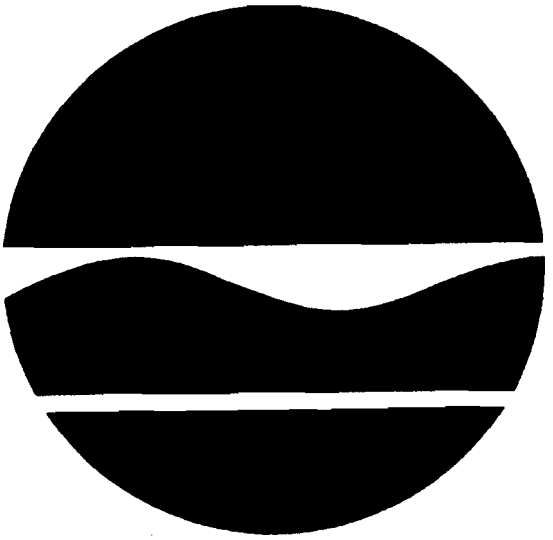
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

REMEDIATION SUMMARY REPORT

TIOGA CASTINGS SITE
VILLAGE OF OWEGO, TIOGA COUNTY
CONTRACT NO. D004100
SITE NO. 7-54-012



January 2001

New York State Department of Environmental Conservation
GEORGE E. PATAKI, *Governor* JOHN P. CAHILL *Commissioner*

TABLE OF CONTENTS

Section

APPENDICES

LIST OF TABLES

Table

EXECUTIVE SUMMARY

The New York State Department of Environmental Conservation's (NYSDEC) Bureau of Construction Services provided construction management and NYSDEC's Region 7 Office provided construction inspection during the concrete slab removal and soil excavation project at the Tioga Castings site (NYSDEC Site No. 7-54-012), Owego, New York. This included full-time inspection and monitoring of remedial activities to ensure conformation with contract documents. Remediation work commenced on May 24, 2000, and substantial completion of the project was accomplished by September 1, 2000.

The remediation activities completed at the site under this project included the removal and off-site disposal of the former concrete building slab, excavation and off-site disposal of both non-hazardous and hazardous soils and the subsequent backfilling of the excavated areas. The contractor also encountered buried drums, an underground storage tank and asbestos containing materials.

Remediation was performed by Clean Ventures, Inc. (CV) of Elizabeth, New Jersey. CV was selected through competitive bidding on January 12, 2000, to perform the work. CV submitted the lowest of 15 bids at $261,250.00. The engineer's estimate for the work was $235,625.00. A copy of the bid tabulation is included in Table 2.

There was a change order for the removal of additional soil based on confirmatory sampling collected in the field. The change order also included costs to handle buried drums, sample and fill an underground storage tank and relocate asbestos containing materials. The change order also extended the contract time. The final contract amount was $331,119.14. Table 3 depicts a breakdown of the final contract price by task.

Construction was completed in accordance with the contract documents entitled *Contract Documents, Tioga Casting Site (NYSDEC* November 15, 1999).

1.0 SITE BACKGROUND

1.1 LOCATION

The Tioga Castings site is a Class 2 site listed in the Registry of Inactive Hazardous Waste Disposal Sites in New York State. The site is approximately seven acres in size and is located on Foundry Street, off of McMaster Street, in the Village of Owego, Tioga County. The site is located in a residential/commercial area, adjacent to the Owego-Apalachin Middle School.

1.2 HISTORY

The Tioga Castings facility began operations on-site between 1945 and 1947, and continued through 1988. The facility operated a cupola type foundry for the production of gray iron castings. Operations at the facility included smelting of pig iron, scrap iron (including engine blocks), coke, limestone and the use of phenol formaldehyde treated sand to cast the iron. The process produced solid wastes which included sand molds, fly ash, cast iron grindings, and fine baghouse ash/cupola dust. These wastes were reportedly disposed of at an off-site landfill until March 1979. The facility then operated an on-site landfill for the disposal of its foundry wastes. The facility ceased operations in 1988.

On July 11, 1989, the facility had a fire which destroyed most of the foundry structure and left the remaining building structurally unsafe. Since then the owner has demolished most of the on-site structures. The debris from the building demolition remains in piles around the site. Due to the conditions at the site, two Interim Remedial Measures (IRMs) were performed. A perimeter fence was erected in the fall of 1989 and drums containing hazardous wastes, along with cupola dust, were removed in early 1990.

A Remedial Investigation/Feasibility Study (RI/FS) was conducted under New York State's Superfund Program. The RI was finalized in November 1994 and the FS was finalized in December 1994. The Record of Decision (ROD) was signed on March 20, 1995 and called for the consolidation of on-site and off-site material to the on-site landfill and the placement of a low permeability cover over the landfill. A long term operation, maintenance and monitoring program is a part of the overall program. The elements of the ROD were completed during the 1997 construction season.

During the 1997 construction activity, soil samples were collected underneath the concrete slab remaining from the former foundry building. The results showed significant concentrations of lead and chromium above the clean goals established for the site. This report covers the second construction contract prepared to address this contamination which was found beneath the concrete slab.

2.0 SUMMARY OF REMEDIAL WORK

2.1 GENERAL OVERVIEW

A pre-construction conference was held at the NYSDEC's 50 Wolf Road offices on May 23, 2000. In attendance were Michael Cruden, NYSDEC's Project Manager, John May, NYSDEC Construction Inspector, John Murphy, Clean Venture's Project Manager and Vincente Alfonso of NYSDEC's Bureau of Affirmative Action. Notice to Proceed was granted on May 24, 2000.

Clean Venture mobilized to the site, providing an office trailer with electrical power, telephone and fax services and a project sign. Angel Flores was assigned as site superintendent by Clean Venture. The site superintendent was responsible for supervising Clean Venture's field personnel and subcontractors engaged in site operations, and assisting John Murphy in project management activities. Site surveying was performed by Williams & Edsall of Candor, New York. A complete list of subcontractors is included as Table 1.

2.2 HEALTH AND SAFETY

Clean Venture subcontracted with O'Rourke, Inc. to prepare a site specific health and safety plan and provide a health and safety officer during work at the site. O'Rourke, Inc. was responsible for conducting safety meetings, personal and perimeter air monitoring, and the collection of soil samples. Documentation air monitoring results are included in Appendix B.

The level of protection for workers for the majority of the work performed on-site was Modified Level D, which required the donning of safety glasses, rubber overboots, and gloves; in addition to the typical level D protection (field clothes, hard hats and steel toe boots).

Clean Venture constructed a decontamination pad. Certificates of decontamination were prepared for equipment decontamination and signed by the site health and safety officer.

Clean Venture subcontracted with local police to provide site security in accordance with the contract.

2.3 PRE-EXCAVATION SAMPLING

Pre-excavation samples were collected on June 9. Thirty three (33) samples were collected. In accordance with the contract, results were compared to the cleanup goals of cadmium - 10 ppm, chromium - 50 ppm and lead - 500 ppm below twelve inches and 250 ppm above twelve inches. Analytical results are included in Appendix C.

Three grids, B-98-41, 42 and 46, were sampled to confirm results obtained previously during the site investigation. The comparison at 12-18" was as follows:

	Pb	Cd	Cr		Pb	Cd	Cr
B-98-41	248	ND	12.7	A3-W4	66.9	ND	9.03
B-98-42	27	0.8	4.9	A3-W5	92	ND	13.1
B-98-46	20	ND	27.1	A1-N2	400	1.73	**91.1**

Area B-98-46 was excavated based on the failure of A1-N2 for chromium.

Grids B-98-9 and B-98-20 were sampled at 60" below the pad to confirm the depth of excavation. Both A2-D1 and A3-D4 met the cleanup goals and excavation ceased at 60".

Two samples were collected in grid B-98-10 to confirm results obtained during the site investigation. This grid was excavated based on the failure of A2-D3 for lead at 2210 ppm.

Based on the pre-excavation sampling, the excavation area was expanded as shown on the as-builts. Additionally, one floor and four sidewall confirmatory samples were collected following excavation. These additional samples were collected in excavation areas outside of the original sampling grid, otherwise the original borehole data was relied upon. The additional excavation north of area A4 was performed to be conservative, since the sample was collected close to within 12" of final grade. This is discussed further in section 2.4.4.

Sample results are included in Appendix C.

2.4 SOIL AND OTHER MATERIALS HANDLING

2.4.1 CONCRETE SLAB REMOVAL AND DISPOSAL

Clean Venture started demolition of the concrete pad on June 12. They decided not to build a decontamination pad specific to this task, but rather to decontaminate the concrete over the areas to be excavated. There was a concern with smaller concrete debris intermixed with soils, but the Department agreed this smaller debris could be disposed with contaminated soils at Clean Venture's own option. However, the landfill subsequently complained that the presence of concrete debris in excess of 4" diameter was preventing the use of the soils as a daily cover. Clean Venture then took steps to separate out materials above 4" in diameter prior to off-site disposal.

On June 15, Clean Venture notified the Department that they were encountering a different type of slab configuration than that originally specified and that some of the concrete was stained. On June 16, the Department responded that concrete which extended as deep or deeper than the excavation could be left in place, while concrete shallower than the excavation should be removed. The Department stated that the actual quantity of concrete would be paid for at the unit price. The response also noted that Clean Venture was responsible for decontamination of the concrete prior to off-site disposal, including stained or discolored portions of the debris. It was noted that the stained areas did not appear to be out of the ordinary for a former slab of an industrial foundry building. No special equipment or additional workforce was mobilized by Clean Venture.

With respect to the subsurface concrete, the contract (addendum 1) stated that the Department had no information regarding any footings or support structures, but it was likely that they existed beneath the slab typical of this type of industrial structure. Additionally, the six inch thickness of the upper slab may not be actual thickness in all areas. There was no cross sectional data or other depiction of the sub grade in areas to be excavated.

Clean Venture and the Department came to an agreement in the field to weigh the concrete removed, due to the inherent difficulty in measuring odd sized chunks of concrete for payment purposes and in surveying the actual removal. Once soil excavation was completed, the excavation area was resurveyed, removal quantities calculated and the agreed to quantity of concrete was subtracted to give the actual volume of soil removed. A conversion factor for converting tons of concrete to cubic yards was agreed upon.

See Appendix D, Off-Site Disposal.

2.4.2 UNDERGROUND STORAGE TANK

In the course of concrete removal, an underground storage tank was discovered along the border of grids 15 and 16, which contained an unknown liquid. The liquid was subsequently sampled and analyzed for volatiles, semi-volatiles and metals. Once the results confirmed that the water was clean, the tank was backfilled with flowable fill. Sample results are included in Appendix C.

2.4.3 BURIED DRUMS

Clean Venture discovered buried drums along the northern edge of grids 8 and 9. A former employee of the foundry indicated that the drums were placed there as a spill containment system for

molten metal from a cupola (iron smelter) operation. Visual observations from the area were consistent with this observation, including the presence of fire brick and sand. Clean Venture took a conservative approach by exposing the remaining drums in level B with an HNu meter and a explosimeter to check for the presence of volatile organic compounds or potentially explosive conditions. A total of nine empty drums were unearthed from this area. Although no contamination was evident in this area, CVI collected a soil sample at their own expense which confirmed the area was clean. Sample results are included in Appendix C.

2.4.4 SOIL EXCAVATION AND DISPOSAL

Clean Venture chose to excavate the nonhazardous areas first, stockpiling the soils and subsequently loading them into haul trucks for transport to the Steuben County Landfill. Progress was slow due to an insufficient number of haul vehicles needed to keep pace with excavation work. There was a significant amount of idle time, along with delays in constructing adequate staging areas.

Next, Clean Venture started to excavate and stockpile soils from grids identified as potentially hazardous. Certain grids were to be excavated and stockpiled together, with composite samples collected for TCLP analysis. On July 24, Clean Venture excavated areas 33 and 52, stockpiled them together and collected two samples for TCLP analysis. These soils were determined to be nonhazardous and were transported to the Steuben County Landfill.

Areas 9 and 10 were then excavated and consolidated into one stockpile. This stockpile was sampled and also determined to be nonhazardous. These soils were transported to the Steuben County Landfill.

Areas 26, 35 and 36 were excavated, stockpiled together and sampled. These soils were determined to be hazardous and were transported to Max Environmental Technologies' Landfill.

