it was determined that further excavation would not be performed at this time and the excavation should be backfilled as soon as possible. The excavation was backfilled with coarse stone to the top of the water. Backfilling then continued over the stone with approved backfill materials.

Ground water Conditions

The ground water level at Building 100 approximately 10 feet below the ground surface, and recovery was rapid. Dewatering was performed as necessary to remove the tank and permit backfilling operations. Ground water was collected in portable frac-tanks, sampled, and found to be contaminated. The Rome POTW was contacted and accepted the water into their system. In turn, the water was released into a Rome POTW sewer manhole on the base. A copy of the analytical data and the letter of authorization from Rome POTW is included under Appendix - F.

Project Photographs

As stated in section 01340 of the Technical Specification, Construction Photographs and Videos were taken throughout the entire project. Four views of each site activity were provided in 8x10 color prints. Each photo is numbered in sequence and a site map for each set of four is provided indicating the location and direction the photo was taken. Photo-documentation of the project was compiled into a three ring binder and two complete copies were submitted to the CO as a "For Information Only" required submittal. The photo-documentation report for this project will be considered as Volume II of this report. A photograph identification log is included in Appendix - G. A video was also made for this project. The completed videos have been submitted to the CO as a required "For Information Only" Submittal. Complete photo-documentation for this project is on file with the Contract Officer at the US Army Corps of Engineers at the Fort Drum Resident Office in fort Drum, New York and at the Air Force Base Conversion Agency located at 153 Brooks Road, Griffiss AFB New York.

Additional Site Activities

Pipeline Abandonment

All the fuel transfer piping associated with the 25,000 gallon UST, filter pit, and fuel hydrant pits adjacent to Building 100 was abandoned by pumping them full of grout. In order to complete the installation of grout in these lines, the ends of the lines needed to be exposed. Buried line ends were located, excavated and exposed. Lines terminating in underground structures, such as the filter pit and hydrant pits, were disconnected from associated equipment. The equipment was removed from the underground structures enabling free and easy access to the ends of the pipes. Once the ends of all of the lines had been exposed, the pipes were cleaned. Cleaning operations consisted of pushing cleaning pigs through the lines with air. The first pass was performed under a nitrogen blanket. The nitrogen was introduced into the pipelines to inert the atmosphere inside the pipes. As the foam pigs passed through the pipelines, any residual liquids and or sediments were pushed out and collected at the end of the pipe with a vac-truck. Additional foam pigs were pushed through the lines in an effort to "swab out" any liquids clinging to the interior surfaces of the pipes. After the third pass, the pigs were dry and were not pushing any residual material in front of them. This indicated the pipelines were clean and no longer represented a source for future contamination. The cleaning equipment was removed and the pipelines fitted with the appropriate fittings to facilitate the installation of grout.

Grouting of the pipeline was carried out in sections. The 12" fuel transfer pipe that lies buried along Otis Street needed to have a 30 foot section of pipe removed as indicated on the contract drawings. With this section of pipe removed, grouting of the pipeline was to take place in two sections. The section of the 12" pipe to be grouted first started at the end of the pipe located in the lawn area north west of the intersection of Otis Street and Brooks Ave and continued to the end of the pipe in the excavation adjacent to Otis Street. The remainder of the 12" line extended from the excavation adjacent to Otis Street into the filter pit. Grouting operations for this section of line were interrupted due to complications with the grout mixture. When installing the grout from the excavation along Otis Street, once the pipe had been filled past the first 90 degree elbow, grout quickly lost it's ability to flow and formed a plug. The same stoppage was experienced when introducing the grout from the filter pit back towards the plug where a 2" tap had been installed to vent the air inside the pipe as it was displaced. As the grout rounded the first 90 degree bend in the pipe, it formed a plug and stopped the installation. To ensure this problem would not persist, a new grout design had to employed. The new grout design was a lightweight flowable fill made from cement, water and a foaming agent. The new grout mixture was submitted to and approved by the CO. This mixture allowed long lengths of the pipeline to be completed from one point. This mixture was used for the remainder of the 12" line, and the rest of the piping system without incident. When the grout flowed full at the end of the lines, the lines were capped or valved off and considered abandoned in-place.

Filter Pit Demolition

The concrete filter pit located in the lawn area south of the airfield apron needed to be removed according to the contract documents. After all of the equipment in the filter pit had been removed and the grouting of the pipelines was completed, the pit was no longer needed and could be removed. The concrete structure was demolished using a concrete breaker affixed to a backhoe. When the concrete was reduced to manageable size pieces, it was removed from the excavation and disposed of as hard fill. The area was backfilled and the locations of the pipes marked by concrete monuments as shown on the contract drawings.

Hydrant Pit Demolition

After pipeline abandonment operations, the hydrant pits located out on the concrete airfield apron were originally supposed to be backfilled and the concrete surface restored to match surrounding surfaces. This method of repair was questioned by the facility that is in charge of airfield operations. The existing hydrant pit tops were raised in comparison to the surrounding concrete apron surfaces. This presented a problem during the winter months when snow removal operations were necessary. As other airfield repair operations (under separate contracts and by different contractors) were under way to correct similar problems, it was requested the hydrant pit tops be removed and the surface restored to match surrounding surfaces. This was carried out as a change order to the contract.

An Action Memorandum dated March 1996 documented the removal acivities selected for the site. According to the memo, Engineering Evaluation/ Cost Analyses conducted in 1995 recommended that source removal activities be carried out. The memo describes the source and removal activities as follows; "For this delivery order, a source is considered to be contaminated media / materials (e.g., soils, free product, subsurface structures) which would contribute to ground-water contamination at the site. Soil containing leachable concentrations of contaminants as determined by TCLP analysis will require removal since these soils represent a potential threat to ground water. Since the abandoned fueling facilities at the Building 100 site represent a potential future source of contamination without permanent closure, source removal action at this site will also include removal of the UST, filter pit, tank truck fill stand, and two sections of fuel lines and hydrant pits."

The work at Building 100 consisted of the removal of the 25,000 gallon underground storage tank that was used to store Isopropyl Alcohol (IPA), the truck hydrant, concrete filter pit and concrete meter pit located directly over the top of the 25,000 gallon tank. Additionally, the piping system associated with the tank and fuel transfer system was cleaned in place and permanently abandoned by filling it with grout. The pipe system consisted of a 12 inch fuel transfer line that ran from the former building 147 foundation to the concrete filter pit. Once it entered the filter pit, it was split off into three 6 inch fueling lines that ran out under the apron area servicing 6 hydrant pits (2 each). A 40 foot section of the 12 inch line was removed adjacent to Otis St. as indicated on the contract drawings. The soil surrounding this section of pipe was also disposed of. An 8 inch defueling header also serviced the hydrant pits. The 8 inch header was drained by a 12 inch main that runs back to the 25,000 gallon tank. This portion of the system was also cleaned and permanently abandoned in place by pumping full of grout. Once all the pipelines had been filled with grout, the tops of the hydrant pits were removed. The pits were filled with stone and a new concrete pad was poured to match the surrounding surfaces. The concrete filter pit and the meter pit were cleaned, demolished, and the excavations backfilled. The disturbed areas have been restored to grade and seeded to match the surrounding lawn areas.

SECTION 2

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Prior to excavation and removal, the interior of the UST was triple rinsed using a steam cleaner operated from outside the tank. The rancid generated during cleaning operations was collected into drums and properly disposed of. Disposal information is discussed in Section 4 of this report. Once the UST had been removed from the excavation, the exterior was inspected for corrosion and possible leak sites. It was discovered that the tank had been coated with a tar like mastic. The coating preserved the tank and there was no apparent corrosion. The tank was then cut into sections using hot work methods, and shipped to the scrap facility for disposal. Documentation for tank disposal at the scrap facility can be found in Appendix - A.

Evidence of Leakage

The tank appeared to be in good condition and there was no visible evidence of leakage from the tank. Due to the fact the groundwater is being remediated under a separate contract, petroleum contamination was expected in the area. As the excavation advanced in depth, the loose granular soil exhibited visual sign of contamination as we approached the ground water level. The contamination in the soil appeared to be from contaminated ground water migration. The source of the contamination in the groundwater was not evident.

Vapor Monitoring Results

Vapor Monitoring was conducted periodically throughout the tank removal activities. Monitoring was conducted utilizing a PID meter. Readings were to be taken at the downwind perimeter of the site approximately 50 feet from the edge of the excavation. Due to rainy weather conditions during the UST removal, air monitoring operations were suspended.

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The ground water level at Building 100 approximately 10 feet below the ground surface, and recovery was rapid. Dewatering was performed as necessary to remove the tank and permit backfilling operations. Ground water was collected in portable frac-tanks, sampled, and found to be contaminated. The Rome POTW was contacted and accepted the water into their system. In turn, the water was released into a Rome POTW sewer manhole on the base. A copy of the analytical data and the letter of authorization from Rome POTW is included under Appendix - F.

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SECTION 3

Confirmatory Sample Information

Reasons for selecting Sample Locations

Sample locations were designated by the information set forth in the Sampling and Analysis plan. This plan was written in conformance with the requirements set forth in the STARS memo relating to the sampling of fuel tank excavations. Section 2.3.1 - Soil Sampling Rationale, of the "Sampling and Analysis Plan - Revision I" explains how to select sample locations and has been included as follows:

"2.3.1 Soil Sampling Rationale"

"Soil samples will be collected and analyzed to verify the remaining soil meets the guidance values established in the STARS Memo #1 (Table 2) and Table 3. The STARS Memo dictates that a total of five samples are to be taken from each tank excavation. One composite sample per side wall and one composite from the excavation bottom will be analyzed. Four grab samples from each corner of the excavation will be collected and sent to the laboratory for development of a composite sample. Four grab samples from each side wall will be taken at approximately one third up from the bottom of the excavation and forwarded to the laboratory for compositing prior to analysis. Additional grab samples will be collected from areas with greater potential for contamination such as stained soils, adjacent to a corrosion hole, opposite a man way or opposite a tank opening. All samples will be obtained no less than six inches below the exposed surface being sampled. Two additional confirmatory grab samples will be taken from below the tank pad at the approximate locations shown on the Contract Drawings and analyzed in accordance with STARS. Samples may also be collected in areas of visually stained soils, if directed by NYSDEC personnel or the COR to satisfy requirements of the STARS Memo.

The soil sampling and analysis activities will be reviewed with NYSDEC personnel on site prior to backfilling the excavation. If requested by the COR additional samples may be collected and analyzed to adequately confirm the limits of soil contamination."

Sample locations

Sampling locations were selected in accordance with the guidelines outlined above. Approximate locations were preselected and approved in the "Sampling and Analysis Plan - Revision I". Attachment 1 of Appendix - A of the plan includes a site map for Building 100 that indicates the sample locations and identifies them by number. The same numbering system was used during actual excavation sampling operations. Actual sample locations and identification numbers are shown on the Scaled Site Drawing which is included as part of this document in Appendix E.

Collection Data

Sampling operations at the Building 100 site were carried out in accordance with the Field Sampling Plan - Revision I (FSP). Field Sampling Plan - Revision I is included in the Sampling and Analysis Plan - Revision I as Appendix A. The FSP outlines in detail the proper Sample Handling and Documentation procedures that were followed during actual field sampling operations. Copies of the actual Chain of Custody Records are included with this document in Appendix D - Confirmatory Sample Results. The Chain of Custody Records provide the following information:

- Project number
- Site name
- Samplers signature
- Sample number
- Date
- Time
- Composite or Grab Sample designation
- Matrix indication
- Sample location
- Size and number of containers
- Type of analysis to be performed
- Preservatives
- Custody Chain with signatures
- Special Instructions
- Turnaround time
- Laboratory specific information

Verification Sampling

Copies of all confirmatory sample results and their corresponding chains-of-custody are provided in Appendix D. The sample locations are numbered in accordance with the Field Sampling and Analysis Plan. These sample designations are carried through on the analytical results and correspond to the sample identification indicated on the one-line site drawing included in this document as Appendix E.

SECTION 4

Disposal Documentation and Analytical Data

Analysis Performed for Disposal

In Accordance with Section 2.2 - "Waste Characterization Sampling", of the " Sampling and Analysis Plan - Revision I", disposal samples were tested in accordance with the analysis required by the disposal facility. Below is a list of all material from Building 100 that required disposal. A list of corresponding disposal facilities and required analytical for each is provided as follows:

Waste Name	Disposal Facility	Required Analytical
Scrap Steel	CAP Recycle, Surplus & Metals Frankfort, NY	NONE
Contaminated soils	Land farm on-site operated by Metcalf & Eddy	Historical Site Data prior to this contract
IPA and water mixture	Research Oil Company Cleveland, Ohio	Ignitability, % Water. Also tested by disposal facility (Appendix-F)
Residual Fuels from Pipelines.	Industrial Oil Tank Services Corp	Ignitability, RCRA Metals, Volatiles
Tank cleaning rinse water	Industrial Oil Tank Services Corp	Ignitability, RCRA Metals, Volatiles
Groundwater	Rome POTW	BTEX, Cyanide, Oil & Grease, Total Metals

Waste Analysis and Waste Profile Information

Disposal facilities usually require a Waste Profile be filled out giving a complete description of the waste stream according to it's physical appearance and properties and or , by the laboratory analysis performed prior to disposal. The only waste that required a profile to be filled out before final disposal was the IPA / Water mixture. The other materials were accepted based on the disposal facilities review of the analytical results. Copies of disposal information which includes the Waste profiles for these materials can be found in Appendix F - Material Disposal Documentation.

Manifests and Bills of Lading accepted at Disposal Facilities

Once the material was accepted into a disposal facility, information regarding the quantity, physical and or chemical description and make up, hazard classification, emergency information (if required) and transportation information was recorded on manifests or bills of lading. These documents were presented to the disposal facility at the time of delivery. The disposal facility reviews the information to make sure the material is as described and verifies the quantity by weighing or metering. Actual disposal quantities are recorded and the material accepted to the facility. Copies of Bills of Lading and Hazardous Waste Manifests can be found in Appendix F Material Disposal Documentation, along with their respective waste profile sheets if required.

Waste Stream Information

The table below is a summary of who sampled, analyzed, transported, and accepted all wastes encountered at the Building 100 source removal site. Copies of Manifests and Bills of lading are provided in Appendix F - Disposal Documentation, as mentioned in the previous section - "Manifests and Bills of Lading accepted at Disposal Facilities".

Waste	Sampled By	Laboratory	Transporter	Disposal Facility
Contaminated soils	Unknown	Unknown	Abscope Environmental, Inc.	On site Land farm operated by Matcalf & Eddy
Residual fuels from pipeline cleaning	Abscope Environmental, Inc.	Waste Stream Technology	Abscope Environmental, Inc.	Industrial Oil Tank Services Corp.
Rinse water	Abscope Environmental, Inc.	Waste Stream Technology	Abscope Environmental, Inc.	Industrial Oil Tank Services Corp.
IPA water mixture	Abscope Environmental, Inc.	Waste Stream Technology	Frank's Vacuum Truck Services, Inc.	Research Oil Company, Cleveland, Ohio
Groundwater	Abscope Environmental, Inc.	Waste Stream Technology	Drained into on-site sewer manhole	Rome Water Pollution Control Facility

Appendix - A

Tank Disposal Documentation

WEST RIVER RD OFF DIXIE HWY & OLD RT 55 FRANKFORT, KY

2 HARSCOPE

25640

FAX 334-5529

#1 HARSCOPE

25640	
13840	
11800	

36960	
32520	
4440	

CAP *Recycle* SURPLUS & METALS
WEST RIVER RD. OFF DYKE RD. & OLD RT. 5S FRANKFORT, NY

COMMODITY
NAME ABSCORE Rome Air Base
ADDRESS CITY

25220
3900
21320

REMARKS

CAP *Recycle* SURPLUS & METALS
WEST RIVER RD. OFF DYKE RD. & OLD RT. 5S FRANKFORT, NY

COMMODITY
NAME
ADDRESS CITY
Abscore Rome Airbase

REMARKS

Appendix - B

STARS Sampling Results for Stockpiled Materials

Waste Stream Technology, Inc.

8021 Soil Analysis-NYSDEC List

5030/8021

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97

Group Number: 9701-497
Report Units: ug/kg
Matrix: Soil

Lab ID Number	WS34421	
Client ID	STOCK 100-2	
Date Extracted	06/24/97	
Date Analyzed	06/24/97	
Compound	**Detection Limit/ QC Limits (%)**	**Result**	**Q**
Methyl-t-butylether	625	625	U
Benzene	125	125	U
Toluene	125	125	U
Ethylbenzene	163	163	U
m,p-Xylene	350	350	U
o-xylene	213	767	
Isopropylbenzene	200	200	U
n-Propylbenzene	213	213	U
1,3,5-Trimethylbenzene	213	2110	
tert-Butylbenzene	450	450	U
1,2,4-Trimethylbenzene	175	2250	
sec-Butylbenzene	275	275	U
p-Isopropyltoluene	225	225	U
n-Butylbenzene	350	2500	
Naphthalene	200	200	U
a,a,a-Trifluorotoluene (%)	83-130	204	#

Dilution Factor 125

NYSDEC Petroleum contaminated Water/Soil compound list.

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

DEC List 8270 BNs in Soil

EPA 8270

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97

Group Number: 9701-497
Report Units: ug/Kg
Matrix: Soil

Lab ID Number	WS34421	
Client ID	STOCK 100-2	
Date Extracted	06/24/97	
Date Analyzed	06/25/97	
Compound	**Detection Limit/ QC Limits (%)**	**Result**	**Q**
anthracene	495	495	U
fluorene	495	495	U
phenanthrene	495	306	J
pyrene	495	122	J
acenaphthene	495	495	U
benzo[a]anthracene	495	495	U
fluoranthene	495	132	J
benzo[b]fluoranthene	495	495	U
benzo[k]fluoranthene	495	495	U
benzo[a]pyrene	495	495	U
dibenzo[a,h]anthracene	495	495	U
benzo[g,h,i]perylene	495	495	U
indeno[1,2,3-cd]pyrene	495	495	U
naphthalene	495	495	U
chrysene	495	495	U
Nitrobenzene-d5 (%)	23-120	74	
2-Fluorobiphenyl (%)	30-115	73	
Terphenyl-d14 (%)	18-137	82	

Dilution Factor 1

Waste Stream Technology, Inc.

TCLP 8270 DEC BN List

1311/8270

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97
TCLP Extraction Date: 06/17/97

Group Number: 9701-497
Report Units: ug/L
Matrix: TCLP Extract

	Lab ID Number	WS34421	
	Client ID	STOCK 100-2	
	Date Extracted	06/23/97	
	Date Analyzed	06/23/97	
Compound	**Detection Limit/ QC Limits (%)**	**Result**	**Q**
anthracene	10	10	U
fluorene	10	10	U
phenanthrene	10	10	U
pyrene	10	10	U
acenaphthene	10	10	U
benzo (a) anthracene	10	10	U
fluoranthene	10	10	U
benzo (b) fluoranthene	10	10	U
benzo (k) fluoranthene	10	10	U
benzo (a) pyrene	10	10	U
dibenzo (a,h) anthracene	10	10	U
benzo (g,h,i) perylene	10	10	U
indeno (1,2,3-cd) pyrene	10	10	U
naphthalene	10	10	U
chrysene	10	10	U
Nitrobenzene-d5 (%)	35-114	73	
2-Fluorobiphenyl (%)	43-116	71	
Terphenyl-d14 (%)	33-141	63	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

TCLP Metals Analysis Result Report

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97

Group Number: 9701-497
Report Units: mg/L
Matrix: TCLP Extract
TCLP Extraction Date: 06/22/97

Lab ID Number:	WS34421
Client ID:	STOCK 100-2
Date Digested:	06/23/97

Analyte	Detection Limit	Result		Date Analyzed	Analysis Method
Lead by ICP	0.120	<	0.120	06/24/97	SW-846 6010
Cadmium by ICP	0.015	<	0.015	06/24/97	SW-846 6010
Barium by ICP	0.011		0.727	06/24/97	SW-846 6010
Chromium by ICP	0.011	<	0.011	06/24/97	SW-846 6010
Silver by ICP	0.015	<	0.015	06/24/97	SW-846 6010
Arsenic by GFAA	0.005	<	0.005	06/23/97	SW-846 7060
Selenium by GFAA	0.003	<	0.003	06/24/97	SW-846 7740
Mercury by Cold Vapor	0.001	<	0.001	06/25/97	SW-846 7470

WASTE STREAM TECHNOLOGY

WASTE STREAM TECHNOLOGY

Isopropyl Alcohol Result Report

SW-846 Method 8015 - Direct Injection

Site : Griffiss Air Force Base
Date Sampled : 6/17/97
Date Received : 6/18/97

Group Number : 9701-49
Report Units : mg/kg
Sample Matrix : Soil

	WST Lab ID	WS34421	
	Client ID	Stock 100-2	
	Extraction Date	7/1/97	
	Analysis Date	7/2/97	
COMPOUNDS	**Detection Limit**	**Result**	**Q**
isopropyl alcohol	14	14	U
Dilution Factor		1	

Appendix C

Contaminated Soil Scale Log

SITE 100

1041	JULY 1, 1997	1	102	41800	20.9
1042	JULY 1, 1997	2	103	53420	26.71
1043	JULY 1, 1997	3	104	51380	25.69
1044	JULY 1, 1997	4	106	49240	24.62
1045	JULY 1, 1997	5	107	42200	21.1
1046	JULY 1, 1997	6	108	58240	29.12
1047	JULY 1, 1997	7	109	48920	24.46
1048	JULY 1, 1997	8	110	46540	23.27
1049	JULY 1, 1997	9	111	60160	30.08
1050	JULY 1, 1997	10	112	49600	24.8
1051	JULY 1, 1997	11	113	44580	22.29
1052	JULY 1, 1997	12	114	52960	26.48
1053	JULY 1, 1997	13	115	46080	23.04
1054	JULY 1, 1997	14	116	45920	22.96
1055	JULY 1, 1997	15	117	54780	27.39
1056	JULY 1, 1997	16	118	47240	23.62
1057	JULY 1, 1997	17	119	53460	26.73
1058	JULY 1, 1997	18	120	55160	27.58
1059	JULY 1, 1997	19	121	45280	22.64
1060	JULY 1, 1997	20	122	46720	23.36
1061	JULY 1, 1997	21	123	61480	30.74
1062	JULY 1, 1997	23	124	47920	23.96
1063	JULY 1, 1997	24	125	54760	27.38
1064	JULY 1, 1997	25	126	51260	25.63
1065	JULY 1, 1997	26	127	53700	26.85
1066	JULY 1, 1997	27	128	55600	27.8
1067	JULY 1, 1997	28	129	58040	29.02
1068	JULY 1, 1997	29	130	46040	23.02
1069	JULY 1, 1997	30	133	46540	23.27
1070	JULY 1, 1997	31	134	55100	27.55
1071	JULY 1, 1997	32	135	44960	22.48
1072	JULY 1, 1997	33	136	58240	29.12
1073	JULY 1, 1997	34	137	47220	23.61
1074	JULY 1, 1997	35	138	53520	26.76
1075	JULY 1, 1997	36	139	59360	29.68
1076	JULY 1, 1997	37	140	57120	28.56
1077	JULY 1, 1997	38	141	57100	28.55
1078	JULY 1, 1997	39	142	44980	22.49
1079	JULY 1, 1997	40	143	47460	23.73
1080	JULY 1, 1997	41	144	47800	23.9
1081	JULY 1, 1997	42	145	49260	24.63
1082	JULY 1, 1997	43	146	54900	27.45
1083	JULY 1, 1997	44	147	46400	23.2
1084	JULY 1, 1997	45	148	53740	26.87

1085	JULY 1, 1997	46	149	55960	27.98
1086	JULY 1, 1997	47	150	51200	25.6
1087	JULY 1, 1997	48	151	49340	24.67
1088	JULY 1, 1997	49	152	51800	25.9
1089	JULY 1, 1997	50	153	46700	23.35
1090	JULY 1, 1997	51	154	50400	25.2
1091	JULY 1, 1997	52	155	55340	27.67
1092	JULY 1, 1997	53	156	58180	29.09
1093	JULY 1, 1997	54	157	53540	26.77
1094	JULY 1, 1997	55	158	54060	27.03
1095	JULY 1, 1997	56	159	54280	27.14
1096	JULY 1, 1997	57	160	53460	26.73
1097	JULY 1, 1997	58	161	53640	26.82
1098	JULY 1, 1997	59	162	59160	29.58
1099	JULY 1, 1997	60	163	54300	27.15
1100	JULY 1, 1997	61	164	53100	26.55
1101	JULY 1, 1997	62	165	52740	26.37
1102	JULY 1, 1997	63	166	60260	30.13
1103	JULY 1, 1997	64	167	56100	28.05
1104	JULY 1, 1997	65	168	52580	26.29
1105	JULY 1, 1997	66	169	54680	27.34
1106	JULY 1, 1997	67	170	55140	27.57
1107	JULY 1, 1997	68	171	51460	25.73
1108	JULY 1, 1997	69	172	53980	26.99
1109	JULY 1, 1997	70	173	54500	27.25
1110	JULY 1, 1997	71	174	54640	27.32
1111	JULY 1, 1997	72	175	56360	28.18
1112	JULY 1, 1997	73	176	53060	26.53
1113	JULY 1, 1997	74	177	54800	27.4
1114	JULY 1, 1997	75	178	55940	27.97
1115	JULY 1, 1997	76	179	54560	27.28
		TOTAL SITE 100 IPA TANK			1960.72

Appendix D

Confirmatory Sampling Results

Filter Pit Excavation Analytical

WASTE STREAM TECHNOLOGY, INC.

302 Grote Street
Buffalo, NY 14207
(716)876-5290

Analytical Data Report

Report Date : 06/26/97
Group Number : 9701-497

Prepared For :
Mr. Rob Gray
Abscope Environmental
1 Commercial Drive
Canastota, NY 13032

Site : Griffis Air Force Base

Field and Laboratory Information

Client Id	WST Lab #	Matrix	Date Sampled	Date Received	Time
FF WS005	WS34413	Soil	6/17/97	6/18/97	1000
FF WS006	WS34414	Soil	6/17/97	6/18/97	1000
FF WS007	WS34415	Soil	6/17/97	6/18/97	1000
FF WS008	WS34416	Soil	6/17/97	6/18/97	1000
FF FS004	WS34417	Soil	6/17/97	6/18/97	1000
FF WS017	WS34418	Soil	6/17/97	6/18/97	1000
FF WS018	WS34419	Soil	6/17/97	6/18/97	1000
FF FS008	WS34420	Soil	6/17/97	6/18/97	1000
Stock 100-2	WS34421	Soil	6/17/97	6/18/97	1000
Sample Status Upon Receipt : No irregularities.					

Analytical Services

Analytical Parameters	Number of Samples	Turnaround Time
8021 STARS	9	Standard
8270 STARS	9	Standard
TCLP 8270 STARS	9	Standard
TCLP Metals	1	Standard
Isopropyl Alcohol	1	Standard

Report Released By : Daniel W. Vollmer

Daniel Vollmer, Laboratory QA/QC Officer

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS
NYSDOH ELAP #11179 NJDEPE #73977 CDHS ELAP #2189

WASTE STREAM TECHNOLOGY

ORGANIC DATA QUALIFIERS

U - Indicates compound was analyzed for but not detected.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicates the presence of a compound that meets identification criteria, but the result is less than the sample quantitation limit but greater than zero.

C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.

B - This flag is used when the analyte is found in the associated blank as well as the sample.

E - This flag identifies all compounds whose concentrations exceed the calibration range of the GC/MS instrument or that specific analysis.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.

G - Matrix spike recovery is greater than the expected upper limit of analytical performance.

L - Matrix spike recovery is less than the expected lower limit of analytical performance.

- Indicates that a surrogate recovery was found to be outside the expected limits of analytical performance.

$ - Indicates that the surrogate compound was diluted out because the sample had to be diluted to obtain analytical results and a recovery could not be calculated.

(%) Indicates that the compound is a surrogate and the values reported for these compounds are in percent recovery. The quality control recovery limits (QC Limits) are indicated in the detection limit column.

METHODOLOGIES

The specific methodologies employed in obtaining the analytical data reported are indicated on each of the result forms. The method numbers shown refer to the following analytical method references:

Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020, March 1979, Revised 1983, U.S. Environmental Monitoring and Support Laboratory, Cincinnati, Ohio 45268.

Federal Register, 40 CFR Part 136: Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act. Revised July 1992.

Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. Third Edition, Revised September 1994, United States EPA SW-846.

Annual Book of ASTM Standards, Volume II. ASTM, 1916 Race Street, Philadelphia, Pennsylvania 19103.

Standard Methods for the Examination of Water and Wastewater. (18th Edition). American Public Health Association, 1105 18th Street, NW, Washington, D.C. 20036.

TABLE 2
Guidance Values for Fuel Oil Contaminated Soil*

Compound	EPA Method	Detection Limit[1] (ppb)		TCLP Extraction Guidance Value[2] C_w (ppb)	TCLP Alternative Guidance Value C_a (ppb)	Human Health Guidance Value C_h (ppb)	Sediment Guidance Value C_s (ppb)	
		Liquid	Solid				Fresh	Marine
Benzene	8021 (8020)	1	2	0.7	14	2.4×10^4		
Ethylbenzene	8021 (8020)	1	2	5	100	8.0×10^6		
Toluene	8021 (8020)	1	2	5	100	2.0×10^7		
o-Xylene	8021 (8020)	2	2	5	100	2.0×10^8		
m-Xylene	8021 (8020)	2	2	5	100	2.0×10^8		
p-Xylene	8021 (8020)	2	2	5	100	• • •		
Mixed Xylenes	8021 (8020)	2	2	5	100	2.0×10^8		
Isopropylbenzene	8021	1	1	5	100	• • •		
n-Propylbenzene	8021	1	1	5	100	• • •		
p-Isopropyltoluene	8021	1	1	5	100	• • •		
',4-Trimethylbenzene	8021	1	1	5	100	• • •		
1,3,5-Trimethylbenzene	8021	1	1	5	100	• • •		
n-Butylbenzene	8021	1	1	5	100	• • •		
sec-Butylbenzene	8021	1	1	5	100	• • •		
t-Butyl benzene	8021	1	1	5	100	• • •		
Naphthalene[3]	8021 (8270)	1 (6)	1 (330)	10	200	3.0×10^5		
Anthracene	8270	8	330	50	1,000	2.0×10^7		
Fluorene	8270	8	330	50	1,000	3.0×10^6		
Phenanthrene	8270	22	330	50	1,000	• • •		
Pyrene	8270	8	330	50	1,000	2.0×10^6		
Acenaphthene	8270	8	330	20	400	5.0×10^6		
Benzo(a)anthracene	8270	31	330	.002	.04[4]	220	33	18
Fluoranthene	8270	9	330	50	1,000	3.0×10^6		

(CONTINUED ON THE NEXT PAGE)

TABLE 2 (Cont'd)
Guidance Values for Fuel Oil Contaminated Soil*

Compound	EPA Method	Detection Limit (ppb)		TCLP Extraction Guidance Value[3] C_w (ppb)	TCLP Alternative Guidance Value C_e (ppb)	Human Health Guidance Value C_h (ppb)	Sediment Guidance Value C_s (ppb)	
		Liquid	Solid				Fresh	Marine
Benzo(b)fluoranthene	8270	19	330	.002	.04[4]	220	33	18
Benzo(k)fluoranthene	8270	10	330	.002	.04[4]	220	33	18
Chrysene	8270	10	330	.002	.04[4]	***	33	18
Benzo(a)pyrene	8270	10	330	.002	.04[4]	61	33	18
Benzo(g,h,i)perylene	8270	10	330	.002	.04[4]	***		
Indeno(1,2,3-cd)pyrene	8270	10	330	.002	.04[4]	***		
Dibenz(a,h)anthracene	8270	10	330	50	1,000	14		

* **Nuisance Characteristics Guidance:**
No Petroleum-type odors.
No individual contaminant in soil at greater than 10,000 ppb.

[1] The listed Detection Limits are Practical Quantitation Limits (PQL's). The Method Detection Limit (MDL) is the best possible detection. Laboratories report the Practical Quantitation Limit (PQL), which is generally 4 times the MDL. Efforts should be made to obtain the best detection possible when selecting a laboratory. When the Guidance Value or standard is below the detection limit, achieving the detection limit will be considered acceptable for meeting the Guidance Value or standard.

[2] The TCLP Extraction Guidance Values are equal to the NYSDEC groundwater quality standards or Guidance Values, or the NYSDOH drinking water quality standards or Guidance Values, whichever is more stringent.

[3] For naphthalene analysis in a liquid matrix, both Method 8021 and Method 8270 can provide satisfactory levels for comparison to the C_w of 10 ppb.

For naphthalene analysis in a solid matrix, Method 8021 is preferred over Method 8270 for comparison to the C_s of 200 ppb. If the C_s Guidance Value is not being used in the soil evaluation, then both Method 8021 and 8270 can provide satisfactory detection levels for comparison to the C_h of 3.0×10^5, and nuisance characteristic of 10,000 ppb.

[4] Due to the high detection limit for a solid matrix, the TCLP Extraction Method must be used to demonstrate groundwater quality protection for these compounds.

*** No Guidance Value identified in EPA HEAST Report.

Case Narrative

The following comments and observations were made regarding the analysis of the samples from the Griffis Air Force Base for Abscope Environmental corresponding to the Waste Stream Technology Sample Group Number 9701-497 and sample numbers WS34413 through WS34421 which were sampled on 6/17/97 and received on 6/18/97;

1.0 Method 8021 Analysis

1.1 Sample number WS34421, corresponding to the site sample description "Stock 100-2", required analysis using the high level methanol extraction procedure. Subsequently, the results were reported with a dilution factor of 125.

1.2 The surrogate recovery reported for WS34421 was above the upper quality control recovery limit of 130%. The high recovery was caused by an interfering peak from the sample matrix that co-eluted with the a,a,a-trifluorotoluene surrogate compound.

Daniel W. Vollmer

Date 7/16/97

Daniel W. Vollmer
QA/QC Officer

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

8021 Soil Analysis-NYSDEC List

5030/8021

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97

Group Number: 9701-497
Report Units: ug/kg
Matrix: Soil

Lab ID Number	WS34413	
Client ID	FF WS005	
Date Extracted	NA	
Date Analyzed	06/23/97	

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	1.0	U
Ethylbenzene	1.3	1.3	U
m,p-Xylene	2.8	2.8	U
o-xylene	1.7	1.7	U
Isopropylbenzene	1.6	1.6	U
n-Propylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	1.7	U
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	1.4	U
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	2.8	U
Naphthalene	1.6	1.6	U
a,a,a-Trifluorotoluene (%)	83-130	93.0	

Dilution Factor 1

NYSDEC Petroleum contaminated Water/Soil compound list.

Waste Stream Technology, Inc.

8021 Soil Analysis-NYSDEC List

5030/8021

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97

Group Number: 9701-497
Report Units: ug/kg
Matrix: Soil

Lab ID Number	WS34414	
Client ID	FF WS006	
Date Extracted	NA	
Date Analyzed	06/23/97	

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	1.0	U
Ethylbenzene	1.3	1.3	U
m,p-Xylene	2.8	2.8	U
o-xylene	1.7	1.7	U
Isopropylbenzene	1.6	1.6	U
n-Propylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	1.7	U
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	1.4	U
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	2.8	U
Naphthalene	1.6	1.6	U
a,a,a-Trifluorotoluene (%)	83-130	89.0	

Dilution Factor 1

NYSDEC Petroleum contaminated Water/Soil compound list.

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

8021 Soil Analysis-NYSDEC List

5030/8021

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97

Group Number: 9701-497
Report Units: ug/kg
Matrix: Soil

Lab ID Number	WS34415	
Client ID	FF WS007	
Date Extracted	NA	
Date Analyzed	06/23/97	

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	1.0	U
Ethylbenzene	1.3	1.3	U
m,p-Xylene	2.8	2.8	U
o-xylene	1.7	1.7	U
Isopropylbenzene	1.6	1.6	U
n-Propylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	1.7	U
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	1.4	U
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	2.8	U
Naphthalene	1.6	1.6	U
a,a,a-Trifluorotoluene (%)	83-130	86.0	

Dilution Factor 1

NYSDEC Petroleum contaminated Water/Soil compound list.

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

8021 Soil Analysis-NYSDEC List

5030/8021

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97

Group Number: 9701-497
Report Units: ug/kg
Matrix: Soil

Lab ID Number	WS34416	
Client ID	FF WS008	
Date Extracted	NA	
Date Analyzed	06/23/97	

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	1.0	U
Ethylbenzene	1.3	1.3	U
m,p-Xylene	2.8	2.8	U
o-xylene	1.7	1.7	U
Isopropylbenzene	1.6	1.6	U
n-Propylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	1.7	U
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	1.4	U
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	2.8	U
Naphthalene	1.6	1.6	U
a,a,a-Trifluorotoluene (%)	83-130	93.0	

Dilution Factor 1

NYSDEC Petroleum contaminated Water/Soil compound list.

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

8021 Soil Analysis-NYSDEC List

5030/8021

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97

Group Number: 9701-497
Report Units: ug/kg
Matrix: Soil

Lab ID Number	WS34417	
Client ID	FF FS004	
Date Extracted	NA	
Date Analyzed	06/23/97	

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	1.0	U
Ethylbenzene	1.3	1.3	U
m,p-Xylene	2.8	2.8	U
o-xylene	1.7	1.7	U
Isopropylbenzene	1.6	1.6	U
n-Propylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	1.7	U
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	1.4	U
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	2.8	U
Naphthalene	1.6	1.6	U
a,a,a-Trifluorotoluene (%)	83-130	98.0	

Dilution Factor 1

NYSDEC Petroleum contaminated Water/Soil compound list.

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

8021 Soil Analysis-NYSDEC List

5030/8021

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97

Group Number: 9701-497
Report Units: ug/kg
Matrix: Soil

Lab ID Number	WS34418	
Client ID	FF WS017	
Date Extracted	NA	
Date Analyzed	06/23/97	

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	1.8	
Ethylbenzene	1.3	1.3	U
m,p-Xylene	2.8	2.8	U
o-xylene	1.7	1.7	U
Isopropylbenzene	1.6	1.6	U
n-Propylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	1.7	U
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	1.4	U
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	2.8	U
Naphthalene	1.6	1.6	U
a,a,a-Trifluorotoluene (%)	83-130 .	98.0	

Dilution Factor 1

NYSDEC Petroleum contaminated Water/Soil compound list.

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

8021 Soil Analysis-NYSDEC List

5030/8021

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97

Group Number: 9701-497
Report Units: ug/kg
Matrix: Soil

Lab ID Number	WS34419	
Client ID	FF WS018	
Date Extracted	NA	
Date Analyzed	06/23/97	

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	1.5	
Ethylbenzene	1.3	1.3	U
m,p-Xylene	2.8	2.8	U
o-xylene	1.7	1.7	U
Isopropylbenzene	1.6	1.6	U
n-Propylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	1.7	U
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	1.4	U
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	2.8	U
Naphthalene	1.6	1.6	U
a,a,a-Trifluorotoluene (%)	83-130 .	94.0	

Dilution Factor 1

NYSDEC Petroleum contaminated Water/Soil compound list.

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

8021 Soil Analysis-NYSDEC List

5030/8021

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97

Group Number: 9701-497
Report Units: ug/kg
Matrix: Soil

Lab ID Number	WS34420	
Client ID	FF FS008	
Date Extracted	NA	
Date Analyzed	06/23/97	

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	1.0	U
Ethylbenzene	1.3	1.3	U
m,p-Xylene	2.8	2.8	U
o-xylene	1.7	1.7	U
Isopropylbenzene	1.6	1.6	U
n-Propylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	1.7	U
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	1.4	U
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	2.8	U
Naphthalene	1.6	1.6	U
a,a,a-Trifluorotoluene (%)	83-130	94.0	

Dilution Factor 1

NYSDEC Petroleum contaminated Water/Soil compound list.

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

DEC List 8270 BNs in Soil

3540/8270

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97

Group Number: 9701-497
Report Units: ug/Kg
Matrix: Soil

Lab ID Number	WS34413	
Client ID	FF WS005	
Date Extracted	06/19/97	
Date Analyzed	06/25/97	

Compound	Detection Limit/ QC Limits (%)	Result	Q
anthracene	495	780	
fluorene	495	413	J
phenanthrene	495	2330	
pyrene	495	1390	
acenaphthene	495	448	J
benzo[a]anthracene	495	971	
fluoranthene	495	2060	
benzo[b]fluoranthene	495	595	
benzo[k]fluoranthene	495	554	
benzo[a]pyrene	495	707	
dibenzo[a,h]anthracene	495	495	U
benzo[g,h,i]perylene	495	334	J
indeno[1,2,3-cd]pyrene	495	365	J
naphthalene	495	251	J
chrysene	495	927	
Nitrobenzene-d5 (%)	23-120	81	
2-Fluorobiphenyl (%)	30-115	77	
Terphenyl-d14 (%)	18-137	70	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

DEC List 8270 BNs in Soil

3540/8270

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97

Group Number: 9701-497
Report Units: ug/Kg
Matrix: Soil

Lab ID Number	WS34414	
Client ID	FF WS006	
Date Extracted	06/19/97	
Date Analyzed	06/25/97	

Compound	Detection Limit/ QC Limits (%)	Result	Q
anthracene	495	495	U
fluorene	495	495	U
phenanthrene	495	147	J
pyrene	495	495	U
acenaphthene	495	495	U
benzo[a]anthracene	495	495	U
fluoranthene	495	495	U
benzo[b]fluoranthene	495	495	U
benzo[k]fluoranthene	495	495	U
benzo[a]pyrene	495	495	U
dibenzo[a,h]anthracene	495	495	U
benzo[g,h,i]perylene	495	495	U
indeno[1,2,3-cd]pyrene	495	495	U
naphthalene	495	495	U
chrysene	495	495	U
Nitrobenzene-d5 (%)	23-120	79	
2-Fluorobiphenyl (%)	30-115	74	
Terphenyl-d14 (%)	18-137	68	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

DEC List 8270 BNs in Soil

3540/8270

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97

Group Number: 9701-497
Report Units: ug/Kg
Matrix: Soil

Lab ID Number	WS34415
Client ID	FF WS007
Date Extracted	06/19/97
Date Analyzed	06/25/97

Compound	Detection Limit/ QC Limits (%)	Result	Q
anthracene	495	495	U
fluorene	495	495	U
phenanthrene	495	236	J
pyrene	495	145	J
acenaphthene	495	495	U
benzo[a]anthracene	495	495	U
fluoranthene	495	207	J
benzo[b]fluoranthene	495	495	U
benzo[k]fluoranthene	495	495	U
benzo[a]pyrene	495	495	U
dibenzo[a,h]anthracene	495	495	U
benzo[g,h,i]perylene	495	495	U
indeno[1,2,3-cd]pyrene	495	495	U
naphthalene	495	495	U
chrysene	495	495	U
Nitrobenzene-d5 (%)	23-120	84	
2-Fluorobiphenyl (%)	30-115	72	
Terphenyl-d14 (%)	18-137	74	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

DEC List 8270 BNs in Soil

3540/8270

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97

Group Number: 9701-497
Report Units: ug/Kg
Matrix: Soil

Lab ID Number	WS34416	
Client ID	FF WS008	
Date Extracted	06/23/97	
Date Analyzed	06/25/97	

Compound	Detection Limit/ QC Limits (%)	Result	Q
anthracene	495	495	U
fluorene	495	327	J
phenanthrene	495	1920	
pyrene	495	1290	
acenaphthene	495	347	J
benzo[a]anthracene	495	803	
fluoranthene	495	1760	
benzo[b]fluoranthene	495	512	
benzo[k]fluoranthene	495	502	
benzo[a]pyrene	495	567	
dibenzo[a,h]anthracene	495	495	U
benzo[g,h,i]perylene	495	246	J
indeno[1,2,3-cd]pyrene	495	262	J
naphthalene	495	196	J
chrysene	495	759	
Nitrobenzene-d5 (%)	23-120	70	
2-Fluorobiphenyl (%)	30-115	61	
Terphenyl-d14 (%)	18-137	70	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

DEC List 8270 BNs in Soil

3540/8270

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97

Group Number: 9701-497
Report Units: ug/Kg
Matrix: Soil

Lab ID Number	WS34417
Client ID	FF FS004
Date Extracted	06/23/97
Date Analyzed	06/25/97

Compound	Detection Limit/ QC Limits (%)	Result	Q
anthracene	495	495	U
fluorene	495	495	U
phenanthrene	495	233	J
pyrene	495	155	J
acenaphthene	495	495	U
benzo[a]anthracene	495	495	U
fluoranthene	495	185	J
benzo[b]fluoranthene	495	495	U
benzo[k]fluoranthene	495	495	U
benzo[a]pyrene	495	495	U
dibenzo[a,h]anthracene	495	495	U
benzo[g,h,i]perylene	495	495	U
indeno[1,2,3-cd]pyrene	495	495	U
naphthalene	495	495	U
chrysene	495	495	U
Nitrobenzene-d5 (%)	23-120	72	
2-Fluorobiphenyl (%)	30-115	69	
Terphenyl-d14 (%)	18-137	80	

Dilution Factor 1

Waste Stream Technology, Inc.

DEC List 8270 BNs in Soil

3540/8270

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97

Group Number: 9701-497
Report Units: ug/Kg
Matrix: Soil

Lab ID Number	WS34418	
Client ID	FF WS017	
Date Extracted	06/23/97	
Date Analyzed	06/26/97	
Compound	**Detection Limit/ QC Limits (%)**	**Result**	**Q**
anthracene	495	495	U
fluorene	495	495	U
phenanthrene	495	265	J
pyrene	495	450	J
acenaphthene	495	495	U
benzo[a]anthracene	495	373	J
fluoranthene	495	368	J
benzo[b]fluoranthene	495	306	J
benzo[k]fluoranthene	495	367	J
benzo[a]pyrene	495	418	J
dibenzo[a,h]anthracene	495	495	U
benzo[g,h,i]perylene	495	246	J
indeno[1,2,3-cd]pyrene	495	362	J
naphthalene	495	495	U
chrysene	495	400	J
Nitrobenzene-d5 (%)	23-120	70	
2-Fluorobiphenyl (%)	30-115	71	
Terphenyl-d14 (%)	18-137	79	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

DEC List 8270 BNs in Soil

3540/8270

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97

Group Number: 9701-497
Report Units: ug/Kg
Matrix: Soil

Lab ID Number	WS34419	
Client ID	FF WS018	
Date Extracted	06/23/97	
Date Analyzed	06/26/97	

Compound	Detection Limit/ QC Limits (%)	Result	Q
anthracene	495	495	U
fluorene	495	495	U
phenanthrene	495	200	J
pyrene	495	495	U
acenaphthene	495	495	U
benzo[a]anthracene	495	495	U
fluoranthene	495	495	U
benzo[b]fluoranthene	495	495	U
benzo[k]fluoranthene	495	495	U
benzo[a]pyrene	495	495	U
dibenzo[a,h]anthracene	495	495	U
benzo[g,h,i]perylene	495	495	U
indeno[1,2,3-cd]pyrene	495	495	U
naphthalene	495	495	U
chrysene	495	495	U
Nitrobenzene-d5 (%)	23-120	79	
2-Fluorobiphenyl (%)	30-115	75	
Terphenyl-d14 (%)	18-137	97	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

DEC List 8270 BNs in Soil

3540/8270

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97

Group Number: 9701-497
Report Units: ug/Kg
Matrix: Soil

Lab ID Number	WS34420	
Client ID	FF FS008	
Date Extracted	06/23/97	
Date Analyzed	06/26/97	
Compound	**Detection Limit/ QC Limits (%)**	**Result**	**Q**
anthracene	495	495	U
fluorene	495	495	U
phenanthrene	495	280	J
pyrene	495	164	J
acenaphthene	495	495	U
benzo[a]anthracene	495	495	U
fluoranthene	495	196	J
benzo[b]fluoranthene	495	495	U
benzo[k]fluoranthene	495	495	U
benzo[a]pyrene	495	495	U
dibenzo[a,h]anthracene	495	495	U
benzo[g,h,i]perylene	495	495	U
indeno[1,2,3-cd]pyrene	495	495	U
naphthalene	495	495	U
chrysene	495	495	U
Nitrobenzene-d5 (%)	23-120	73	
2-Fluorobiphenyl (%)	30-115	69	
Terphenyl-d14 (%)	18-137	78	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

TCLP 8270 DEC BN List

1311/8270

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97
TCLP Extraction Date: 06/17/97

Group Number: 9701-497
Report Units: ug/L
Matrix: TCLP Extract

	Lab ID Number	WS34413
	Client ID	FF WS005
	Date Extracted	06/20/97
	Date Analyzed	06/20/97

Compound	Detection Limit/ QC Limits (%)	Result	Q
anthracene	10	10	U
fluorene	10	10	U
phenanthrene	10	10	U
pyrene	10	10	U
acenaphthene	10	10	U
benzo (a) anthracene	10	10	U
fluoranthene	10	10	U
benzo (b) fluoranthene	10	10	U
benzo (k) fluoranthene	10	10	U
benzo (a) pyrene	10	10	U
dibenzo (a,h) anthracene	10	10	U
benzo (g,h,i) perylene	10	10	U
indeno (1,2,3-cd) pyrene	10	10	U
naphthalene	10	10	U
chrysene	10	10	U
Nitrobenzene-d5 (%)	35-114	65	
2-Fluorobiphenyl (%)	43-116	70	
Terphenyl-d14 (%)	33-141	60	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

TCLP 8270 DEC BN List

1311/8270

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97
TCLP Extraction Date: 06/17/97

Group Number: 9701-497
Report Units: ug/L
Matrix: TCLP Extract

	Lab ID Number	WS34414
	Client ID	FF WS006
	Date Extracted	06/20/97
	Date Analyzed	06/20/97

Compound	Detection Limit/ QC Limits (%)	Result	Q
anthracene	10	10	U
fluorene	10	10	U
phenanthrene	10	10	U
pyrene	10	10	U
acenaphthene	10	10	U
benzo (a) anthracene	10	10	U
fluoranthene	10	10	U
benzo (b) fluoranthene	10	10	U
benzo (k) fluoranthene	10	10	U
benzo (a) pyrene	10	10	U
dibenzo (a,h) anthracene	10	10	U
benzo (g,h,i) perylene	10	10	U
indeno (1,2,3-cd) pyrene	10	10	U
naphthalene	10	10	U
chrysene	10	10	U
Nitrobenzene-d5 (%)	35-114	54	
2-Fluorobiphenyl (%)	43-116	58	
Terphenyl-d14 (%)	33-141	59	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

TCLP 8270 DEC BN List

1311/8270

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97
TCLP Extraction Date: 06/17/97

Group Number: 9701-497
Report Units: ug/L
Matrix: TCLP Extract

	Lab ID Number	WS34415	
	Client ID	FF WS007	
	Date Extracted	06/20/97	
	Date Analyzed	06/20/97	
Compound	**Detection Limit/ QC Limits (%)**	**Result**	**Q**
anthracene	10	10	U
fluorene	10	10	U
phenanthrene	10	10	U
pyrene	10	10	U
acenaphthene	10	10	U
benzo (a) anthracene	10	10	U
fluoranthene	10	10	U
benzo (b) fluoranthene	10	10	U
benzo (k) fluoranthene	10	10	U
benzo (a) pyrene	10	10	U
dibenzo (a,h) anthracene	10	10	U
benzo (g,h,i) perylene	10	10	U
indeno (1,2,3-cd) pyrene	10	10	U
naphthalene	10	10	U
chrysene	10	10	U
Nitrobenzene-d5 (%)	35-114	60	
2-Fluorobiphenyl (%)	43-116	68	
Terphenyl-d14 (%)	33-141	65	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

TCLP 8270 DEC BN List

1311/8270

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97
TCLP Extraction Date: 06/17/97

Group Number: 9701-497
Report Units: ug/L
Matrix: TCLP Extract

	Lab ID Number	WS34416
	Client ID	FF WS008
	Date Extracted	06/20/97
	Date Analyzed	06/20/97

Compound	Detection Limit/ QC Limits (%)	Result	Q
anthracene	10	10	U
fluorene	10	10	U
phenanthrene	10	10	U
pyrene	10	10	U
acenaphthene	10	10	U
benzo (a) anthracene	10	10	U
fluoranthene	10	10	U
benzo (b) fluoranthene	10	10	U
benzo (k) fluoranthene	10	10	U
benzo (a) pyrene	10	10	U
dibenzo (a,h) anthracene	10	10	U
benzo (g,h,i) perylene	10	10	U
indeno (1,2,3-cd) pyrene	10	10	U
naphthalene	10	10	U
chrysene	10	10	U
Nitrobenzene-d5 (%)	35-114	63	
2-Fluorobiphenyl (%)	43-116	67	
Terphenyl-d14 (%)	33-141	67	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

TCLP 8270 DEC BN List

1311/8270

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97
TCLP Extraction Date: 06/17/97

Group Number: 9701-497
Report Units: ug/L
Matrix: TCLP Extract

	Lab ID Number	WS34417
	Client ID	FF FS004
	Date Extracted	06/20/97
	Date Analyzed	06/20/97

Compound	Detection Limit/ QC Limits (%)	Result	Q
anthracene	10	10	U
fluorene	10	10	U
phenanthrene	10	10	U
pyrene	10	10	U
acenaphthene	10	10	U
benzo (a) anthracene	10	10	U
fluoranthene	10	10	U
benzo (b) fluoranthene	10	10	U
benzo (k) fluoranthene	10	10	U
benzo (a) pyrene	10	10	U
dibenzo (a,h) anthracene	10	10	U
benzo (g,h,i) perylene	10	10	U
indeno (1,2,3-cd) pyrene	10	10	U
naphthalene	10	10	U
chrysene	10	10	U
Nitrobenzene-d5 (%)	35-114	55	
2-Fluorobiphenyl (%)	43-116	59	
Terphenyl-d14 (%)	33-141	56	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

TCLP 8270 DEC BN List

1311/8270

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97
TCLP Extraction Date: 06/17/97

Group Number: 9701-497
Report Units: ug/L
Matrix: TCLP Extract

Lab ID Number	WS34418	
Client ID	FF WS017	
Date Extracted	06/20/97	
Date Analyzed	06/20/97	

Compound	Detection Limit/ QC Limits (%)	Result	Q
anthracene	10	10	U
fluorene	10	10	U
phenanthrene	10	10	U
pyrene	10	10	U
acenaphthene	10	10	U
benzo (a) anthracene	10	10	U
fluoranthene	10	10	U
benzo (b) fluoranthene	10	10	U
benzo (k) fluoranthene	10	10	U
benzo (a) pyrene	10	10	U
dibenzo (a,h) anthracene	10	10	U
benzo (g,h,i) perylene	10	10	U
indeno (1,2,3-cd) pyrene	10	10	U
naphthalene	10	10	U
chrysene	10	10	U
Nitrobenzene-d5 (%)	35-114	48	
2-Fluorobiphenyl (%)	43-116	46	
Terphenyl-d14 (%)	33-141	52	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

TCLP 8270 DEC BN List

1311/8270

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97
TCLP Extraction Date: 06/17/97

Group Number: 9701-497
Report Units: ug/L
Matrix: TCLP Extract

	Lab ID Number	WS34419
	Client ID	FF WS018
	Date Extracted	06/23/97
	Date Analyzed	06/23/97

Compound	Detection Limit/ QC Limits (%)	Result	Q
anthracene	10	10	U
fluorene	10	10	U
phenanthrene	10	10	U
pyrene	10	10	U
acenaphthene	10	10	U
benzo (a) anthracene	10	10	U
fluoranthene	10	10	U
benzo (b) fluoranthene	10	10	U
benzo (k) fluoranthene	10	10	U
benzo (a) pyrene	10	10	U
dibenzo (a,h) anthracene	10	10	U
benzo (g,h,i) perylene	10	10	U
indeno (1,2,3-cd) pyrene	10	10	U
naphthalene	10	10	U
chrysene	10	10	U
Nitrobenzene-d5 (%)	35-114	59	
2-Fluorobiphenyl (%)	43-116	64	
Terphenyl-d14 (%)	33-141	59	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

TCLP 8270 DEC BN List

1311/8270

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97
TCLP Extraction Date: 06/17/97

Group Number: 9701-497
Report Units: ug/L
Matrix: TCLP Extract

	Lab ID Number	WS34420	
	Client ID	FF FS008	
	Date Extracted	06/23/97	
	Date Analyzed	06/23/97	
Compound	**Detection Limit/ QC Limits (%)**	**Result**	**Q**
anthracene	10	10	U
fluorene	10	10	U
phenanthrene	10	10	U
pyrene	10	10	U
acenaphthene	10	10	U
benzo (a) anthracene	10	10	U
fluoranthene	10	10	U
benzo (b) fluoranthene	10	10	U
benzo (k) fluoranthene	10	10	U
benzo (a) pyrene	10	10	U
dibenzo (a,h) anthracene	10	10	U
benzo (g,h,i) perylene	10	10	U
indeno (1,2,3-cd) pyrene	10	10	U
naphthalene	10	10	U
chrysene	10	10	U
Nitrobenzene-d5 (%)	35-114	69	
2-Fluorobiphenyl (%)	43-116	77	
Terphenyl-d14 (%)	33-141	64	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Quality Control Analysis Results

A. Method 8021 Analysis

1. Method Blank Results - Low Level Soil Analysis
2. Method Blank Results - High Level Soil Analysis
2. Reference Sample Results

B. Method 3540/8270 Soil Analysis

1. Method Blank Results
2. Reference Sample Results

C. TCLP 8270 Analysis

1. Method Blank Results
2. Reference Sample Results

D. TCLP Metals Analysis

1. Method Blank Results
2. Reference Sample Results

Waste Stream Technology, Inc.

8021 Soil Method Blank Analysis

5030/8021

Site: GRIFFISS AIRFORCE BASE
Date Sampled: NA
Date Received: NA

Group Number: 9701-497
Report Units: PPB

Lab ID Number	MB062397	
Client ID	NA	
Date Extracted	NA	
Date Analyzed	06/23/97	
Compound	**Detection Limit/ QC Limits (%)**	**Result**	**Q**
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	1.0	U
Ethylbenzene	1.3	1.3	U
M,P-Xylene	2.8	2.8	U
O-Xylene	1.7	1.7	U
Isopropylbenzene	1.6	1.6	U
N-Propylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	1.7	U
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	1.4	U
Sec-Butylbenzene	2.2	2.2	U
P-Isopropyltoluene	1.8	1.8	U
N-Butylbenzene	2.8	2.8	U
Napthalene	1.6	1.6	U
a,a,a-Trifluorotoluene (%)	83-130 .	94.0	

Dilution Factor 1

NYSDEC Petroleum contaminated Water/Soil compound list.
MB Denotes Method Blank
NA Denotes Not Applicable

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

8021 Soil Method Blank Analysis

5030/8021

Site: GRIFFISS AIRFORCE BASE
Date Sampled: NA
Date Received: NA

Group Number: 9701-497
Report Units: PPB

Lab ID Number	MB062497	
Client ID	NA	
Date Extracted	06/24/97	
Date Analyzed	06/24/97	
Compound	**Detection Limit/ QC Limits (%)**	**Result**	**Q**
Methyl-t-butylether	625	625	U
Benzene	125	125	U
Toluene	125	125	U
Ethylbenzene	163	163	U
M,P-Xylene	350	350	U
O-Xylene	213	213	U
Isopropylbenzene	200	200	U
N-Propylbenzene	213	213	U
1,3,5-Trimethylbenzene	213	213	U
tert-Butylbenzene	450	450	U
1,2,4-Trimethylbenzene	175	175	U
Sec-Butylbenzene	275	275	U
P-Isopropyltoluene	225	225	U
N-Butylbenzene	350	350	U
Napthalene	200	200	U
a,a,a-Trifluorotoluene (%)	83-130	101	

Dilution Factor **125**

NYSDEC Petroleum contaminated Water/Soil compound list.
MB Denotes Method Blank
NA Denotes Not Applicable

WASTE STREAM TECHNOLOGY

Waste Stream Technology Inc.
Soil 8021 Reference Sample Recovery Report
NYS DEC STARS Compound List

Site : Griffis Air Force
Date Analyzed : 6/23/97

Group Number : 9701-497

Compound	Spike Added (ug/L)	Reference Sample Result (ug/L)	% Recovery	QC Limits % Recovery
MTBE	20	18.3	91	60 - 142
Benzene	20	18.5	92	76 - 111
Toluene	20	20.6	103	69 - 126
Ethylbenzene	20	20.2	101	70 - 114
m,p- Xylene	40	40.5	101	80 - 117
o-xylene	20	20.6	103	80 - 120
Isopropylbenzene	20	17.7	89	82 - 117
n-Propylbenzene	20	19.2	96	87 - 123
1,3,5-Trimethylbenzene	20	18.8	94	88 - 123
tert-Butylbenzene	20	20.3	101	86 - 128
1,2,4-Trimethylbenzene	20	17.8	89	85 - 129
sec-Butylbenzene	20	18.6	93	86 - 127
p-Isopropyltoluene	20	19.5	97	91 - 131
n-Butylbenzene	20	19.1	95	87 - 134
Naphthalene	20	17.3	86	84 - 155
Surrogate Recovery %				
a,a,a-Trifluorotoluene		93		83 - 130

Waste Stream Technology, Inc.

8270 DEC BN List Method Blank

3540/8270

Site: GRIFFISS AIRFORCE BASE
Date Sampled: NA
Date Received: NA

Group Number: 9701-497
Report Units: PPB

Lab ID Number	MB061997
Client ID	NA
Date Extracted	06/19/97
Date Analyzed	06/25/97

Compound	Detection Limit/ QC Limits (%)	Result	Q
Anthrcene	495	495	U
Fluorene	495	495	U
Phenanthrene	495	495	U
Pyrene	495	495	U
Acenaphthene	495	495	U
Benzo[a]anthracene	495	495	U
Fluoranthene	495	495	U
Benzo[b]fluoranthene	495	495	U
Benzo[k]fluoranthene	495	495	U
Benzo[a]pyrene	495	495	U
Dibenzo[a,h]anthracene	495	495	U
benzo[g,h,i]perylene	495	495	U
Indeno[1,2,3-cd]pyrene	495	495	U
Naphthalene	495	495	U
Chrysene	495	495	U
Nitrobenzene-d5 (%)	23-120	83	
2-Fluorobiphenyl (%)	30-115	77	
Terphenyl-d14 (%)	18-137	61	

Dilution Factor 1
MB Denotes Method Blank
NA Denotes Not Applicable

WASTE STREAM TECHNOLOGY

Waste Stream Technology Inc.
3540/8270 Soil Reference Sample Recovery Report
NYS DEC STARS Compound List

Site : Griffis Air Force Base
Date Extracted : 6/19/97

Group Number : 9701-497
Date Analyzed : 6/25/97

Compound	Spike Amount (ug/kg)	Reference Sample Result (ug/kg)	% Recovery	QC Limits % Recovery
anthracene	1670	1393	83	71 - 121
fluorene	1670	1257	75	71 - 123
phenanthrene	1670	1470	88	72 - 124
pyrene	1670	1007	60 #	62 - 132
acenaphthene	1670	1457	87	69 - 129
benzo[a]anthracene	1670	1393	83	70 - 121
fluoranthene	1670	1427	85	68 - 129
benzo[b]fluoranthene	1670	1197	72	34 - 116
benzo[k]fluoranthene	1670	1077	64	47 - 112
benzo[a]pyrene	1670	1270	76	46 - 108
dibenzo[a,h]anthracene	1670	1370	82	32 - 128
benzo[g,h,i]perylene	1670	1273	76	25 - 129
indeno[1,2,3-cd]pyrene	1670	1300	78	36 - 123
naphthalene	1670	1427	85	55 - 121
chrysene	1670	1390	83	72 - 124
Surrogate Recovery %				
Nitrobenzene-d5		81		23 - 120
2-Fluorobiphenyl		76		30 - 115
p-Terphenyl-d14		60		18 - 137

Waste Stream Technology, Inc.

Method Blank for TCLP 8270-DEC

1311/8270

Site: GRIFFISS AIRFORCE BASE
Date Sampled: NA
Date Received: NA
TCLP Extraction Date: 06/17/97

Group Number: 9701-497
Report Units: PPB

Lab ID Number	MB062097	
Client ID	NA	
Date Extracted	06/20/97	
Date Analyzed	06/20/97	
Compound	**Detection Limit/ QC Limits (%)**	**Result**	**Q**
Anthracene	10	10	U
Fluorene	10	10	U
Phenanthrene	10	10	U
Pyrene	10	10	U
Acenaphthene	10	10	U
Benzo[a]Anthracene	10	10	U
Fluoranthene	10	10	U
Benzo[b]Fluoranthene	10	10	U
Benzo[k]fluoranthene	10	10	U
Benzo[a]pyrene	10	10	U
Dibenzo[a,h]anthracene	10	10	U
Benzo[g,h,i]perylene	10	10	U
Indeno[1,2,3-cd]pyrene	10	10	U
Naphthalene	10	10	U
Chrysene	10	10	U
Nitrobenzene-d5 (%)	35-114	48	
2-Fluorobiphenyl (%)	43-116	56	
Terphenyl-d14 (%)	33-141	69	

Dilution Factor 1
MB Denotes Method Blank
NA Denotes Not Applicable

Waste Stream Technology Inc.