Finally, four wall and one floor samples were collected, analyzed for total cadmium, chromium and lead and compared to the cleanup limits in the contract. The floor sample and one sidewall sample failed for lead and, subsequently, the excavation was expanded and deepened. The excavation was expanded twenty (20) feet to the east of grid 18.2, which is not shown on the as-builts as the contractor failed to survey the area prior to backfilling. Afterward, one additional floor sample and one extra wall sample both passed. However, a sump was encountered in the expanded excavation, sampled and determined to be clean, and then subsequently backfilled with the surrounding excavation.

As-built records are included in Appendix A. Analytical results are included in Appendix C.

Photographs taken near the completion of excavation, prior to backfilling, are included in Appendix E.

2.4.5 ASBESTOS CONTAINING MATERIALS

The results of the pre-excavation sampling required an expansion of the original areas to be excavated. As a result of this, Clean Venture had to relocate some additional debris piles from grids 16 and 18 in order to clear the work area. In the course of this work, the presence of suspected asbestos containing materials (ACM) were noted and the items were subsequently sampled. The materials in question were confirmed to contain asbestos, but were considered non-friable. A qualified, licensed asbestos subcontractor was used to handle the relocation of ACM from these areas. O'Rourke, Inc. collected asbestos samples during this work in lieu of collecting dust and metals samples. ACM relocated from the excavation areas was covered and labeled appropriately. The subcontractor confirmed that a building demolition survey was not necessary for the balance of this remedial construction project. The NYS Department Of Labor was contacted and agreed with CVI's approach to asbestos under these circumstances.

The USEPA was contacted to evaluate the potential for conducting a federally funded removal action to address asbestos containing materials throughout the site. This request was made informally by transmitting a previously issued fact sheet, site map and directions. The USEPA made a site inspection and requested that the Department collect some asbestos samples from the buildings and debris piles. Based on the sampling, the Department formally requested the USEPA to conduct a removal action at the site to address asbestos containing materials.

2.5 CLEAN FILL MATERIAL

Clean fill was provided by F.S. Lopke Contracting, Inc. of Apalachin, N.Y. Lopke had a valid mining permit. Atlantic Testing Laboratories performed particle size analysis, plasticity index and laboratory compaction tests on a sample of the fill. Friend Laboratory, Inc. performed a TCL analysis of the fill.

The completed excavation area was compacted and then clean fill was placed in lifts and compacted. Atlantic Testing performed the in place compaction testing.

As-built records are included in Appendix A. Analytical results are included in Appendix C. Photographs taken following backfill, which depict site conditions near to completion of Clean Venture's work, are included in Appendix E.

2.6 CHANGE ORDERS

The pre-excavation sampling results required the Department to expand the extent of the soil removal and to prepare a change order one to address the time and associated cost to complete the extra work. Change order number one included additional costs related to soil excavation and disposal, backfilling, site services, health and safety and debris relocation (on a time and materials basis). The change order also addressed the time and associated costs to handle buried drums, an underground storage tank, asbestos containing materials, a sump and additional concrete demolition. The cost for the drums included a surcharge for level B personnel protection and a HNu meter. The water in the underground storage tank was sampled for volatiles, semi-volatiles and metals, prior to being filled with flowable fill. The asbestos containing materials were sampled to confirm they contained asbestos and a licensed asbestos abatement subcontractor was used to relocate these materials. The sump was sampled to confirm that the sludge was not contaminated. The contract time was extended twenty six (26) days. Change order one (final) increased the contract by $69,869.14 to $331,119.14.

3.0 CONCLUSIONS AND RECOMMENDATIONS

It is recommended that with the completion of this project and the implementation of long term monitoring, that the Tioga Castings site be reclassified on the NYS Registry of Inactive Hazardous Waste Sites. It is proposed the site description be redefined so that the east portion of the site be removed as part of the site since all known contamination has been removed from this area. It is also recommended that the remaining portion of the site consisting of the cap area be reclassified to a Class 4 status, indicating that remediation has been completed and long term maintenance is being conducted.

However, the following should be noted carefully with respect to any potential future use of the site:

1. The cleanup goal for lead was 250 ppm from the surface to 12" below grade and 500 ppm below 1 foot. Any future disturbance of the remaining concrete or soil surfaces might result in soils containing lead in excess of 250 ppm being on or

within 1 foot of the surface.

2. Asbestos containing materials were identified at the site and likely remain within the debris piles and dilapidated building structures. A future response action by USEPA may address this.

3. Significant physical hazards remain at the site.

4.0 CONSTRUCTION CERTIFICATION

Construction was completed in accordance with the contract documents entitled: "Tioga Castings Site, Site No. 7-54-012" and dated November 15, 1999.

P.E. Seal

Signed: _____

Michael J. Cruden, P.E.

Dated: 01/04/01

TABLES

Table 1

Subcontractors

Company	*Task*
O'Rourke, Incorporated	Health & Safety Services
Upstate Laboratories	Analytical Services
Williams & Edsall	Site Surveying
Ebony Environmental Construction	Transportation, Backfill
Rogers Fence Company	Temporary Fencing
John Pfrommer, LLC	Transportation
Tioga Gardens	Disposal (exempt C&D)
Max Environmental Technologies, Inc.	Disposal (Haz soils)
Friend Laboratory, Inc.	Analytical Services
Op-Tech	Asbestos Abatement
Steuben County Landfill	Disposal (Non-haz soils)

TABLE 2 **BID TABULATION**

TIOGA CASTINGS SITE
SITE NO. 7-54-012
SOIL EXCAVATION AND DISPOSAL

ITEM	DESCRIPTION	UNIT	QUANTITY	ENGINEER'S UNIT BID	ESTIMATE SUBTOTAL	Clean UNIT BID	Venture SUBTOTAL
1	SITE PREP	L.S	1	$50,000.00	$50,000.00	$15,000.00	$15,000.00
2	SITE SERV	DAY	45	$1,000.00	$45,000.00	$400.00	$18,000.00
3	HEALTH & SAFETY	DAY	30	$300.00	$9,000.00	$810.00	$24,300.00
4	EXCAV CONCRETE	CY	350	$30.00	$10,500.00	$84.00	$29,400.00
5	EXCAV NON-HAZ SOILS	CY	950	$52.50	$49,875.00	$85.00	$80,750.00
6	EXCAV HAZ SOILS	CY	350	$150.00	$52,500.00	$190.00	$66,500.00
7	SAMPLING	EACH	45	$50.00	$2,250.00	$75.00	$3,375.00
8	BACKFILL	CY	1650	$10.00	$16,500.00	$14.50	$23,925.00
				TOTAL BID	$235,625.00		$261,250.00
				POLL LIAB	$25,000.00		$10,000.00

LOW BID	$261,250.00
VAR W/ENG	10.88%
SPREAD	$108,750.00
AVG BID	$302,243.83

Integrated Tech	Services	Tyree	Organization	North American	Environmental	Ciminelli	Services	Abscope
UNIT BID	SUBTOTAL	UNIT BID	SUBTOTAL	UNIT BID	SUBTOTAL	UNIT BID	SUBTOTAL	UNIT BID
$39,900.00	$39,900.00	$32,134.95	$32,134.95	$14,854.00	$14,854.00	$37,311.27	$37,311.27	$45,200.00
$577.00	$25,965.00	$70.91	$3,190.95	$1,451.44	$65,315.00	$1,099.45	$49,475.25	$250.00
$850.00	$25,500.00	$82.07	$2,462.10	$662.00	$19,860.00	$1,079.75	$32,392.50	$705.00
$38.00	$13,300.00	$137.08	$47,978.00	$77.84	$27,245.00	$23.31	$8,158.50	$110.00
$62.00	$58,900.00	$91.94	$87,343.00	$64.87	$61,625.00	$55.84	$53,048.00	$54.00
$190.00	$66,500.00	$202.53	$70,885.50	$191.36	$66,975.00	$220.55	$77,192.50	$230.00
$185.00	$8,325.00	$75.00	$3,375.00	$115.00	$5,175.00	$62.32	$2,804.40	$310.00
$14.50	$23,925.00	$15.89	$26,218.50	$8.84	$14,580.00	$12.49	$20,608.50	$17.00
	$262,315.00		$273,588.00		$275,629.00		$280,990.92	
	$30,000.00		$1,500.00		Blank		$0.00	

Environmental SUBTOTAL	Griffin UNIT BID	Griffin SUBTOTAL	Industrial UNIT BID	Industrial SUBTOTAL	Haseley Constructors UNIT BID	Haseley Constructors SUBTOTAL	USA UNIT BID	USA SUBTOTAL	Remediation Op-Tech UNIT BID	Remediation Op-Tech SUBTOTAL	Environmental UNIT BID	Environmental SUBTOTAL
$45,200.00	$29,850.00	$29,850.00	$26,900.00	$26,900.00	$27,150.00	$27,150.00	$30,000.00	$30,000.00				
$11,250.00	$100.00	$4,500.00	$105.00	$4,725.00	$825.00	$37,125.00	$380.09	$17,104.05				
$21,150.00	$1,400.00	$42,000.00	$2,100.00	$63,000.00	$1,350.00	$40,500.00	$1,860.27	$55,808.10				
$38,500.00	$115.00	$40,250.00	$120.00	$42,000.00	$210.00	$73,500.00	$120.90	$42,315.00				
$51,300.00	$72.00	$68,400.00	$52.00	$49,400.00	$62.00	$58,900.00	$48.65	$46,217.50				
$80,500.00	$244.00	$85,400.00	$200.00	$70,000.00	$190.00	$66,500.00	$288.46	$100,961.00				
$13,950.00	$100.00	$4,500.00	$465.00	$20,925.00	$95.00	$4,275.00	$209.78	$9,440.10				
$28,050.00	$14.00	$23,100.00	$23.00	$37,950.00	$12.75	$21,037.50	$16.50	$27,225.00				
$289,900.00		$298,000.00		$314,900.00		$328,987.50		$329,070.75				
$10,000.00		$13,800.00		$1,000.00		$7,750.00		Blank				

Environmental	Products & Serv	Boland	Excavating	Ontario	Specialty	Grace	Industries	Gary Dyer
UNIT BID	SUBTOTAL	UNIT BID	SUBTOTAL	UNIT BID	SUBTOTAL	UNIT BID	SUBTOTAL	UNIT BID
$18,997.94	$18,997.94	$60,550.00	$60,550.00	$20,000.00	$20,000.00	$68,220.50	$68,220.50	$88,492.00
$605.49	$27,247.05	$350.00	$15,750.00	$500.00	$22,500.00	$175.00	$7,875.00	$1,430.00
$1,163.80	$34,914.00	$1,700.00	$51,000.00	$500.00	$15,000.00	$275.00	$8,250.00	$1,130.50
$202.55	$70,892.50	$100.00	$35,000.00	$50.00	$17,500.00	$203.70	$71,295.00	$90.00
$78.09	$74,185.50	$70.00	$66,500.00	$100.00	$95,000.00	$106.35	$101,032.50	$78.00
$219.83	$76,940.50	$280.00	$98,000.00	$500.00	$175,000.00	$287.50	$100,625.00	$223.00
$182.14	$8,196.30	$300.00	$13,500.00	$300.00	$13,500.00	$70.00	$3,150.00	$90.00
$18.74	$30,921.00	$18.00	$29,700.00	$20.00	$33,000.00	$21.20	$34,980.00	$17.50
	$342,294.79		$370,000.00		$391,500.00		$395,428.00	
	$3,200.00		$8,000.00		$49,000.00		$15,000.00	

Excavating	UNIT PRICE COMPARISON	
SUBTOTAL	LOW	AVERAGE
$88,492.00	$14,854.00	$36,970.71
$64,350.00	$70.91	$554.63
$33,915.00	$82.07	$1,044.56
$31,500.00	$23.31	$112.16
$74,100.00	$48.65	$72.05
$78,050.00	$190.00	$243.82
$4,050.00	$62.32	$175.62
$28,875.00	$8.84	$16.33
$403,332.00		
$7,500.00		