TCLP 8270 Reference Sample Recovery Report

NYS DEC STARS Compound List

Site : Griffis Airforce Base
TCLP Date : 6/17/97
Extraction Date : 6/20/97

Group Number : 9701-497
Date Analyzed : 6/20/97

Compound	Spike Amount (ug/L)	Reference Sample Result (ug/L)	% Recovery	QC Limits % Recovery
anthracene	50	37.7	75	57 - 122
fluorene	50	35.6	71	62 - 120
phenanthrene	50	39.0	78	61 - 124
pyrene	50	28.7	57	57 - 127
acenaphthene	50	38.3	77	64 - 119
benzo[a]anthracene	50	32.2	64	60 - 123
fluoranthene	50	34.4	69	51 - 129
benzo[b]fluoranthene	50	30.2	60	50 - 131
benzo[k]fluoranthene	50	26.7	53	50 - 132
benzo[a]pyrene	50	29.3	59	56 - 128
dibenzo[a,h]anthracene	50	24.5	49	20 - 143
benzo[g,h,i]perylene	50	24.2	48	12 - 154
indeno[1,2,3-cd]pyrene	50	26.8	54	22 - 143
naphthalene	50	36.5	73	60 - 110
chrysene	50	32.4	65	62 - 125
Surrogate Recovery %				
Nitrobenzene-d5		65		35 - 114
2-Fluorobiphenyl		79		43 - 116
p-Terphenyl-d14		64		33 - 141

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

Method Blank For TCLP Metals

Site: GRIFFISS AIRFORCE BASE
Date Sampled: NA
Date Received: NA

Group Number: 9701-497
Report Units: PPM
TCLP Extraction Date: 06/22/97

Lab ID Number:	MBRR4454T-1
Client ID:	NA
Date Digested:	06/23/97

Analyte	Detection Limit	Result	Date Analyzed	Analysis Method
As TCLP Method Blank	0.005	< 0.005	06/23/97	SW-846 7060
Se TCLP Method Blank	0.003	< 0.003	06/24/97	SW-846 7740
Hg TCLP Method Blank	0.001	< 0.001	06/25/97	SW-846 7470
Pb TCLP Method Blank	0.120	< 0.120	06/24/97	SW-846 6010
Cd TCLP Method Blank	0.015	< 0.015	06/24/97	SW-846 6010
Ba TCLP Method Blank	0.011	< 0.011	06/24/97	SW-846 6010
Cr TCLP Method Blank	0.011	< 0.011	06/24/97	SW-846 6010
Ag TCLP Method Blank	0.015	< 0.015	06/24/97	SW-846 6010

MB denotes Method Blank
NA denotes Not Applicable

WASTE STREAM TECHNOLOGY

Waste Stream Technology Inc.

TCLP Metals Reference Sample Recovery Report

Site : Griffis Airforce Base
TCLP Date : 6/22/97

Group Number : 9701-497
Date Digested : 6/23/97

Compound	Date Analyzed	Spike Amount (mg/L)	Reference Sample Result (mg/L)	% Recovery	QC Limits % Recovery
Lead	6/24/97	2.00	1.67	83	75 - 125
Cadmium	6/24/97	2.00	1.68	84	75 - 125
Barium	6/24/97	2.00	1.64	82	75 - 125
Chromium	6/24/97	2.00	1.57	78	75 - 125
Silver	6/24/97	2.00	1.60	80	75 - 125
Arsenic	6/23/97	2.00	1.96	98	75 - 125
Selenium	6/24/97	2.00	1.91	96	75 - 125
Mercury	6/25/97	0.0063	0.0063	100	75 - 125

WASTE STREAM TECHNOLOGY

ABSCOPE

WASTE STREAM TECHNOLOGY

302 GROTE STREET
BUFFALO, NY 14207
(716) 876-5290

9701 - 497

CHAIN OF CUSTODY RECORD

PROJECT NO: 96660 DACA 41-96-C8015

SITE NAME: Griffiss Air Force Base Site 100 Filter Pit

SAMPLERS (SIGNATURE): [signature]

	SAMPLE NO.	DATE	TIME	COMP	GRAB	MATRIX	SAMPLE LOCATION	SIZE & NO. OF CONTAINERS	8021	8270	TCLP 8270				PRESERVATIVES	REMARKS
1	FF WS005	6/17/97	10:00		X	Soil	North Wall Filter Pit	1/4oz 1/1202	↓	↓	↓		WS344	13	4°C	TO BE Composited
2	FF WS006	↓	10:15		TO BE Composited	↓	East ~~Pit~~ Wall Filter Pit	↓	↓	↓	↓		↓	14		In LAB
3	FF WS007	↓	10:30			↓	South Wall Filter Pit	↓	↓	↓	↓		↓	15		↓
4	FF WS008	↓	10:45			↓	West Wall Filter Pit	↓	↓	↓	↓		↓	16		↓

STAMS

RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)
[signature]	6/17/97 3:00	Shipping Lag Time →		6/18/97 10:00	Deb [signature]
RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)

SPECIAL INSTRUCTIONS: USE Sample As on Report
Report STAMS Cleanup Criteria

TURNAROUND TIME 1 WEEK

USE: FRIDGE #: SHELF #: GROUP #: DUE DATE:

WASTE STREAM TECHNOLOGY

302 GROTE STREET
BUFFALO, NY 14207
(716) 876-5290

9701-497

STARS

CHAIN OF CUSTODY RECORD

Filter Pit

PROJECT NO: 96660 SITE NAME: Griffiss Airforce Base Site 100

DACA41-96-D-8015

SAMPLERS (SIGNATURE):

	SAMPLE NO.	DATE	TIME	COMP	GRAB	MATRIX	SAMPLE LOCATION	SIZE & NO. OF CONTAINERS	8021	8270	TCLP 8270	40 TPA	TCLP METALS		PRESERVATIVES	REMARKS
5	FF FS001	6/17/97	11:15		X	Soil	Floor Composite Filter Pit	1) 40z 1) 80z					WSB44	17	4oC	To BE Composite Inv LAB
6	FF WS017		11:30		X		East WALL G-1	1) 16oz 2) 4oz						18		GRABS
7	FF WS018		12:00		X		West WALL G-2							19		
8	FF FS006		1:00		X		Floor							20		
9	STOCK 100-2		1:15		X		Stockpiled Contaminated Soil	2) 16oz 2) 4oz			X	X		21		

RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)
	6/17/97 3:00	Shipping Lab	Time →	6/18/97 10:00	
RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)

SPECIAL INSTRUCTIONS: USE Sample #'s on Report
Report STARS Cleanup Criteria

TURNAROUND TIME 1 WEEK

LAB USE: REFRIGERATOR # _____ SHELF # _____ GROUP # _____ DUE DATE _____

ABSCOPE

WASTE STREAM TECHNOLOGY

302 GROTE STREET
BUFFALO, NY 14207
(716) 876-5290

9701-497

CHAIN OF CUSTODY RECORD

Filter Pit

PROJECT NO: 96660 DACA 41-96-C8015
SITE NAME: Griffiss Air Force Base Site 100

SAMPLERS (SIGNATURE): [signature]

SAMPLE NO.	DATE	TIME	COMP	GRAB	MATRIX	SAMPLE LOCATION	SIZE & NO. OF CONTAINERS	8021	8270	7471/6010 (?)					PRESERVATIVES	REMARKS
FF WS005	6/5/97	10:00		X To be composited in lab	Soil	North Wall Filter Pit	1/4 oz 1/2 oz	↓	↓	↓			053441	13	4°C	To be composited
FF WS006	↓	10:15			↓	East Wall Filter Pit	↓	↓	↓	↓			↓	14		In LAB
FF WS007	↓	10:30			↓	South Wall Filter Pit	↓	↓	↓	↓			↓	15		↓
FF WS008	↓	10:45			↓	West Wall Filter Pit	↓	↓	↓	↓			↓	16		↓

RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)
[signature]	6/10/97 3:00	[signature]	[signature] →	6/18/97 11:00	[signature]
RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)

SPECIAL INSTRUCTIONS: Use sample as on project. Report STARS Cleanup Criteria

TURNAROUND TIME 1 WEEK

STARS

IPA UST Pit Analytical

WASTE STREAM TECHNOLOGY, INC.

302 Grote Street
Buffalo, NY 14207
(716)876-5290

Analytical Data Report

Report Date : 06/30/97
Group Number : 9701-517

Prepared For :
Mr. Rob Gray
Abscope Environmental
1 Commercial Drive
Canastota, NY 13032

Site : Griffis Air Force Base

Field and Laboratory Information

Client Id	WST Lab #	Matrix	Date Sampled	Date Received	Time
FF WS001	WS34589	Soil	6/19/97	6/20/97	0930
FF WS002	WS34591	Soil	6/19/97	6/20/97	0930
FF WS003	WS34593	Soil	6/19/97	6/20/97	0930
FF WS004	WS34595	Soil	6/19/97	6/20/97	0930
FF FS015	WS34596	Soil	6/19/97	6/20/97	0930
FF WS016	WS34597	Soil	6/19/97	6/20/97	0930
FF FS003	WS34598	Aqueous	6/19/97	6/20/97	0930
Sample Status Upon Receipt : No irregularities.					

Analytical Services

Analytical Parameters	Number of Samples	Turnaround Time
8021 STARS	7	Standard
8270 STARS	7	Standard
TCLP 8270 STARS	6	Standard
8021 STARS MS/MSD	3	Standard
8270 STARS MS/MSD	3	Standard
TCLP 8270 STARS MS	3	Standard

Report Released By : B. Schepart

Dr. Brian Schepart, Laboratory Director

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS
NYSDOH ELAP #11179 NJDEPE #73977 CDHS ELAP #2189

WASTE STREAM TECHNOLOGY

METHODOLOGIES

The specific methodologies employed in obtaining the analytical data reported are indicated on each of the result forms. The method numbers shown refer to the following analytical method references:

Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020, March 1979, Revised 1983, U.S. Environmental Monitoring and Support Laboratory, Cincinnati, Ohio 45268.

Federal Register, 40 CFR Part 136: Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act. Revised July 1992.

Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. Third Edition, Revised September 1994, United States EPA SW-846.

Annual Book of ASTM Standards, Volume II. ASTM, 1916 Race Street, Philadelphia, Pennsylvania 19103.

Standard Methods for the Examination of Water and Wastewater. (18th Edition). American Public Health Association, 1105 18th Street, NW, Washington, D.C. 20036.

ORGANIC DATA QUALIFIERS

U - Indicates compound was analyzed for but not detected.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicates the presence of a compound that meets identification criteria, but the result is less than the sample quantitation limit but greater than zero.

C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.

B - This flag is used when the analyte is found in the associated blank as well as the sample.

E - This flag identifies all compounds whose concentrations exceed the calibration range of the GC/MS instrument or that specific analysis.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.

G - Matrix spike recovery is greater than the expected upper limit of analytical performance.

L - Matrix spike recovery is less than the expected lower limit of analytical performance.

- Indicates that a surrogate recovery was found to be outside the expected limits of analytical performance.

$ - Indicates that the surrogate compound was diluted out because the sample had to be diluted to obtain analytical results and a recovery could not be calculated.

(%) Indicates that the compound is a surrogate and the values reported for these compounds are in percent recovery. The quality control recovery limits (QC Limits) are indicated in the detection limit column.

TABLE 2
Guidance Values for Fuel Oil Contaminated Soil*

Compound	EPA Method	Detection Limit[1] (ppb)		TCLP Extraction Guidance Value[2] C_w (ppb)	TCLP Alternative Guidance Value C_a (ppb)	Human Health Guidance Value C_h (ppb)	Sediment Guidance Value C_s (ppb)	
		Liquid	Solid				Fresh	Marine
Benzene	8021 (8020)	1	2	0.7	14	2.4×10^4		
Ethylbenzene	8021 (8020)	1	2	5	100	8.0×10^6		
Toluene	8021 (8020)	1	2	5	100	2.0×10^7		
o-Xylene	8021 (8020)	2	2	5	100	2.0×10^8		
m-Xylene	8021 (8020)	2	2	5	100	2.0×10^8		
p-Xylene	8021 (8020)	2	2	5	100	• • •		
Mixed Xylenes	8021 (8020)	2	2	5	100	2.0×10^8		
Isopropylbenzene	8021	1	1	5	100	• • •		
n-Propylbenzene	8021	1	1	5	100	• • •		
p-Isopropyltoluene	8021	1	1	5	100	• • •		
',4-Trimethylbenzene	8021	1	1	5	100	• • •		
1,3,5-Trimethylbenzene	8021	1	1	5	100	• • •		
n-Butylbenzene	8021	1	1	5	100	• • •		
sec-Butylbenzene	8021	1	1	5	100	• • •		
t-Butyl benzene	8021	1	1	5	100	• • •		
Naphthalene[3]	8021 (8270)	1 (6)	1 (330)	10	200	3.0×10^5		
Anthracene	8270	8	330	50	1,000	2.0×10^7		
Fluorene	8270	8	330	50	1,000	3.0×10^6		
Phenanthrene	8270	22	330	50	1,000	• • •		
Pyrene	8270	8	330	50	1,000	2.0×10^6		
Acenaphthene	8270	8	330	20	400	5.0×10^6		
Benzo(a)anthracene	8270	31	330	.002	.04[4]	220	33	18
Fluoranthene	8270	9	330	50	1,000	3.0×10^6		

(CONTINUED ON THE NEXT PAGE)

TABLE 2 (Cont'd)
Guidance Values for Fuel Oil Contaminated Soil*

Compound	EPA Method	Detection Limit (ppb)		TCLP Extraction Guidance Value[3] C_w (ppb)	TCLP Alternative Guidance Value C_e (ppb)	Human Health Guidance Value C_h (ppb)	Sediment Guidance Value C_s (ppb)	
		Liquid	Solid				Fresh	Marine
Benzo(b)fluoranthene	8270	19	330	.002	.04[4]	220	33	18
Benzo(k)fluoranthene	8270	10	330	.002	.04[4]	220	33	18
Chrysene	8270	10	330	.002	.04[4]	***	33	18
Benzo(a)pyrene	8270	10	330	.002	.04[4]	61	33	18
Benzo(g,h,i)perylene	8270	10	330	.002	.04[4]	***		
Indeno(1,2,3-cd)pyrene	8270	10	330	.002	.04[4]	***		
Dibenz(a,h)anthracene	8270	10	330	50	1,000	14		

* **Nuisance Characteristics Guidance:**
  No Petroleum-type odors.
  No individual contaminant in soil at greater than 10,000 ppb.

[1] The listed Detection Limits are Practical Quantitation Limits (PQL's). The Method Detection Limit (MDL) is the best possible detection. Laboratories report the Practical Quantitation Limit (PQL), which is generally 4 times the MDL. Efforts should be made to obtain the best detection possible when selecting a laboratory. When the Guidance Value or standard is below the detection limit, achieving the detection limit will be considered acceptable for meeting the Guidance Value or standard.

[2] The TCLP Extraction Guidance Values are equal to the NYSDEC groundwater quality standards or Guidance Values, or the NYSDOH drinking water quality standards or Guidance Values, whichever is more stringent.

[3] For naphthalene analysis in a liquid matrix, both Method 8021 and Method 8270 can provide satisfactory levels for comparison to the C_w of 10 ppb.

For naphthalene analysis in a solid matrix, Method 8021 is preferred over Method 8270 for comparison to the C_e of 200 ppb. If the C_e Guidance Value is not being used in the soil evaluation, then both Method 8021 and 8270 can provide satisfactory detection levels for comparison to the C_h of 3.0×10^5, and nuisance characteristic of 10,000 ppb.

[4] Due to the high detection limit for a solid matrix, the TCLP Extraction Method must be used to demonstrate groundwater quality protection for these compounds.

*** No Guidance Value identified in EPA HEAST Report.

Case Narrative

The following comments and observations were made regarding the analysis of the samples from the Griffis Air Force Base for Abscope Environmental corresponding to the Waste Stream Technology Sample Group Number 9701-517 and sample numbers WS34589 through WS34598 which were sampled on 6/19/97 and received on 6/20/97;

1.0 Analysis of Field Designated Quality Assurance Samples

The samples received as field designated quality assurance samples were given separate sample identification numbers than the samples with which they are associated. The table below lists the sample ID of the field designated QA samples, the sample ID of the sample with which they are associated and their site sample description.

Sample ID	QA Sample ID	Site Sample Description
WS34589	WS34590	FF WS001
WS34591	WS34592	FF WS002
WS34593	WS34594	FF WS003

Each field designated QA sample was analyzed as matrix spike and matrix spike duplicate samples for the Method 8021 and Method 8270 soil analyses for the NYS DEC STARS list compounds. The QA samples were also TCLP extracted and the TCLP extracts were analyzed as matrix spike samples for the TCLP Method 8270 analyses. The results from the unspiked associated site samples were used to calculate the MS/MSD recoveries and RPDs. The results of these analyses are presented in the Quality Control section of this report.

2.0 Method 8021 Matrix Spike/Matrix Spike Duplicate Results

2.1 The matrix spike (MS) and matrix spike duplicate (MSD) analysis of WS34594 exhibited low recoveries for the target analytes toluene and o-xylene. The consistency of the recoveries between the MS and MSD analyses, as exhibited by the acceptable RPDs, indicates that the low recoveries were due to sample matrix effects. The acceptable recoveries for the other target analytes in the MS and MSD analyses suggests that only toluene and o-xylene seem to have been effected.

3.0 Method 8270 Soil MS/MSD Analysis Results

3.1 The matrix spike and matrix spike duplicate analyses for both sample numbers WS34592 and WS34594 exhibited recoveries for the compounds fluorene, acenaphthene, benzo[k}fluoranthene and naphthalene that were slightly below the lower quality control recovery limits. The consistency of the recoveries between the MS and MSD analyses, as exhibited by the low relative percent differences (RPDs), indicates that the sample matrix is the most probable cause for the low recoveries.

4.0 Method 8021 Analysis of WS34598 (FF FS003)

4.1 Sample number WS34598 required analysis at a 20 fold dilution in order to obtain acceptable chromatography due to sample matrix interference..

5.0 Method 8270 Analysis of WS34598 (FF FS003)

5.1 Since sample number WS34598 was an aqueous sample, performing both the direct 8270 STARS and the TCLP 8270 STARS analyses would have been redundant. Therefore, the TCLP analysis was not performed.

5.2 WS34598 was extracted in the same sample batch as the TCLP extracts from this sample group. The TCLP method blank and reference sample results reported in the QC section of the report should be used to evaluate the Method 8270 data for this sample as well.

Daniel W. Vollmer Date 7/18/97

Daniel W. Vollmer
QA/QC Officer

Waste Stream Technology, Inc.

8021 Soil Analysis-NYSDEC List

5030/8021

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/19/97
Date Received: 06/20/97

Group Number: 9701-517
Report Units: ug/kg
Matrix: Soil

Lab ID Number	WS34589	
Client ID	FF WS001	
Date Extracted	NA	
Date Analyzed	06/23/97	

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	1.0	U
Ethylbenzene	1.3	1.3	U
m,p-Xylene	2.8	2.8	U
o-xylene	1.7	1.7	U
Isopropylbenzene	1.6	1.6	U
n-Propylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	1.7	U
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	1.4	U
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	2.8	U
Naphthalene	1.6	1.6	U
a,a,a-Trifluorotoluene (%)	83-130 .	89.0	

Dilution Factor 1

NYSDEC Petroleum contaminated Water/Soil compound list.

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

8021 Soil Analysis-NYSDEC List

5030/8021

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/19/97
Date Received: 06/20/97

Group Number: 9701-517
Report Units: ug/kg
Matrix: Soil

Lab ID Number	WS34591	
Client ID	FF WS002	
Date Extracted	NA	
Date Analyzed	06/26/97	

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	1.0	U
Ethylbenzene	1.3	1.3	U
m,p-Xylene	2.8	2.8	U
o-xylene	1.7	1.7	U
Isopropylbenzene	1.6	1.6	U
n-Propylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	6.9	
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	3.4	
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	4.5	
Naphthalene	1.6	1.6	U
a,a,a-Trifluorotoluene (%)	83-130	113.0	

Dilution Factor 1

NYSDEC Petroleum contaminated Water/Soil compound list.

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

8021 Soil Analysis-NYSDEC List

5030/8021

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/19/97
Date Received: 06/20/97

Group Number: 9701-517
Report Units: ug/kg
Matrix: Soil

Lab ID Number	WS34593	
Client ID	FF WS003	
Date Extracted	NA	
Date Analyzed	06/26/97	
Compound	**Detection Limit/ QC Limits (%)**	**Result**	**Q**
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	15.6	
Ethylbenzene	1.3	10.2	
m,p-Xylene	2.8	31.0	
o-xylene	1.7	14.6	
Isopropylbenzene	1.6	1.6	U
n-Propylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	4.6	
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	14.1	
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	2.8	U
Naphthalene	1.6	5.6	
a,a,a-Trifluorotoluene (%)	83-130 .	105.0	

Dilution Factor 1

NYSDEC Petroleum contaminated Water/Soil compound list.

Waste Stream Technology, Inc.

8021 Soil Analysis-NYSDEC List

5030/8021

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/19/97
Date Received: 06/20/97

Group Number: 9701-517
Report Units: ug/kg
Matrix: Soil

Lab ID Number	WS34595	
Client ID	FF WS004	
Date Extracted	NA	
Date Analyzed	06/27/97	

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	1.0	U
Ethylbenzene	1.3	1.3	U
m,p-Xylene	2.8	2.8	U
o-xylene	1.7	1.7	U
Isopropylbenzene	1.6	1.6	U
n-Propylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	1.7	U
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	1.4	U
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	2.8	U
Naphthalene	1.6	1.6	U
a,a,a-Trifluorotoluene (%)	83-130	114.0	

Dilution Factor 1

NYSDEC Petroleum contaminated Water/Soil compound list.

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

8021 Soil Analysis-NYSDEC List

5030/8021

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/19/97
Date Received: 06/20/97

Group Number: 9701-517
Report Units: ug/kg
Matrix: Soil

Lab ID Number	WS34596	
Client ID	FF WS015	
Date Extracted	NA	
Date Analyzed	06/27/97	
Compound	**Detection Limit/ QC Limits (%)**	**Result**	**Q**
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	1.0	U
Ethylbenzene	1.3	1.3	U
m,p-Xylene	2.8	2.8	U
o-xylene	1.7	1.7	U
Isopropylbenzene	1.6	1.6	U
n-Propylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	1.7	U
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	1.4	U
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	2.8	U
Naphthalene	1.6	1.6	U
a,a,a-Trifluorotoluene (%)	83-130	114.0	

Dilution Factor 1

NYSDEC Petroleum contaminated Water/Soil compound list.

Waste Stream Technology, Inc.

8021 Soil Analysis-NYSDEC List

5030/8021

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/19/97
Date Received: 06/20/97

Group Number: 9701-517
Report Units: ug/kg
Matrix: Soil

Lab ID Number	WS34597	
Client ID	FF WS016	
Date Extracted	NA	
Date Analyzed	06/27/97	

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	1.0	U
Ethylbenzene	1.3	1.3	U
m,p-Xylene	2.8	2.8	U
o-xylene	1.7	1.7	U
Isopropylbenzene	1.6	1.6	U
n-Propylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	1.7	U
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	1.4	U
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	2.8	U
Naphthalene	1.6	1.6	U
a,a,a-Trifluorotoluene (%)	83-130	114.0	

Dilution Factor 1

NYSDEC Petroleum contaminated Water/Soil compound list.

Waste Stream Technology, Inc.

8021 DEC Component List in Water

5030/8021

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/19/97
Date Received: 06/20/97

Group Number: 9701-517
Report Units: ug/L
Matrix: Aqueous

Lab ID Number	WS34598	
Client ID	FF FS003	
Date Extracted	NA	
Date Analyzed	06/27/97	

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	100	174	
Benzene	14	14	U
Toluene	20	20	U
Ethylbenzene	26	26	U
m,p-Xylene	56	56	U
o-xylene	34	44	
Isopropylbenzene	32	32	U
n-Propylbenzene	34	34	U
1,3,5-Trimethylbenzene	34	118	
tert-Butylbenzene	72	72	U
1,2,4-Trimethylbenzene	28	28	U
sec-Butylbenzene	44	44	U
p-Isopropyltoluene	36	36	U
n-Butylbenzene	56	34	J
Naphthalene	32	32	U
a,a,a-Trifluorotoluene (%)	78-128	137	#

Dilution Factor 20

NYSDEC Petroleum contaminated Water/Soil compound list.

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

DEC List 8270 BNs in Soil

3540/8270

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/19/97
Date Received: 06/20/97

Group Number: 9701-517
Report Units: ug/Kg
Matrix: Soil

Lab ID Number	WS34589	
Client ID	FF WS001	
Date Extracted	06/24/97	
Date Analyzed	06/25/97	
Compound	**Detection Limit/ QC Limits (%)**	**Result**	**Q**
anthracene	495	495	U
fluorene	495	495	U
phenanthrene	495	233	J
pyrene	495	495	U
acenaphthene	495	495	U
benzo[a]anthracene	495	495	U
fluoranthene	495	495	U
benzo[b]fluoranthene	495	495	U
benzo[k]fluoranthene	495	495	U
benzo[a]pyrene	495	495	U
dibenzo[a,h]anthracene	495	495	U
benzo[g,h,i]perylene	495	495	U
indeno[1,2,3-cd]pyrene	495	495	U
naphthalene	495	495	U
chrysene	495	495	U
Nitrobenzene-d5 (%)	23-120	77	
2-Fluorobiphenyl (%)	30-115	78	
Terphenyl-d14 (%)	18-137	62	

Dilution Factor 1

Waste Stream Technology, Inc.

DEC List 8270 BNs in Soil

3540/8270

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/19/97
Date Received: 06/20/97

Group Number: 9701-517
Report Units: ug/Kg
Matrix: Soil

Lab ID Number	WS34591	
Client ID	FF WS002	
Date Extracted	06/24/97	
Date Analyzed	06/25/97	
Compound	**Detection Limit/ QC Limits (%)**	**Result**	**Q**
anthracene	495	495	U
fluorene	495	495	U
phenanthrene	495	204	J
pyrene	495	495	U
acenaphthene	495	495	U
benzo[a]anthracene	495	495	U
fluoranthene	495	495	U
benzo[b]fluoranthene	495	495	U
benzo[k]fluoranthene	495	495	U
benzo[a]pyrene	495	495	U
dibenzo[a,h]anthracene	495	495	U
benzo[g,h,i]perylene	495	495	U
indeno[1,2,3-cd]pyrene	495	495	U
naphthalene	495	495	U
chrysene	495	495	U
Nitrobenzene-d5 (%)	23-120	74	
2-Fluorobiphenyl (%)	30-115	66	
Terphenyl-d14 (%)	18-137	61	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

DEC List 8270 BNs in Soil

3540/8270

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/19/97
Date Received: 06/20/97

Group Number: 9701-517
Report Units: ug/Kg
Matrix: Soil

Lab ID Number	WS34593	
Client ID	FF WS003	
Date Extracted	06/24/97	
Date Analyzed	06/25/97	
Compound	**Detection Limit/ QC Limits (%)**	**Result**	**Q**
anthracene	495	495	U
fluorene	495	495	U
phenanthrene	495	495	U
pyrene	495	495	U
acenaphthene	495	495	U
benzo[a]anthracene	495	495	U
fluoranthene	495	495	U
benzo[b]fluoranthene	495	495	U
benzo[k]fluoranthene	495	495	U
benzo[a]pyrene	495	495	U
dibenzo[a,h]anthracene	495	495	U
benzo[g,h,i]perylene	495	495	U
indeno[1,2,3-cd]pyrene	495	495	U
naphthalene	495	495	U
chrysene	495	495	U
Nitrobenzene-d5 (%)	23-120	65	
2-Fluorobiphenyl (%)	30-115	66	
Terphenyl-d14 (%)	18-137	69	

Dilution Factor 1

Waste Stream Technology, Inc.

DEC List 8270 BNs in Soil

3540/8270

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/19/97
Date Received: 06/20/97

Group Number: 9701-517
Report Units: ug/Kg
Matrix: Soil

Lab ID Number	WS34595	
Client ID	FF WS004	
Date Extracted	06/24/97	
Date Analyzed	06/25/97	
Compound	**Detection Limit/ QC Limits (%)**	**Result**	**Q**
anthracene	495	495	U
fluorene	495	495	U
phenanthrene	495	222	J
pyrene	495	495	U
acenaphthene	495	495	U
benzo[a]anthracene	495	495	U
fluoranthene	495	495	U
benzo[b]fluoranthene	495	495	U
benzo[k]fluoranthene	495	495	U
benzo[a]pyrene	495	495	U
dibenzo[a,h]anthracene	495	495	U
benzo[g,h,i]perylene	495	495	U
indeno[1,2,3-cd]pyrene	495	495	U
naphthalene	495	495	U
chrysene	495	495	U
Nitrobenzene-d5 (%)	23-120	79	
2-Fluorobiphenyl (%)	30-115	83	
Terphenyl-d14 (%)	18-137	79	

Dilution Factor 1

Waste Stream Technology, Inc.

DEC List 8270 BNs in Soil

3540/8270

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/19/97
Date Received: 06/20/97

Group Number: 9701-517
Report Units: ug/Kg
Matrix: Soil

Lab ID Number	WS34596	
Client ID	FF WS015	
Date Extracted	06/25/97	
Date Analyzed	06/26/97	
Compound	**Detection Limit/ QC Limits (%)**	**Result**	**Q**
anthracene	495	495	U
fluorene	495	495	U
phenanthrene	495	138	J
pyrene	495	495	U
acenaphthene	495	495	U
benzo[a]anthracene	495	495	U
fluoranthene	495	495	U
benzo[b]fluoranthene	495	495	U
benzo[k]fluoranthene	495	495	U
benzo[a]pyrene	495	495	U
dibenzo[a,h]anthracene	495	495	U
benzo[g,h,i]perylene	495	495	U
indeno[1,2,3-cd]pyrene	495	495	U
naphthalene	495	495	U
chrysene	495	495	U
Nitrobenzene-d5 (%)	23-120	71	
2-Fluorobiphenyl (%)	30-115	69	
Terphenyl-d14 (%)	18-137	80	

Dilution Factor 1

Waste Stream Technology, Inc.

DEC List 8270 BNs in Soil

3540/8270

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/19/97
Date Received: 06/20/97

Group Number: 9701-517
Report Units: ug/Kg
Matrix: Soil

Lab ID Number	WS34597	
Client ID	FF WS016	
Date Extracted	06/25/97	
Date Analyzed	06/26/97	
Compound	**Detection Limit/ QC Limits (%)**	**Result**	**Q**
anthracene	495	150	J
fluorene	495	495	U
phenanthrene	495	516	
pyrene	495	510	
acenaphthene	495	495	U
benzo[a]anthracene	495	391	J
fluoranthene	495	557	
benzo[b]fluoranthene	495	309	J
benzo[k]fluoranthene	495	291	J
benzo[a]pyrene	495	387	J
dibenzo[a,h]anthracene	495	495	U
benzo[g,h,i]perylene	495	353	J
indeno[1,2,3-cd]pyrene	495	309	J
naphthalene	495	495	U
chrysene	495	564	
Nitrobenzene-d5 (%)	23-120	71	
2-Fluorobiphenyl (%)	30-115	80	
Terphenyl-d14 (%)	18-137	81	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

DEC List 8270 BNs in Water

SW-846 8270

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/19/97
Date Received: 06/20/97

Group Number: 9701-517
Report Units: ug/L
Matrix: Aqueous

Lab ID Number	WS34598
Client ID	FF FS003
Date Extracted	06/26/97
Date Analyzed	06/27/97

Compound	Detection Limit/ QC Limits (%)	Result	Q
anthracene	10	10	U
fluorene	10	10	U
phenanthrene	10	10	U
pyrene	10	10	U
acenaphthene	10	10	U
benzo[a]anthracene	10	10	U
fluoranthene	10	10	U
benzo[b]fluoranthene	10	10	U
benzo[k]fluoranthene	10	10	U
benzo[a]pyrene	10	10	U
dibenzo[a,h]anthracene	10	10	U
benzo[g,h,i]perylene	10	10	U
indeno[1,2,3-cd]pyrene	10	10	U
naphthalene	10	10	U
chrysene	10	10	U
Nitrobenzene-d5 (%)	35-114	57	
2-Fluorobiphenyl (%)	43-116	53	
Terphenyl-d14 (%)	33-141	53	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

TCLP 8270 DEC BN List

1311/8270

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/19/97
Date Received: 06/20/97
TCLP Extraction Date: 06/23/97

Group Number: 9701-517
Report Units: ug/L
Matrix: TCLP Extract

Lab ID Number	WS34589	
Client ID	FF WS001	
Date Extracted	06/26/97	
Date Analyzed	06/27/97	

Compound	Detection Limit/ QC Limits (%)	Result	Q
anthracene	10	10	U
fluorene	10	10	U
phenanthrene	10	10	U
pyrene	10	10	U
acenaphthene	10	10	U
benzo (a) anthracene	10	10	U
fluoranthene	10	10	U
benzo (b) fluoranthene	10	10	U
benzo (k) fluoranthene	10	10	U
benzo (a) pyrene	10	10	U
dibenzo (a,h) anthracene	10	10	U
benzo (g,h,i) perylene	10	10	U
indeno (1,2,3-cd) pyrene	10	10	U
naphthalene	10	10	U
chrysene	10	10	U
Nitrobenzene-d5 (%)	35-114	59	
2-Fluorobiphenyl (%)	43-116	54	
Terphenyl-d14 (%)	33-141	51	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

TCLP 8270 DEC BN List

1311/8270

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/19/97
Date Received: 06/20/97
TCLP Extraction Date: 06/23/97

Group Number: 9701-517
Report Units: ug/L
Matrix: TCLP Extract

	Lab ID Number	WS34591
	Client ID	FF WS002
	Date Extracted	06/26/97
	Date Analyzed	06/27/97

Compound	Detection Limit/ QC Limits (%)	Result	Q
anthracene	10	10	U
fluorene	10	10	U
phenanthrene	10	10	U
pyrene	10	10	U
acenaphthene	10	10	U
benzo (a) anthracene	10	10	U
fluoranthene	10	10	U
benzo (b) fluoranthene	10	10	U
benzo (k) fluoranthene	10	10	U
benzo (a) pyrene	10	10	U
dibenzo (a,h) anthracene	10	10	U
benzo (g,h,i) perylene	10	10	U
indeno (1,2,3-cd) pyrene	10	10	U
naphthalene	10	10	U
chrysene	10	10	U
Nitrobenzene-d5 (%)	35-114	52	
2-Fluorobiphenyl (%)	43-116	51	
Terphenyl-d14 (%)	33-141	45	

Dilution Factor 1

Waste Stream Technology, Inc.

TCLP 8270 DEC BN List

1311/8270

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/19/97
Date Received: 06/20/97
TCLP Extraction Date: 06/23/97

Group Number: 9701-517
Report Units: ug/L
Matrix: TCLP Extract

	Lab ID Number	WS34593
	Client ID	FF WS003
	Date Extracted	06/26/97
	Date Analyzed	06/27/97

Compound	Detection Limit/ QC Limits (%)	Result	Q
anthracene	10	10	U
fluorene	10	10	U
phenanthrene	10	10	U
pyrene	10	10	U
acenaphthene	10	10	U
benzo (a) anthracene	10	10	U
fluoranthene	10	10	U
benzo (b) fluoranthene	10	10	U
benzo (k) fluoranthene	10	10	U
benzo (a) pyrene	10	10	U
dibenzo (a,h) anthracene	10	10	U
benzo (g,h,i) perylene	10	10	U
indeno (1,2,3-cd) pyrene	10	10	U
naphthalene	10	10	U
chrysene	10	10	U
Nitrobenzene-d5 (%)	35-114	53	
2-Fluorobiphenyl (%)	43-116	48	
Terphenyl-d14 (%)	33-141	52	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

TCLP 8270 DEC BN List

1311/8270

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/19/97
Date Received: 06/20/97
TCLP Extraction Date: 06/23/97

Group Number: 9701-517
Report Units: ug/L
Matrix: TCLP Extract

Lab ID Number	WS34595	
Client ID	FF WS004	
Date Extracted	06/26/97	
Date Analyzed	06/27/97	
Compound	**Detection Limit/ QC Limits (%)**	**Result**	**Q**
anthracene	10	10	U
fluorene	10	10	U
phenanthrene	10	10	U
pyrene	10	10	U
acenaphthene	10	10	U
benzo (a) anthracene	10	10	U
fluoranthene	10	10	U
benzo (b) fluoranthene	10	10	U
benzo (k) fluoranthene	10	10	U
benzo (a) pyrene	10	10	U
dibenzo (a,h) anthracene	10	10	U
benzo (g,h,i) perylene	10	10	U
indeno (1,2,3-cd) pyrene	10	10	U
naphthalene	10	10	U
chrysene	10	10	U
Nitrobenzene-d5 (%)	35-114	69	
2-Fluorobiphenyl (%)	43-116	63	
Terphenyl-d14 (%)	33-141	59	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

TCLP 8270 DEC BN List

1311/8270

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/19/97
Date Received: 06/20/97
TCLP Extraction Date: 06/23/97

Group Number: 9701-517
Report Units: ug/L
Matrix: TCLP Extract

	Lab ID Number	WS34596	
	Client ID	FF WS015	
	Date Extracted	06/26/97	
	Date Analyzed	06/27/97	
Compound	**Detection Limit/ QC Limits (%)**	**Result**	**Q**
anthracene	10	10	U
fluorene	10	10	U
phenanthrene	10	10	U
pyrene	10	10	U
acenaphthene	10	10	U
benzo (a) anthracene	10	10	U
fluoranthene	10	10	U
benzo (b) fluoranthene	10	10	U
benzo (k) fluoranthene	10	10	U
benzo (a) pyrene	10	10	U
dibenzo (a,h) anthracene	10	10	U
benzo (g,h,i) perylene	10	10	U
indeno (1,2,3-cd) pyrene	10	10	U
naphthalene	10	10	U
chrysene	10	10	U
Nitrobenzene-d5 (%)	35-114	62	
2-Fluorobiphenyl (%)	43-116	62	
Terphenyl-d14 (%)	33-141	58	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

TCLP 8270 DEC BN List

1311/8270

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/19/97
Date Received: 06/20/97
TCLP Extraction Date: 06/23/97

Group Number: 9701-517
Report Units: ug/L
Matrix: TCLP Extract

	Lab ID Number	WS34597
	Client ID	FF WS016
	Date Extracted	06/26/97
	Date Analyzed	06/27/97

Compound	Detection Limit/ QC Limits (%)	Result	Q
anthracene	10	10	U
fluorene	10	10	U
phenanthrene	10	10	U
pyrene	10	10	U
acenaphthene	10	10	U
benzo (a) anthracene	10	10	U
fluoranthene	10	10	U
benzo (b) fluoranthene	10	10	U
benzo (k) fluoranthene	10	10	U
benzo (a) pyrene	10	10	U
dibenzo (a,h) anthracene	10	10	U
benzo (g,h,i) perylene	10	10	U
indeno (1,2,3-cd) pyrene	10	10	U
naphthalene	10	10	U
chrysene	10	10	U
Nitrobenzene-d5 (%)	35-114	52	
2-Fluorobiphenyl (%)	43-116	52	
Terphenyl-d14 (%)	33-141	51	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.
8021 Soil Method Blank Analysis
5030/8021

Site: GRIFFISS AIRFORCE BASE
Date Sampled: NA
Date Received: NA

Group Number: 9701-517
Report Units: PPB

Lab ID Number	MB062697
Client ID	NA
Date Extracted	NA
Date Analyzed	06/26/97

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	2.1	
Toluene	1.0	1.0	U
Ethylbenzene	1.3	1.3	U
M,P-Xylene	2.8	2.8	U
O-Xylene	1.7	1.7	U
Isopropylbenzene	1.6	1.6	U
N-Propylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	1.7	U
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	1.4	U
Sec-Butylbenzene	2.2	2.2	U
P-Isopropyltoluene	1.8	1.8	U
N-Butylbenzene	2.8	2.8	U
Napthalene	1.6	1.6	U
a,a,a-Trifluorotoluene (%)	83-130	122.0	

Dilution Factor 1

NYSDEC Petroleum contaminated Water/Soil compound list.
MB Denotes Method Blank
NA Denotes Not Applicable

Waste Stream Technology, Inc.
8021 Water Method Blank Analysis
5030/8021

Site: GRIFFISS AIRFORCE BASE
Date Sampled: NA
Date Received: NA

Group Number: 9701-517
Report Units: PPB

Lab ID Number	MB062797
Client ID	NA
Date Extracted	NA
Date Analyzed	06/27/97

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	5.0	5.0	U
Benzene	0.7	0.7	U
Toluene	1.0	1.0	U
Ethylbenzene	1.3	1.3	U
m,p-Xylene	2.8	2.8	U
o-Xylene	1.7	1.7	U
Isopropylbenzene	1.6	1.6	U
n-Proylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	1.7	U
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	1.4	U
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	2.8	U
Napthalene	1.6	1.6	U
a,a,a-Trifluorotoluene (%)	78-128	116.0	

Dilution Factor 1

NYSDEC Petroleum contaminated Water/Soil compound list.
MB Denotes Method Blank
NA Denotes Not Applicable

Quality Control Analysis Results

A. Method 8021 NYS DEC STARS Analysis

1. Method Blank Results - Low Level Soil & Water
2. Reference Sample Results - Low Level Soil & Water
3. Matrix Spike and Matrix Spike Duplicate Results

B. Method 8270 NYS DEC STARS Soil Analysis

1. Method Blank Results
2. Reference Sample Results
3. Matrix Spike and Matrix Spike Duplicate Results

C. Method 8270 NYS DEC STARS TCLP Analysis

1. Method Blank Results
2. Reference Sample Results
3. Matrix Spike Results

Waste Stream Technology Inc.
Soil 8021 Reference Sample Recovery Report
NYS DEC STARS Compound List

Site : Griffis Air Force
Date Analyzed : 06/26/97

Group Number : 9701-517

Compound	Spike Added (ug/L)	Reference Sample Result (ug/L)	% Recovery	QC Limits % Recovery
MTBE	20	16.7	84	60 - 142
Benzene	20	18.1	90	76 - 111
Toluene	20	20.7	103	69 - 126
Ethylbenzene	20	20.5	103	70 - 114
m,p- Xylene	40	41.4	103	80 - 117
o-xylene	20	20.9	105	80 - 120
Isopropylbenzene	20	17.5	88	82 - 117
n-Propylbenzene	20	18.8	94	87 - 123
1,3,5-Trimethylbenzene	20	18.8	94	88 - 123
tert-Butylbenzene	20	18.7	94	86 - 128
1,2,4-Trimethylbenzene	20	18.9	94	85 - 129
sec-Butylbenzene	20	18.6	93	86 - 127
p-Isopropyltoluene	20	20.2	101	91 - 131
n-Butylbenzene	20	19.1	96	87 - 134
Naphthalene	20	18.1	90	84 - 155
Surrogate Recovery %				
a,a,a-Trifluorotoluene		115		83 - 130

Waste Stream Technology Inc.
Water 8021 Reference Sample Recovery Report
NYS DEC STARS Compound List

Site : Griffis Air Force
Date Analyzed : 06/27/97

Group Number : 9701-517

Compound	Spike Added (ug/L)	Reference Sample Result (ug/L)	% Recovery	QC Limits % Recovery
MTBE	20	12.1	60 #	77 - 135
Benzene	20	19.5	97	72 - 129
Toluene	20	20.0	100	77 - 128
Ethylbenzene	20	20.8	104	63 - 122
m,p- Xylene	40	40.9	102	74 - 132
o-xylene	20	20.2	101	75 - 133
Isopropylbenzene	20	17.9	89	75 - 123
n-Propylbenzene	20	18.7	93	79 - 131
1,3,5-Trimethylbenzene	20	18.3	92	75 - 136
tert-Butylbenzene	20	19.5	97	79 - 132
1,2,4-Trimethylbenzene	20	17.5	88	71 - 138
sec-Butylbenzene	20	18.2	91	78 - 132
p-Isopropyltoluene	20	19.1	96	80 - 140
n-Butylbenzene	20	17.9	90	74 - 144
Naphthalene	20	22.0	110	60 - 134
Surrogate Recovery %				
a,a,a-Trifluorotoluene		109		78 - 128

# denotes a recovery outside the stated QC limits.

Waste Stream Technology Inc.
8021 Soil Matrix Spike Recovery Report
NYS DEC STARS Compound List

Site : Griffis Air Force Base
Date Analyzed : 06/26/97

Group Number : 9701-517
WST Sample ID # : WS34590
Client ID : FF WS001-QA

Compound	Matrix Spike Recovery (%)	Matrix Spike Duplicate Recovery (%)	% RPD	QC Limits % RPD	QC Limits % Recovery
MTBE	112	108	3.6	25	82 - 145
Benzene	103	97	5.4	25	45 - 133
Toluene	114	99	13.8	25	74 - 128
Ethylbenzene	102	98	4.1	25	62 - 129
m,p- Xylene	102	97	5.5	25	70 - 125
o-xylene	100	99	1.8	25	62 - 130
Isopropylbenzene	89	81	9.1	25	63 - 105
n-Propylbenzene	102	89	13.3	25	62 - 112
1,3,5-Trimethylbenzene	93	81	11.9	25	45 - 133
tert-Butylbenzene	102	105	2.9	25	52 - 118
',4-Trimethylbenzene	83	79	5.3	25	42 - 133
sec-Butylbenzene	100	93	7.4	25	47 - 123
p-Isopropyltoluene	91	85	6.5	25	47 - 127
n-Butylbenzene	87	76	13.5	25	19 - 150
Naphthalene	69	52	26.5 #	25	21 - 160
Surrogate Recovery %					
a,a,a-Trifluorotoluene	115	102			83 - 130

# denotes an RPD outside the stated QC limits.

Waste Stream Technology Inc.
8021 Soil Matrix Spike Recovery Report
NYS DEC STARS Compound List

Site : Griffis Air Force Base
Date Analyzed : 06/26/97

Group Number : 9701-517
WST Sample ID # : WS34592
Client ID : FF WS002-QA

Compound	Matrix Spike Recovery (%)	Matrix Spike Duplicate Recovery (%)	% RPD	QC Limits % RPD	QC Limits % Recovery
MTBE	89	104	16.1	25	82 - 145
Benzene	86	88	2.5	25	45 - 133
Toluene	92	96	4.2	25	74 - 128
Ethylbenzene	101	95	6.5	25	62 - 129
m,p- Xylene	90	86	3.9	25	70 - 125
o-xylene	95	91	3.8	25	62 - 130
Isopropylbenzene	81	79	2.7	25	63 - 105
n-Propylbenzene	88	88	0.1	25	62 - 112
1,3,5-Trimethylbenzene	68	57	17.1	25	45 - 133
tert-Butylbenzene	88	90	1.7	25	52 - 118
1,2,4-Trimethylbenzene	82	65	22.3	25	42 - 133
sec-Butylbenzene	80	84	5.4	25	47 - 123
p-Isopropyltoluene	78	80	3.0	25	47 - 127
n-Butylbenzene	70	63	9.8	25	19 - 150
Naphthalene	76	66	14.4	25	21 - 160
Surrogate Recovery %					
a,a,a-Trifluorotoluene	117	115			83 - 130

Waste Stream Technology Inc.
8021 Soil Matrix Spike Recovery Report
NYS DEC STARS Compound List

Site : Griffis Air Force Base
Date Analyzed : 06/26/97

Group Number : 9701-517
WST Sample ID # : WS34594
Client ID : FF WS003-QA

Compound	Matrix Spike Recovery (%)	Matrix Spike Duplicate Recovery (%)	% RPD	QC Limits % RPD	QC Limits % Recovery
MTBE	94	89	6.0	25	82 - 145
Benzene	86	81	5.4	25	45 - 133
Toluene	34 #	38 #	10.6	25	74 - 128
Ethylbenzene	66	66	0.0	25	62 - 129
m,p- Xylene	93	109	15.3	25	70 - 125
o-xylene	51 #	57 #	11.3	25	62 - 130
Isopropylbenzene	80	77	3.3	25	63 - 105
n-Propylbenzene	84	80	5.7	25	62 - 112
1,3,5-Trimethylbenzene	76	73	1.4	25	45 - 133
tert-Butylbenzene	87	86	1.0	25	52 - 118
1,2,4-Trimethylbenzene	42	45	7.0	25	42 - 133
sec-Butylbenzene	85	80	6.2	25	47 - 123
p-Isopropyltoluene	77	74	4.9	25	47 - 127
n-Butylbenzene	74	70	5.6	25	19 - 150
Naphthalene	77	57	31.2 #	25	21 - 160
Surrogate Recovery %					
a,a,a-Trifluorotoluene	104	89			83 - 130

# denotes a recovery or RPD outside the stated QC limits. Refer to case narrative.

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

Method Blank for TCLP 8270-DEC

1311/8270

Site: GRIFFISS AIRFORCE BASE
Date Sampled: NA
Date Received: NA
TCLP Extraction Date: 06/23/97

Group Number: 9701-517
Report Units: PPB

	Lab ID Number	MB062697
	Client ID	NA
	Date Extracted	06/26/97
	Date Analyzed	06/27/97

Compound	Detection Limit/ QC Limits (%)	Result	Q
Anthracene	10	10	U
Fluorene	10	10	U
Phenanthrene	10	10	U
Pyrene	10	10	U
Acenaphthene	10	10	U
Benzo[a]Anthracene	10	10	U
Fluoranthene	10	10	U
Benzo[b]Fluoranthene	10	10	U
Benzo[k]fluoranthene	10	10	U
Benzo[a]pyrene	10	10	U
Dibenzo[a,h]anthracene	10	10	U
Benzo[g,h,i]perylene	10	10	U
Indeno[1,2,3-cd]pyrene	10	10	U
Naphthalene	10	10	U
Chrysene	10	10	U
Nitrobenzene-d5 (%)	35-114	58	
2-Fluorobiphenyl (%)	43-116	54	
Terphenyl-d14 (%)	33-141	47	

Dilution Factor 1
MB Denotes Method Blank
NA Denotes Not Applicable

Waste Stream Technology Inc.

TCLP 8270 Reference Sample Recovery Report

NYS DEC STARS Compound List

Site : Griffis Airforce Base
TCLP Date : 6/23/97
Extraction Date : 6/26/97

Group Number : 9701-517
Date Analyzed : 6/27/97

Compound	Spike Amount (ug/L)	Reference Sample Result (ug/L)	% Recovery	QC Limits % Recovery
anthracene	50	39.6	79	57 - 122
fluorene	50	35.7	71	62 - 120
phenanthrene	50	39.9	80	61 - 124
pyrene	50	31.2	62	57 - 127
acenaphthene	50	40.2	80	64 - 119
benzo[a]anthracene	50	37.9	76	60 - 123
fluoranthene	50	40.6	81	51 - 129
benzo[b]fluoranthene	50	36.1	72	50 - 131
benzo[k]fluoranthene	50	34.3	69	50 - 132
benzo[a]pyrene	50	36.4	73	56 - 128
dibenzo[a,h]anthracene	50	33.5	67	20 - 143
benzo[g,h,i]perylene	50	32.2	64	12 - 154
indeno[1,2,3-cd]pyrene	50	32.3	65	22 - 143
naphthalene	50	37.4	75	60 - 110
chrysene	50	37.8	76	62 - 125
Surrogate Recovery %				
Nitrobenzene-d5		71		35 - 114
2-Fluorobiphenyl		71		43 - 116
p-Terphenyl-d14		62		33 - 141

WASTE STREAM TECHNOLOGY

Waste Stream Technology Inc.
8270 TCLP Matrix Spike Recovery Report
NYS DEC STARS Compound List

Site : Griffis Air Force Base
TCLP Extraction Date : 06/23/97
Solvent Extraction Date : 06/26/97
Date Analyzed : 06/27/97

Group Number : 9701-517
WST Sample ID # : WS34590
Client ID : FF WS001-QA

Compound	Matrix Spike Amount (ug/L)	WS34589 Sample Result (ug/L)	Matrix Spike Sample Result (ug/L)	Percent Recovery	QC Limits % Recovery
anthracene	50	< 10	37.9	76	56 - 120
fluorene	50	< 10	34.8	70	59 - 122
phenanthrene	50	< 10	38.7	77	61 - 123
pyrene	50	< 10	30.3	61	53 - 122
acenaphthene	50	< 10	38.3	77	58 - 123
benzo[a]anthracene	50	< 10	35.8	72	52 - 127
fluoranthene	50	< 10	39.5	79	49 - 130
benzo[b]fluoranthene	50	< 10	36.1	72	46 - 129
benzo[k]fluoranthene	50	< 10	30.2	60	49 - 127
zo[a]pyrene	50	< 10	33.1	66	50 - 126
dibenzo[a,h]anthracene	50	< 10	30.9	62	18 - 139
benzo[g,h,i]perylene	50	< 10	32.3	65	10 - 146
indeno[1,2,3-cd]pyrene	50	< 10	32.4	65	19 - 138
naphthalene	50	< 10	35.7	71	53 - 116
chrysene	50	< 10	36.3	73	56 - 127
Surrogate Recovery %					
Nitrobenzene-d5	100	59	72		35 - 114
2-Fluorobiphenyl	100	54	72		43 - 116
p-Terphenyl-d14	100	51	62		33 - 141

WASTE STREAM TECHNOLOGY

Waste Stream Technology Inc.
8270 TCLP Matrix Spike Recovery Report
NYS DEC STARS Compound List

Site : Griffis Air Force Base
TCLP Extraction Date : 06/23/97
Solvent Extraction Date : 06/26/97
Date Analyzed : 06/27/97

Group Number : 9701-517
WST Sample ID # : WS34592
Client ID : FF WS002-QA

Compound	Matrix Spike Amount (ug/L)	WS34591 Sample Result (ug/L)	Matrix Spike Sample Result (ug/L)	Percent Recovery	QC Limits % Recovery
anthracene	50	< 10	37.6	75	56 - 120
fluorene	50	< 10	35.6	71	59 - 122
phenanthrene	50	< 10	37.8	76	61 - 123
pyrene	50	< 10	29.3	59	53 - 122
acenaphthene	50	< 10	39.9	80	58 - 123
benzo[a]anthracene	50	< 10	36.7	73	52 - 127
fluoranthene	50	< 10	40.5	81	49 - 130
benzo[b]fluoranthene	50	< 10	36.3	73	46 - 129
benzo[k]fluoranthene	50	< 10	32.6	65	49 - 127
zo[a]pyrene	50	< 10	34.3	69	50 - 126
dibenzo[a,h]anthracene	50	< 10	27.9	56	18 - 139
benzo[g,h,i]perylene	50	< 10	26.2	52	10 - 146
indeno[1,2,3-cd]pyrene	50	< 10	27.3	55	19 - 138
naphthalene	50	< 10	35.7	71	53 - 116
chrysene	50	< 10	37.0	74	56 - 127
Surrogate Recovery %					
Nitrobenzene-d5	100	74	64		35 - 114
2-Fluorobiphenyl	100	66	65		43 - 116
p-Terphenyl-d14	100	61	57		33 - 141

WASTE STREAM TECHNOLOGY

Waste Stream Technology Inc.
8270 TCLP Matrix Spike Recovery Report
NYS DEC STARS Compound List

Site : Griffis Air Force Base
TCLP Extraction Date : 06/23/97
Solvent Extraction Date : 06/26/97
Date Analyzed : 06/27/97

Group Number : 9701-517
WST Sample ID # : WS34594
Client ID : FF WS003-QA

Compound	Matrix Spike Amount (ug/L)	WS34593 Sample Result (ug/L)	Matrix Spike Sample Result (ug/L)	Percent Recovery	QC Limits % Recovery
anthracene	50	< 10	37.8	76	56 - 120
fluorene	50	< 10	34.5	69	59 - 122
phenanthrene	50	< 10	37.6	75	61 - 123
pyrene	50	< 10	32.5	65	53 - 122
acenaphthene	50	< 10	38.5	77	58 - 123
benzo[a]anthracene	50	< 10	36.2	72	52 - 127
fluoranthene	50	< 10	37.8	76	49 - 130
benzo[b]fluoranthene	50	< 10	32.7	65	46 - 129
benzo[k]fluoranthene	50	< 10	27.7	55	49 - 127
benzo[a]pyrene	50	< 10	32.4	65	50 - 126
benzo[a,h]anthracene	50	< 10	35.1	70	18 - 139
benzo[g,h,i]perylene	50	< 10	35.5	71	10 - 146
indeno[1,2,3-cd]pyrene	50	< 10	35.3	71	19 - 138
naphthalene	50	< 10	37.9	76	53 - 116
chrysene	50	< 10	36.6	73	56 - 127
Surrogate Recovery %					
Nitrobenzene-d5	100	53	70		35 - 114
2-Fluorobiphenyl	100	48	67		43 - 116
p-Terphenyl-d14	100	52	64		33 - 141

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

8270 DEC BN List Method Blank

3550/8270

Site: GRIFFISS AIRFORCE BASE
Date Sampled: NA
Date Received: NA

Group Number: 9701-517
Report Units: PPB

Lab ID Number	MB061997
Client ID	NA
Date Extracted	06/19/97
Date Analyzed	06/25/97

Compound	Detection Limit/ QC Limits (%)	Result	Q
Anthrcene	495	495	U
Fluorene	495	495	U
Phenanthrene	495	495	U
Pyrene	495	495	U
Acenaphthene	495	495	U
Benzo[a]anthracene	495	495	U
Fluoranthene	495	495	U
Benzo[b]fluoranthene	495	495	U
Benzo[k]fluoranthene	495	495	U
Benzo[a]pyrene	495	495	U
Dibenzo[a,h]anthracene	495	495	U
benzo[g,h,i]perylene	495	495	U
Indeno[1,2,3-cd]pyrene	495	495	U
Naphthalene	495	495	U
Chrysene	495	495	U
Nitrobenzene-d5 (%)	23-120	83	
2-Fluorobiphenyl (%)	30-115	77	
Terphenyl-d14 (%)	18-137	61	

Dilution Factor 1
MB Denotes Method Blank
NA Denotes Not Applicable

WASTE STREAM TECHNOLOGY

Waste Stream Technology Inc.
3540/8270 Soil Reference Sample Recovery Report
NYS DEC STARS Compound List

Site : Griffis Air Force Base
Date Extracted : 6/25/97

Group Number : 9701-517
Date Analyzed : 6/26/97

Compound	Spike Amount (ug/kg)	Reference Sample Result (ug/kg)	% Recovery	QC Limits % Recovery
anthracene	1670	1420	85	71 - 121
fluorene	1670	1283	77	71 - 123
phenanthrene	1670	1520	91	72 - 124
pyrene	1670	1217	73	62 - 132
acenaphthene	1670	1477	88	69 - 129
benzo[a]anthracene	1670	1413	85	70 - 121
fluoranthene	1670	1167	70	68 - 129
benzo[b]fluoranthene	1670	1290	77	34 - 116
benzo[k]fluoranthene	1670	1077	64	47 - 112
benzo[a]pyrene	1670	1297	78	46 - 108
dibenzo[a,h]anthracene	1670	1667	100	32 - 128
benzo[g,h,i]perylene	1670	1583	95	25 - 129
indeno[1,2,3-cd]pyrene	1670	1597	96	36 - 123
naphthalene	1670	1457	87	55 - 121
chrysene	1670	1380	83	72 - 124
Surrogate Recovery %				
Nitrobenzene-d5		78		23 - 120
2-Fluorobiphenyl		84		30 - 115
p-Terphenyl-d14		77		18 - 137

Waste Stream Technology Inc.
3540/8270 Soil Matrix Spike Recovery Report
NYS DEC STARS Compound List

Site : Griffis Air Force Base
Date Extracted : 6/25/97
Date Analyzed : 6/26/97

Group Number : 9701-517
WST Sample ID # : WS34590
Client ID : FF WS001-QA

Compound	Matrix Spike Recovery (%)	Matrix Spike Duplicate Recovery (%)	% RPD	QC Limits % RPD	QC Limits % Recovery
anthracene	85	84	1.3	30	72 - 128
fluorene	78	75	3.1	30	73 - 128
phenanthrene	87	85	2.2	30	40 - 162
pyrene	75	88	16	30	32 - 142
acenaphthene	88	89	1.3	30	82 - 120
benzo[a]anthracene	88	83	5.8	30	57 - 145
fluoranthene	75	61	20.5	30	25 - 166
benzo[b]fluoranthene	80	70	12	30	55 - 142
benzo[k]fluoranthene	57 #	64	11.2	30	62 - 135
benzo[a]pyrene	77	77	0.4	30	64 - 132
enzo[a,h]anthracene	99	108	9.1	30	58 - 110
benzo[g,h,i]perylene	96	106	10.3	30	34 - 129
ndeno[1,2,3-cd]pyrene	94	106	11.2	30	56 - 111
naphthalene	84	87	3.4	30	79 - 116
chrysene	84	82	2.0	30	57 - 147
Surrogate Recovery %					
Nitrobenzene-d5	77	78			23 - 120
2-Fluorobiphenyl	87	83			30 - 115
p-Terphenyl-d14	78	96			18 - 137

# denotes a recovery or RPD outside the stated QC limits.

WASTE STREAM TECHNOLOGY

Waste Stream Technology Inc.
3540/8270 Soil Matrix Spike Recovery Report
NYS DEC STARS Compound List

Site : Griffis Air Force Base
Date Extracted : 6/26/97
Date Analyzed : 6/27/97

Group Number : 9701-517
WST Sample ID # : WS34592
Client ID : FF WS002-QA

Compound	Matrix Spike Recovery (%)	Matrix Spike Duplicate Recovery (%)	% RPD	QC Limits % RPD	QC Limits % Recovery
anthracene	75	78	4.0	30	72 - 128
fluorene	67 #	71 #	5.4	30	73 - 128
phenanthrene	77	81	5.2	30	40 - 162
pyrene	65	68	4.2	30	32 - 142
acenaphthene	78 #	81 #	3.5	30	82 - 120
benzo[a]anthracene	71	76	5.9	30	57 - 145
fluoranthene	73	73	0.2	30	25 - 166
benzo[b]fluoranthene	63	62	1.0	30	55 - 142
benzo[k]fluoranthene	59 #	55 #	6.0	30	62 - 135
benzo[a]pyrene	66	70	6.3	30	64 - 132
enzo[a,h]anthracene	67	70	3.8	30	58 - 110
benzo[g,h,i]perylene	68	65	3.8	30	34 - 129
indeno[1,2,3-cd]pyrene	68	68	0.6	30	56 - 111
naphthalene	72 #	75 #	4.9	30	79 - 116
chrysene	73	73	0.1	30	57 - 147
Surrogate Recovery %					
Nitrobenzene-d5	65	72			23 - 120
2-Fluorobiphenyl	63	73			30 - 115
p-Terphenyl-d14	61	67			18 - 137

# denotes a recovery or RPD outside the stated QC limits. Refer to case narrative.

WASTE STREAM TECHNOLOGY

Waste Stream Technology Inc.
3540/8270 Soil Matrix Spike Recovery Report
NYS DEC STARS Compound List

Site : Griffis Air Force Base
Date Extracted : 6/26/97
Date Analyzed : 6/27/97

Group Number : 9701-517
WST Sample ID # : WS34594
Client ID : FF WS003-QA

Compound	Matrix Spike Recovery (%)	Matrix Spike Duplicate Recovery (%)	% RPD	QC Limits % RPD	QC Limits % Recovery
anthracene	75	75	0.4	30	72 - 128
fluorene	70 #	68 #	1.6	30	73 - 128
phenanthrene	79	80	0.4	30	40 - 162
pyrene	71	68	3.8	30	32 - 142
acenaphthene	79 #	79 #	0.3	30	82 - 120
benzo[a]anthracene	74	73	2.3	30	57 - 145
fluoranthene	71	67	6.3	30	25 - 166
benzo[b]fluoranthene	68	59	13.5	30	55 - 142
benzo[k]fluoranthene	57 #	61 #	6.6	30	62 - 135
benzo[a]pyrene	69	68	2.3	30	64 - 132
enzo[a,h]anthracene	67	72	6.9	30	58 - 110
benzo[g,h,i]perylene	66	71	7.9	30	34 - 129
indeno[1,2,3-cd]pyrene	68	74	8.7	30	56 - 111
naphthalene	75 #	77 #	1.8	30	79 - 116
chrysene	73	72	1.7	30	57 - 147
Surrogate Recovery %					
Nitrobenzene-d5	70	70			23 - 120
2-Fluorobiphenyl	67	71			30 - 115
p-Terphenyl-d14	68	67			18 - 137

# denotes a recovery or RPD outside the stated QC limits. Refer to case narrative.

WASTE STREAM TECHNOLOGY

9101-517

WASTE STREAM TECHNOLOGY

302 GROTE STREET
BUFFALO, NY 14207
(716) 876-5290

CHAIN OF CUSTODY RECORD

25K IPA TANK

PROJECT NO: 96660 DAAA41-96-6808

SITE NAME: Griffiss Air Force BASE SWE 100

SAMPLERS (SIGNATURE):

	SAMPLE NO.	DATE	TIME	COMP	GRAB	MATRIX	SAMPLE LOCATION	SIZE & NO. OF CONTAINERS	8021	8270 STARS	TCLP 8270 STARS		PRESERVATIVES	REMARKS
1	FF WS001	1/14/97	1:00		TO BE Composited IN LAB	Soil	North WALL 25K	(1) 2oz (1) 4oz	↓	↓	↓	WS3158[illegible]	4oC	TO BE Composited in LAB
2	FF WS002	↓	1:15			↓	East WALL 25K		↓	↓	↓	9091	↓	↓
3	FF WS003		1:30				South WALL 25K					9193		
4	FF WS004		1:45				WEST WALL 25K					9295		
5	FF WS015		2:00		X		East WALL G-1	(1) 16oz (2) 2oz				9396		
6	FF WS016		2:30		X	↓	West WALL G-2	↓	↓	↓	↓	9497	↓	
	FF FS003		3:30			Liquid	Ground water	(1) 16oz (2) 2oz	X	X	X	9598		in lieu of floor sample
7	FF FS003		3:00		X	Soil	Floor Composite	4 2oz 1 4oz	X	X	X		4oC	TO BE Composited in LAB
	HS003													
1B	FF WS001		1:00		X	Soil	North WALL 25K	(1) 4oz (2) 2oz	X	X	X	WS3159690	4oC	QA Samples
2B	FF WS002		1:15		X		East WALL 25K		X	X	X	9792		
3B	FF WS003	↓	1:30		X	↓	South WALL 25K	↓	X	X	X	9894	↓	↓

(Grab column for rows 1B–3B: TO BE Composited IN LAB)

RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)
[signature]	1/14/97 4:00	Shipping Log	time	1/20/97 09:30	Debra Reader
RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)

SPECIAL INSTRUCTIONS: Use Sample #'s on Report and STARS values

TURNAROUND TIME 1 Week Turnaround

LAB USE: REFRIGERATOR # ______ SHELF # ______ GROUP # ______ DUE DATE ______

Otis Street Excavation

WASTE STREAM TECHNOLOGY, INC.