Table 3 Final Costs

Description	Quantity		Unit Cost	Subtotal
Site Preparation	1	*lump sum*	$15,000.00	$15,000.00
Site Services	67	*days*	$400.00	$26,800.00
Health & Safety	50	*days*	$810.00	$40,500.00
Concrete	276.68	*cubic yards*	$84.00	$23,241.12
Nonhazardous Soils	1651.77	*cubic yards*	$85.00	$140,400.45
Hazardous Soils	274.56	*cubic yards*	$190.00	$52,166.40
Sampling	40	*samples*	$75.00	$3,000.00
Backfill	2203.01	*cubic yards*	$14.50	$31,943.65
Debris Relocation	1	*time & material*	$2,259.07	$2,259.07
Underground Storage Tank	1	*time & material*	$1,056.82	$1,056.82
Asbestos	1	*time & material*	$1,530.19	$1,530.19
Buried Drums	1	*time & material*	$1,416.44	$1,416.44
Sump Sample	1	*time & material*	$1,605.00	$1,605.00
Liquidated Damages	14	*per day*	($700.00)	($9,800.00)
			FINAL COST	$331,119.14

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APPENDIX A

AS-BUILTS

APPENDIX B

AIR MONITORING

Tioga Castings - Documentation Monitoring Results

Date	Location	Chemical Tested	Result	Units	OSHA PEL	Comments
6/15/2000	Jose	Lead	<0.8	ug/m3	50 ug/m3	Excavation
6/19/2000	South Perimeter	Dust	<0.2	Mg/m3	PNOR 15 MG/M3	
6/19/2000	Blank	Dust	NA	Mg/m3	PNOR 15 MG/M3	
6/19/2000	West Perimeter	Dust	<0.2	Mg/m3	PNOR 15 MG/M3	
6/19/2000	East Perimeter	Dust	<0.2	Mg/m3	PNOR 15 MG/M3	
6/19/2000	North Perimeter	Dust	<0.2	Mg/m3	PNOR 15 MG/M3	
6/20/2000	Kevin Perez	Lead	0.53	ug/m3	50 ug/m3	Concrete Decon
6/23/2000	Jose 623	Lead	<1	ug/m3	50 ug/m3	Excavation
6/26/2000	North Perimeter	Dust	<0.2	Mg/m3	PNOR 15 MG/M3	
6/26/2000	East Perimeter	Dust	<0.2	Mg/m3	PNOR 15 MG/M3	
6/26/2000	South Perimeter	Dust	<0.2	Mg/m3	PNOR 15 MG/M3	
6/26/2000	Jose Feliciano 626	Lead	<0.7	ug/m3	50 ug/m3	Stockpile Area
6/26/2000	Blank	Dust	NA	Mg/m3	PNOR 15 MG/M3	
6/26/2000	West Perimeter	Dust	<0.2	Mg/m3	PNOR 15 MG/M3	
6/28/2000	Blank	Lead	NA	ug/m3	50 ug/m3	
6/28/2000	Kevin Perez	Lead	<1	ug/m3	50 ug/m3	Concrete Decon
6/29/2000	Kevin 629	Lead	1.8	ug/m3	50 ug/m3	Concrete Decon

Date	Location	Chemical Tested	Result	Units	OSHA PEL	Comments
6/30/2000	Kevin 630	Lead	<1	ug/m3	50 ug/m3	Excavation
6/30/2000	Blank	Lead	NA	ug/m3	50 ug/m3	
7/6/2000	Jose Feliciano 76	Lead	<2	ug/m3	50 ug/m3	Concrete Handling
7/6/2000	East Perimeter	Dust	<0.2	Mg/m3	PNOR 15 MG/M3	
7/6/2000	South Perimeter	Dust	<0.2	Mg/m3	PNOR 15 MG/M3	
7/6/2000	West Perimeter	Dust	<0.2	Mg/m3	PNOR 15 MG/M3	
7/6/2000	North Perimeter	Dust	<0.2	Mg/m3	PNOR 15 MG/M3	
7/17/2000	East Perimeter	Dust	<0.2	Mg/m3	PNOR 15 MG/M3	
7/17/2000	West Perimeter	Dust	<0.2	Mg/m3	PNOR 15 MG/M3	
7/17/2000	Blank	Dust	NA	Mg/m3	PNOR 15 MG/M3	
7/17/2000	North Perimeter	Dust	<0.2	Mg/m3	PNOR 15 MG/M3	
7/17/2000	South Perimeter	Dust	<0.2	Mg/m3	PNOR 15 MG/M3	
7/21/2000	Dean Simmons	Asbestos	0.002	Fibers/cc	0.01 Fibers/cc	Hand Cleaning Ex area
7/21/2000	Area 1 B decon	Asbestos	<0.001	Fibers/cc	0.01 Fibers/cc	Hand Cleaning Ex area
7/26/2000	West Perimeter	Dust	<0.2	Mg/m3	PNOR 15 MG/M	
7/26/2000	Blank	Dust	NA	Mg/m3	PNOR 15 MG/M	
7/26/2000	South Perimeter	Dust	<0.2	Mg/m3	PNOR 15 MG/M	
7/26/2000	East Perimeter	Dust	<0.2	Mg/m3	PNOR 15 MG/M	
7/26/2000	North Perimeter	Dust	<0.2	Mg/m3	PNOR 15 MG/M	
8/4/2000	East Perimeter	Dust	<0.2	Mg/m3	PNOR 15 MG/M3	

Date	Location	Chemical Tested	Result	Units	OSHA PEL	Comments
8/4/2000	West Perimeter	Dust	<0.2	Mg/m3	PNOR 15 MG/M3	
8/4/2000	South Perimeter	Dust	<0.2	Mg/m3	PNOR 15 MG/M3	
8/4/2000	North Perimeter	Dust	<0.2	Mg/m3	PNOR 15 MG/M3	
8/4/2000	Blank	Dust	NA	Mg/m3	PNOR 15 MG/M3	
8/7/2000	Truck	Dust	<0.2	Mg/m3	PNOR 15 MG/M3	Jose Feliciano work area
8/7/2000	Blank	Lead	NA	ug/m3	50 ug/m3	
8/7/2000	Excavator	Dust	<0.2	Mg/m3	PNOR 15 MG/M3	Angel Flores work area
8/7/2000	Excavator	Lead	<0.5	ug/m3	50 ug/m3	Angel Flores work area
8/7/2000	Truck	Lead	<0.6	ug/m3	50 ug/m3	Jose Feliciano work area
8/7/2000	Blank	Dust	NA	Mg/m3	PNOR 15 MG/M3	
8/18/2000	North Perimeter	Dust	<0.2	Mg/m3	PNOR 15 MG/M3	
8/18/2000	South Perimeter	Dust	<0.2	Mg/m3	PNOR 15 MG/M3	
8/18/2000	West Perimeter	Dust	<0.2	Mg/m3	PNOR 15 MG/M3	
8/18/2000	Blank	Dust	NA	Mg/m3	PNOR 15 MG/M3	
8/18/2000	East Perimeter	Dust	<0.2	Mg/m3	PNOR 15 MG/M3	
8/24/2000	Work Area 1	Asbestos	<0.01	Fibers/cc	0.01 Fibers/cc	Relocating stockpile
8/24/2000	Work Area 2	Asbestos	<0.01	Fibers/cc	0.01 Fibers/cc	Relocating stockpile
8/24/2000	Work Area 3	Asbestos	<0.01	Fibers/cc	0.01 Fibers/cc	Relocating stockpile
8/24/2000	Work Area 4	Asbestos	<0.01	Fibers/cc	0.01 Fibers/cc	Relocating stockpile
8/30/2000	North Perimeter	Dust	<0.2	Mg/m3	PNOR 15 MG/M	

Date	Location	Chemical Tested	Result	Units	OSHA PEL	Comments
8/30/2000	South Perimeter	Dust	<0.2	Mg/m3	PNOR 15 MG/M	
8/30/2000	East Perimeter	Dust	<0.2	Mg/m3	PNOR 15 MG/M	
8/30/2000	West Perimeter	Dust	<0.2	Mg/m3	PNOR 15 MG/M	
8/30/2000	Blank	Dust	NA	Mg/m3	PNOR 15 MG/M	

APPENDIX C

SAMPLE RESULTS

Verification Samples

Appendix C

Soil Verification Samples

Sample No.	Cadmium (ppm)	Chromium (ppm)	Lead (ppm)
A1-N-1	**11.6**	48.9	**2050**
A1-E-1	**10.1**	26.8	**1120**
A1-S-1	4.3	20.7	171
A1-W-1	5.8	11.2	**696**
A2-N-1	4	14.3	**622**
A2-E-1	3.4	14.8	196
A2-S-1	2	8.4	15.2
A2-W-1	8	13.3	**3760**
A2-D-1	2.8	11.4	281
A2-D-2	2.9	11.7	202
A2-D-3	3.2	11.1	**2200**
A3-N-1	1.1	9.5	98.1
A3-N-2	6.1	**53.7**	**500**
A3-N-3	1.5	7.1	13
A3-E-1	2.3	10.4	**1030**
A3-E-2	8.7	**88.2**	**734**
A3-E-3	3.6	13.8	437
A3-E-4	3	11.4	207
A3-S-1	3.2	11.3	447
A3-S-2	2.9	12.9	466
A3-S-3	ND	14.3	14.7
A3-W-1	ND	16.6	468
A3-W-2	ND	8.1	105
A3-W-3	1.5	12.1	432
A3-W-4	ND	9	66.9
A3-W-5	ND	13.1	92.1
A3-W-6	1.3	32.8	144
A4-N-1	ND	5.2	379
A4-E-1	ND	7.6	8.8
A4-S-1	ND	15.4	274
A4-W-1	1.4	26.9	127
A3-D4	2.5	10.4	480
A1-N2	1.8	**91.1**	400
N1-SW	1.8	18.6	335
N2-SW	ND	24.4	192
E1-SW	2.6	21	486
E2-SW	6	28.9	**1010**
E3-BASE	9.1	20.4	**514**
E3-BASE-2	4.37	22.4	499
E4	ND	2.96	43

Waste Characterization

CUSTOMER CODE # _____

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

FLI ENVIRONMENTAL LABORATORY, INC.
ONE RESEARCH CIRCLE
WAVERLY NY 14892-1532
Telephone (607) 566 3500
Fax (607) 565 7160

CLIENT: Clean Venture
ADDRESS: 201 S. First St
Elizabeth, NJ
PHONE: FAX:

INVOICE TO:
ADDRESS:

Sample Site: Tioga Castings,
P.O. Owego, NY.

PROJECT NO. / NAME
NYSDEC Site
#7-54-012

COPY TO:
ADDRESS:

153643

Untreated	Sodium thiosulfate	HCl pH <2	Ascorbic acid & HCl pH <2	HNO_3 pH <2	H_2SO_4 pH <2	NaOH pH >12	NaOH & Zinc acetate pH >9	Acetic Buffer pH <3	Sodium sulfite

# DATE & TIME OF SAMPLE COLLECTION	# SAMPLE DESCRIPTION	# NUMBER OF CONTAINERS	ANALYSES / TESTS REQUESTED	LAB USE ONLY SAMPLE NUMBER
7/24/00	STOCKPILE 33+52	1 Description: Grab Composite Other Matrix: DW WW MW Soil Air Other	TCLP - Pb, Cd, Cr.	1
11	STOCKPILE 33+52	1 Description: Grab Composite Other Matrix: DW WW MW Soil Air Other	TCLP - Pb, Cd, Cr.	2
		Description: Grab Composite Other Matrix: DW WW MW Soil Air Other		
		Description: Grab Composite Other Matrix: DW WW MW Soil Air Other		

RELINQUISHED BY	DATE	RECEIVED BY	DATE	NOTES TO LABORATORY
SAMPLER Terry Coleman	7/24/00	Tom Jones	7/24/00 4:22	RUSH - Results by Wed. Aug. 2, 00
Jason Cole	7/25/00			SUSPECTED CONTAMINATION LEVEL NONE SLIGHT MODERATE HIGH (please circle)

1 OF 11

TCLP

FLI
FRIEND LABORATORY INC

ONE RESEARCH CIRCLE WAVERLY, NY 14892-1582
TELEPHONE (607) 565-8500 FAX (607) 565-4088

DATE 26-JUL-2000

LAB SAMPLE ID : L53643-1

Clean Venture
John Murphy
201 South First Street
Elizabeth, NJ 07206

[redacted]
TIOGA CASTINGS 7-54-012
STOCKPILE 33 & 52
GRAB
24-JUL-00 00:00 by CLIENT
24-JUL-00 16:22
N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	U	mg/l	0.0500	26-JUL-00 01:38	EPA 6010 TCLP	00-102-09
Chromium	U	mg/l	0.100	26-JUL-00 01:38	EPA 6010 TCLP	00-102-09
Lead	U	mg/l	0.440	26-JUL-00 01:38	EPA 6010 TCLP	00-102-09