302 Grote Street
Buffalo, NY 14207
(716)876-5290

Analytical Data Report
Report Date : 06/12/97
Group Number : 9701-323

Prepared For :
Mr. Rob Gray
Abscope Environmental
1 Commercial Drive
Canastota, NY 13032

Site : Griffis Air Force Base

Field and Laboratory Information

Client Id	WST Lab #	Matrix	Date Sampled	Date Received	Time
FF WS009	WS33645	Soil	5/14/97	5/15/97	1030
FF WS010	WS33646	Soil	5/14/97	5/15/97	1030
FF WS011	WS33647	Soil	5/14/97	5/15/97	1030
FF WS012	WS33648	Soil	5/14/97	5/15/97	1030
FF WS013	WS33649	Soil	5/14/97	5/15/97	1030
FF WS014	WS33650	Soil	5/14/97	5/15/97	1030
FF FS005	WS33651	Soil	5/14/97	5/15/97	1030
FF FS006	WS33652	Soil	5/14/97	5/15/97	1030
FF FS006 QA	WS33653	Soil	5/14/97	5/15/97	1030
Sample Status Upon Receipt : No irregularities.					

Analytical Services

Analytical Parameters	Number of Samples	Turnaround Time
8021 STARS	8	Standard
8270 STARS	8	Standard
TCLP 8270 STARS	8	Standard

Report Released By : Daniel W. Volimer

Daniel Volimer, Laboratory QA/QC Officer

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS
NYSDOH ELAP #11179 NJDEPE #73977 CDHS ELAP #2189

WASTE STREAM TECHNOLOGY

METHODOLOGIES

The specific methodologies employed in obtaining the analytical data reported are indicated on each of the result forms. The method numbers shown refer to the following analytical method references:

Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020, March 1979, Revised 1983, U.S. Environmental Monitoring and Support Laboratory, Cincinnati, Ohio 45268.

Federal Register, 40 CFR Part 136: Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act. Revised July 1992.

Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. Third Edition, Revised September 1994, United States EPA SW-846.

Annual Book of ASTM Standards, Volume II. ASTM, 1916 Race Street, Philadelphia, Pennsylvania 19103.

Standard Methods for the Examination of Water and Wastewater. (18th Edition). American Public Health Association, 1105 18th Street, NW, Washington, D.C. 20036.

ORGANIC DATA QUALIFIERS

U - Indicates compound was analyzed for but not detected.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicates the presence of a compound that meets identification criteria, but the result is less than the sample quantitation limit but greater than zero.

C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.

B - This flag is used when the analyte is found in the associated blank as well as the sample.

E - This flag identifies all compounds whose concentrations exceed the calibration range of the GC/MS instrument or that specific analysis.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.

G - Matrix spike recovery is greater than the expected upper limit of analytical performance.

L - Matrix spike recovery is less than the expected lower limit of analytical performance.

- Indicates that a surrogate recovery was found to be outside the expected limits of analytical performance.

$ - Indicates that the surrogate compound was diluted out because the sample had to be diluted to obtain analytical results and a recovery could not be calculated.

(%) Indicates that the compound is a surrogate and the values reported for these compounds are in percent recovery. The quality control recovery limits (QC Limits) are indicated in the detection limit column.

WASTE STREAM TECHNOLOGY

Case Narrative

The following comments and observations were made regarding the analysis of the samples from the Griffis Air Force Base for Abscope Environmental corresponding to the Waste Stream Technology Sample Group Number 9701-323 and sample numbers WS33645 through WS33653 which were sampled on 5/14/97 and received on 5/15/97;

1.0 Analysis of Field Designated Quality Assurance Samples

The samples received as field designated quality assurance samples were given separate sample identification numbers than the samples with which they are associated. Sample number WS33653 was the field designated QA sample for WS33652 (site sample description FF FS006)

WS33653 was analyzed as matrix spike and matrix spike duplicate sample for the Method 8021 and Method 8270 soil analyses for the NYS DEC STARS list compounds. WS33653 was also TCLP extracted and the TCLP extracts was analyzed as matrix spike sample for the TCLP Method 8270 analysis. The results from sample number WS33652 were used to calculate the MS/MSD recoveries and RPDs. The results of these analyses are presented in the Quality Control section of this report.

2.0 Method 8021 Matrix Spike/Matrix Spike Duplicate Results

2.1 The matrix spike (MS) and matrix spike duplicate (MSD) analysis of WS33653 exhibited low recoveries and a high relative percent difference (RPD) for the compound p-isopropyltoluene. A review of the data shows that analysis of sample number WS33652 contained p-isopropyltoluene at 25 ug/kg but the MS and MSD analysis contained 30 and 20 ug/kg, yielding a 25% recovery for the MS sample and a negative recovery for the MSD sample. It is suspected that there is some degree of sample heterogeneity between the soil in the containers received for WS33652 and WS33653 since the recoveries and RPDs for all of the other target compounds were within acceptable QC limits.

Daniel W. Voll — Date 6/12/97

Daniel W. Vollmer
QA/QC Officer

Quality Control Analysis Results

A. Method 8021 NYS DEC STARS Analysis

1. Method Blank Results
2. Reference Sample Results
3. Matrix Spike and Matrix Spike Duplicate Results

B. Method 8270 NYS DEC STARS Soil Analysis

1. Method Blank Results
2. Reference Sample Results
3. Matrix Spike and Matrix Spike Duplicate Results

C. Method 8270 NYS DEC STARS TCLP Analysis

1. Method Blank Results
2. Reference Sample Results
3. Matrix Spike Results

Waste Stream Technology, Inc.

8021 Soil Analysis-NYSDEC List

5030/8021

Site: GRIFFIS AIRFORCE BASE
Date Sampled: 05/14/97
Date Received: 05/15/97

Group Number: 9701-323
Report Units: ug/kg
Matrix: Soil

Lab ID Number	WS33645	
Client ID	FF WS009	
Date Extracted	NA	
Date Analyzed	05/22/97	

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	5.1	
Ethylbenzene	1.3	12.9	
m,p-Xylene	2.8	28.3	
o-xylene	1.7	12.3	
Isopropylbenzene	1.6	5.1	
n-Propylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	36.3	
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	65.9	
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	14.0	
Naphthalene	1.6	1750.0	D
a,a,a-Trifluorotoluene (%)	83-130	91.0	

Dilution Factor 1

NYSDEC Petroleum contaminated Water/Soil compound list.

Waste Stream Technology, Inc.

8021 Soil Analysis-NYSDEC List

5030/8021

Site: GRIFFIS AIRFORCE BASE
Date Sampled: 05/14/97
Date Received: 05/15/97

Group Number: 9701-323
Report Units: ug/kg
Matrix: Soil

Lab ID Number	WS33646	
Client ID	FF WS010	
Date Extracted	NA	
Date Analyzed	05/22/97	

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	5.6	
Ethylbenzene	1.3	5.3	
m,p-Xylene	2.8	10.4	
o-xylene	1.7	4.2	
Isopropylbenzene	1.6	1.6	U
n-Propylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	5.0	
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	7.0	
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	6.0	
Naphthalene	1.6	20.1	
a,a,a-Trifluorotoluene (%)	83-130	114.0	

Dilution Factor 1

NYSDEC Petroleum contaminated Water/Soil compound list.

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

8021 Soil Analysis-NYSDEC List

5030/8021

Site: GRIFFIS AIRFORCE BASE
Date Sampled: 05/14/97
Date Received: 05/15/97

Group Number: 9701-323
Report Units: ug/kg
Matrix: Soil

Lab ID Number	WS33647
Client ID	FF WS011
Date Extracted	05/23/97
Date Analyzed	05/23/97

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	6250	6250	U
Benzene	1250	2960	
Toluene	1250	173000	
Ethylbenzene	1625	81700	
m,p-Xylene	3500	334000	
o-xylene	2125	146000	
Isopropylbenzene	2000	14700	
n-Propylbenzene	2125	25000	
1,3,5-Trimethylbenzene	2125	73100	
tert-Butylbenzene	4500	4500	U
1,2,4-Trimethylbenzene	1750	214000	
sec-Butylbenzene	2750	4790	
p-Isopropyltoluene	2250	2710	
n-Butylbenzene	3500	80500	
Naphthalene	2000	34800	
a,a,a-Trifluorotoluene (%)	83-130	114	

Dilution Factor **1250**

NYSDEC Petroleum contaminated Water/Soil compound list.

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

8021 Soil Analysis-NYSDEC List

5030/8021

Site: GRIFFIS AIRFORCE BASE
Date Sampled: 05/14/97
Date Received: 05/15/97

Group Number: 9701-323
Report Units: ug/kg
Matrix: Soil

Lab ID Number	WS33648	
Client ID	FF WS012	
Date Extracted	NA	
Date Analyzed	05/22/97	

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.6	
Toluene	1.0	18.6	
Ethylbenzene	1.3	6.6	
m,p-Xylene	2.8	21.5	
o-xylene	1.7	9.2	
Isopropylbenzene	1.6	1.6	U
n-Propylbenzene	1.7	2.5	
1,3,5-Trimethylbenzene	1.7	4.7	
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	10.2	
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	4.2	
Naphthalene	1.6	8.2	
a,a,a-Trifluorotoluene (%)	83-130 .	100.0	

Dilution Factor 1

NYSDEC Petroleum contaminated Water/Soil compound list.

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

8021 Soil Analysis-NYSDEC List

5030/8021

Site: GRIFFIS AIRFORCE BASE
Date Sampled: 05/14/97
Date Received: 05/15/97

Group Number: 9701-323
Report Units: ug/kg
Matrix: Soil

Lab ID Number	WS33649	
Client ID	FF WS013	
Date Extracted	NA	
Date Analyzed	05/22/97	

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	10.1	
Ethylbenzene	1.3	1.8	
m,p-Xylene	2.8	8.8	
o-xylene	1.7	3.9	
Isopropylbenzene	1.6	1.6	U
n-Propylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	1.7	U
tert-Butylbenzene	3.6	3.7	
1,2,4-Trimethylbenzene	1.4	1.4	U
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	2.8	U
Naphthalene	1.6	4.3	
a,a,a-Trifluorotoluene (%)	83-130 .	95.0	

Dilution Factor 1

NYSDEC Petroleum contaminated Water/Soil compound list.

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

8021 Soil Analysis-NYSDEC List

5030/8021

Site: GRIFFIS AIRFORCE BASE
Date Sampled: 05/14/97
Date Received: 05/15/97

Group Number: 9701-323
Report Units: ug/kg
Matrix: Soil

Lab ID Number	WS33650	
Client ID	FF WS014	
Date Extracted	NA	
Date Analyzed	05/22/97	

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	4.7	
Ethylbenzene	1.3	1.3	U
m,p-Xylene	2.8	2.8	U
o-xylene	1.7	1.7	U
Isopropylbenzene	1.6	1.6	U
n-Propylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	1.7	U
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	1.4	U
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	2.8	U
Naphthalene	1.6	4.2	
a,a,a-Trifluorotoluene (%)	83-130	96.0	

Dilution Factor 1

NYSDEC Petroleum contaminated Water/Soil compound list.

Waste Stream Technology, Inc.

8021 Soil Analysis-NYSDEC List

5030/8021

Site: GRIFFIS AIRFORCE BASE
Date Sampled: 05/14/97
Date Received: 05/15/97

Group Number: 9701-323
Report Units: ug/kg
Matrix: Soil

Lab ID Number	WS33651	
Client ID	FF FS005	
Date Extracted	NA	
Date Analyzed	05/22/97	

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	3.1	
Ethylbenzene	1.3	1.3	U
m,p-Xylene	2.8	2.8	U
o-xylene	1.7	1.7	U
Isopropylbenzene	1.6	1.6	U
n-Propylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	1.7	U
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	1.4	U
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	2.8	U
Naphthalene	1.6	4.9	
a,a,a-Trifluorotoluene (%)	83-130 .	100.0	

Dilution Factor 1

NYSDEC Petroleum contaminated Water/Soil compound list.

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

8021 Soil Analysis-NYSDEC List

5030/8021

Site: GRIFFIS AIRFORCE BASE
Date Sampled: 05/14/97
Date Received: 05/15/97

Group Number: 9701-323
Report Units: ug/kg
Matrix: Soil

	Lab ID Number	WS33652	
	Client ID	FF FS006	
	Date Extracted	NA	
	Date Analyzed	05/22/97	
Compound	**Detection Limit/ QC Limits (%)**	**Result**	**Q**
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	3.9	
Ethylbenzene	1.3	1.3	U
m,p-Xylene	2.8	2.8	U
o-xylene	1.7	1.7	U
Isopropylbenzene	1.6	1.6	U
n-Propylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	1.7	U
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	1.4	U
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	25.0	
Naphthalene	1.6	1.6	U
a,a,a-Trifluorotoluene (%)	83-130	98.0	

Dilution Factor 1

NYSDEC Petroleum contaminated Water/Soil compound list.

Waste Stream Technology, Inc.

DEC List 8270 BNs in Soil

EPA 8270

Site: GRIFFIS AIRFORCE BASE
Date Sampled: 05/14/97
Date Received: 05/15/97

Group Number: 9701-323
Report Units: ug/Kg
Matrix: Soil

Lab ID Number	WS33645	
Client ID	FF WS009	
Date Extracted	05/19/97	
Date Analyzed	05/21/97	
Compound	**Detection Limit/ QC Limits (%)**	**Result**	**Q**
anthracene	495	495	U
fluorene	495	126	J
phenanthrene	495	640	
pyrene	495	402	J
acenaphthene	495	121	J
benzo[a]anthracene	495	219	J
fluoranthene	495	491	J
benzo[b]fluoranthene	495	159	J
benzo[k]fluoranthene	495	172	J
benzo[a]pyrene	495	190	J
dibenzo[a,h]anthracene	495	495	U
benzo[g,h,i]perylene	495	495	U
indeno[1,2,3-cd]pyrene	495	495	U
naphthalene	495	865	
chrysene	495	237	J
Nitrobenzene-d5 (%)	23-120	101	
2-Fluorobiphenyl (%)	30-115	108	
Terphenyl-d14 (%)	18-137	116	

Dilution Factor 1

Waste Stream Technology, Inc.

DEC List 8270 BNs in Soil

EPA 8270

Site: GRIFFIS AIRFORCE BASE
Date Sampled: 05/14/97
Date Received: 05/15/97

Group Number: 9701-323
Report Units: ug/Kg
Matrix: Soil

Lab ID Number	WS33646	
Client ID	FF WS010	
Date Extracted	05/19/97	
Date Analyzed	05/21/97	
Compound	**Detection Limit/ QC Limits (%)**	**Result**	**Q**
anthracene	495	495	U
fluorene	495	495	U
phenanthrene	495	495	U
pyrene	495	495	U
acenaphthene	495	495	U
benzo[a]anthracene	495	495	U
fluoranthene	495	495	U
benzo[b]fluoranthene	495	495	U
benzo[k]fluoranthene	495	495	U
benzo[a]pyrene	495	495	U
dibenzo[a,h]anthracene	495	495	U
benzo[g,h,i]perylene	495	495	U
indeno[1,2,3-cd]pyrene	495	495	U
naphthalene	495	495	U
chrysene	495	495	U
Nitrobenzene-d5 (%)	23-120	97	
2-Fluorobiphenyl (%)	30-115	101	
Terphenyl-d14 (%)	18-137	104	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

DEC List 8270 BNs in Soil

EPA 8270

Site: GRIFFIS AIRFORCE BASE
Date Sampled: 05/14/97
Date Received: 05/15/97

Group Number: 9701-323
Report Units: ug/Kg
Matrix: Soil

Lab ID Number	WS33647	
Client ID	FF WS011	
Date Extracted	05/19/97	
Date Analyzed	05/21/97	

Compound	Detection Limit/ QC Limits (%)	Result	Q
anthracene	495	495	U
fluorene	495	495	U
phenanthrene	495	495	U
pyrene	495	495	U
acenaphthene	495	495	U
benzo[a]anthracene	495	495	U
fluoranthene	495	495	U
benzo[b]fluoranthene	495	495	U
benzo[k]fluoranthene	495	495	U
benzo[a]pyrene	495	495	U
dibenzo[a,h]anthracene	495	495	U
benzo[g,h,i]perylene	495	495	U
indeno[1,2,3-cd]pyrene	495	495	U
naphthalene	495	495	U
chrysene	495	495	U
Nitrobenzene-d5 (%)	23-120	102	
2-Fluorobiphenyl (%)	30-115	108	
Terphenyl-d14 (%)	18-137	117	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

DEC List 8270 BNs in Soil

EPA 8270

Site: GRIFFIS AIRFORCE BASE
Date Sampled: 05/14/97
Date Received: 05/15/97

Group Number: 9701-323
Report Units: ug/Kg
Matrix: Soil

Lab ID Number	WS33648	
Client ID	FF WS012	
Date Extracted	05/19/97	
Date Analyzed	05/21/97	
Compound	**Detection Limit/ QC Limits (%)**	**Result**	**Q**
anthracene	495	495	U
fluorene	495	495	U
phenanthrene	495	245	J
pyrene	495	204	J
acenaphthene	495	495	U
benzo[a]anthracene	495	148	J
fluoranthene	495	239	J
benzo[b]fluoranthene	495	495	U
benzo[k]fluoranthene	495	128	J
benzo[a]pyrene	495	137	J
dibenzo[a,h]anthracene	495	495	U
benzo[g,h,i]perylene	495	495	U
indeno[1,2,3-cd]pyrene	495	495	U
naphthalene	495	495	U
chrysene	495	154	J
Nitrobenzene-d5 (%)	23-120	106	
2-Fluorobiphenyl (%)	30-115	110	
Terphenyl-d14 (%)	18-137	115	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

DEC List 8270 BNs in Soil

EPA 8270

Site: GRIFFIS AIRFORCE BASE
Date Sampled: 05/14/97
Date Received: 05/15/97

Group Number: 9701-323
Report Units: ug/Kg
Matrix: Soil

Lab ID Number	WS33649
Client ID	FF WS013
Date Extracted	05/20/97
Date Analyzed	05/21/97

Compound	Detection Limit/ QC Limits (%)	Result	Q
anthracene	495	495	U
fluorene	495	495	U
phenanthrene	495	130	J
pyrene	495	495	U
acenaphthene	495	495	U
benzo[a]anthracene	495	495	U
fluoranthene	495	495	U
benzo[b]fluoranthene	495	495	U
benzo[k]fluoranthene	495	495	U
benzo[a]pyrene	495	495	U
dibenzo[a,h]anthracene	495	495	U
benzo[g,h,i]perylene	495	495	U
indeno[1,2,3-cd]pyrene	495	495	U
naphthalene	495	495	U
chrysene	495	495	U
Nitrobenzene-d5 (%)	23-120	103	
2-Fluorobiphenyl (%)	30-115	108	
Terphenyl-d14 (%)	18-137	110	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

DEC List 8270 BNs in Soil

EPA 8270

Site: GRIFFIS AIRFORCE BASE
Date Sampled: 05/14/97
Date Received: 05/15/97

Group Number: 9701-323
Report Units: ug/Kg
Matrix: Soil

Lab ID Number	WS33650	
Client ID	FF WS014	
Date Extracted	05/20/97	
Date Analyzed	05/21/97	
Compound	**Detection Limit/ QC Limits (%)**	**Result**	**Q**
anthracene	495	495	U
fluorene	495	495	U
phenanthrene	495	356	J
pyrene	495	316	J
acenaphthene	495	495	U
benzo[a]anthracene	495	172	J
fluoranthene	495	409	J
benzo[b]fluoranthene	495	149	J
benzo[k]fluoranthene	495	169	J
benzo[a]pyrene	495	178	J
dibenzo[a,h]anthracene	495	495	U
benzo[g,h,i]perylene	495	495	U
indeno[1,2,3-cd]pyrene	495	495	U
naphthalene	495	495	U
chrysene	495	221	J
Nitrobenzene-d5 (%)	23-120	105	
2-Fluorobiphenyl (%)	30-115	111	
Terphenyl-d14 (%)	18-137	111	

Dilution Factor 1

Waste Stream Technology, Inc.

DEC List 8270 BNs in Soil

EPA 8270

Site: GRIFFIS AIRFORCE BASE
Date Sampled: 05/14/97
Date Received: 05/15/97

Group Number: 9701-323
Report Units: ug/Kg
Matrix: Soil

Lab ID Number	WS33651	
Client ID	FF FS005	
Date Extracted	05/20/97	
Date Analyzed	05/21/97	

Compound	Detection Limit/ QC Limits (%)	Result	Q
anthracene	495	495	U
fluorene	495	132	J
phenanthrene	495	477	J
pyrene	495	271	J
acenaphthene	495	143	J
benzo[a]anthracene	495	142	J
fluoranthene	495	345	J
benzo[b]fluoranthene	495	495	U
benzo[k]fluoranthene	495	495	U
benzo[a]pyrene	495	119	J
dibenzo[a,h]anthracene	495	495	U
benzo[g,h,i]perylene	495	495	U
indeno[1,2,3-cd]pyrene	495	495	U
naphthalene	495	495	U
chrysene	495	147	J
Nitrobenzene-d5 (%)	23-120	104	
2-Fluorobiphenyl (%)	30-115	112	
Terphenyl-d14 (%)	18-137	110	

Dilution Factor 1

Waste Stream Technology, Inc.

DEC List 8270 BNs in Soil

EPA 8270

Site: GRIFFIS AIRFORCE BASE
Date Sampled: 05/14/97
Date Received: 05/15/97

Group Number: 9701-323
Report Units: ug/Kg
Matrix: Soil

Lab ID Number	WS33652	
Client ID	FF FS006	
Date Extracted	05/20/97	
Date Analyzed	05/21/97	

Compound	Detection Limit/ QC Limits (%)	Result	Q
anthracene	495	495	U
fluorene	495	495	U
phenanthrene	495	630	
pyrene	495	686	
acenaphthene	495	495	U
benzo[a]anthracene	495	437	J
fluoranthene	495	907	
benzo[b]fluoranthene	495	336	J
benzo[k]fluoranthene	495	350	J
benzo[a]pyrene	495	394	J
dibenzo[a,h]anthracene	495	495	U
benzo[g,h,i]perylene	495	129	J
indeno[1,2,3-cd]pyrene	495	144	J
naphthalene	495	495	U
chrysene	495	481	J
Nitrobenzene-d5 (%)	23-120	98	
2-Fluorobiphenyl (%)	30-115	108	
Terphenyl-d14 (%)	18-137	108	

Dilution Factor 1

Waste Stream Technology, Inc.

TCLP 8270 DEC BN List

1311/8270

Site: GRIFFIS AIRFORCE BASE
Date Sampled: 05/14/97
Date Received: 05/15/97
TCLP Extraction Date: 05/19/97

Group Number: 9701-323
Report Units: ug/L
Matrix: TCLP Extract

	Lab ID Number	WS33645
	Client ID	FF WS009
	Date Extracted	05/21/97
	Date Analyzed	05/21/97

Compound	Detection Limit/ QC Limits (%)	Result	Q
anthracene	10	10	U
fluorene	10	10	U
phenanthrene	10	10	U
pyrene	10	10	U
acenaphthene	10	10	U
benzo (a) anthracene	10	10	U
fluoranthene	10	10	U
benzo (b) fluoranthene	10	10	U
benzo (k) fluoranthene	10	10	U
benzo (a) pyrene	10	10	U
dibenzo (a,h) anthracene	10	10	U
benzo (g,h,i) perylene	10	10	U
indeno (1,2,3-cd) pyrene	10	10	U
naphthalene	10	3	J
chrysene	10	10	U
Nitrobenzene-d5 (%)	35-114	37	
2-Fluorobiphenyl (%)	43-116	38	#
Terphenyl-d14 (%)	33-141	70	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

TCLP 8270 DEC BN List

1311/8270

Site: GRIFFIS AIRFORCE BASE
Date Sampled: 05/14/97
Date Received: 05/15/97
TCLP Extraction Date: 05/19/97

Group Number: 9701-323
Report Units: ug/L
Matrix: TCLP Extract

Lab ID Number	WS33646	
Client ID	FF WS010	
Date Extracted	05/21/97	
Date Analyzed	05/21/97	

Compound	Detection Limit/ QC Limits (%)	Result	Q
anthracene	10	10	U
fluorene	10	10	U
phenanthrene	10	10	U
pyrene	10	10	U
acenaphthene	10	10	U
benzo (a) anthracene	10	10	U
fluoranthene	10	10	U
benzo (b) fluoranthene	10	10	U
benzo (k) fluoranthene	10	10	U
benzo (a) pyrene	10	10	U
dibenzo (a,h) anthracene	10	10	U
benzo (g,h,i) perylene	10	10	U
indeno (1,2,3-cd) pyrene	10	10	U
naphthalene	10	4	J
chrysene	10	10	U
Nitrobenzene-d5 (%)	35-114	80	
2-Fluorobiphenyl (%)	43-116	81	
Terphenyl-d14 (%)	33-141	88	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

TCLP 8270 DEC BN List

1311/8270

Site: GRIFFIS AIRFORCE BASE
Date Sampled: 05/14/97
Date Received: 05/15/97
TCLP Extraction Date: 05/19/97

Group Number: 9701-323
Report Units: ug/L
Matrix: TCLP Extract

	Lab ID Number	WS33647
	Client ID	FF WS011
	Date Extracted	05/21/97
	Date Analyzed	05/21/97

Compound	Detection Limit/ QC Limits (%)	Result	Q
anthracene	10	10	U
fluorene	10	10	U
phenanthrene	10	10	U
pyrene	10	10	U
acenaphthene	10	10	U
benzo (a) anthracene	10	10	U
fluoranthene	10	10	U
benzo (b) fluoranthene	10	10	U
benzo (k) fluoranthene	10	10	U
benzo (a) pyrene	10	10	U
dibenzo (a,h) anthracene	10	10	U
benzo (g,h,i) perylene	10	10	U
indeno (1,2,3-cd) pyrene	10	10	U
naphthalene	10	10	U
chrysene	10	10	U
Nitrobenzene-d5 (%)	35-114	95	
2-Fluorobiphenyl (%)	43-116	93	
Terphenyl-d14 (%)	33-141	96	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

TCLP 8270 DEC BN List

1311/8270

Site: GRIFFIS AIRFORCE BASE
Date Sampled: 05/14/97
Date Received: 05/15/97
TCLP Extraction Date: 05/19/97

Group Number: 9701-323
Report Units: ug/L
Matrix: TCLP Extract

	Lab ID Number	WS33648
	Client ID	FF WS012
	Date Extracted	05/21/97
	Date Analyzed	05/21/97

Compound	Detection Limit/ QC Limits (%)	Result	Q
anthracene	10	10	U
fluorene	10	10	U
phenanthrene	10	10	U
pyrene	10	10	U
acenaphthene	10	10	U
benzo (a) anthracene	10	10	U
fluoranthene	10	10	U
benzo (b) fluoranthene	10	10	U
benzo (k) fluoranthene	10	10	U
benzo (a) pyrene	10	10	U
dibenzo (a,h) anthracene	10	10	U
benzo (g,h,i) perylene	10	10	U
indeno (1,2,3-cd) pyrene	10	10	U
naphthalene	10	5	J
chrysene	10	10	U
Nitrobenzene-d5 (%)	35-114	93	
2-Fluorobiphenyl (%)	43-116	93	
Terphenyl-d14 (%)	33-141	102	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

TCLP 8270 DEC BN List

1311/8270

Site: GRIFFIS AIRFORCE BASE
Date Sampled: 05/14/97
Date Received: 05/15/97
TCLP Extraction Date: 05/19/97

Group Number: 9701-323
Report Units: ug/L
Matrix: TCLP Extract

	Lab ID Number	WS33649
	Client ID	FF WS013
	Date Extracted	05/21/97
	Date Analyzed	05/21/97

Compound	Detection Limit/ QC Limits (%)	Result	Q
anthracene	10	10	U
fluorene	10	10	U
phenanthrene	10	10	U
pyrene	10	10	U
acenaphthene	10	10	U
benzo (a) anthracene	10	10	U
fluoranthene	10	10	U
benzo (b) fluoranthene	10	10	U
benzo (k) fluoranthene	10	10	U
benzo (a) pyrene	10	10	U
dibenzo (a,h) anthracene	10	10	U
benzo (g,h,i) perylene	10	10	U
indeno (1,2,3-cd) pyrene	10	10	U
naphthalene	10	50	
chrysene	10	10	U
Nitrobenzene-d5 (%)	35-114	96	
2-Fluorobiphenyl (%)	43-116	92	
Terphenyl-d14 (%)	33-141	94	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

TCLP 8270 DEC BN List

1311/8270

Site: GRIFFIS AIRFORCE BASE
Date Sampled: 05/14/97
Date Received: 05/15/97
TCLP Extraction Date: 05/19/97

Group Number: 9701-323
Report Units: ug/L
Matrix: TCLP Extract

	Lab ID Number	WS33650
	Client ID	FF WS014
	Date Extracted	05/21/97
	Date Analyzed	05/22/97

Compound	Detection Limit/ QC Limits (%)	Result	Q
anthracene	10	10	U
fluorene	10	10	U
phenanthrene	10	10	U
pyrene	10	10	U
acenaphthene	10	10	U
benzo (a) anthracene	10	10	U
fluoranthene	10	10	U
benzo (b) fluoranthene	10	10	U
benzo (k) fluoranthene	10	10	U
benzo (a) pyrene	10	10	U
dibenzo (a,h) anthracene	10	10	U
benzo (g,h,i) perylene	10	10	U
indeno (1,2,3-cd) pyrene	10	10	U
naphthalene	10	10	U
chrysene	10	10	U
Nitrobenzene-d5 (%)	35-114	105	
2-Fluorobiphenyl (%)	43-116	104	
Terphenyl-d14 (%)	33-141	116	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

TCLP 8270 DEC BN List

1311/8270

Site: GRIFFIS AIRFORCE BASE
Date Sampled: 05/14/97
Date Received: 05/15/97
TCLP Extraction Date: 05/19/97

Group Number: 9701-323
Report Units: ug/L
Matrix: TCLP Extract

	Lab ID Number	WS33651
	Client ID	FF FS005
	Date Extracted	05/21/97
	Date Analyzed	05/22/97

Compound	Detection Limit/ QC Limits (%)	Result	Q
anthracene	10	10	U
fluorene	10	10	U
phenanthrene	10	10	U
pyrene	10	10	U
acenaphthene	10	10	U
benzo (a) anthracene	10	10	U
fluoranthene	10	10	U
benzo (b) fluoranthene	10	10	U
benzo (k) fluoranthene	10	10	U
benzo (a) pyrene	10	10	U
dibenzo (a,h) anthracene	10	10	U
benzo (g,h,i) perylene	10	10	U
indeno (1,2,3-cd) pyrene	10	10	U
naphthalene	10	10	U
chrysene	10	10	U
Nitrobenzene-d5 (%)	35-114	106	
2-Fluorobiphenyl (%)	43-116	107	
Terphenyl-d14 (%)	33-141	111	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

TCLP 8270 DEC BN List

1311/8270

Site: GRIFFIS AIRFORCE BASE
Date Sampled: 05/14/97
Date Received: 05/15/97
TCLP Extraction Date: 05/19/97

Group Number: 9701-323
Report Units: ug/L
Matrix: TCLP Extract

	Lab ID Number	WS33652
	Client ID	FF FS006
	Date Extracted	05/21/97
	Date Analyzed	05/22/97

Compound	Detection Limit/ QC Limits (%)	Result	Q
anthracene	10	10	U
fluorene	10	10	U
phenanthrene	10	10	U
pyrene	10	10	U
acenaphthene	10	10	U
benzo (a) anthracene	10	10	U
fluoranthene	10	10	U
benzo (b) fluoranthene	10	10	U
benzo (k) fluoranthene	10	10	U
benzo (a) pyrene	10	10	U
dibenzo (a,h) anthracene	10	10	U
benzo (g,h,i) perylene	10	10	U
indeno (1,2,3-cd) pyrene	10	10	U
naphthalene	10	10	U
chrysene	10	10	U
Nitrobenzene-d5 (%)	35-114	102	
2-Fluorobiphenyl (%)	43-116	102	
Terphenyl-d14 (%)	33-141	108	

Dilution Factor 1

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.
8021 Soil Method Blank Analysis
5030/8021

Site: GRIFFIS AIRFORCE BASE
Date Sampled: NA
Date Received: NA

Group Number: 9701-323
Report Units: PPB

Lab ID Number	MB052297	
Client ID	NA	
Date Extracted	NA	
Date Analyzed	05/22/97	
Compound	**Detection Limit/ QC Limits (%)**	**Result**	**Q**
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	1.0	U
Ethylbenzene	1.3	1.3	U
M,P-Xylene	2.8	2.8	U
O-Xylene	1.7	1.7	U
Isopropylbenzene	1.6	1.6	U
N-Propylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	1.7	U
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	1.4	U
Sec-Butylbenzene	2.2	2.2	U
P-Isopropyltoluene	1.8	1.8	U
N-Butylbenzene	2.8	2.8	U
Napthalene	1.6	1.6	U
a,a,a-Trifluorotoluene (%)	83-130 .	108.0	

Dilution Factor 1

NYSDEC Petroleum contaminated Water/Soil compound list.
MB Denotes Method Blank
NA Denotes Not Applicable

WASTE STREAM TECHNOLOGY

Waste Stream Technology Inc.
Soil 8021 Reference Sample Recovery Report
NYS DEC STARS Compound List

Site : Griffis Air Force
Date Analyzed : 05/22/97

Group Number : 9701-323

Compound	Spike Added (ug/L)	Reference Sample Result (ug/L)	% Recovery	QC Limits % Recovery
MTBE	20	20.3	102	60 - 142
Benzene	20	19.8	99	76 - 111
Toluene	20	21.4	107	69 - 126
Ethylbenzene	20	21.1	105	70 - 114
m,p- Xylene	40	43.4	109	80 - 117
o-xylene	20	22.2	111	80 - 120
Isopropylbenzene	20	18.6	93	82 - 117
n-Propylbenzene	20	19.7	99	87 - 123
1,3,5-Trimethylbenzene	20	19.7	98	88 - 123
tert-Butylbenzene	20	16.4	82#	86 - 128
1,2,4-Trimethylbenzene	20	22.0	110	85 - 129
sec-Butylbenzene	20	19.8	99	86 - 127
p-Isopropyltoluene	20	21.1	105	91 - 131
n-Butylbenzene	20	21.0	105	87 - 134
Naphthalene	20	26.3	131	84 - 155
Surrogate Recovery %				
a,a,a-Trifluorotoluene		96		83 - 130

# denotes a recovery outside the stated QC limits.

Waste Stream Technology Inc.
8021 Soil Matrix Spike Recovery Report
NYS DEC STARS Compound List

Site : Griffis Air Force Base
Date Analyzed : 06/02/97

Group Number : 9701-311
WST Sample ID # : WS33652
Client ID : FF FS006

Compound	WS33653 Matrix Spike Recovery (%)	WS33653 Matrix Spike Duplicate Recovery (%)	% RPD	QC Limits % RPD	QC Limits % Recovery
MTBE	114	100	13.1	25	82 - 145
Benzene	98	98	0.1	25	45 - 133
Toluene	81	85	4.8	25	74 - 128
Ethylbenzene	107	109	1.9	25	62 - 129
m,p- Xylene	98	108	9.7	25	70 - 125
o-xylene	112	118	5.2	25	62 - 130
Isopropylbenzene	97	93	4.2	25	63 - 105
n-Propylbenzene	103	96	7.0	25	62 - 112
1,3,5-Trimethylbenzene	112	109	2.7	25	45 - 133
tert-Butylbenzene	96	89	7.6	25	52 - 118
1,2,4-Trimethylbenzene	96	106	9.9	25	42 - 133
sec-Butylbenzene	98	91	7.4	25	47 - 123
p-Isopropyltoluene	25#	0#	NA#	25	47 - 127
n-Butylbenzene	109	107	1.9	25	19 - 150
Naphthalene	114	104	9.2	25	21 - 160
Surrogate Recovery %					
a,a,a-Trifluorotoluene	114	112			83 - 130

# denotes a recovery or RPD outside the stated QC limits. Refer to case narrative.

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

8270 DEC BN List Method Blank

EPA 8270

Site: GRIFFIS AIRFORCE BASE
Date Sampled: NA
Date Received: NA

Group Number: 9701-323
Report Units: PPB

Lab ID Number	MB051597	
Client ID	NA	
Date Extracted	05/1597	
Date Analyzed	05/19/97	
Compound	**Detection Limit/ QC Limits (%)**	**Result**	**Q**
Anthracene	495	495	U
Fluorene	495	495	U
Phenanthrene	495	495	U
Pyrene	495	495	U
Acenaphthene	495	495	U
Benzo[a]anthracene	495	495	U
Fluoranthene	495	495	U
Benzo[b]fluoranthene	495	495	U
Benzo[k]fluoranthene	495	495	U
Benzo[a]pyrene	495	495	U
Dibenzo[a,h]anthracene	495	495	U
benzo[g,h,i]perylene	495	495	U
Indeno[1,2,3-cd]pyrene	495	495	U
Naphthalene	495	495	U
Chrysene	495	495	U
Nitrobenzene-d5 (%)	23-120	80	
2-Fluorobiphenyl (%)	30-115	83	
Terphenyl-d14 (%)	18-137	83	

Dilution Factor 1
MB Denotes Method Blank
NA Denotes Not Applicable

WASTE STREAM TECHNOLOGY

Waste Stream Technology Inc.
8270 Soil Reference Sample Recovery Report
NYS DEC STARS Compound List

Site : Griffis Air Force Base
Date Extracted : 05/20/97

Group Number : 9701-323
Date Analyzed : 05/21/97

Compound	Spike Amount (ug/kg)	Reference Sample Result (ug/kg)	% Recovery	QC Limits % Recovery
anthracene	1670	1470	88	71 - 121
fluorene	1670	1560	93	71 - 123
phenanthrene	1670	1580	94	72 - 124
pyrene	1670	1520	91	62 - 132
acenaphthene	1670	1580	94	69 - 129
benzo[a]anthracene	1670	1540	92	70 - 121
fluoranthene	1670	1580	94	68 - 129
benzo[b]fluoranthene	1670	1450	87	34 - 116
benzo[k]fluoranthene	1670	1360	81	47 - 112
benzo[a]pyrene	1670	1430	85	46 - 108
dibenzo[a,h]anthracene	1670	1350	81	32 - 128
benzo[g,h,i]perylene	1670	1300	78	25 - 129
indeno[1,2,3-cd]pyrene	1670	1370	82	36 - 123
naphthalene	1670	1520	91	55 - 121
chrysene	1670	1560	94	72 - 124
Surrogate Recovery %				
Nitrobenzene-d5		99		23 - 120
2-Fluorobiphenyl		104		30 - 115
p-Terphenyl-d14		111		18 - 137

WASTE STREAM TECHNOLOGY

Waste Stream Technology Inc.
8270 Soil Matrix Spike Recovery Report
NYS DEC STARS Compound List

Site : Griffis Air Force Base
Date Extracted : 05/26/97
Date Analyzed : 05/27/97

Group Number : 9701-323
WST Sample ID # : WS33652
Client ID : FF FS006

Compound	WS33653 Matrix Spike Recovery (%)	WS33653 Matrix Spike Duplicate Recovery (%)	% RPD	QC Limits % RPD	QC Limits % Recovery
anthracene	103	97	14.5	30	72 - 128
fluorene	105	100	13.0	30	73 - 128
phenanthrene	89	79	20.2	30	40 - 162
pyrene	57	61	1.7	30	32 - 142
acenaphthene	104	96	16.5	30	82 - 120
benzo[a]anthracene	94	83	20.5	30	57 - 145
fluoranthene	56	50	19.4	30	25 - 166
benzo[b]fluoranthene	81	87	0.9	30	55 - 142
benzo[k]fluoranthene	101	92	18.3	30	62 - 135
ızo[a]pyrene	93	91	10.7	30	64 - 132
dibenzo[a,h]anthracene	99	90	17.3	30	58 - 110
benzo[g,h,i]perylene	83	75	19.1	30	34 - 129
indeno[1,2,3-cd]pyrene	83	84	8.2	30	56 - 111
naphthalene	103	88	24.3	30	79 - 116
chrysene	94	81	24.1	30	57 - 147
Surrogate Recovery %					
Nitrobenzene-d5	95	86			23 - 120
2-Fluorobiphenyl	94	94			30 - 115
p-Terphenyl-d14	80	98			18 - 137

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

Method Blank for TCLP 8270-DEC

1311/8270

Site: GRIFFIS AIRFORCE BASE
Date Sampled: NA
Date Received: NA
TCLP Extraction Date: 05/19/97

Group Number: 9701-323
Report Units: PPB

	Lab ID Number	MB052197
	Client ID	NA
	Date Extracted	05/21/97
	Date Analyzed	05/21/97

Compound	Detection Limit/ QC Limits (%)	Result	Q
Anthracene	10	10	U
Fluorene	10	10	U
Phenanthrene	10	10	U
Pyrene	10	10	U
Acenaphthene	10	10	U
Benzo[a]Anthracene	10	10	U
Fluoranthene	10	10	U
Benzo[b]Fluoranthene	10	10	U
Benzo[k]fluoranthene	10	10	U
Benzo[a]pyrene	10	10	U
Dibenzo[a,h]anthracene	10	10	U
Benzo[g,h,i]perylene	10	10	U
Indeno[1,2,3-cd]pyrene	10	10	U
Naphthalene	10	10	U
Chrysene	10	10	U
Nitrobenzene-d5 (%)	35-114	84	
2-Fluorobiphenyl (%)	43-116	87	
Terphenyl-d14 (%)	33-141	100	

Dilution Factor 1
MB Denotes Method Blank
NA Denotes Not Applicable

Waste Stream Technology Inc.
TCLP 8270 Reference Sample Recovery Report
NYS DEC STARS Compound List

Site : Griffis Airforce Base
TCLP Date : 05/19/97
Extraction Date : 05/21/97

Group Number : 9701-323
Date Analyzed : 05/21/97

Compound	Spike Amount (ug/L)	Reference Sample Result (ug/L)	% Recovery	QC Limits % Recovery
anthracene	50	42.1	84	57 - 122
fluorene	50	45.0	90	62 - 120
phenanthrene	50	42.8	86	61 - 124
pyrene	50	42.8	86	57 - 127
acenaphthene	50	43.4	87	64 - 119
benzo[a]anthracene	50	43.8	88	60 - 123
fluoranthene	50	45.0	90	51 - 129
benzo[b]fluoranthene	50	43.0	86	50 - 131
benzo[k]fluoranthene	50	38.0	76	50 - 132
benzo[a]pyrene	50	42.4	85	56 - 128
dibenzo[a,h]anthracene	50	33.1	66	20 - 143
benzo[g,h,i]perylene	50	28.1	56	12 - 154
indeno[1,2,3-cd]pyrene	50	32.2	64	22 - 143
naphthalene	50	40.2	80	60 - 110
chrysene	50	45.1	90	62 - 125
Surrogate Recovery %				
Nitrobenzene-d5		99		35 - 114
2-Fluorobiphenyl		106		43 - 116
p-Terphenyl-d14		112		33 - 141

WASTE STREAM TECHNOLOGY

Waste Stream Technology Inc.
8270 TCLP Matrix Spike Recovery Report
NYS DEC STARS Compound List

Site : Griffis Air Force Base
TCLP Extraction Date : 05/19/97
Solvent Extraction Date : 05/21/97
Date Analyzed : 05/22/97

Group Number : 9701-323
WST Sample ID # : WS33653
Client ID : FF FS006

Compound	Matrix Spike Amount (ug/L)	Matrix Spike Sample Result (ug/L)	Percent Recovery	QC Limits % Recovery
anthracene	50	41.8	84	56 - 120
fluorene	50	44.6	89	59 - 122
phenanthrene	50	44.1	88	61 - 123
pyrene	50	43.5	87	53 - 122
acenaphthene	50	45.0	95	58 - 123
benzo[a]anthracene	50	42.3	84	52 - 127
fluoranthene	50	43.1	86	49 - 130
benzo[b]fluoranthene	50	36.8	74	46 - 129
benzo[k]fluoranthene	50	41.4	83	49 - 127
benzo[a]pyrene	50	39.8	80	50 - 126
dibenzo[a,h]anthracene	50	33.4	67	18 - 139
benzo[g,h,i]perylene	50	27.6	55	10 - 146
indeno[1,2,3-cd]pyrene	50	31.9	64	19 - 138
naphthalene	50	44.4	89	53 - 116
chrysene	50	44.1	88	56 - 127
Surrogate Recovery %				
Nitrobenzene-d5	100	100		35 - 114
2-Fluorobiphenyl	100	105		43 - 116
p-Terphenyl-d14	100	114		33 - 141

WASTE-TREAT TECHNOLOGY
302 GROTE STREET
BUFFALO, NY 14207
(716) 876-5290

9701-323

CHAIN OF CUSTODY RECORD

PROJECT NO: 56660 — DACA41-96-C8015

SITE NAME: Griffis Air Force Base - pipe Removal

SAMPLERS (SIGNATURE): [signature]

	SAMPLE NO.	DATE	TIME	COMP	GRAB	MATRIX	SAMPLE LOCATION	SIZE & NO. OF CONTAINERS	8021	8270	TCLP 8270 STARS	BTEX	O&G	CN	Pb, Cd, Cr, Ni	PRESERVATIVES	REMARKS
1	FF WS009	5/14/97	3:30		X (TO BE Composited)	Soil	North Wall	4(1oz) (1) 2oz				WS33645				4°C	TO BE Composited @ LAB
2	FF WS010		3:45				East Wall								46		
3	FF WS011		4:00				South Wall								47		
4	FF WS012		4:15				West Wall								48		
5	FF WS013		4:30				East Grab	(2) 8oz (1) 1Liter							49		MMAB
6	FF WS014		4:45				West Grab								50		
7	FF FS005		5:00				Floor	(1) 4oz (1) 2oz							51		TO BE Composited
8	FF FS006		5:15				Floor South	2 2oz 1 8oz							52		Grab
9	FF FS006		5:15				Floor South	(2) 2oz 1 1Liter							53		QA
10	PH GW001					Water	Gw 771 Tank Pit West	1 8oz (2) 1Liter				X	X	X	X		
11	PH GW001						Gw 771 Tank Pit West					X	X	X	X		QA

RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)
[signature]	5/14/97 6:00	Shipping Lag Time →		5/15/97 10:30	Debra Ressler
RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)

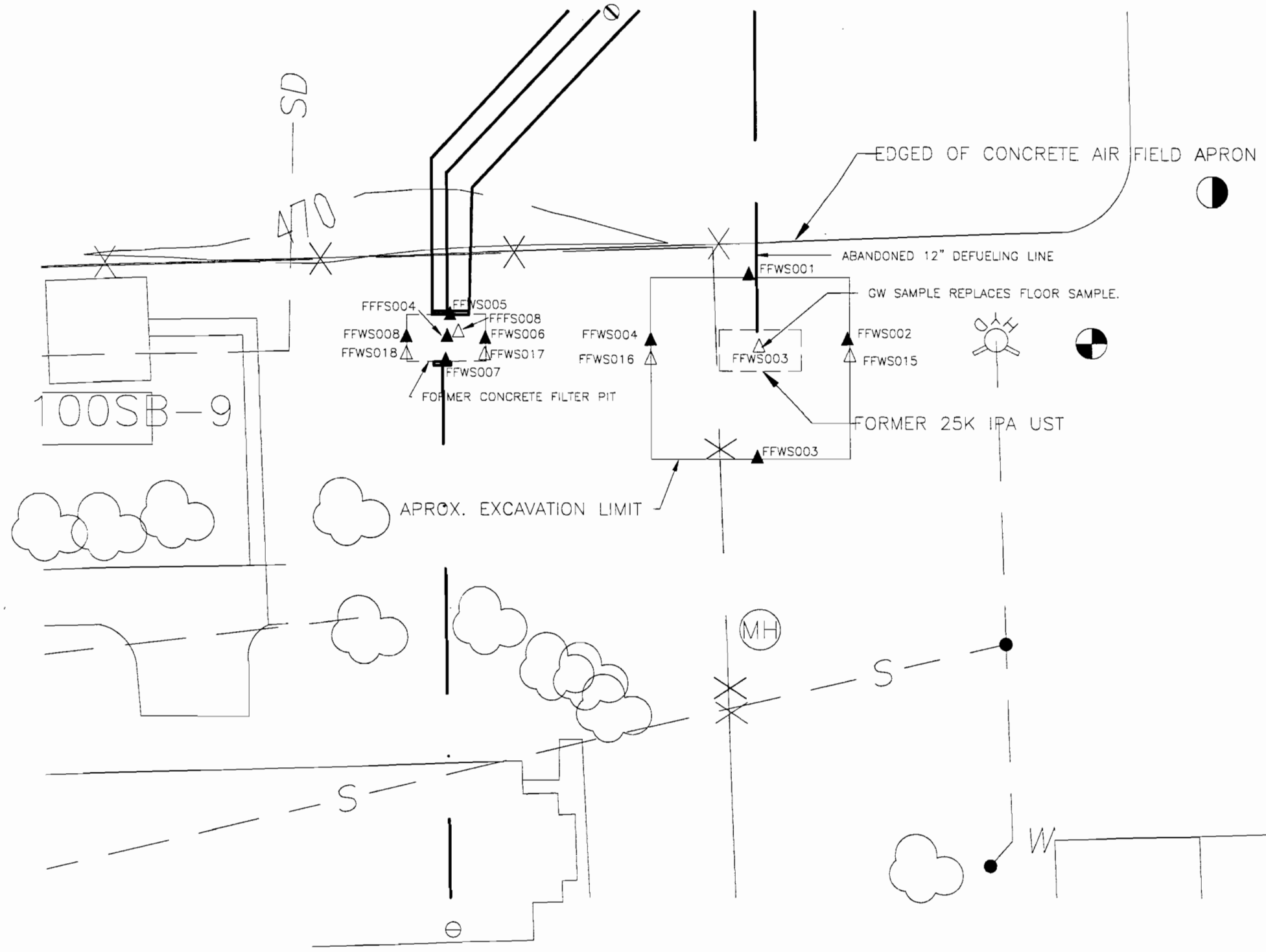
SPECIAL INSTRUCTIONS:

TURNAROUND TIME 1 WEEK

LAB USE: REFRIGERATOR # ______ SHELF # ______ GROUP # ______ DUE DATE ______

Appendix E

Scaled Site Drawing



▲ COMPOSITE – TAKEN PER SAP

△ GRAB

NOTE: ALL SAMPLE PTS ARE APPROX. LOCATIONS

1"=30' 30 0 30 60

IN CHARGE OF _____

DESIGNED BY _____ CHECKED BY _____

DRAWN BY _____

NO.	DATE	REVISION	INIT.

O'BRIEN & GERE TECHNICAL SERVICES, INC.

GRIFFISS AIR FORCE BASE
ROME, NEW YORK
SOURCE REMOVAL REMEDIAL ACTION DESIGN
BUILDING 100 – FILTER PIT & 25K UST

FILE NO. AI-011

DATE JAN-1998

1

CONFIRMATION SAMPLING RESULTS vs STARS MEMO GUIDANCE VALUES

IPA TANK

COMPOUND	EPA	TCLP	TCLP	*IPA TANK PIT*	*IPA TANK PIT*	*IPA TANK PIT*	*IPA TANK PIT*	*IPA TANK PIT*	*IPA TANK PIT*	*IPA TANK PIT*	*IPA TANK PIT*	*IPA TANK PIT*
				NORTH WALL	NORTH WALL	*EAST WALL*	*EAST WALL*	*SOUTH WALL*	*SOUTH WALL*	*WEST WALL*	*WEST WALL*	*EAST WALL G-1*
	METHOD	GUIDANCE	ALTERNATIVE	FF WS 001	FF WS 001	FF WS 002	FF WS 002	FF WS 003	FF WS 003	FF WS 004	FF WS 004	FF WS 015
		VALUE	VALUE	TCLP 8270	TOTAL 8270	TCLP 8270	TOTAL 8270	TCLP	TOTAL 8270	TCLP	TOTAL 8270	TCLP
		PPB	PPB	PPB	& 8021		& 8021	8270	& 8021	8270	& 8021	8270
METHYL-T-BUTYL ETHER	8021	50	1000		5.0		5.0		5.0		5.0	
BENZENE	8021	0.7	14		1.0		1.0		1.0		1.0	
TOLUENE	8021	5	100		1.0		1.0		15.6		1.0	
ETHYLBENZENE	8021	5	100		1.3		1.3		10.2		1.3	
M,P-XYLENE	8021	5	100		2.8		2.8		31.0		2.8	
O-XYLENE	8021	5	100		1.7		1.7		14.6		1.7	
ISOPROPYLBENZENE	8021	5	100		1.6		1.6		1.6		1.6	
N-PROPYLBENZENE	8021	5	100		1.7		1.7		1.7		1.7	
1,3,5-TRIMETHYLBENZENE	8021	5	100		1.7		6.9		4.6		1.7	
TERT-BUTYLBENZENE	8021	5	100		3.6		3.6		3.6		3.6	
1,2,4,-TRIMETHYLBENZENE	8021	5	100		1.4		3.4		14.1		1.4	
SEC-BUTYLBENZENE	8021	5	100		2.2		2.2		2.2		2.2	
P-ISOPROPYLTOLUENE	8021	5	100		1.8		1.8		1.8		1.8	
N-BUTYLBENZENE	8021	5	100		2.8		4.5		2.8		2.8	
NAPHTHALENE	8021	10	200		1.6		1.6		5.6		1.6	
A,A,A-TRIFLUOROTOLUENE	8021	NA	NA		89.0		113.0		105.0		114.0	
ANTHRACENE	8270	50	1000	10	495	10	495	10	495	10	495	10
FLUORENE	8270	50	1000	10	495	10	495	10	495	10	495	10
PHENANTHRENE	8270	50	1000	10	233.0	10	204 J	10	495	10	222 J	10
PYRENE	8270	50	1000	10	495	10	495	10	495	10	495	10
ACENAPHTHENE	8270	20	400	10	495	10	495	10	495	10	495	10
BENZO(A)ANTHRACENE	8270	0.002	0.04	10	495	10	495	10	495	10	495	10
FLUORANTHENE	8270	50	1000	10	495	10	495	10	495	10	495	10
BENZO(B)FLUORANTHENE	8270	0.002	0.04	10	495	10	495	10	495	10	495	10
BENZO(k)FLUORANTHENE	8270	0.002	0.04	10	495	10	495	10	495	10	495	10
BENZO(A)PYRENE	8270	0.002	0.04	10	495	10	495	10	495	10	495	10
DIBENZO(A,H)ANTHRACENE	8270	50	1000	10	495	10	495	10	495	10	495	10
BENZO(G,H,I,)PERYLENE	8270	0.002	0.04	10	495	10	495	10	495	10	495	10
INDENO(1,2,3-CD)PYRENE	8270	0.002	0.04	10	495	10	495	10	495	10	495	10
NAPHTHALENE	8270	10	200	10	495	10	495	10	495	10	495	10
CHRYSENE	8270	0.002	0.04	10	495	10	495	10	495	10	495	10
NITROBENZENE-D5(%)		NA		59	77	52	74	53	65	69	79	62
2-FLUOROBIPHENYL(%)		NA		54	78	51	66	48	66	63	33	62
TERPHENYL-D14(%)		NA		51	62	45	61	52	69	59	79	58

NOTE: CHART PROVIDED FOR COMPARISON PURPOSES ONLY, AEI NOT RESPONSIBLE FOR ERRORS MADE WHILE TRANSPOSING DATA

RESULTS IN RED INDICATE THE VALUE EXCEEDS THE STARS GUIDANCE VALUE
RESULTS IN BLUE INDICATE THECOMPUND WAS DETECTED AND FURTHER INTERPRETATION IS NECCESSARY
RESULTS IN BLACK INDICATE THE WAS LESS THAN THE GUIDANCE VALUE, UNDETECTED , AN ESTIMATED VALUE, ECT SEE ATTACHED QUALIFIERS

* REPLACES FLOOR SAMPLE THAT WAS UNABLE TO BE OBTAINED DUE TO THE PRESENCE OF GROUNDWATER

Site 100 IPA Tank

IPA TANK PIT EAST WALL G-1 FF WS 015 TOTAL 8270 & 8021	IPA TANK PIT WEST WALL G-2 FF WS 016 TCLP 8270	IPA TANK PIT WEST WALL G-2 FF WS 016 TOTAL 8270 & 8021	IPA TANK PIT GROUND WATER FF FS 003 TCLP 8270	IPA TANK PIT GROUND WATER * FF FS 003 TOTAL 8270 & 8021
5.0		5.0		174.0
1.0		1.0		14.0
1.0		1.0		20.0
1.3		1.3		26.0
2.8		2.8		56.0
1.7		1.7		44.0
1.6		1.6		32.0
1.7		1.7		34.0
1.7		1.7		118.0
3.6		3.6		72.0
1.4		1.4		28.0
2.2		2.2		44.0
1.8		1.8		36.0
2.8		2.8		34 J
1.6		1.6		32.0
114.0		114.0		137.0
495	10	150 J	NA	10
495	10	495	NA	10
138 J	10	516.0	NA	10
495	10	510.0	NA	10
495	10	495	NA	10
495	10	391 J	NA	10
495	10	391 J	NA	10
495	10	557.0	NA	10
495	10	309 J	NA	10
495	10	291 J	NA	10
495	10	387 J	NA	10
495	10	495	NA	10
495	10	353 J	NA	10
495	10	309 J	NA	10
495	10	495	NA	10
495	10	564.0	NA	10
71	52	71	NA	57
69	52	80	NA	53
80	51	81	NA	53

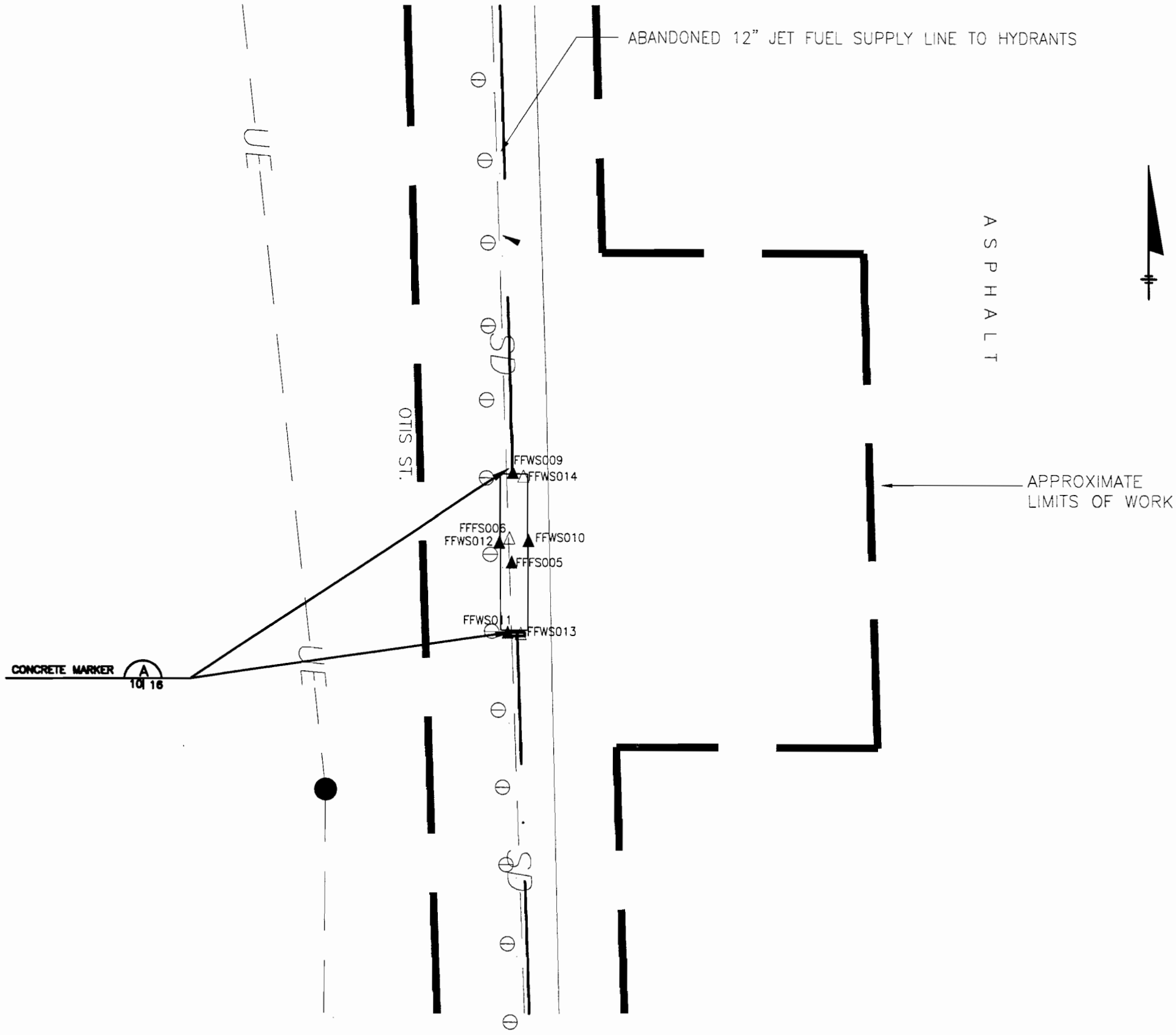
CONFIRMATION SAMPLING RESULTS vs STARS MEMO GUIDANCE VALUES

OTIS STREET

COMPOUND	EPA	TCLP	TCLP	OTIS	OTIS	OTIS	OTIS	OTIS	OTIS	OTIS	OTIS	OTIS	OTIS	OTIS	OTIS	OTIS	OTIS	OTIS
				N. WALL	N. WALL	E.WALL	E.WALL	S. WALL	S. WALL	W. WALL	W. WALL	E. WALL G-1	E. WALL G-1	W. WALL G-2	W. WALL G-2	FLOOR	FLOOR	S. FLOOR G	S. FLOOR G
	METHOD	GUIDANCE	ALTERNATIVE	FF-WS-009	FF-WS-009	FF-WS-010	FF-WS-010	FF-WS-011	FF-WS-011	FF-WS-012	FF-WS-012	FF-WS-013	FF-WS-013	FF-WS-014	FF-WS-014	FF-FS-005	FF-FS-005	FF-FS-006	FF-FS-006
		VALUE	VALUE	TCLP	TOTAL 8270	TCLP	TOTAL 8270	TCLP	TOTAL 8270	TCLP	TOTAL 8270	TCLP	TOTAL 8270	TCLP	TOTAL 8270	TCLP	TOTAL 8270	TCLP	TOTAL 8270
		PPB	PPB	8270	& 8021	8270	& 8021	8270	& 8021	8270	& 8021	8270	& 8021	8270	& 8021	8270	& 8021	8270	& 8021
METHYL-T-BUTYL ETHER	8021	50	1000		5		5		6250 U		5		5		5		5		5
BENZENE	8021	0.7	14		1		1		2960		1.6		1		1		1		1
TOLUENE	8021	5	100		5.1		5.6		173000		18.6		10.1		4.7		3.1		3.9
ETHYLBENZENE	8021	5	100		12.9		5.3		81700		6.6		1.8		1.3		1.3		1.3
M,P-XYLENE	8021	5	100		28.3		10.4		334000		21.5		8.8		2.8		2.8		2.8
O-XYLENE	8021	5	100		12.3		4.2		146000		9.2		3.9		1.7		1.7		1.7
ISOPROPYLBENZENE	8021	5	100		5.1		1.6		14700		1.6		1.6		1.6		1.6		1.6
N-PROPYLBENZENE	8021	5	100		1.7		1.7		25000		2.5		1.7		1.7		1.7		1.7
1,3,5-TRIMETHYLBENZENE	8021	5	100		36.3		5		73100		4.7		1.7		1.7		1.7		1.7
TERT-BUTYLBENZENE	8021	5	100		3.6		3.6		4500 U		3.6		3.7		3.6		3.6		3.6
1,2,4,-TRIMETHYLBENZENE	8021	5	100		65.9		7		214000		10.2		1.4		1.4		1.4		1.4
SEC-BUTYLBENZENE	8021	5	100		2.2		2.2		4790		2.2		2.2		2.2		2.2		2.2
P-ISOPROPYLTOLUENE	8021	5	100		1.8		1.8		2710		1.8		1.8		1.8		1.8		25
N-BUTYLBENZENE	8021	5	100		14		6		80500		4.2		2.8		2.8		2.8		2.8
NAPHTHALENE	8021	10	200		576 E		20.1		34800		8.2		4.3		4.2		4.9		1.6
A,A,A-TRIFLUOROTOLUENE	8021	NA	NA		91		114		114		100		95		96		100		98
ANTHRACENE	8270	50	1000	10 U	495 U	10 U	495 U	10 U	495 U	10 U	495 U	10 U	495 U	10 U	495 U	10 U	495 U	10 U	495 U
FLUORENE	8270	50	1000	10 U	126 J	10 U	495 U	10 U	495 U	10 U	495 U	10 U	495 U	10 U	495 U	10 U	132 J	10 U	495 U
PHENANTHRENE	8270	50	1000	10 U	640	10 U	495 U	10 U	495 U	10 U	245 J	10 U	495 U	10 U	356 J	10 U	477 J	10 U	630
PYRENE	8270	50	1000	10 U	402 J	10 U	495 U	10 U	495 U	10 U	204 J	10 U	495 U	10 U	316 J	10 U	271 J	10 U	686
ACENAPHTHENE	8270	20	400	10 U	121 J	10 U	495 U	10 U	495 U	10 U	495 U	10 U	495 U	10 U	495 U	10 U	143 J	10 U	495 U
BENZO(A)ANTHRACENE	8270	0.002	0.04	10 U	219 J	10 U	495 U	10 U	495 U	10 U	148 J	10 U	495 U	10 U	172 J	10 U	142 J	10 U	437 J
FLUORANTHENE	8270	50	1000	10 U	491 J	10 U	495 U	10 U	495 U	10 U	239 J	10 U	495 U	10 U	409 J	10 U	345 J	10 U	907
BENZO(B)FLUORANTHENE	8270	0.002	0.04	10 U	159 J	10 U	495 U	10 U	495 U	10 U	495 U	10 U	495 U	10 U	149 J	10 U	495 U	10 U	336 J
BENZO(k)FLUORANTHENE	8270	0.002	0.04	10 U	172 J	10 U	495 U	10 U	495 U	10 U	128 J	10 U	495 U	10 U	169 J	10 U	495 U	10 U	350 J
BENZO(A)PYRENE	8270	0.002	0.04	10 U	190 J	10 U	495 U	10 U	495 U	10 U	137 J	10 U	495 U	10 U	178 J	10 U	119 J	10 U	394 J
DIBENZO(A,H)ANTHRACENE	8270	50	1000	10 U	495 U	10 U	495 U	10 U	495 U	10 U	495 U	10 U	495 U	10 U	495 U	10 U	495 U	10 U	495 U
BENZO(G,H,I)PERYLENE	8270	0.002	0.04	10 U	495 U	10 U	495 U	10 U	495 U	10 U	495 U	10 U	495 U	10 U	495 U	10 U	495 U	10 U	129 J
INDENO(1,2,3-CD)PYRENE	8270	0.002	0.04	10 U	495 U	10 U	495 U	10 U	495 U	10 U	495 U	10 U	495 U	10 U	495 U	10 U	495 U	10 U	144 J
NAPHTHALENE	8270	10	200	3J	865	4J	495 U	10 U	495 U	5 J	495 U	50	495 U	10 U	495 U	10 U	495 U	10 U	495 U
CHRYSENE	8270	0.002	0.04	10 U	237 J	10 U	495 U	10 U	495 U	10 U	154 J	10 U	495 U	10 U	221 J	10 U	147 J	10 U	481 J
NITROBENZENE-D5(%)		NA		37	101	80	97	95	102	93	106	96	103	104	105	106	104	102	98
2-FLUOROBIPHENYL(%)		NA		38	108	81	101	93	108	93	110	92	108	105	111	107	112	102	108
TERPHENYL-D14(%)		NA		70	116	88	104	96	117	102	115	94	110	116	111	111	110	108	108

NOTE: CHART PROVIDED FOR COMPARISON PURPOSES ONLY, AEI NOT RESPONSIBLE FOR ERRORS MADE WHILE TRANSPOSING DATA

RESULTS IN RED INDICATE THE VALUE EXCEEDS THE STARS GUIDANCE VALUE
RESULTS IN BLUE INDICATE THECOMPUND WAS DETECTED AND FURTHER INTERPRETATION IS NECCESSARY
RESULTS IN BLACK INDICATE THE WAS LESS THAN THE GUIDANCE VALUE, UNDETECTED , AN ESTIMATED VALUE, ECT SEE ATTACHED QUALIFIERS



▲ COMPOSITE – TAKEN PER SAP

△ GRAB

NOTE: ALL SAMPLE PTS ARE APPROX. LOCATIONS

1"=30' 30 0 30 60

IN CHARGE OF _____

DESIGNED BY _____ CHECKED BY _____

DRAWN BY _____

NO.	DATE	REVISION	INIT.