QC NY 10282 NJ 73168 PA 68180 EPA NY 00033

Approved by: Lab Director

KEY: ND or U = None Detected < = less than ug/L = micrograms per liter (equivalent to parts per billion)
mg/L = milligrams per liter (equivalent to parts per million) mg/kg = milligrams per kilogram (equivalent to parts per million)
B = analyte was detected in the method or trip blank J = result estimated below the quantitation limit

2 OF 12

FRIEND LABORATORY INC

ONE RESEARCH CIRCLE WAVERLY, NY 14892-1582
TELEPHONE (607) 565-3500 FAX (607) 565-4083

DATE 26-JUL-2000

LAB SAMPLE ID :L53643-2

Clean Venture
John Murphy
201 South First Street
Elizabeth, NJ 07206

[redacted]
TIOGA CASTINGS 7-54-012
STOCKPILE 33 & 52
GRAB
24-JUL-00 00:00 by CLIENT
24-JUL-00 16:22
N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	U	mg/l	0.0500	26-JUL-00 01:41	EPA 6010 TCLP	00-102-09
Chromium	U	mg/l	0.100	26-JUL-00 01:41	EPA 6010 TCLP	00-102-09
Lead	U	mg/l	0.440	26-JUL-00 01:41	EPA 6010 TCLP	00-102-09

QC NY 10252 NJ 73168 PA 68180 EPA NY 00033 Approved by: Lab Director

KEY: ND or U = None Detected < = less than ug/L = micrograms per liter (equivalent to parts per billion)
mg/L = milligrams per liter (equivalent to parts per million) mg/kg = milligrams per kilogram (equivalent to parts per million)
B = analyte was detected in the method or trip blank J = result estimated below the quantitation limit

3 of 11

CUSTOMER CODE # _____

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

FLI
FLORENCE LABORATORY, INC.
ONE RESEARCH CIRCLE
WAVERLY NY 14892-1532
Telephone (607) 565 3500
Fax (607) 565 7160

Sample Site: Owego NY

P.O.#

Preservatives: Unpreserved | Sodium Thiosulfate | HCl pH <2 | Ascorbic Acid & HCl pH <2 | H_2SO_4 pH <2 | H_2SO_4 pH <2 | NaOH pH >12 | NaOH & Zinc Acetate pH >9 | Acetic Buffer pH <5 | Sodium Sulfite

CLIENT: Clean Venture
ADDRESS: Elizabeth NJ.
PHONE: FAX:

INVOICE TO:
ADDRESS:

PROJECT NO. / NAME: Tioga Castings DEC # 7-50-012

COPY TO:
ADDRESS:

L54239

DATE & TIME OF SAMPLE COLLECTION	SAMPLE DESCRIPTION	NUMBER OF CONTAINERS	ANALYSES / TESTS REQUESTED	LAB USE ONLY
8-2-00	Stockpile B-98-9/10	2 Description: Grab Composite Other Matrix: DW WW MW Soil Air Other	TCLP - Metals Pb, Cd, Cr	-1
8-2-00	Stockpile B-98-9/10	2 Description: Grab Composite Other Matrix: DW WW MW Soil Air Other	"	-2
		Description: Grab Composite Other Matrix: DW WW MW Soil Air Other		
		Description: Grab Composite Other Matrix: DW WW MW Soil Air Other		

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME	INSTRUCTIONS TO LABORATORY
SAMPLER: R. ORL	8/2/00	F. Coloma	8/2/00	* Need 5 day TAT
F. Coleman	8/2/00	Tom Jones	8/2/00 4:53	

SUSPECTED CONTAMINATION LEVEL
NONE SLIGHT MODERATE HIGH (please circle)

4 of 12

FLI LABORATORY INC.
ONE RESEARCH CIRCLE WAVERLY, NY 14892-1538
TELEPHONE (607) 565-2600 FAX (607) 565-4066

DATE 10-AUG-2000

LAB SAMPLE ID 254239-1

Clean Venture
John Murphy
201 South First Street
Elizabeth, NJ 07206

SAMPLE SOURCE	TIOGA CASTINGS DEC#750012
ORIGIN	STOCKPILE B-98-9/10
DESCRIPTION	GRAB
SAMPLED ON	02-AUG-00 00:00 by CLIENT
DATE RECEIVED	02-AUG-00 16:53
P.O. NO.	N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	U	mg/l	0.0500	10-AUG-00 00:00	EPA 6010 TCLP	00-120-03
Chromium	U	mg/l	0.100	10-AUG-00 00:00	EPA 6010 TCLP	00-120-03
Lead	U	mg/l	0.440	10-AUG-00 00:00	EPA 6010 TCLP	00-120-03

Page 1

QC NY 10262 NJ 73168 PA 68180 EPA NY 00025 Approved by: Lab Director

KEY: ND or U = None Detected < = less than ug/L = micrograms per liter (equivalent to parts per billion)
mg/L = milligrams per liter (equivalent to parts per million) mg/kg = milligrams per kilogram (equivalent to parts per million)
B = analyte was detected in the method or trip blank J = result estimated below the quantitation limit

The information in this report is accurate to the best of our knowledge and ability. In no event shall our liability exceed the cost of these services. Your samples will be discarded after 14 days unless we are advised otherwise.

"Our family, caring about your analytical needs . . . Since 1983."

FLI
FALLEND LABORATORY INC

ONE RESEARCH CIRCLE WAVERLY, NY 14892-1460
TELEPHONE (607) 565-3500 FAX (607) 565-4062

DATE 10-AUG-2000

LAB SAMPLE ID L54239-2

Clean Venture
John Murphy
201 South First Street
Elizabeth, NJ 07206

SAMPLE SOURCE	TIOGA CASTINGS DEC#750012
ORIGIN	STOCKPILE B-98-9/10
DESCRIPTION	GRAB
SAMPLED ON	02-AUG-00 00:00 by CLIENT
DATE RECEIVED	02-AUG-00 16:53
P.O. NO	N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	U	mg/l	0.0500	10-AUG-00 00:00	EPA 6010 TCLP	DD-120-03
Chromium	U	mg/l	0.100	10-AUG-00 00:00	EPA 6010 TCLP	DD-120-03
Lead	U	mg/l	0.440	10-AUG-00 00:00	EPA 6010 TCLP	DD-120-03

Page 1

QC NY 10982 NJ 73196 PA 68180 EPA NY 00026 Approved by: Lab Director

KEY: ND or U = None Detected < = less than ug/L = micrograms per liter (equivalent to parts per billion)
mg/L = milligrams per liter (equivalent to parts per million) mg/kg = milligrams per kilogram (equivalent to parts per million)
B = analyte was detected in the method or trip blank J = result estimated below the quantitation limit

CUSTOMER CODE # ______

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

FLI
FRONTIER LABORATORY INC
ONE RESEARCH CIRCLE
WAVERLY NY 14892-1532
Telephone (607) 565 3500
Fax (607) 565 7160

Sample Site: Stockpile BRB 26135

P.O. #

Preservation: Unpreserved | Sodium thiosulfate | HCl pH <2 | Ascorbic acid & HCl pH <2 | HNO_3 pH <2 | H_2SO_4 pH <2 | NaOH pH >12 | NaOH & Zinc acetate pH >9 | Acetic Buffer pH 5 | Sodium sulfite

CLIENT: Clean Venture
ADDRESS: Elizabeth N.J.
PHONE: FAX:

PROJECT NO. / NAME
Tioga Castings

INVOICE TO:
ADDRESS:

COPY TO:
ADDRESS:

Date	Sample	Containers / Description / Matrix	Analysis
8/7/00	Stockpile BRB 26135	2; Description: Grab (Composite) Other; Matrix: DW WW MW (Soil) Air Other	TCLP METALS PB CR CD
8/7/00	Stockpile BRB 26135	2; Description: Grab (Composite) Other; Matrix: DW WW MW (Soil) Air Other	TCLP METALS PB CR CD
		Description: Grab Composite Other; Matrix: DW WW MW Soil Air Other	
		Description: Grab Composite Other; Matrix: DW WW MW Soil Air Other	

Sampler	Date	Received by	Date
Kevin O'Rourke	8/7/00	Terry Coleman	8/7/00
Terry Coleman	8/7/00	[illegible signature]	8/7/00
		[illegible signature]	8/7/00

*5 Day TAT Please

SUSPECTED CONTAMINATION LEVEL
NONE SLIGHT (MODERATE) HIGH (please circle)

FLI
FRIEND LABORATORY INC

ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

DATE 11-AUG-2000

LAB SAMPLE ID L54480-2

Clean Venture
John Murphy
201 South First Street
Elizabeth, NJ 07206

[redacted]
TIOGA CASTINGS
STOCKPILE B98 26/35
COMPOSITE
07-AUG-00 00:00 by CLIENT
07-AUG-00 15:12
N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Protocol Reference
Cadmium	U	mg/l	0.0500	11-AUG-00 00:00	EPA 6010 TCLP	00-120-03
Chromium	U	mg/l	0.100	11-AUG-00 00:00	EPA 6010 TCLP	00-120-03
Lead	5.26	mg/l	0.440	11-AUG-00 00:00	EPA 6010 TCLP	00-120-03

Results calculated on a dry weight basis.

QC ___ NY 10252 NJ 73168 PA 68188 EPA NY00039

Approved by: [signature]
Lab Director

KEY:
ND or U = None Detected
< = less than
ug/L = micrograms per liter (equivalent to parts per billion)
mg/L = milligrams per liter (equivalent to parts per million)
mg/kg = milligrams per kilogram (equivalent to parts per million)
B = analyte was detected in the method or trip blank
J = result estimated below the quantitation limit

8 of 11

FLI
ENVIRONMENTAL LABORATORIES, INC.
ONE RESEARCH CIRCLE WAVERLY, NY 14892-1632
TELEPHONE (607) 565-2500 FAX (607) 565-4062

DATE 11-AUG-2000

LAB SAMPLE ID L54480-1

Clean Venture
John Murphy
201 South First Street
Elizabeth, NJ 07206

[redacted]
TIOGA CASINGS
STOCKPILE B98 26/35
COMPOSITE
07-AUG-00 00:00 by CLIENT
07-AUG-00 15:12
N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cadmium	U	mg/l	0.0500	11-AUG-00 00:00	EPA 6010 TCLP	00-120-05
Chromium	U	mg/l	0.100	11-AUG-00 00:00	EPA 6010 TCLP	00-120-05
Lead	1.14	mg/l	0.440	11-AUG-00 00:00	EPA 6010 TCLP	00-120-05

Results calculated on a dry weight basis.

Page 1

QC [illegible] NY 10852 NJ 73105 PA 68180 EPA NY00088

Approved by: [signature] Lab Director

KEY: ND or U = None Detected < = less than
mg/L = milligrams per liter (equivalent to parts per million)
B = analyte was detected in the method or trip blank
ug/L = micrograms per liter (equivalent to parts per billion)
mg/kg = milligrams per kilogram (equivalent to parts per million)
J = result estimated below the quantitation limit

"Our family, caring about your analytical needs . . . Since 1983."

ANALYTICAL REPORT

K Chem Lab, Inc.
1333 Main Street • Latrobe, PA 15650
724-537-6621 • 724 537-3942 fax

Mr. Hank Springer
Mill Service, Inc.
RD 1, Box 135A
Yukon, PA 15698

Project Information
NYDEC Tioga Casting
Report # 17944D PO # Not recorded
Page 1 of 1 Date: July 6, 2000

Sample ID	Date	Time	Sample Description	Result	Parameter	D.L.	Methodology	Date Analyzed
17944D			NYDEC Tioga Casting D006, D007, D008 Comp.	75.3 %	Total Solids	0.1	EPA 160.3	
				35.1 %	Total Volatile Solids	0.1	EPA 160.4	
				7.84 s.u.	pH	0.01	SW-846 9045C	
				0.067 mg/kg	Total Cyanide	0.05	SW-846 9014	
				<5.0 mg/kg	Reactive Cyanide	5.0	SW-846 9014	
				<10.0 mg/kg	Reactive Sulfide	10.0	SW-846 9034	
				2.63 mg/kg	Arsenic	0.25	SW-846 7060A	
				94.1 mg/kg	Barium	1	SW-846 6010B	
				1.6 mg/kg	Cadmium	1	SW-846 6010B	
				7.4 mg/kg	Chromium	1	SW-846 6010B	
				39.2 mg/kg	Lead	1	SW-846 7420	
				0.05 mg/kg	Mercury	0.05	SW-846 7471A	
				7.5 mg/kg	Nickel	1	SW-846 6010B	
				0.37 mg/kg	Antimony	0.25	SW-846 7041	
				0.31 mg/kg	Selenium	0.25	SW-846 7740	
				<1 mg/kg	Silver	1	SW-846 7760A	
				67.2 mg/kg	Copper	1	SW-846 6010B	
				8.1 mg/kg	Molybdenum	1	SW-846 6010B	
				<0.25 mg/kg	Thallium	0.25	SW-846 7841	
				311 mg/kg	Zinc	1	SW-846 6010B	
				TCLP ANALYSIS				
				8.60 s.u.	pH in Distilled Water	0.01	SW-846 1311	
				1.94 s.u.	pH in Hydrochloric Acid	0.01	SW-846 1311	
				#1	Extraction Fluid	N/A	SW-846 1311	
				5.76 s.u.	Final Extraction pH	0.01	SW-846 1311	
				TCLP METALS				
				<0.005 mg/L	TCLP Arsenic	0.005	SW-846 7060A	
				1.47 mg/L	TCLP Barium	0.01	SW-846 6010B	
				0.02 mg/L	TCLP Cadmium	0.01	SW-846 6010B	
				0.05 mg/L	TCLP Chromium	0.01	SW-846 6010B	
				0.40 mg/L	TCLP Lead	0.01	SW-846 7420	
				<0.0005 mg/L	TCLP Mercury	0.0005	SW-846 7470A	
				0.08 mg/L	TCLP Nickel	0.01	SW-846 6010B	
				<0.005 mg/L	TCLP Antimony	0.005	SW-846 7041	
				<0.005 mg/L	TCLP Selenium	0.005	SW-846 7740	
				0.02 mg/L	TCLP Silver	0.01	SW-846 7760A	
				0.17 mg/L	TCLP Copper	0.01	SW-846 6010B	
				<0.005 mg/L	TCLP Thallium	0.005	SW-846 7841	
				3.19 mg/L	TCLP Zinc	0.01	SW-846 6010B	

Work inspected by: Charles T. Ford
Charles T. Ford, Laboratory Manager

WASTE CHARACTERIZATION
10-67-17

ANALYTICAL REPORT

K Chem Lab, Inc.
1333 Main Street • Latrobe, PA 15650
724-537-6621 • 724-537-3942 fax

Mr. Hank Springer
Mill Service, Inc.
RD 1, Box 135A
Yukon, PA 15698

Project Information
NYDEC Tioga Casting
Report # 17944A PO # Not recorded.
Page 1 of 2 Date: July 6, 2000

Sample ID	Date	Time	Sample Description	Result	Parameter	D.L.	Methodology	Date Analyzed
17944A	6/28/00		NYDEC Tioga Casting D006, D007, D008 Soil Grab	PCBs				
				<0.15 mg/kg	PCB-1016	0.15	SW 846-8270C	
				<0.15 mg/kg	PCB-1221	0.15	SW 846-8270C	
				<0.15 mg/kg	PCB-1232	0.15	SW 846-8270C	
				<0.15 mg/kg	PCB-1242	0.15	SW 846-8270C	
				<0.15 mg/kg	PCB-1248	0.15	SW 846-8270C	
				<0.15 mg/kg	PCB-1254	0.15	SW 846-8270C	
				<0.15 mg/kg	PCB-1260	0.15	SW 846-8270C	
				462 mg/kg	TPH-IR	1.0	EPA 418.1	
				<2 µg/kg	benzene	2	SW-846 8021B	
				<2 µg/kg	toluene	2	SW-846 8021B	
				<2 µg/kg	ethylbenzene	2	SW-846 8021B	
				<6 µg/kg	xylenes, total	6	SW-846 8021B	
				<4 µg/kg	m-,p-xylene	4	SW-846 8021B	
				<2 µg/kg	o-xylene	2	SW-846 8021B	
				>150°F	Ignitability	70	SW-846 1010	
				TCLP VOLATILE ORGANICS				
				<0.005 mg/L	TCLP Benzene	0.005	SW-846 8260B	
				<0.005 mg/L	TCLP Carbon Tetrachloride	0.005	SW-846 8260B	
				<0.005 mg/L	TCLP Chloroform	0.005	SW-846 8260B	
				<0.005 mg/L	TCLP 1,2-Dichloroethane	0.005	SW-846 8260B	
				<0.005 mg/L	TCLP 1,1-Dichloroethylene	0.005	SW-846 8260B	
				<0.005 mg/L	TCLP Methyl Ethyl Ketone	0.005	SW-846 8260B	
				<0.005 mg/L	TCLP Tetrachloroethylene	0.005	SW-846 8260B	
				<0.005 mg/L	TCLP Trichloroethylene	0.005	SW-846 8260B	
				<0.005 mg/L	TCLP Vinyl Chloride	0.005	SW-846 8260B	
				<0.005 mg/L	TCLP Chlorobenzene	0.005	SW-846 8260B	

Underground Storage Tank

DATE: 7/17/00

Upstate Laboratories, Inc.
Analysis Results
Report Number: 19200047
Client I.D.: CLEAN VENTURE, INC.
Sampled by: O'ROURKE INCORPORATED

APPROVAL: PEF
QC: DL
Lab I.D.: 10170
TIOGA CASTINGS SITE
NYS-DEC 7-54-03 TANK-AREA 36 1000K 07/07/00 G

ULI I.D.: I9100047 Matrix: Water

	PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
Total	Arsenic by furnace method	0.001mg/l	07/12/00		MB2576
Total	Barium	<0.3mg/l	07/12/00		MB2578
Total	Cadmium	0.008mg/l	07/12/00		MB2578
Total	Chromium	<0.05mg/l	07/12/00		MB2578
Total	Lead	<0.1mg/l	07/12/00		MB2578
Total	Mercury	<0.0004mg/l	07/17/00		MB2591
Total	Selenium by furnace method	<0.001mg/l	07/12/00		MB2577
Total	Silver	<0.05mg/l	07/12/00		MB2578
	EPA Method 8021				
	Dichlorodifluoromethane	<0.5ug/l	07/11/00		VA5097
	Chloromethane	<0.5ug/l	07/11/00		VA5097
	Vinyl Chloride	<0.5ug/l	07/11/00		VA5097
	Bromomethane	<0.5ug/l	07/11/00		VA5097
	Chloroethane	<0.5ug/l	07/11/00		VA5097
	Trichlorofluoromethane	<0.5ug/l	07/11/00		VA5097
	1,1-Dichloroethene	<0.5ug/l	07/11/00		VA5097
	Methylene Chloride	<0.5ug/l	07/11/00		VA5097
	trans-1,2-Dichloroethene	<0.5ug/l	07/11/00		VA5097
	1,1-Dichloroethane	<0.5ug/l	07/11/00		VA5097
	2,2-Dichloropropane	<0.5ug/l	07/11/00		VA5097
	cis-1,2-Dichloroethene	<0.5ug/l	07/11/00		VA5097
	Chloroform	<0.5ug/l	07/11/00		VA5097
	Bromochloromethane	<0.5ug/l	07/11/00		VA5097
	1,1,1-Trichloroethane	<0.5ug/l	07/11/00		VA5097
	1,1-Dichloropropene	<0.5ug/l	07/11/00		VA5097
	Carbon tetrachloride	<0.5ug/l	07/11/00		VA5097
	1,2-Dichloroethane	<0.5ug/l	07/11/00		VA5097
	Trichloroethene	<0.5ug/l	07/11/00		VA5097
	1,2-Dichloropropane	<0.5ug/l	07/11/00		VA5097
	Bromodichloromethane	<0.5ug/l	07/11/00		VA5097
	Dibromomethane	<0.5ug/l	07/11/00		VA5097
	cis-1,3-Dichloropropene	<0.5ug/l	07/11/00		VA5097
	trans-1,3-Dichloropropene	<0.5ug/l	07/11/00		VA5097
	1,1,2-Trichloroethane	<0.5ug/l	07/11/00		VA5097
	Tetrachloroethene	<0.5ug/l	07/11/00		VA5097
	1,3-Dichloropropane	<0.5ug/l	07/11/00		VA5097
	Dibromochloromethane	<0.5ug/l	07/11/00		VA5097
	1,2-Dibromoethane	<0.5ug/l	07/11/00		VA5097

UST

DATE: 7/17/00

Upstate Laboratories, Inc.
Analysis Results
Report Number: 19200047
Client I.D.: CLEAN VENTURE, INC.
Sampled by: O'ROURKE INCORPORATED

APPROVAL: _PEF_
QC: _DL_
Lab I.D.: 10170
TIOGA CASTINGS SITE
NYS-DEC 7-54-02 TANK-AREA 36 1000K 07/07/00 G

ULI I.D.: 19200047 Matrix: Water

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
1,1,1,2-Tetrachloroethane	<0.5ug/l	07/11/00		VA5097
Bromoform	<0.5ug/l	07/11/00		VA5097
1,1,2,2-Tetrachloroethane	<0.5ug/l	07/11/00		VA5097
1,2,3-Trichloropropane	<0.5ug/l	07/11/00		VA5097
1,2-Dibromo-3-chloropropane	<0.5ug/l	07/11/00		VA5097
Benzene	<0.5ug/l	07/11/00		VA5097
Toluene	<0.5ug/l	07/11/00		VA5097
Chlorobenzene	<0.5ug/l	07/11/00		VA5097
Ethylbenzene	<0.5ug/l	07/11/00		VA5097
m-Xylene and p-Xylene	<0.5ug/l	07/11/00		VA5097
o-Xylene	<0.5ug/l	07/11/00		VA5097
Styrene	<0.5ug/l	07/11/00		VA5097
Isopropylbenzene	<0.5ug/l	07/11/00		VA5097
n-Propylbenzene	<0.5ug/l	07/11/00		VA5097
Bromobenzene	<0.5ug/l	07/11/00		VA5097
1,3,5-Trimethylbenzene	<0.5ug/l	07/11/00		VA5097
2-Chlorotoluene	<0.5ug/l	07/11/00		VA5097
4-Chlorotoluene	<0.5ug/l	07/11/00		VA5097
tert-Butylbenzene	<0.5ug/l	07/11/00		VA5097
1,2,4-Trimethylbenzene	<0.5ug/l	07/11/00		VA5097
sec-Butylbenzene	<0.5ug/l	07/11/00		VA5097
4-Isopropyltoluene	<0.5ug/l	07/11/00		VA5097
1,3-Dichlorobenzene	<0.5ug/l	07/11/00		VA5097
1,4-Dichlorobenzene	<0.5ug/l	07/11/00		VA5097
n-Butylbenzene	<0.5ug/l	07/11/00		VA5097
1,2-Dichlorobenzene	<0.5ug/l	07/11/00		VA5097
1,2,4-Trichlorobenzene	<0.5ug/l	07/11/00		VA5097
Hexachlorobutadiene	<0.5ug/l	07/11/00		VA5097
Naphthalene	<0.5ug/l	07/11/00		VA5097
1,2,3-Trichlorobenzene	<0.5ug/l	07/11/00		VA5097
TCL Semivolatiles by EPA Method 8270				
Phenol	<5ug/l	07/13/00		SA2462
bis(2-Chloroethyl)ether	<5ug/l	07/13/00		SA2462
2-Chlorophenol	<5ug/l	07/13/00		SA2462
1,3-Dichlorobenzene	<5ug/l	07/13/00		SA2462
1,4-Dichlorobenzene	<5ug/l	07/13/00		SA2462
1,2-Dichlorobenzene	<5ug/l	07/13/00		SA2462
2-Methylphenol	<5ug/l	07/13/00		SA2462

DATE: 7/17/00

Upstate Laboratories, Inc.
Analysis Results
Report Number: 19200047
Client I.D.: CLEAN VENTURE, INC.
Sampled by: O'ROURKE INCORPORATED