O'BRIEN & GERE
TECHNICAL SERVICES, INC.

GRIFFISS AIR FORCE BASE
ROME, NEW YORK
SOURCE REMOVAL REMEDIAL ACTION DESIGN
BUILDING 100 – OTIS STREET

FILE NO. AI-011

DATE JAN-1998

1

CONFIRMATION SAMPLING RESULTS vs STARS MEMO GUIDANCE VALUES

FILTER PIT

COMPOUND	EPA	TCLP	TCLP	*FILTER PIT*	*FILTER PIT*	*FILTER PIT*	*FILTER PIT*	*FILTER PIT*	*FILTER PIT*	*FILTER PIT*	*FILTER PIT*	*FILTER PIT*	*FILTER PIT*	*FILTER PIT*	*FILTER PIT*	*FILTER PIT*	*FILTER PIT*	*FILTER PIT*
				NORTH WALL	NORTH WALL	*EAST WALL*	*EAST WALL*	*SOUTH WALL*	*SOUTH WALL*	*WEST WALL*	*WEST WALL*	*FLOOR*	*FLOOR*	*EAST WALL G-1*	*EAST WALL G-1*	*WEST WALL G-2*	*WEST WALL G-2*	*FLOOR GRAB*	*FLOOR GRAB*
	METHOD	GUIDANCE	ALTERNATIVE	FF WS 005	FF WS 005	FF WS 006	FF WS 006	FF WS 007	FF WS 007	FF WS 008	FF WS 008	FF FS 004	FF FS 004	FF WS 017	FF WS 017	FF WS 018	FF WS 018	FF FS 008	FF FS 008
		VALUE	VALUE	TCLP 8270	TOTAL 8270	TCLP 8270	TOTAL 8270	TCLP	TOTAL 8270	TCLP	TOTAL 8270	TCLP	TOTAL 8270	TCLP	TOTAL 8270	TCLP	TOTAL 8270	TCLP	TOTAL 8270
		PPB	PPB	PPB	& 8021		& 8021	8270	& 8021	8270	& 8021	8270	& 8021	8270	& 8021	8270	& 8021	8270	& 8021
HYL-T-BUTYL ET	8021	50	1000		5.0		5.0		5.0		5.0		5.0		5.0		5.0		5.0
BENZENE	8021	0.7	14		1.0		1.0		1.0		1.0		1.0		1.0		1.0		1.0
TOLUENE	8021	5	100		1.0		1.0		1.0		1.0		1.0		1.8		1.5		1.0
ETHYLBENZENE	8021	5	100		1.3		1.3		1.3		1.3		1.3		1.3		1.3		1.3
M,P-XYLENE	8021	5	100		2.8		2.8		2.8		2.8		2.8		2.8		2.8		2.8
O-XYLENE	8021	5	100		1.7		1.7		1.7		1.7		1.7		1.7		1.7		1.7
OPROPYLBENZE	8021	5	100		1.6		1.6		1.6		1.6		1.6		1.6		1.6		1.6
-PROPYLBENZEN	8021	5	100		1.7		1.7		1.7		1.7		1.7		1.7		1.7		1.7
-TRIMETHYLBEN	8021	5	100		1.7		1.7		1.7		1.7		1.7		1.7		1.7		1.7
RT-BUTYLBENZE	8021	5	100		3.6		3.6		3.6		3.6		3.6		3.6		3.6		3.6
-TRIMETHYLBEN	8021	5	100		1.4		1.4		1.4		1.4		1.4		1.4		1.4		1.4
EC-BUTYLBENZE	8021	5	100		2.2		2.2		2.2		2.2		2.2		2.2		2.2		2.2
OPROPYLTOLUE	8021	5	100		1.8		1.8		1.8		1.8		1.8		1.8		1.8		1.8
-BUTYLBENZEN	8021	5	100		2.8		2.8		2.8		2.8		2.8		2.8		2.8		2.8
NAPHTHALENE	8021	10	200		1.6		1.6		1.6		1.6		1.6		1.6		1.6		1.6
-TRIFLUOROTOL	8021	NA	NA		93.0		89.0		86.0		93.0		98.0		98.0		94.0		94.0
ANTHRACENE	8270	50	1000	10	780	10	495	10	495	10	495	10	495	10	495	10	495	10	495
FLUORENE	8270	50	1000	10	413 J	10	495	10	495	10	327 J	10	495	10	495	10	495	10	495
PHENANTHRENE	8270	50	1000	10	2330	10	147 J	10	236 J	10	1920	10	233 J	10	265 J	10	200 J	10	280 J
PYRENE	8270	50	1000	10	1390	10	495	10	145 J	10	1290	10	155 J	10	450 J	10	495	10	164 J
ACENAPHTHENE	8270	20	400	10	448 J	10	495	10	495	10	347 J	10	495	10	495	10	495	10	495
NZO(A)ANTHRAC	8270	0.002	0.04	10	971	10	495	10	495	10	803	10	495	10	373 J	10	495	10	495
FLUORANTHENE	8270	50	1000	10	2060	10	495	10	207 J	10	1760	10	185 J	10	368 J	10	495	10	196 J
ZO(B)FLUORANTH	8270	0.002	0.04	10	595	10	495	10	495	10	512	10	495	10	306 J	10	495	10	495
ZO(k)FLUORANTH	8270	0.002	0.04	10	554	10	495	10	495	10	502	10	495	10	367 J	10	495	10	495
BENZO(A)PYRENE	8270	0.002	0.04	10	707	10	495	10	495	10	567	10	495	10	418 J	10	495	10	495
NZO(A,H)ANTHRA	8270	50	1000	10	495U	10	495	10	495	10	495	10	495	10	495	10	495	10	495
ZO(G,H,I,)PERYL	8270	0.002	0.04	10	334 J	10	495	10	495	10	246 J	10	495	10	246 J	10	495	10	495
NO(1,2,3-CD)PYR	8270	0.002	0.04	10	365 J	10	495	10	495	10	262 J	10	495	10	362 J	10	495	10	495
NAPHTHALENE	8270	10	200	10	251 J	10	495	10	495	10	186 J	10	495	10	495	10	495	10	495
CHRYSENE	8270	0.002	0.04	10	927	10	495	10	495	10	759	10	495	10	400 J	10	495	10	495
TROBENZENE-D5(%)		NA		65	81	54	79	60	84	63	70	55	72	48	70	59	79	69	73
LUOROBIPHENYL(%)		NA		70	77	58	74	68	72	67	61	59	69	46	71	64	75	77	69
ERPHENYL-D14(%)		NA		60	70	59	68	65	74	67	70	56	80	52	79	59	97	64	78

NOTE: CHART PROVIDED FOR COMPARISON PURPOSES ONLY, AEI NOT RESPONSIBLE FOR ERRORS MADE WHILE TRANSPOSING DATA

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RESULTS IN BLACK INDICATE THE WAS LESS THAN THE GUIDANCE VALUE, UNDETECTED , AN ESTIMATED VALUE, ECT SEE ATTACHED QUALIFIERS

Appendix F

Material Disposal Documentation

ABSCOPE ENVIRONMENTAL, INC.

1 Commercial Dr.
PO Box 487
Canastota, NY 13032
(315) 697-8437
FAX (315) 697-9391

DOCUMENT 1015

96606
AEI JOB NO. [redacted]

STRAIGHT BILL OF LADING

NYSDEC 364 Permit No. 9A-369

TRANSPORTER 1 Abscope Environmental, Inc VEHICLE ID # _____
EPA ID # NYR 000065298 TRANS. 1 PHONE _____

TRANSPORTER 2 _____ VEHICLE ID # _____
EPA ID # _____ TRANS. 2 PHONE _____

DESIGNATED FACILITY	SHIPPER
Industrial Oil Tank Services Corp	Griffiss AFB
FACILITY EPA ID # NYR000065298	SHIPPER EPA ID # NY4571279451
ADDRESS 120 Dy Road	ADDRESS AFBCA/OL-X 153 Brooks
CITY Otisburg STATE NY ZIP 13904	CITY Rome STATE NY ZIP 13441

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
1	TT		A. Water Contaminated With Oil Non Hazardous Note	1850	
			B.		
			C.		
			D.		
			E.		
			F.		

SPECIAL HANDLING INSTRUCTIONS Otis Pipe Trench

TIME DEPARTED SHOP _____ TIME ON SITE _____ TIME LEFT SITE _____ TIME RETURN TO SHOP _____

CUSTOMER SIGNATURE _____

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

	PRINT	SIGN	DATE
SHIPPER	MARK R. RABE	Mark R Rabe	5/30/97
TRANSPORTER 1	Scott Mudge	Scott Mudge	5/30/97
TRANSPORTER 2			
RECEIVED BY	Mark Urtz	Mark Urtz	5/30/97

WHITE - OFFICE YELLOW - SHIPPER PINK - TSDF GOLD - OFFICE

ABSCOPE ENVIRONMENTAL, INC.

DOCUMENT Nº 0540

1 Commercial Dr.
PO Box 487
Canastota, NY 13032
(315) 697-8437
FAX (315) 697-9391

AEI JOB NO. 9666

STRAIGHT BILL OF LADING

NYSDEC 364 Permit No. 7A-367

TRANSPORTER 1 Abscope Environmental, Inc VEHICLE ID # ____
EPA ID # NY0000065xxx TRANS. 1 PHONE 315-697-9437

TRANSPORTER 2 ____ VEHICLE ID # ____
EPA ID # ____ TRANS. 2 PHONE ____

DESIGNATED FACILITY	SHIPPER
Industrial Oil Tank Services	Griffiss Air Force Base
FACILITY EPA ID # NYD000825695	SHIPPER EPA ID # AFBAJUL-X D
ADDRESS 130 Dey Rd	ADDRESS 153 Brooks Rd
CITY Oriskany STATE NY ZIP 13424	CITY Rome STATE NY ZIP 13441

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
1	TT		A. NON RCRA liquid, NOS (Wastewater) NON Hazardous	500	Gallons
			B.		
			C.		
			D.		
			E.		
			F.		

SPECIAL HANDLING INSTRUCTIONS
25% IPA Tank Site 100
(Pinnacle)

TIME DEPARTED SHOP ____ TIME ON SITE ____ TIME LEFT SITE ____ TIME RETURN TO SHOP ____

CUSTOMER SIGNATURE ____

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

	PRINT	SIGN	DATE
SHIPPER	Mark R Rabe	Mark R Rabe	6/16/97
TRANSPORTER 1	Scott Mudge	Scott Mudge	6/16/97
TRANSPORTER 2			
RECEIVED BY	John Hutchings		6/16/97

WHITE - OFFICE YELLOW - SHIPPER PINK - TSDF GOLD - OFFICE

REI
Research Environmental Industries
2777 Broadway Avenue
Cleveland, Ohio 44115
216-623-8383 FAX 216-623-8393

June 4, 1997

Mr. Robert Gray
Abscope Environmental Inc.
1 Commercial Drive
Canastota, NY 13032

RE: Approval Number - 24273-TAP - Griffiss Air Force Base AFBCA'OL-X - Isopropyl Alcohol & Water

Dear Mr. Gray:

Please find enclosed terms and conditions for Research Oil Company to accept and properly manage the approved waste stream in accordance with State and Federal regulations

The above assigned approval number is your waste stream identification number for Research Oil. It is required that you provide this number when referring to this stream each time a shipment is scheduled with Customer Service

Acceptance and processing of the approved waste stream at Research Oil confirms customer acknowledgement and agreement of the terms and conditions set forth in the Waste Characterization Proposal. At no time, however, will TSCA PCB wastes or waste streams containing PCB's at levels equal to or >50ppm be accepted for processing at this facility

For further clarification and interpretation of the attached Waste Characterization Proposal, please contact your local Sales Representative or REI Customer Service Department at 216-623-8383.

Thank you for your interest in and support of Research Environmental Industries.

Best Regards,

Jim Woebkenberg /EMT

Jim Woebkenberg
Senior Technical Sales Representative

JW/mbo

cc: Lisa Toth

Research Environmental Industries
Solutions through Service and Recycling Technology
7777 Broadway Avenue
Cleveland, Ohio 44115-3609

WASTE CHARACTERIZATION

No.

A SHIPPING AND BILLING INFORMATION

SHIPPING FACILITY (GENERATOR)

Facility Name: GRIFFISS AIR FORCE BASE AFBCA/OL-X
Contact: _____ SIC Code: _____
Address: 153 BROOKS ROAD
City: ROME State: NY Zip: 13441
Phone #: 315/330-2275 FAX: 315/330-4062
24 Hr. Contact: _____ Phone #: _____
USEPA ID#: NY4571924451

CUSTOMER (BILLING)

Customer Name: ABSCOPE ENVIRONMENTAL, INC.
Contact: ROBERT GRAY
Address: 1 COMMERCIAL DRIVE
City: CANASTOTA State: NY Zip: 13032
Phone #: 315/697-8437 FAX: 315/697-9391
24 Hr. Contact: _____ Phone #: _____
USEPA ID#: _____

B WASTE DESCRIPTION

NAME OF WASTE: ISOPROPYL ALCOHOL & WATER
PROCESS GENERATING WASTE: UNUSED IPA STORED IN SALVAGE TANK

Is a representative sample provided? Yes [X] No [ ]
Sample Purchase order No. _____
Sample will not be processed without P.O. Number.

C GENERAL CHARACTERISTICS (at 70° F unless otherwise specified)

COLOR: CLEAR
ODOR: ALCOHOL
☐ NONE ☐ STRONG ☐ MILD
[X] LIQUID 100 %
☐ SOLID _____ %
☐ SLUDGE _____ %
☐ POWDER _____ %

VISCOSITY AT 70° F
PUMPABLE [X] YES ☐ NO
POURABLE ☐ YES ☐ NO

PHASES
[X] SINGLE LAYER
☐ DOUBLE LAYER
☐ MULTI-LAYER

SOURCE CODE A _____ FORM CODE B _____

D RCRA INFORMATION

Please give USEPA hazardous waste codes and state codes:

D001

TCLP _____ Generators Kowledge X

E SHIPPING INFORMATION

PROPER SHIPPING NAME: WASTE FLAMMABLE LIQUID NOS ISOPROPYL ALCOHOL
HAZARD CLASS 3 ID# 1993 PG II R/Q _____
ANTICIPATED SHIPPING VOLUME 5,000 GAL. _____ YDS. _____ LBS.
☐ ONE TIME ☐ WK ☐ MO ☐ YR OTHER _____
Type and size of container: 5,000 GALLON TANKKER

F PHYSICAL CHEMICAL PROPERTIES

1 SPECIFIC GRAVITY
☐ <0.8 ☐ 1.4-1.7
[X] 0.8-1.0 ☐ >1.7
☐ 1.0-1.2 ☐ _____ actual
☐ 1.2-1.4

2 COD (1000 PPM)
☐ <50
☐ 51-100
☐ 101-200
☐ 201-300
☐ 301-400
☐ >400

3 TOTAL SUSPENDED SOLIDS (%WT)
[X] <0.5 ☐ >20
☐ 0.5-2.0 _____ actual
☐ 2.0-5.0
☐ 5.0-20

4 pH
☐ <2 ☐ >12.5
☐ 2-6 _____ actual
[X] 6-8
☐ 8-10 _____ constituent
☐ 10-12.5

5 BTU's 1000/lb.
☐ <1 ☐ 12-16
[X] 1-4 ☐ >16
☐ 4-6 ☐ _____ actual
☐ 6-8
☐ 8-12

6 FLASHPOINT (closed cup)
[X] <100° F ☐ >200° F
☐ 100-140° F _____ actual
☐ 141-200°F

7 HALOGENS (%)
Chlorine ____ Fluorine ____
Bromine ____ Iodine ____
Total Halogens < 1%

8 METAL ☐ TOTAL (PPM) ☐ TCLP

HW #		Reg Level	(mg/L)
D004	Arsenic (As)	5.0	
D005	Barium (Ba)	100.0	
D006	Cadmium (Cd)	1.0	
D007	Chromium (Cr)	5.0	
D008	Lead (Pb)	5.0	
D009	Mercury (Hg)	0.2	
D010	Selenium (Se)	1.0	
D011	Silver (Ag)	5.0	
	Copper (Cu)		
	Nickel (Ni)		
	Zinc (Zn)		
	Phosphates (PO_4)		
	Other (Specify)		

All Blanks Must Be Completed
If metal(s) is/are not present, indicate "None"

9 HAZARDOUS CHARACTERISTICS AND OTHER COMPONENTS

Reactivity:
[X] None
☐ Explosive
☐ Pyrophoric
☐ Shock Sensitive
☐ Fuming/Smoking Waste
☐ Water Reactive
☐ Air Reactive
☐ Radioactive
☐ Biological
☐ Asbestos
Cyanides _____ (ppm)
Sulfides _____ (ppm)
PCB's _____ (ppm)
Phenolics _____ (ppm)
Acutely Hazardous Waste
Dioxins & Furans

10 ORGANIC ☐ TOTAL (PPM) ☐ TCLP

HW #		Reg Level	(mg/L)
D012	Endrin	0.02	NS
D013	Lindane	0.4	
D014	Methoxychlor	10.0	
D015	Toxaphene	0.5	
D016	2, 4-Dichlorophen-oxyacetic Acid	10.0	
D017	2, 4 5-TP (Silvex)	1.0	
D018	Benzene	.5	
D019	Carbon Tetrachloride	0.5	
D020	Chlordane	0.03	
D021	Chlorobenzene	100.0	
D022	Chloroform	6.0	
D023	o-Cresol	200.0	
D024	m-Cresol	200.0	
D025	p-Cresol	200.0	
D026	Cresol	200.0	
D027	1, 4-Dichlorobenzene	7.5	
D028	1, 2-Dichloroethane	0.5	
D029	1, 1-Dichloroethylene	0.7	NS
D030	2, 4-Dinitrotoluene	0.13	
D031	Heptachlor	0.008	
D032	Hexachlorobenzene	0.13	
D033	Hexachlorobutadiene	0.5	
D034	Hexachloroethane	3.0	
D035	Methyl Ethyl Ketone	200.0	
D036	Nitrobenzene	2.0	
D037	Pentachlorophenol	100.0	
D038	Pyridine	5.0	
D039	Tetrachloroethylene	0.7	
D040	Trichloroethylene	0.5	
D041	2, 4, 5-Trichlorophenol	400.0	
D042	2, 4, 6-Trichlorophenol	2.0	
D043	Vinyl Chloride	0.2	
	Berylium		
	Aluminum (metallic)		
	Magnesium (metallic)		

G CHEMICAL COMPOSITION

	Actual	Range
ISOPROPYL ALCOHOL	%	50 – 60 %
WATER	%	40 – 50 %
	%	– %
	%	– %
	%	– %
	%	– %
	%	– %
	%	– %
	%	– %

Total must equal 100%

I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS IS COMPLETE AND ACCURATE AND THAT ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED.

Mark R. Robe — Mark R. Robe — Environ. Engr — 5/30/97
AUTHORIZED SIGNATURE — PRINT NAME — TITLE — DATE

RECERTIFICATION DATE _____ FACILITY USE ONLY

SALES - Yellow CUSTOMER - Pink 7/92

(APPROVAL NUMBER - 024273-QH)

GENERATOR: Griffiss Air Force Base
ARRIVAL DATE: June 5, 1997
MANIFEST NO.: 02844

pH:	4.0		Phenol	<25
			Ammonia	<100
BSW:	44 %	Organic	Methanol	Not Tested
	56 %	Water	Ethanol	Not Tested
	0 %	Solids	Acetone	Not Tested
			Isopropranol	151542 ppm
Density:	7.59			
C.O.D.	>1,000,000			
Flashpoint:	Room Temp.			

NT - Not Tested
ND - Not Detected
-- - None Detected

Cl(v): ND
cl(t): ND

Metals (ppm)

Ag	--	Cr	--	Ni	--
As	--	Cu	--	Pb	--
Ba	--	Fe	--	Se	--
Cd	--	Hg	--	Zn	--

BTU/lb NT

Sulpher NT
Viscosity NT

HAZARDOUS WASTE MANIFEST

P.O. Box 12820, Albany, New York 12212

Please print or type. Do not Staple.

Form Approved. OMB No. 2050-0039 Expires 9-30-96

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No.: N Y 4 5 7 1 9 2 4 4 5 1 — Manifest Document No. 0 2 8 4 4
2. Page 1 of 1

Information in the shaded areas is not required by Federal Law.

3. Generator's Name and Mailing Address: GRIFFISS AIR FORCE BASE, AFBCA/OL-X, 153 BROOKS ROAD, ROME, NY 13441
4. Generator's Phone: (315-330-2275

A. State Manifest Document No.: NY B 810284-4

B. Generator's ID

5. Transporter 1 (Company Name): FRANK'S VACUUM TRUCK SERVICES, INC.
6. US EPA ID Number: N Y D 9 8 2 7 9 2 8 1 4

C. State Transporter's ID: 544210-A

D. Transporter's Phone: (716) 284-2132

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: RESEARCH OIL COMPANY 2655 TRANSPORT ROAD, CLEVELAND, OHIO 44115
10. US EPA ID Number: O H D 0 0 4 1 7 8 6 1 2

G. State Facility's ID

H. Facility's Phone: (216) 623-8383

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 FLAMMABLE ~~XX~~ LIQUID, NOS. (ISOPROPYL ALCOHOL) 3, ~~[illegible]~~ UN 1993, PG II	0 0 1	T T	5,012	G	EPA D001 / STATE
b.					EPA / STATE
c.					EPA / STATE
d.					EPA / STATE

J. Additional Descriptions for Materials listed Above: a. ; b. ; c. ; d.

K. Handling Codes for Wastes Listed Above: a. T; b. M09; c. ; d.

15. Special Handling Instructions and Additional Information: CONTRACT # DACA 41-96-C-68015
EMERGENCY # 315-697-88437
APPROVAL # 24273TAP
EMERGENCY GUIDE BOOK # 128

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 and state laws and regulations.

If I am a large quantity generator, I 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 that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR if I am a small generator, I have made a good faith effort to minimize my waste and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Mark R. Rabe | Signature: Mark R Rabe | Mo. Day Year: 06 05 9[illegible]

17. Transporter 1 (Acknowledgement of Receipt of Materials)
Printed/Typed Name: ANDREW Gilinger | Signature: Andrew Gilinger | Mo. Day Year: 06 05 9[illegible]

18. Transporter 2 (Acknowledgement of Receipt of Materials)
Printed/Typed Name | Signature | Mo. 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: JASON Zagler | Signature: [illegible] | Mo. Day Year: 06 05 9[illegible]

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete

REPLACEMENT T/S/D/F COPY (FOR LEGIBILITY)

COPY 1—Disposer State—Mailed by TSD Facility

(APPROVAL NUMBER - 024273-QH)

GENERATOR: Griffiss Air Force Base
ARRIVAL DATE: June 5, 1997
MANIFEST NO.: 02862

pH:	4.0	Phenol	<25
		Ammonia	<200
BSW:	44.65 % Organic	Methanol	Not Tested
	55.35 % Water	Ethanol	Not Tested
	0 % Solids	Acetone	Not Tested
		Isopropranol	33.5 %
Density:	7.68		
C.O.D.	460,000		
Flashpoint:	Room Temp.		

NT - Not Tested
ND - Not Detected
-- - None Detected

Cl(v):	ND
cl(t):	ND

Metals (ppm)

Ag	--	Cr	0.2	Ni	--
As	--	Cu	0.1	Pb	--
Ba	--	Fe	0.2	Se	--
Cd	--	Hg	--	Zn	--

BTU/lb	NT
Sulpher	NT
Viscosity	NT

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS SUBSTANCES REGULATION

HAZARDOUS WASTE MANIFEST

P.O. Box 12820, Albany, New York 12212

(3)

Please print or type. Do not Staple.

Form Approved. OMB No. 2050-0039. Expires 9-30-96

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal Law.
NY 4 5 7 1 9 2 4 4 5 1	0 2 8 6 2		

GENERATOR

3. Generator's Name and Mailing Address
GRIFFISS AIR FORCE BASE
AFRCA/DE-X
153 BROOKS ROAD
ROME, NY 13441

4. Generator's Phone (315) 330-2275

A. State Manifest Document Number: NY B 810288 2

B. Generator's ID

5. Transporter 1 (Company Name)
FRANK'S VACUUM TRUCK SERVICES, INC.

6. US EPA ID Number
N Y D 9 8 2 7 9 2 8 1 4

C. State Transporter's ID 003641

D. Transporter's Phone (716) 285-2152

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
RESEARCH OIL COMPANY
2655 TRANSPORT ROAD
CLEVELAND, OHIO 44115

10. US EPA ID Number
O H D 0 8 4 1 7 8 6 1 2

G. State Facility's ID

H. Facility's Phone 216-351-8303

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	Waste No.
a. WASTE FLAMMABLE LIQUID, NOS, (ISOPROPYL ALCOHOL) 9, NA 1993, PG. II	001	T	5100	G	EPA STATE
b. (CAN)					EPA STATE
c.					EPA STATE
d.					EPA STATE

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
APPROVAL #24273DLP
EMERGENCY GUIDE BOOK # 128
EMERGENCY # 315-697-9437
CONTRACT # DACA 41-96-C-0015

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 and state laws and regulations.

If I am a large quantity generator, I certify that I have program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR if I am a small generator, I have made a good faith effort to minimize my waste and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Mo.	Day	Year
MARK R. BABE	Mark R Babe	06	06	97

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)

Printed/Typed Name	Signature	Mo.	Day	Year
VIC QUERRY	Vic Querry	06	06	97

18. Transporter 2 (Acknowledgement or Receipt of Materials)

Printed/Typed Name	Signature	Mo.	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	Mo.	Day	Year

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

COPY 3—Disposer State—mailed by generator

NY B 810288 2

(APPROVAL NUMBER - 024273-QH)

GENERATOR: Griffiss Air Force Base
ARRIVAL DATE: June 6, 1997
MANIFEST NO.: 02952

pH:	7.0	Phenol	<25
		Ammonia	<200
BSW:	44. % Organic	Methanol	Not Tested
	56 % Water	Ethanol	Not Tested
	0 % Solids	Acetone	Not Tested
		Isopropranol	370352 ppm
Density:	7.70		
C.O.D.	856,000		
Flashpoint:	Room Temp. °C		

NT - Not Tested
ND - Not Detected
-- - None Detected

Cl(v): ND
cl(t): ND

Metals (ppm)

Ag	--	Cr	--	Ni	--
As	--	Cu	--	Pb	--
Ba	--	Fe	--	Se	--
Cd	--	Hg	--	Zn	0.1

BTU/lb NT

Sulpher NT
Viscosity NT

DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS SUBSTANCES REGULATION

HAZARDOUS WASTE MANIFES

P.O. Box 12820, Albany, New York 12212

Please print or type. Do not Staple.

Form Approved. OMB No. 2050-0039, Expires 9-30-96

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. | Manifest Document No.: NYB 8102952

2. Page 1 of 1 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: GRIFFISS AIR FORCE BASE, AFRCC/DL-X, 153 BROOKS ROAD, ROME, NY 13441

4. Generator's Phone: 315 330-2275

A. State Manifest Document No.: NY B810295 2

B. Generator's ID:

5. Transporter 1 (Company Name): FRANK'S VACUUM TRUCK SERVICES, INC.

6. US EPA ID Number: NYD 982792814

C. State Transporter's ID: 903446 M

D. Transporter's Phone: 716 284-20[illegible]

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: RESEARCH OIL COMPANY, 2655 TRANSPORT ROAD, CLEVELAND, OHIO 44115

10. US EPA ID Number: OHD 004178612

G. State Facility's ID:

H. Facility's Phone: (216) 623-8300

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	Waste No.
a. WASTE FLAMMABLE LIQUID, NOS (ISOPROPYL ALCOHOL) 3, [illegible] UN 1993, PG II	001	TT	3500	G	EPA STATE
b. (LIST)					EPA STATE
c.					EPA STATE
d.					EPA STATE

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information: EMERGENCY # 315-697-8437

APPROVAL # 2427XHP
EMERGENCY GUIDE BOOK # 128
CONTRACT # DACA 41-96-C-0015

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Printed/Typed Name	Signature	Mo.	Day	Year
MARK R. RABE	Mark R Rabe	06	06	97

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)

Printed/Typed Name	Signature	Mo.	Day	Year
Ronnie Cooper	Ronnie Cooper	06	06	97

18. Transporter 2 (Acknowledgement or Receipt of Materials)

Printed/Typed Name	Signature	Mo.	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	Mo.	Day	Year

NYB 8102952

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

COPY 3—Disposer State—mailed by generator

(APPROVAL NUMBER - 024273-QH)

GENERATOR: Griffiss Air Force Base
ARRIVAL DATE: June 7, 1997
MANIFEST NO.: 56811

pH:	5.0		Phenol	<50
			Ammonia	<100
BSW:	40 %	Organic	Methanol	Not Tested
	60 %	Water	Ethanol	Not Tested
	0 %	Solids	Acetone	Not Tested
			Isopropranol	452069 ppm
Density:	7.67			
C.O.D.	1,658,000			
Flashpoint:	Room Temp.			