APPROVAL: PFF
QC: DL
Lab I.D.: 10179
TIOGA CASTINGS SITE
NYS-DEC 7-54-02 TANK-AREA 36 1000E 07/07/00 G

ULI I.D.: 19200047 Matrix: Water

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
2,2'-Oxybis(1-Chloropropane)	<5ug/l	07/13/00		SA2462
4-Methylphenol	<5ug/l	07/13/00		SA2462
n-Nitrosodi-n-propylamine	<5ug/l	07/13/00		SA2462
Hexachloroethane	<5ug/l	07/13/00		SA2462
Nitrobenzene	<5ug/l	07/13/00		SA2462
Isophorone	<5ug/l	07/13/00		SA2462
2-Nitrophenol	<5ug/l	07/13/00		SA2462
2,4-Dimethylphenol	<5ug/l	07/13/00		SA2462
bis(2-Chloroethoxy)methane	<5ug/l	07/13/00		SA2462
2,4-Dichlorophenol	<5ug/l	07/13/00		SA2462
1,2,4-Trichlorobenzene	<5ug/l	07/13/00		SA2462
Naphthalene	<5ug/l	07/13/00		SA2462
4-Chloroaniline	<5ug/l	07/13/00		SA2462
Hexachlorobutadiene	<5ug/l	07/13/00		SA2462
4-Chloro-3-methylphenol	<5ug/l	07/13/00		SA2462
2-Methylnaphthalene	<5ug/l	07/13/00		SA2462
Hexachlorocyclopentadiene	<5ug/l	07/13/00		SA2462
2,4,6-Trichlorophenol	<5ug/l	07/13/00		SA2462
2,4,5-Trichlorophenol	<5ug/l	07/13/00		SA2462
2-Chloronaphthalene	<5ug/l	07/13/00		SA2462
2-Nitroaniline	<50ug/l	07/13/00		SA2462
Dimethylphthalate	<5ug/l	07/13/00		SA2462
Acenaphthylene	<5ug/l	07/13/00		SA2462
2,6-Dinitrotoluene	<5ug/l	07/13/00		SA2462
3-Nitroaniline	<50ug/l	07/13/00		SA2462
Acenaphthene	<5ug/l	07/13/00		SA2462
2,4-Dinitrophenol	<50ug/l	07/13/00		SA2462
4-Nitrophenol	<50ug/l	07/13/00		SA2462
Dibenzofuran	<5ug/l	07/13/00		SA2462
2,4-Dinitrotoluene	<5ug/l	07/13/00		SA2462
Diethylphthalate	<5ug/l	07/13/00		SA2462
4-Chlorophenylphenylether	<5ug/l	07/13/00		SA2462
Fluorene	<5ug/l	07/13/00		SA2462
4-Nitroaniline	<5ug/l	07/13/00		SA2462
2-Methyl-4,6-dinitrophenol	<50ug/l	07/13/00		SA2462
n-Nitrosodiphenylamine	<5ug/l	07/13/00		SA2462
4-Bromophenylphenylether	<5ug/l	07/13/00		SA2462
Hexachlorobenzene	<5ug/l	07/13/00		SA2462

DATE: 7/17/00

Upstate Laboratories, Inc.
Analysis Results
Report Number: 19200047
Client I.D.: CLEAN VENTURE, INC.
Sampled by: O'ROURKE INCORPORATED

APPROVAL: PFT
QC: DL
Lab I.D.: 10170
TIOGA CASTINGS SITE
MYS-DEC 7-54-02 TANK-AREA 36 1000K 07/07/00 G

ULI I.D.: 19200047 Matrix: Water

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
Pentachlorophenol	<10ug/l	07/13/00		SA2462
Phenanthrene	<5ug/l	07/13/00		SA2462
Anthracene	<5ug/l	07/13/00		SA2462
Carbazole	<5ug/l	07/13/00		SA2462
di-n-butylphthalate	<5ug/l	07/13/00		SA2462
Fluoranthene	<5ug/l	07/13/00		SA2462
Pyrene	<5ug/l	07/13/00		SA2462
Butylbenzylphthalate	<5ug/l	07/13/00		SA2462
3,3'-Dichlorobenzidine	<5ug/l	07/13/00		SA2462
Benzo(a)anthracene	<5ug/l	07/13/00		SA2462
Chrysene	<5ug/l	07/13/00		SA2462
bis(2-Ethylhexyl)phthalate	<5ug/l	07/13/00		SA2462
di-n-octylphthalate	<5ug/l	07/13/00		SA2462
Benzo(b)fluoranthene	<5ug/l	07/13/00		SA2462
Benzo(k)fluoranthene	<5ug/l	07/13/00		SA2462
Benzo(a)pyrene	<5ug/l	07/13/00		SA2462
Indeno(1,2,3-cd)pyrene	<5ug/l	07/13/00		SA2462
Dibenzo(a,h)anthracene	<5ug/l	07/13/00		SA2462
Benzo(ghi)perylene	<5ug/l	07/13/00		SA2462

Upstate Laboratories, Inc.

6034 Corporate Drive • E. Syracuse, NY 13057-1017
(315) 437-0255 Fax 437-1209

Chain Of Custody Record

(Tioga Castings Site) PWT

Client:	Client Project # / Project Name:	No. of Containers	Special Turnaround Time: 1 wk (Lab Notification required) (5 days)
Clean Venture	NYS-DEC-7-54-02		
Client Contact: Angel Flores (607) 687-1028	Site Location (city/state): Owego, NY		

Sample Location:	Date	Time	Matrix	Grab or Comp.	ULI Internal Use Only	No. of Containers	1)	2)	3)	4)	5)	6)	7)	8)	9)	10)	Remarks
Tank-Area 36	7-7-00	1000	GW	Grab	192000417	5	X	X	X								

Parameter and method	sample bottle: type	size	pres.
1) 8021 Full List			
2) 8260 8270 "			
3) (8) Metals			
4)			
5)			
6)			
7)			
8)			
9)			
10)			

Note: The numbered columns above cross-reference with the numbered columns in the upper right-hand corner.

Sampled by: (Please Print) Jerry Coleman
Company: O'Rourke Inc.

ULI Internal Use Only
Delivery (check one):
☐ ULI Sampled
☐ Pickup ☐ Dropoff
☐ CC _____

Relinquished by: (Signature)	Date	Time	Received by: (Signature)
Jerry Coleman	7/7/00	1316	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)
		3:00pm	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)
Relinquished by: (Signature)	Date	Time	Rec'd for Lab by: (Signature)
	7-7-00	3:44p	

Syracuse Rochester Buffalo Albany (Binghamton) Fair Lawn (NJ)

5 OF 5

Buried Drum Area

DRUM AREA

FRIEND LABORATORY I N C

ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-8500 FAX (607) 565-4088

DATE 26-JUL-2000

LAB SAMPLE ID LS3521-1

Clean Venture
John Murphy
201 South First Street
Elizabeth, NJ 07206

[illegible]	DEC-SITE 7-54-012
[illegible]	DRUM EXCAVATION
[illegible]	GRAB
[illegible]	20-JUL-00 00:00 by CLIENT
[illegible]	20-JUL-00 15:33
[illegible]	N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	80.7	%		24-JUL-00 00:00	CLP 3.0	00-099-32
Cadmium	U	mg/kg	0.6130	25-JUL-00 11:09	EPA 6010	00-102-09
Chromium	32.2	mg/kg	1.23	25-JUL-00 11:09	EPA 6010	00-102-09
Lead	31	mg/kg	5.40	25-JUL-00 11:09	EPA 6010	00-102-09

QC 2 NY 10252 NJ 73186 PA 68180 EPA NY 00033

Approved by: [signature] Lab Director

KEY: ND or U = None Detected < = less than
mg/L = milligrams per liter (equivalent to parts per million)
B = analyte was detected in the method or trip blank
ug/L = micrograms per liter (equivalent to parts per billion)
mg/kg = milligrams per kilogram (equivalent to parts per million)
J = result estimated below the quantitation limit

1 OF 2

CUSTOMER CODE # _____

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

FLI FRIEND LABORATORY I.N.C

ONE RESEARCH CIRCLE
WAVERLY NY 14892-1532
Telephone (607) 565 3500
Fax (607) 565 7160

Unpreserved | Sodium thiosulfate | HCl pH <2 | Ascorbic acid & HCl pH <2 | HNO_3 pH <2 | H_2SO_4 pH <2 | NaOH pH >12 | NaOH & Zinc acetate pH >9 | Acetic Buffer pH 4 | Sodium sulfite

CLIENT: Clean Venture
ADDRESS: 201 S. First St Elizabeth, NJ
PHONE: FAX:
Attn: John Murphy

INVOICE TO ADDRESS: Same

PROJECT NO / NAME: DEC - Site 7-54-012

COPY TO ADDRESS: —

153521

DATE & TIME OF SAMPLE COLLECTION	SAMPLE DESCRIPTION	NUMBER OF CONTAINERS	ANALYSES / TESTS REQUESTED	SAMPLE NUMBER
7/20/00	Drum Excavation	Description: Grab Composite Other Matrix: DW WW MW Soil Air Other	Pb, Cd, Cr	LAB USE ONLY -1
		Description: Grab Composite Other Matrix: DW WW MW Soil Air Other		
		Description: Grab Composite Other Matrix: DW WW MW Soil Air Other		
		Description: Grab Composite Other Matrix: DW WW MW Soil Air Other		

RELINQUISHED BY	DATE / TIME	ACCEPTED BY	DATE/TIME	NOTES TO LABORATORY
SAMPLER Jerry Coleman	7/20/00	Brenda Colbaugh	7/20/00	
Brenda Colbaugh	7/20/00 15:33	Tom Jones	7/20/00 3:33	
				SUSPECTED CONTAMINATION LEVEL NONE SLIGHT MODERATE HIGH (please circle)

Sump

)ATE: / /

Upstate Laboratories, Inc.
Analysis Results
Report Number: 24400041
Client I.D.: CLEAN VENTURE, INC.

APPROVAL:_ _ _ _
QC:_ _ _ _ Lab I.D.: 10170
Sampled by:

ID:24400041 Mat:Soil TIOGA CASTING CISTERN BASE 1310H 08/30/00 C

PARAMETERS		RESULTS	DATE ANAL.	KEY	FILE#
TCLP Herbicides by EPA Method 8150					
TCLP	2,4-D	<0.1mg/l	09/10/00		GA0318
TCLP	2,4,5-TP	<0.01mg/l	09/10/00		GA0318
PCB (Aroclors) by EPA Method 8080					
	Aroclor 1016	<0.1mg/kg dw	09/09/00		GA0315
	Aroclor 1221	<0.1mg/kg dw	09/09/00		GA0315
	Aroclor 1232	<0.1mg/kg dw	09/09/00		GA0315
	Aroclor 1242	<0.1mg/kg dw	09/09/00		GA0315
	Aroclor 1248	<0.1mg/kg dw	09/09/00		GA0315
	Aroclor 1254	<0.1mg/kg dw	09/09/00		GA0315
	Aroclor 1260	0.1mg/kg dw	09/09/00		GA0315
	Total PCB	0.1mg/kg dw	09/09/00		GA0315
TCLP Pesticides by EPA Method 8080					
TCLP	Chlordane	<0.01mg/l	09/11/00		GA0323
TCLP	Endrin	<0.0005mg/l	09/11/00		GA0323
TCLP	Heptachlor	<0.0005mg/l	09/11/00		GA0323
TCLP	Lindane	<0.01mg/l	09/11/00		GA0323
TCLP	Methoxychlor	<0.1mg/l	09/11/00		GA0323
TCLP	Toxaphene	<0.01mg/l	09/11/00		GA0323
TCLP	Heptachlor Epoxide	<0.0005mg/l	09/11/00		GA0323

dw = Dry weight

DATE: / /

Upstate Laboratories, Inc.
Analysis Results
Report Number: 24400041
Client I.D.: CLEAN VENTURE, INC.

APPROVAL:_ _ _ _
QC:_ _ _ _
Lab I.D.: 10170
Sampled by:

ID:24400041 Mat:Soil TIOGA CASTING CISTERN BASE 1310H 08/30/00 C

	PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
	Corrosivity				
	pH	7.25U	09/05/00		WD1636
	Flash Point	>60degC	09/06/00		WD1643
	Percent Solids	75%	08/31/00		WD1606
	TOX	<230mg/l	09/06/00		WD1644
	RCRA Reactivity				
	Reactive Sulfide	<50mg/kg	09/01/00		WD1616
	Reactive Cyanide	<1.0mg/l	09/14/00		WD1725
TCLP	Arsenic	<0.5mg/l	09/05/00		MB2771
TCLP	Barium	1.5mg/l	09/05/00		MB2771
TCLP	Cadmium	0.070mg/l	09/05/00		MB2771
TCLP	Chromium	<0.05mg/l	09/05/00		MB2771
TCLP	Lead	0.1mg/l	09/05/00		MB2771
TCLP	Mercury	<0.0004mg/l	09/12/00		MB2796
TCLP	Selenium	<0.5mg/l	09/05/00		MB2771
TCLP	Silver	0.05mg/l	09/05/00		MB2771
	TCLP Volatile Organic Compounds by 8240				
TCLP	Benzene	<0.03mg/l	09/13/00		VM3037
TCLP	Carbon Tetrachloride	<0.03mg/l	09/13/00		VM3037
TCLP	Chlorobenzene	<0.03mg/l	09/13/00		VM3037
TCLP	Chloroform	<0.03mg/l	09/13/00		VM3037
TCLP	1,4-Dichlorobenzene	<0.03mg/l	09/13/00		VM3037
TCLP	1,2-Dichloroethane	<0.03mg/l	09/13/00		VM3037
TCLP	1,1-Dichloroethene	<0.03mg/l	09/13/00		VM3037
TCLP	Methyl Ethyl Ketone	<0.1mg/l	09/13/00		VM3037
TCLP	Tetrachloroethane	<0.03mg/l	09/13/00		VM3037
TCLP	Trichloroethene	<0.03mg/l	09/13/00		VM3037
TCLP	Vinyl Chloride	<0.02mg/l	09/13/00		VM3037
	TCLP Semivolatile Compounds by 8270				
TCLP	Cresol, Total	<0.10mg/l	09/06/00		SA2541
TCLP	2,4-Dinitrotoluene	<0.05mg/l	09/06/00		SA2541
TCLP	Hexachlorobenzene	<0.05mg/l	09/06/00		SA2541
TCLP	Hexachlorobutadiene	<0.05mg/l	09/06/00		SA2541
TCLP	Hexachloroethane	<0.05mg/l	09/06/00		SA2541
TCLP	Nitrobenzene	<0.05mg/l	09/06/00		SA2541
TCLP	Pentachlorophenol	<0.10mg/l	09/06/00		SA2541
TCLP	Pyridine	<0.05mg/l	09/06/00		SA2541
TCLP	2,4,5-Trichlorophenol	<0.05mg/l	09/06/00		SA2541
TCLP	2,4,6-Trichlorophenol	<0.05mg/l	09/06/00		SA2541

dw = Dry weight

Backfill Testing

AIT NUMBER
7-4436-00002/00001

FACILITY/PROGRAM NUMBER(S)
708-3-30-0030

PERMIT
Under the Environmental Conservation Law

EFFECTIVE DATE
January 11, 2000

EXPIRATION DATE(S)
December 31, 2004

TYPE OF PERMIT ☐ New ■ Renewal ☐ Modification ☐ Permit to Construct ☐ Permit to Operate

- ☐ Article 15, Title 5: Protection of Waters
- ☐ Article 15, Title 15: Water Supply
- ☐ Article 15, Title 15: Water Transport
- ☐ Article 15, Title 15: Long Island Wells
- ☐ Article 15, Title 27: Wild, Scenic and Recreational Rivers
- ☐ 6NYCRR 608: Water Quality Certification
- ☐ Article 17, Titles 7, 8: SPDES
- ☐ Article 19: Air Pollution Control
- ■ Article 23, Title 27: Mined Land Reclamation
- ☐ Article 24: Freshwater Wetlands
- ☐ Article 25: Tidal Wetlands
- ☐ Article 27, Title 7; 6NYCRR 360: Solid Waste Management
- ☐ Article 27, Title 9; 6NYCRR 373: Hazardous Waste Management
- ☐ Article 34: Coastal Erosion Management
- ☐ Article 36: Floodplain Management
- ☐ Articles 1, 3, 17, 19, 27, 37; 6NYCRR 380: Radiation Control
- ☐ Other:

PERMIT ISSUED TO	TELEPHONE NUMBER
F. S. Lopke Contracting, Inc.	607-687-1114
ADDRESS OF PERMITTEE	
3430 State Route 434, Apalachin, NY 13732	
CONTACT PERSON FOR PERMITTED WORK	**TELEPHONE NUMBER**
Dolene Riley, General Manager	607-687-1114
NAME AND ADDRESS OF PROJECT/FACILITY	
Owego Plant	
LOCATION OF PROJECT/FACILITY	
Route 17C, 1.5 miles southwest of Owego	

COUNTY	TOWN	WATERCOURSE	NYTM COORDINATES
Tioga	Tioga		

DESCRIPTION OF AUTHORIZED ACTIVITY

This permit authorizes mining activity on 132.7 acres of land during the permit term, within a 132.7 acre life-of-mine facility, on a 146 acre parcel of land, including specified processing equipment on lands owned by F. S. Lopke Contracting, Inc..

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, the General Conditions specified (see page 2) and any Special Conditions included as part of this permit.

DEPUTY PERMIT ADMINISTRATOR:	ADDRESS
Michael K. Barylski	1285 Fisher Avenue, Cortland, NY 13045-1090
AUTHORIZED SIGNATURE Michael K. Barylski	DATE

RECEIVED
JAN 12 2000
DEPT OF ENVIRONMENTAL CONSERVATION
REG 7 - MINERAL RESOURCES

ATLANTIC TESTING LABORATORIES, Limited

August 1, 2000

406 North Street
Endicott, NY 13760
(607) 757-9326 (T)
(607) 757-9252 (F)

P. O. Box 29
Canton, NY 13617
(315) 386-4578 (T)
(315) 386-1012 (F)

Mr. John F. Murphy
CleanVenture, Inc.
201 South First Street
Elizabeth, New Jersey 07206

Re: Quality Control Testing
Tioga Castings - Owego, New York
Job No. 4460
ATL Report No. ET1318S-1-7-00

Dear Mr. Murphy:

On July 25, 2000, Mr. R. Craig obtained one sample (Sample #1, Tag #13181) of common fill material, at F. S. Lopke's Route 17C Owego, New York pit, and returned it to our Endicott, New York facility for laboratory testing. A Particle Size Analysis, Plasticity Index, and Laboratory Compaction Test were performed on this sample. The Laboratory Compaction Test Report is attached. The Particle Size Analysis and Plasticity Index test results follow:

PARTICLE SIZE ANALYSIS (WASH)
ASTM D 422 (WITH HYDROMETER)

SIEVE SIZE	PERCENT PASSING BY WEIGHT	
	SAMPLE #1, TAG #13181	PROJECT SPECIFICATION
2"	100	100
1-1/2"	97	45 - 80
1"	77	
3/4"	63	
1/2"	46	
3/8"	38	
1/4"	32	
#4	29	
#10	28	
#20	25	
#40	20	20 - 50
#80	14	
#100	13	
#200	10.7	15 - 30
.005 mm	4.9	
.001 mm	3.8	

PLASTICITY INDEX
ASTM D 4318

Plasticity Index = Non-plastic

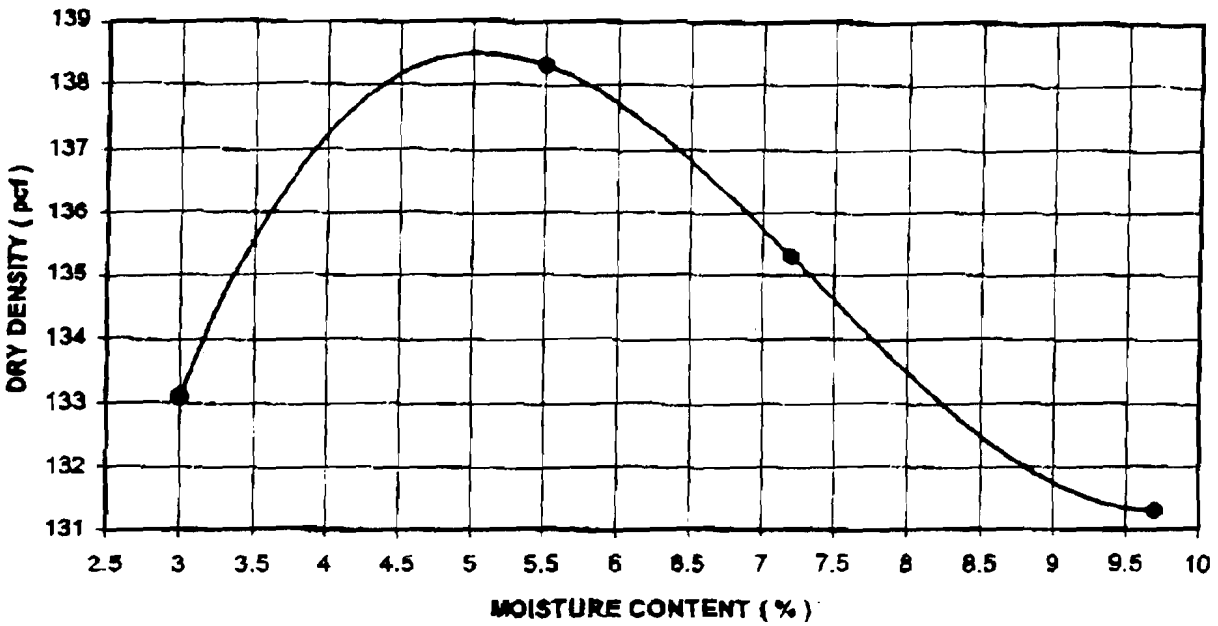
Please feel free to contact our office should you have any questions or require any further information.

Respectfully submitted,
ATLANTIC TESTING LABORATORIES, Limited

Mark S. Wilbur, Manager
Endicott Testing Division
MSW/cb
Attachment

ATLANTIC TESTING LABORATORIES, Limited

MOISTURE - DENSITY RELATIONSHIP TEST



"Modified" Effort, ASTM D1557-78 Method D

ELEV./ DEPTH	CLASSIFICATION		NAT.				% >	% <
	USCS	AASHTO	MOIST.	SP. G.	LL	PI	NO. 4	NO.200
	GP-GM		11.0		N/A	NP	71	11

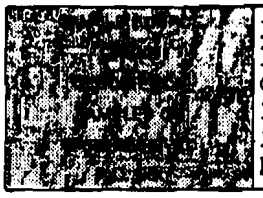
TEST RESULTS		MATERIAL DESCRIPTION
Optimum Moisture = 5.1 %		Common Fill
Maximum Dry Density = 138.5 pcf		
Pc = N/A	Wc = N/A	SOIL CLASSIFICATION
Pf = N/A	Wf = N/A	Brown cmf GRAVEL; little cmf SAND; little SILT/CLAY
Splitting Sieve Size: 3/4 inch		
Project No.: ET1318S-1-7-2000 Project: Tioga Castings Client: CleanVenture, Inc. Sample Location: F. S. Lopke's Route 17C Owego, NY pit Date: July 31, 2000		Remarks: • Collected by R. Craig, on July 25, 2000 • Sample # 1 Tag # 13181 • Manual Rammer; Moist Preparation • NP: Non-Plastic

FLI ENVIRONMENTAL LABORATORY, INC.
ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3600 FAX (607) 565-4083

DATE 28-JUL-2000

LAB SAMPLE ID :L53520-1

Clean Venture
John Murphy
201 South First Street
Elizabeth, NJ 07206



DEC-SITE 7-54-012
LOPKE FILL PILE
GRAB
20-JUL-00 00:00 by CLIENT
20-JUL-00 15:33
N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Cyanide, Total	U	mg/kg	0.452	26-JUL-00 00:00	EPA 335.3	00-013-44
Total Solids	92.1	%		24-JUL-00 00:00	CLP 3.0	00-099-32
Aluminum	7260	mg/kg	7.76	25-JUL-00 11:03	EPA 6010	00-102-09
Antimony	U	mg/kg	103	25-JUL-00 11:03	EPA 6010	00-102-09
Arsenic	2.8	mg/kg	1	23-JUL-00 22:51	EPA 7060	00-026-2
Barium	45.8	mg/kg	1.65	25-JUL-00 11:03	EPA 6010	00-102-09
Beryllium	0.341	mg/kg	0.207	25-JUL-00 11:03	EPA 6010	00-102-09
Cadmium	U	mg/kg	0.5170	25-JUL-00 11:03	EPA 6010	00-102-09
Calcium	29600	mg/kg	51.7	25-JUL-00 11:03	EPA 6010	00-102-09
Chromium	7.02	mg/kg	1.03	27-JUL-00 07:04	EPA 6010	00-102-10
Cobalt	5.95	mg/kg	1.03	25-JUL-00 11:03	EPA 6010	00-102-09
Copper	20.3	mg/kg	1.76	25-JUL-00 11:03	EPA 6010	00-102-09
Iron	14500	mg/kg	4.14	25-JUL-00 11:03	EPA 6010	00-102-09
Lead	10.3	mg/kg	4.55	25-JUL-00 11:03	EPA 6010	00-102-09
Magnesium	5750	mg/kg	51.7	25-JUL-00 11:03	EPA 6010	00-102-09
Manganese	526	mg/kg	0.517	25-JUL-00 11:03	EPA 6010	00-102-09
Mercury	0.017	mg/kg	0.0100	26-JUL-00 00:00	EPA 7470	98-011-02
Nickel	15.6	mg/kg	1.24	25-JUL-00 11:03	EPA 6010	00-102-09
Potassium	583	mg/kg	51.7	25-JUL-00 11:03	EPA 6010	00-102-09
Selenium	U	mg/kg	0.52	24-JUL-00 12:51	EPA 7741	98-201-32
Silver	U	mg/kg	1.03	25-JUL-00 11:03	EPA 6010	00-102-09
Sodium	100	mg/kg	20.7	25-JUL-00 11:03	EPA 6010	00-102-09

QC NY 10282 NJ 73166 PA 68180 EPA NY 00033

Approved by: Lab Director

KEY: ND or U = None Detected < = less than
mg/L = milligrams per liter (equivalent to parts per million)
B = analyte was detected in the method or trip blank
ug/L = micrograms per liter (equivalent to parts per billion)
mg/kg = milligrams per kilogram (equivalent to parts per million)
J = result estimated below the quantitation limit

The information in this report is accurate to the best of our knowledge and ability. In no event shall our liability exceed the cost of these services. Your samples will be discarded after 14 days unless we are advised otherwise.