NT - Not Tested
ND - Not Detected
-- - None Detected

Cl(v):	ND
cl(t):	ND

Metals (ppm)

Ag	--	Cr	0.1	Ni	--
As	--	Cu	--	Pb	--
Ba	--	Fe	0.1	Se	--
Cd	--	Hg	--	Zn	--

BTU/lb	NT
Sulpher	NT
Viscosity	NT

Please print or type. Do not staple

P O Box 12820, Albany, New York 12212

Form Approved OMB No. 2050-0039 Expires 9-30-

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. NY 4 5 7 1 9 2 4 4 5 1 | Manifest Document No. 5 9 8 1 1 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal La

3. Generator's Name and Mailing Address: GRIFFISS AIR FORCE BASE, AFBCA/OL-X, 153 BROOKS ROAD, ROME, NY 13441

4. Generator's Phone (315) 330-2275

A. State Manifest Document No. NY B785681 1

B. Generator's ID SAME

5. Transporter 1 (Company Name): FRANK'S VACUUM TRUCK SERVICES INC.

6. US EPA ID Number: N Y D 9 8 2 7 9 2 8 1 1 4

C. State Transporter's ID 447883

D. Transporter's Phone (716) 284-21

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: RESEARCH OIL COMPANY, 2655 TRANSPORT ROAD, CLEVELAND, OHIO 44115

10. US EPA ID Number: O H D 0 0 4 1 7 8 6 1 2

G. State Facility's ID

H. Facility's Phone (216) 623-8383

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	Waste No.
GENERATOR a. WASTE FLAMMABLE LIQUID, NOS. R.Q. (ISOPROPYL ALCOHOL) 3, [redacted] UN 1993, P.G. II D001	001	TT	5000	G	EPA D001 STATE
b.					EPA STATE
c					EPA STATE
d					EPA STATE

J. Additional Descriptions for Materials listed Above

Handling Codes for Wastes Listed Above: a T c; b d

15. Special Handling Instructions and Additional Information

APPROVAL # 24273TAP

EMERGENCY # 315/697-8237

EMERGENCY GUIDE BOOK # 128

CONTRACT # DACA-41-96-C-8015

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Printed/Typed Name	Signature	Mo.	Day
MARK R RABE	Mark R Rabe	10	06

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)

Printed/Typed Name	Signature	Mo.	Day
Franz W. Kinkel	Franz W. Kinkel	10	06

18. Transporter 2 (Acknowledgement of Receipt of Materials)

Printed/Typed Name	Signature	Mo.	Day

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	Mo.	Day
Adolphus GAFFNEY/LAB	Adolphus Gaffney/LAB	10	07

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

COPY 1—Disposer State—Mailed by TSD Facility

In case of emergency or spill immediately call the National Response Center (800) 424-8802 and the N.Y. Dept. of Environmental Conservation (518) 457-7362

(APPROVAL NUMBER - 024273-QH)

GENERATOR: Griffiss Air Force Base
ARRIVAL DATE: June 12, 1997
MANIFEST NO.: 56829

pH:	4.5	Phenol	<50
		Ammonia	<100
BSW:	42.2 % Organic	Methanol	Not Tested
	57.8 % Water	Ethanol	Not Tested
	0 % Solids	Acetone	Not Tested
		Isopropranol	400,000 ppm
Density:	7.64		
C.O.D.	1,194,000		
Flashpoint:	Room Temp.°°		

NT - Not Tested
ND - Not Detected
-- - None Detected

Cl(v):	.0019
cl(t):	.017

Metals (ppm)

Ag	--	Cr	0.1	Ni	0.1
As	--	Cu	0.1	Pb	1.0
Ba	--	Fe	0.2	Se	--
Cd	--	Hg	--	Zn	--

BTU/lb	NT
Sulpher	NT
Viscosity	NT

DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS SUBSTANCES REGULATION

HAZARDOUS WASTE MANIFEST

P.O. Box 12820, Albany, New York 12212

1. UNIFORM HAZARDOUS WASTE MANIFEST | NY4571924451 | 56829 | 1

2. Generator's Name and Mailing Address: GRIFFISS AIR FORCE BASE
APBCA/OL-X
153 BROOKS ROAD
ROME, NY 134412

A. State Manifest Document Number: NY B785682 9

4. Generator's Phone: 315 330-2275

B. State Generator's ID: SAME

5. Transporter 1 Company Name: FRANK'S VACUUM TRUCK SERVICES, INC.

6. US EPA ID Number: NYD982792816

C. State Transporter's ID: 80365

D. Transporter's Phone: (716) 284-213

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:
RESEARCH OIL COMPANY
2655 TRANSPORT ROAD
CLEVELAND, OHIO 44115

10. Facility's EPA ID Number: OHD004178612

G. State Facility's ID:

H. Facility's Phone: 216 623-8383

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number):

WASTE FLAMMABLE LIQUID, NOS. (ISOPROPYL ALCOHOL) RQ

3. UN 1993 PGII D001

12. Containers: 001 TT

13. Total Quantity: 05000

14. Unit Wt./Vol.: G

D001

APPROVAL # 24273TAP
EMERGENCY GUIDE BOOK # 128

EMERGENCY # 315-697-8437
CONTRACT # DACA-41-96-C-8015

15. GENERATOR'S CERTIFICATION:

Printed/Typed Name: Mark R. Rabe
Signature: Mark R Rabe
Month: 06 Day: 05

TRANSPORTER

16. Transporter 1 Acknowledgement of Receipt of Materials:
Printed/Typed Name: Franz Kindel
Signature: Franz Kindel
Month: 06 Day: 05

16. Transporter 2 Acknowledgement of Receipt of Materials:
Printed/Typed Name:
Signature:
Month: Day:

FACILITY

17. 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: Thomas L. McCaster
Signature:
Month: 06 Day: 11/21

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

IN CASE OF EMERGENCY OR SPILL SEE REVERSE SIDE

REPLACEMENT
T/S/D/F COPY
FOR LEGIBILITY

JOSEPH A. GRIFFO
Mayor

CITY OF ROME
WATER POLLUTION CONTROL FACILITY
7180 EAST DOMINICK STREET
ROME, NEW YORK 13440

June 24, 1997

Robert Gray
ABSCOPE Environmental, Inc.
P.O. Box 487
Canastota, N. Y. 13032

Re: Permission to discharge groundwater from source removal project

Dear Mr. Gray,

After review of analysis of groundwater collected in FRAC tanks enclosed in latter dated June 23, 1997, permission is granted to discharge this groundwater to sanitary sewer manhole in accordance with letter from this office dated February 10, 1997.

Stick measurement indicated 21,000 gallons. The charge is S.04 cents a gallon for this discharge. Please remit check made out to City Treasurer for $840.00 dollars mailed to this office.

If you have any question or need additional information please call 339-7775.

Sincerely,

Bruce Clifford
IPP Coordinator

cc: special request file, ABSCOPE
Bob Comis, Commissioner
George Sisley, Superintendent

JOSEPH A. GRIFFO
Mayor

CITY OF ROME
WATER POLLUTION CONTROL FACILITY
7180 EAST DOMINICK STREET
ROME, NEW YORK 13440

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If you have any question or need additional information please call 339-7775.

Sincerely,

Bruce Clifford
IPP Coordinator

cc: special request file, ABSCOPE
Bob Comis, Commissioner
George Sisley, Superintendent

WASTE STREAM TECHNOLOGY, INC.
302 Grote Street
Buffalo, NY 14207
(716)876-5290

Analytical Data Report
Report Date : 06/20/97
Group Number : 9701-498

Prepared For :
Mr. Rob Gray
Abscope Environmental
1 Commercial Drive
Canastota, NY 13032

Site : Griffiss Air Force Base

Field and Laboratory Information

Client Id	WST Lab #	Matrix	Date Sampled	Date Received	Time
100 GW-1	WS34422	Aqueous	06/17/97	06/18/97	1000
Sample Status Upon Receipt : No irregularities.					

Analytical Services

Analytical Parameters	Number of Samples	Turnaround Time
BTEX	1	2 Business Days
Cyanide	1	2 Business Days
Oil & Grease	1	2 Business Days
Total Metals	1	2 Business Days

Report Released By : Daniel W. Voe
Daniel Vollmer, Laboratory QA/QC Officer

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS
NYSDOH ELAP #11179 NJDEPE #73977 CDHS ELAP #2189

WASTE STREAM TECHNOLOGY

ORGANIC DATA QUALIFIERS

U - Indicates compound was analyzed for but not detected.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicates the presence of a compound that meets identification criteria, but the result is less than the sample quantitation limit but greater than zero.

C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.

B - This flag is used when the analyte is found in the associated blank as well as the sample.

E - This flag identifies all compounds whose concentrations exceed the calibration range of the GC/MS instrument or that specific analysis.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.

G - Matrix spike recovery is greater than the expected upper limit of analytical performance.

L - Matrix spike recovery is less than the expected lower limit of analytical performance.

- Indicates that a surrogate recovery was found to be outside the expected limits of analytical performance.

$ - Indicates that the surrogate compound was diluted out because the sample had to be diluted to obtain analytical results and a recovery could not be calculated.

(%) Indicates that the compound is a surrogate and the values reported for these compounds are in percent recovery. The quality control recovery limits (QC Limits) are indicated in the detection limit column.

METHODOLOGIES

The specific methodologies employed in obtaining the analytical data reported are indicated on each of the result forms. The method numbers shown refer to the following analytical method references:

Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020, March 1979, Revised 1983, U.S. Environmental Monitoring and Support Laboratory, Cincinnati, Ohio 45268.

Federal Register, 40 CFR Part 136: Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act. Revised July 1992.

Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. Third Edition, Revised September 1994, United States EPA SW-846.

Annual Book of ASTM Standards, Volume II. ASTM, 1916 Race Street, Philadelphia, Pennsylvania 19103.

Standard Methods for the Examination of Water and Wastewater. (18th Edition). American Public Health Association, 1105 18th Street, NW, Washington, D.C. 20036.

Waste Stream Technology, Inc.

BTEX in Water Analysis

SW-846 8020

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97

Group Number: 9701-498
Report Units: ug/L
Matrix: Aqueous

Lab ID Number	WS34422
Client ID	100 GW-1
Date Extracted	NA
Date Analyzed	06/19/97

Compound	Detection Limit/ QC Limits (%)	Result	Q
benzene	0.7	2.8	
toluene	1.0	1.4	
ethylbenzene	1.3	37.0	D
m,p-xylene	2.8	95.5	D
o-xylene	1.7	9.1	
a,a,a-Trifluorotoluene (%)	78-128 .	326.0	#

Dilution Factor 1

NYSDEC Petroleum contaminated Water/Soil compound list.

Waste Stream Technology, Inc.
Cyanide in Water
EPA 335.2

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97

Group Number: 9701-498
Report Units: mg/L
Matrix: Aqueous

WST Lab ID	Client ID	Analysis Date	Detection Limit	Result
WS34422	100 GW-1	06/19/97	0.005	0.006

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.
Oil & Grease
EPA 413.1

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97

Group Number: 9701-498
Report Units: mg/L
Matrix: Aqueous

WST Lab ID	Client ID	Analysis Date	Detection Limit	Result
WS34422	100 GW-1	06/19/97	4.000	< 4.000

Waste Stream Technology, Inc.
Metals Analysis Result Report

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97

Group Number: 9701-498
Report Units: mg/L
Matrix: Aqueous

Lab ID Number	WS34422
Client ID	100 GW-1
Date Digested	06/19/97

Analyte	Detection Limit	Result		Date Analyzed	Analysis Method
Lead by ICP	0.120	<	0.120	06/19/97	EPA 200.7
Cadmium by ICP	0.015	<	0.015	06/19/97	EPA 200.7
Nickel by ICP	0.032	<	0.032	06/19/97	EPA 200.7
Chromium by ICP	0.011		0.026	06/19/97	EPA 200.7
Mercury by CVAA	0.001	<	0.001	06/20/97	EPA 245.2

WASTE STREAM TECHNOLOGY

WASTE STREAM TECHNOLOGY

302 GROTE STREET
BUFFALO, NY 14207
(716) 876-5290

9701-498

CHAIN OF CUSTODY RECORD

PROJECT NO: 6666 DACA41-94-C8015 SITE NAME: Griffiss Air Force Base Site 119100

SAMPLERS (SIGNATURE):

SAMPLE NO.	DATE	TIME	COMP	GRAB	MATRIX	SAMPLE LOCATION	SIZE & NO. OF CONTAINERS	CW-1	MS/MS D	BTEX	0&G			PRESERVATIVES	REMARKS
100 GW-1	6/17/97	1200		G	Water	200 TANK Pit	(1) 500mL (P) 40mL	X	X	X	X			NaOH HCL	WS34422
							(1) 500mL Amber							HNO_3 H_2SO_4	

RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)
	6/17/97 1200	Shipping Lab Time		6/18/97 1000	
RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)

SPECIAL INSTRUCTIONS:

TURNAROUND TIME 24hr

LAB USE: REFRIGERATOR # _____ SHELF # _____ GROUP # _____ DUE DATE _____

WASTE STREAM TECHNOLOGY, INC.
302 Grote Street
Buffalo, NY 14207
(716)876-5290

Analytical Data Report
Report Date : 06/20/97
Group Number : 9701-499

Prepared For :
Mr. Rob Gray
Abscope Environmental
1 Commercial Drive
Canastota, NY 13032

Site : Griffiss Air Force Base

Field and Laboratory Information

Client Id	WST Lab #	Matrix	Date Sampled	Date Received	Time
100 GW-2	WS34423	Aqueous	06/17/97	06/18/97	1000
Sample Status Upon Receipt : No irregularities.					

Analytical Services

Analytical Parameters	Number of Samples	Turnaround Time
BTEX	1	2 Business Days
Cyanide	1	2 Business Days
Oil & Grease	1	2 Business Days
Total Metals	1	2 Business Days

Report Released By : Daniel W. Vollmer
Daniel Vollmer, Laboratory QA/QC Officer

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS
NYSDOH ELAP #11179 NJDEPE #73977 CDHS ELAP #2189

WASTE STREAM TECHNOLOGY

METHODOLOGIES

The specific methodologies employed in obtaining the analytical data reported are indicated on each of the result forms. The method numbers shown refer to the following analytical method references:

Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020, March 1979, Revised 1983, U.S. Environmental Monitoring and Support Laboratory, Cincinnati, Ohio 45268.

Federal Register, 40 CFR Part 136: Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act. Revised July 1992.

Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. Third Edition, Revised September 1994, United States EPA SW-846.

Annual Book of ASTM Standards, Volume II. ASTM, 1916 Race Street, Philadelphia, Pennsylvania 19103.

Standard Methods for the Examination of Water and Wastewater. (18th Edition). American Public Health Association, 1105 18th Street, NW, Washington, D.C. 20036.

ORGANIC DATA QUALIFIERS

U - Indicates compound was analyzed for but not detected.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicates the presence of a compound that meets identification criteria, but the result is less than the sample quantitation limit but greater than zero.

C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.

B - This flag is used when the analyte is found in the associated blank as well as the sample.

E - This flag identifies all compounds whose concentrations exceed the calibration range of the GC/MS instrument or that specific analysis.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.

G - Matrix spike recovery is greater than the expected upper limit of analytical performance.

L - Matrix spike recovery is less than the expected lower limit of analytical performance.

- Indicates that a surrogate recovery was found to be outside the expected limits of analytical performance.

$ - Indicates that the surrogate compound was diluted out because the sample had to be diluted to obtain analytical results and a recovery could not be calculated.

(%) Indicates that the compound is a surrogate and the values reported for these compounds are in percent recovery. The quality control recovery limits (QC Limits) are indicated in the detection limit column.

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

BTEX in Water Analysis

SW-846 8020

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97

Group Number: 9701-499
Report Units: ug/L
Matrix: Aqueous

Lab ID Number	WS34423
Client ID	100 GW-2
Date Extracted	NA
Date Analyzed	06/19/97

Compound	Detection Limit/ QC Limits (%)	Result	Q
benzene	0.7	6.3	
toluene	1.0	3.0	
ethylbenzene	1.3	101.0	D
m,p-xylene	2.8	330.0	D
o-xylene	1.7	8.7	
a,a,a-Trifluorotoluene (%)	78-128 .	529.0	#

Dilution Factor 1

NYSDEC Petroleum contaminated Water/Soil compound list.

Waste Stream Technology, Inc.

Cyanide in Water

EPA 335.2

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97

Group Number: 9701-499
Report Units: mg/L
Matrix: Aqueous

WST Lab ID	Client ID	Analysis Date	Detection Limit	Result
WS34423	100 GW-2	06/19/97	0.005	< 0.005

Waste Stream Technology, Inc.
Oil & Grease
EPA 413.1

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97

Group Number: 9701-499
Report Units: mg/L
Matrix: Aqueous

WST Lab ID	Client ID	Analysis Date	Detection Limit	Result
WS34423	100 GW-2	06/19/97	4.000	< 4.000

Waste Stream Technology, Inc.
Metals Analysis Result Report

Site: GRIFFISS AIRFORCE BASE
Date Sampled: 06/17/97
Date Received: 06/18/97

Group Number: 9701-499
Report Units: mg/L
Matrix: Aqueous

Lab ID Number	WS34423
Client ID	100 GW-2
Date Digested	06/19/97

Analyte	Detection Limit	Result	Date Analyzed	Analysis Method
Lead by ICP	0.120	< 0.120	06/19/97	EPA 200.7
Cadmium by ICP	0.015	< 0.015	06/19/97	EPA 200.7
Nickel by ICP	0.032	< 0.032	06/19/97	EPA 200.7
Chromium by ICP	0.011	0.030	06/19/97	EPA 200.7
Mercury by CVAA	0.001	< 0.001	06/20/97	EPA 245.2

WASTE STREAM TECHNOLOGY

Case Narrative

The following comments and observations were made regarding the analysis of the samples from the Griffis Air Force Base for Abscope Environmental corresponding to the Waste Stream Technology Sample Group Numbers 9701-498 and 9701-499 and sample numbers WS34422 and WS34423 which were sampled on 6/17/97 and received on 6/18/97;

1.0 Method 8021 Analysis

1.1 Sample numbers WS34422 and WS34423, corresponding to the site sample descriptions "100 GW-1" and "100 GW-2", required re-analysis on 6/19/97 at a 10 fold (WS34422) and 20 fold dilution to obtain concentrations of ethylbenzene and m,p-xylene that were within calibration range. The results for these two analytes were flagged with the D qualifier.

1.2 The surrogate recoveries reported for WS34422 and WS34423 were above the upper quality control recovery limit of 128%. The high recoveries were caused by an interfering peak from the sample matrix that co-eluted with the a,a,a-trifluorotoluene surrogate compound. The surrogate recoveries from the analyses of the sample dilutions were 125% and 124%. This indicates that the level of matrix interference decreased in the diluted analyses yielding acceptable surrogate recoveries.

Daniel W. Vollmer

Date 7/16/97

Daniel W. Vollmer
QA/QC Officer

WASTE STREAM TECHNOLOGY

Quality Control Analysis Results

A. BETX Analysis

1. Method Blank Results

B. Metals Analysis

1. Method Blank Results
2. Reference Sample Results

C. Cyanide and Oil & Grease Analysis

1. Method Blank Results
2. Reference Sample Results

Waste Stream Technology, Inc.

BETX in Water Method Blank

SW-846 8020

Site: GRIFFISS AIRFORCE BASE
Date Sampled: NA
Date Received: NA

Group Number: 9701-498
Report Units: PPB

Lab ID Number	MB061997
Client ID	NA
Date Extracted	NA
Date Analyzed	06/19/97

Compound	Detection Limit/ QC Limits (%)	Result	Q
benzene	0.7	0.7	U
toluene	1.0	1.0	U
ethylbenzene	1.3	1.3	U
m,p-xylene	2.8	2.8	U
o-xylene	1.7	1.7	U
a,a,a-Trifluorotoluene (%)	78-128	105.0	

Dilution Factor 1
MB Denotes Method Blank
NA Denotes Not Applicable

Waste Stream Technology, Inc.

Metals Method Blank Analysis Result Report

Site: GRIFFISS AIRFORCE BASE
Date Sampled: NA
Date Received: NA

Group Number: 9701-498
Report Units: PPM

Lab ID Number	MB061997-W1
Client ID	NA
Date Digested	06/19/97

Analyte	Detection Limit	Result		Date Analyzed	Analysis Method
Pb Method Blank	0.120	<	0.120	06/19/97	EPA 200.7
Cd Method Blank	0.015	<	0.015	06/19/97	EPA 200.7
NI Method Blank	0.032	<	0.032	06/19/97	EPA 200.7
Cr Method Blank	0.011	<	0.011	06/19/97	EPA 200.7
Hg Method Blank	0.001	<	0.001	06/20/97	EPA 245.2

MB denotes Method Blank
NA denotes Not Applicable

WASTE STREAM TECHNOLOGY

Waste Stream Technology Inc.
Metals Reference Sample Recovery Report

Site : Griffis Airforce Base
Reference Sample ID : RF061997-W1

Group Number : 9701-498/499
Date Digested : 6/19/97

Compound	Date Analyzed	Spike Amount (mg/L)	Reference Sample Result (mg/L)	% Recovery	QC Limits % Recovery
Lead	6/19/97	1.00	1.05	105	85 - 115
Cadmium	6/19/97	1.00	1.01	101	85 - 115
Nickel	6/19/97	1.00	1.04	104	85 - 115
Chromium	6/19/97	1.00	1.01	101	85 - 115

Site : Griffis Airforce Base
Reference Sample ID : RF062097-W1

Group Number : 9701-498/499
Date Digested : 6/20/97

Compound	Date Analyzed	Spike Amount (mg/L)	Reference Sample Result (mg/L)	% Recovery	QC Limits % Recovery
cury	6/20/97	0.0100	0.0089	89	85 - 115

Waste Stream Technology, Inc.

Method Blank Analysis Report
Wet Chemistry Analyses

Site : Griffis Air Force Base
Matrix : Aqueous

Group Number : 9701-498/499

Analysis Performed	Method Blank ID	Analysis Date	Method Blank Result	Detection Limit	Report Units
Cyanide	MB061997-4	6/19/97	< 0.005	0.005	mg/L
Oil & Grease	MB061997-1	6/19/97	< 4.0	4.0	mg/L

MB denotes Method Blank

Waste Stream Technology, Inc.

Reference Sample Recovery Report
Wet Chemistry Analyses

Site : Griffiss Air Force Base
Matrix : Aqueous

Group Number :9701-498/499
Report Units : %

Analysis Performed	Reference ID	Analysis Date	Percent Recovery	Recovery QC Limit
Oil & Grease	RF061997-1	6/19/97	94	80-120
Cyanide	RF061997-4	6/19/97	94	80-120

RF denotes Reference Sample.

WASTE STREAM TECHNOLOGY

302 GROTE STREET
BUFFALO, NY 14207
(716) 876-5290

9701-499

CHAIN OF CUSTODY RECORD

PROJECT NO: 96660 SITE NAME: Griffiss Air Force Base Site 100
DACA 41-96-C8015

SAMPLERS (SIGNATURE):

SAMPLE NO.	DATE	TIME	COMP	GRAB	MATRIX	SAMPLE LOCATION	SIZE & NO. OF CONTAINERS	CN	Metals	BTEX	8260				PRESERVATIVES	REMARKS
100 GW-2	4/17/97	3:00		X	Water	TOP OF TANK PIT	(1) 500mL (2) 40ml (1) 500mL (1) 1L Amber	X	X	X	X				NAOH HCl HNO3 H2SO4	WS34423

RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)
	4/17/97 3:00			4/18/97 10:00	
RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)

SPECIAL INSTRUCTIONS: Do Not Report 100 GW-1 on same Report
Report Separately

TURNAROUND TIME 24 hr

LAB USE: REFRIGERATOR # _____ SHELF # _____ GROUP # _____ DUE DATE _____

WASTE STREAM TECHNOLOGY
302 GROTE STREET
BUFFALO, NY 14207
(716) 876-5290

9701-499

CHAIN OF CUSTODY RECORD

PROJECT NO: 96660 DACA 41-96-C-0015
SITE NAME: Griffiss Air Force Base Site 100
SAMPLERS (SIGNATURE):

SAMPLE NO.	DATE	TIME	COMP	GRAB	MATRIX	SAMPLE LOCATION	SIZE & NO. OF CONTAINERS	CN	METALS	BTEX	O&G				PRESERVATIVES	REMARKS
100 SW-2	4/17/97	3:00		✓	Water	Frac Tank Pit	1 500 mL, (2) 40 ml, (1) 500 mL, (1) 1L Amber	✓	✓	+	+				NaOH, HCL, HNO3, H2SO4	[illegible] 34423

RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)
[illegible signature]	4/17/97 3:00	[illegible signature]	[illegible signature]	4/18/97 10:00	[illegible signature]
RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)

SPECIAL INSTRUCTIONS: Do Not Report 100 SW-1 on same Report. Report Separately

TURNAROUND TIME 24 hr

Appendix G

Photograph Identification Log

Griffiss Air Force Base
Source Removal Project
Photograph Identification Log

BUILDING 100

PHOTO ID	DATE	TIME	DIRECTION	DESCRIPTION
PREWORK1	04-09-97	11:11	NORTH	Otis Street towards Bldg.100
PREWORK2	04-09-97	11:14	EAST	Behind Building 131
PREWORK3	04-10-97	12:55	WEST	IPA Tank and Truck Hydrant
PREWORK4	04-10-97	13:02	NORTHWEST	Hydrant Pits on Parking Apron
ACCESS1	04-09-97	11:15	NORTHEAST	Access to Filter Pit area
ACCESS2	04-09-97	11:16	NORTHWEST	Security Gate to Airfield Apron
ACCESS3	04-10-97	13:04	WEST	Access to site form Security Gate
ACCESS4	04-10-97	13:05	NORTHEAST	Parking Apron leading to HydrantPits
DEMO1	06-03-97	14:11	NORTHEAST	Demo of Hydrant pit tops
DEMO2	06-03-97	14:12	NORTH	Top knocked into pit and rebar cut
DEMO3	06-03-97	14:14	NORTHEAST	Concrete and rebar inside Hydrant pit
DEMO4	06-04-97	12:53	SOUTHWEST	Demo of Filter pit
DEMO5	06-05-97	09:45	SOUTH	Demo of Filter pit
DEMO6	06-12-97	09:21	SOUTH	Filter pit demo exposing the 6" lines
DEMO7	06-12-97	09:23	NORTHEAST	Filter pit demo exposing the 6" lines
PREP1	04-21-97	13:09	NORTHEAST	Removal of piping from Hydrant pit
PREP2	04-21-97	13:11	SOUTHWEST	Removal of piping from Hydrant pit
PREP3	04-23-97	14:05	SOUTHEAST	Removal of piping from IPA vault
PREP4	04-24-97	11:49	NORTHWEST	Removal of piping from Filter pit
PREP5	05-06-97	09:20	SOUTHWEST	Charging 6" lines with Nitrogen
PREP6	05-07-97	15:21	WEST	Hole found in 6" line at Filter Pit
PREP7	05-08-97	10:55	NORTH	Repaired hole with 6" clamp
PREP8	05-08-97	12:40	NORTHEAST	Pigging 12" line to Hydrant pits
PREP9	05-09-97	11:51	WEST	Cutting 40' section at Otis Street

PREP10	05-09-97	13:29	SOUTHWEST	Pigging 12" to Filter pit
PREP11	05-12-97	09:29	NORTHEAST	Previously cut 12" line at Bldg. 147
PREP12	05-12-97	11:14	SOUTHEAST	Pigging 12" from 147 to Otis St.
PREP13	05-12-97	11:24	NORTHEAST	Pigging 12" from 147 to Otis St.
PREP14	05-12-97	13:55	SOUTH	Pigging 12" from 147 to Otis St.
PIPE1	05-08-97	10:56	NORTH	Hole in 6" line outside Filter Pit
PIPE2	05-09-97	13:18	NORTH	40' section of 12" pipe along Otis St.
PIPE3	05-12-97	09:23	NORTH	40' section of 12" pipe along Otis St.
PIPE4	05-12-97	09:24	SOUTH	Inerting 12" line with Nitrogen
PIPE5	05-13-97	12:15	WEST	Southern cut and cap of 40' section
PIPE6	05-13-97	12:15	WEST	Northern cut and cap of 40' section
GROUT1	05-13-97	10:34	SOUTHEAST	Grouting 12" line at Bldg. 147
GROUT2	05-13-97	13:20	WEST	Grouting 12" line on Otis Street
GROUT3	05-20-97	13:03	NORTHWEST	Grouting the 6" lines on the apron
GROUT4	05-20-97	13:38	NORTH	Grouting the 6" lines on the apron
GROUT5	05-22-97	14:22	NORTHEAST	Grouting 12" line from the Filter pit
GROUT6	05-29-97	08:32	EAST	Geofilling the 12" line at Bldg. 131
GROUT7	05-29-97	13:36	NORTH	Geofilling the 12" line at Bldg. 131
GROUT8	05-29-97	14:15	SOUTHEAST	Geofilling the 12" line at the IPA tank
GROUT9	05-29-97	17:30	SOUTHWEST	Geofill discharging into a Hydrant pit
GROUT10	05-29-97	18:46	NORTHWEST	Geofilling at the Hydrant pits
GROUT11	05-29-97	19:51	NORTH	Geofill discharging into the Filter pit
GROUT12	05-29-97	19:52	NORTH	Geofill discharging into the Filter pit
LIQUID1	06-10-97	11:11	SOUTHWEST	IPA removal from UST
LIQUID2	06-10-97	11:13	NORTHWEST	IPA removal from UST
LIQUID3	06-10-97	11:16	SOUTHEAST	IPA removal from UST
UST1	06-13-97	09:28	WEST	IPA tank removal
UST2	06-13-97	13:45	NORTHWEST	IPA tank after vault demo
UST3	06-13-97	13:47	NORTHWEST	IPA tank after vault demo

UST4	06-18-97	13:40	SOUTHEAST	Dewatering IPA tank excavation
UST5	06-19-97	07:31	EAST	Dewatering excavation, soil removal
UST6	06-19-97	10:03	SOUTH	Tank removal from excavation
UST7	06-19-97	10:04	NORTH	Removed 25,000 gallon IPA tank
UST8	06-19-97	10:04	EAST	Removed 25,000 gallon IPA tank
UST9	06-19-97	14:45	SOUTHEAST	Staged IPA tank
TANKDEM1	06-24-97	07:46	NORTHWEST	Removal of manway on IPA tank
TANKDEM2	06-24-97	07:50	SOUTH	Demo of IPA tank
TANKDEM3	06-24-97	08:04	EAST	Cutting IPA tank in half
TANKDEM4	06-24-97	12:34	SOUTHEAST	Half of tank ready for disposal
RESTOR1	05-27-97	09:18	NORTH	Topsoil at old Bldg. 147 site
RESTOR2	06-03-97	15:30	NORTHEAST	Filling hydrant pits with pea stone
RESTOR3	06-05-97	14:39	SOUTHEAST	Hydrant pits filled with pea stone
RESTOR4	06-05-97	14:41	NORTHEAST	Concrete restoration marked out
RESTOR5	06-16-97	11:13	NORTH	Saw cut spalling and hammer out
RESTOR6	06-16-97	11:14	SOUTHWEST	Saw cut spalling and hammer out
RESTOR7	06-19-97	14:44	EAST	Backfilling cobble into groundwater
RESTOR8	06-20-97	11:33	WEST	Backfilling soil over sand and cobble
RESTOR9	06-20-97	11:35	EAST	Backfilling excavation
RESTOR10	06-20-97	11:37	EAST	Backfilling excavation
RESTOR11	06-23-97	07:49	NORTHWEST	Backfilling excavation
RESTOR12	06-23-97	10:17	NORTH	Compaction testing
RESTOR13	06-23-97	10:18	NORTHWEST	Staged IPA tank
RESTOR14	06-23-97	14:27	SOUTH	Backfilling excavation
OTHER1	05-08-97	10:54	NORTH	Hole in 6" line outside Filter Pit
OTHER2	05-08-97	10:54	NORTH	Unmarked line leading to Tower
OTHER3	06-18-97	13:35	SOUTHEAST	Dewatering excavation
OTHER4	06-18-97	13:37	SOUTH	Dewatering excavation
OTHER5	06-19-97	07:30	EAST	Incoming groundwater

OTHER6	06-19-97	07:30	EAST	Incoming groundwater
OTHER7	06-19-97	07:32	NORTHWEST	Pump and Frac Tanks
OTHER8	06-19-97	07:33	WEST	Pump, Frac Tanks and Rob