"Our family, caring about your analytical needs . . . Since 1963."

ONE RESEARCH CIRCLE WAVERLY, NY 14892-1632
TELEPHONE (607) 565-8500 FAX (607) 565-4089

DATE 28-JUL-2000

LAB SAMPLE ID :L53520-1

Clear Venture
John Murphy
201 South First Street
Elizabeth, NJ 07206

DEC-SITE 7-54-012
LOPKE FILL PILE
GRAB
20-JUL-00 00:00 by CLIENT
20-JUL-00 15:33
N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Thallium	U	mg/kg	6.72	25-JUL-00 11:03	EPA 6010	00-102-09
Vanadium	11.7	mg/kg	1.03	25-JUL-00 11:03	EPA 6010	00-102-09
Zinc	51	mg/kg	2.07	25-JUL-00 11:03	EPA 6010	00-102-09
EPA 8260						
Chloromethane	U	ug/kg	5	24-JUL-00 18:14	EPA 8260	00-092-1571
Vinyl chloride	U	ug/kg	2	24-JUL-00 18:14	EPA 8260	00-092-1571
Chloroethane	U	ug/kg	5	24-JUL-00 18:14	EPA 8260	00-092-1571
Bromomethane	U	ug/kg	5	24-JUL-00 18:14	EPA 8260	00-092-1571
1,1-Dichloroethene	U	ug/kg	5	24-JUL-00 18:14	EPA 8260	00-092-1571
Acetone	U	ug/kg	24	24-JUL-00 18:14	EPA 8260	00-092-1571
Carbon disulfide	U	ug/kg	5	24-JUL-00 18:14	EPA 8260	00-092-1571
Methylene chloride	U	ug/kg	5	24-JUL-00 18:14	EPA 8260	00-092-1571
trans-1,2-Dichloroethene	U	ug/kg	5	24-JUL-00 18:14	EPA 8260	00-092-1571
1,1-Dichloroethane	U	ug/kg	5	24-JUL-00 18:14	EPA 8260	00-092-1571
cis-1,2-Dichloroethene	U	ug/kg	5	24-JUL-00 18:14	EPA 8260	00-092-1571
MEK(2-Butanone)	U	ug/kg	24	24-JUL-00 18:14	EPA 8260	00-092-1571
Chloroform	U	ug/kg	5	24-JUL-00 18:14	EPA 8260	00-092-1571
1,1,1-Trichloroethane	U	ug/kg	5	24-JUL-00 18:14	EPA 8260	00-092-1571
Carbon tetrachloride	U	ug/kg	5	24-JUL-00 18:14	EPA 8260	00-092-1571
Benzene	3	ug/kg	0.7	24-JUL-00 18:14	EPA 8260	00-092-1571
1,2-Dichloroethane	U	ug/kg	5	24-JUL-00 18:14	EPA 8260	00-092-1571
Trichloroethene	U	ug/kg	5	24-JUL-00 18:14	EPA 8260	00-092-1571
1,2-Dichloropropane	U	ug/kg	5	24-JUL-00 18:14	EPA 8260	00-092-1571
Bromodichloromethane	U	ug/kg	5	24-JUL-00 18:14	EPA 8260	00-092-1571
cis-1,3-Dichloropropene	U	ug/kg	5	24-JUL-00 18:14	EPA 8260	00-092-1571
MIBK(4-Methyl-2-pentanone)	U	ug/kg	10	24-JUL-00 18:14	EPA 8260	00-092-1571
Toluene	U	ug/kg	5	24-JUL-00 18:14	EPA 8260	00-092-1571
trans-1,3-Dichloropropene	U	ug/kg	5	24-JUL-00 18:14	EPA 8260	00-092-1571
1,1,2-Trichloroethane	U	ug/kg	5	24-JUL-00 18:14	EPA 8260	00-092-1571
Tetrachloroethene	U	ug/kg	5	24-JUL-00 18:14	EPA 8260	00-092-1571
2-Hexanone	U	ug/kg	10	24-JUL-00 18:14	EPA 8260	00-092-1571
Dibromochloromethane	U	ug/kg	5	24-JUL-00 18:14	EPA 8260	00-092-1571
Chlorobenzene	U	ug/kg	5	24-JUL-00 18:14	EPA 8260	00-092-1571
Ethylbenzene	U	ug/kg	5	24-JUL-00 18:14	EPA 8260	00-092-1571
p-Xylene/m-Xylene	U	ug/kg	5	24-JUL-00 18:14	EPA 8260	00-092-1571
o-Xylene	U	ug/kg	5	24-JUL-00 18:14	EPA 8260	00-092-1571
Styrene	U	ug/kg	5	24-JUL-00 18:14	EPA 8260	00-092-1571
Bromoform	U	ug/kg	5	24-JUL-00 18:14	EPA 8260	00-092-1571
1,1,2,2-Tetrachloroethane	U	ug/kg	5	24-JUL-00 18:14	EPA 8260	00-092-1571

QC NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: Lab Director

KEY: ND or U = None Detected < = less than
ug/L = micrograms per liter (equivalent to parts per billion)
mg/L = milligrams per liter (equivalent to parts per million)
mg/kg = milligrams per kilogram (equivalent to parts per million)
B = analyte was detected in the method or trip blank
J = result estimated below the quantitation limit

FRIEND LABORATORY INC

ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

DATE 28-JUL-2000

LAB SAMPLE ID :L53520-1

Clean Venture
John Murphy
201 South First Street
Elizabeth, NJ 07206

DEC-SITE 7-54-012
LOPKE FILL PILE
GRAB
20-JUL-00 00:00 by CLIENT
20-JUL-00 15:33
N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Surrogate Recovery:						
Dibromofluoromethane	116	%				00-092-1571
Toluene-d8	92	%				00-092-1571
4-Bromofluorobenzene	101	%				00-092-1571
Analysis Comment:Results Calculated on a dry Weight basis.						
EPA 8081						
alpha-BHC	U	mg/kg	0.005	25-JUL-00 00:00	EPA 8081	99-127-0687
beta-BHC	U	mg/kg	0.005	25-JUL-00 00:00	EPA 8081	99-127-0687
Lindane (gamma-BHC)	U	mg/kg	0.005	25-JUL-00 00:00	EPA 8081	99-127-0687
delta-BHC	U	mg/kg	0.005	25-JUL-00 00:00	EPA 8081	99-127-0687
Heptachlor	U	mg/kg	0.005	25-JUL-00 00:00	EPA 8081	99-127-0687
Aldrin	U	mg/kg	0.005	25-JUL-00 00:00	EPA 8081	99-127-0687
Heptachlor epoxide	U	mg/kg	0.005	25-JUL-00 00:00	EPA 8081	99-127-0687
alpha-Chlordane	U	mg/kg	0.005	25-JUL-00 00:00	EPA 8081	99-127-0687
Endosulfan I	U	mg/kg	0.005	25-JUL-00 00:00	EPA 8081	99-127-0687
gamma-Chlordane	U	mg/kg	0.005	25-JUL-00 00:00	EPA 8081	99-127-0687
4,4'-DDE	U	mg/kg	0.005	25-JUL-00 00:00	EPA 8081	99-127-0687
Dieldrin	U	mg/kg	0.005	25-JUL-00 00:00	EPA 8081	99-127-0687
Endrin	U	mg/kg	0.005	25-JUL-00 00:00	EPA 8081	99-127-0687
Endosulfan II	U	mg/kg	0.005	25-JUL-00 00:00	EPA 8081	99-127-0687
4,4'-DDD	U	mg/kg	0.005	25-JUL-00 00:00	EPA 8081	99-127-0687
Endrin ketone	U	mg/kg	0.005	25-JUL-00 00:00	EPA 8081	99-127-0687
Endrin aldehyde	U	mg/kg	0.005	25-JUL-00 00:00	EPA 8081	99-127-0687
Endosulfan sulfate	U	mg/kg	0.005	25-JUL-00 00:00	EPA 8081	99-127-0687
4,4'-DDT	U	mg/kg	0.005	25-JUL-00 00:00	EPA 8081	99-127-0687
Methoxychlor	U	mg/kg	0.005	25-JUL-00 00:00	EPA 8081	99-127-0687
Toxaphene	U	mg/kg	0.05	25-JUL-00 00:00	EPA 8081	99-127-0687
Extraction Information:				24-JUL-00 00:00		00-089-33
Surrogate Recovery:						
Decachlorobiphenyl	116	%				99-127-0687
Tetrachloro-m-Xylene	89	%				99-127-0687
Analysis Comment:RESULTS CALCULATED ON A DRY WEIGHT BASIS						

QC NY 10252 NJ 73168 PA 68180 EPA NY00039

Approved by: Lab Director

KEY: ND or U = None Detected < = less than
mg/L = milligrams per liter (equivalent to parts per million)
B = analyte was detected in the method or trip blank
ug/L = micrograms per liter (equivalent to parts per billion)
mg/kg = milligrams per kilogram (equivalent to parts per million)
J = result estimated below the quantitation limit

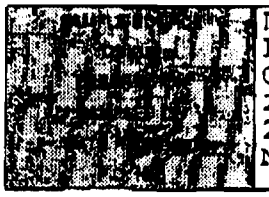
FLI
FRIEND LABORATORY I·N·C

ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4063

DATE 28-JUL-2000

LAB SAMPLE ID :L53520-1

Clean Venture
John Murphy
201 South First Street
Elizabeth, NJ 07206



DEC-SITE 7-54-012
LOPKE FILL PILE
GRAB
20-JUL-00 00:00 by CLIENT
20-JUL-00 15:33
N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
EPA 8082						
PCB 1016	U	mg/kg	0.01	25-JUL-00 00:00	EPA 8082	99-127-0687
PCB 1221	U	mg/kg	0.02	25-JUL-00 00:00	EPA 8082	99-127-0687
PCB 1232	U	mg/kg	0.01	25-JUL-00 00:00	EPA 8082	99-127-0687
PCB 1242	U	mg/kg	0.01	25-JUL-00 00:00	EPA 8082	99-127-0687
PCB 1248	U	mg/kg	0.01	25-JUL-00 00:00	EPA 8082	99-127-0687
PCB 1254	U	mg/kg	0.01	25-JUL-00 00:00	EPA 8082	99-127-0687
PCB 1260	U	mg/kg	0.01	25-JUL-00 00:00	EPA 8082	99-127-0687
Surrogate Recovery:						
Decachlorobiphenyl	116	%				99-127-0687
Analysis Comment:RESULTS CALCULATED ON A DRY WEIGHT BASIS						
EPA 8270						
Bis(2-chloroethylether)	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
Phenol	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
2-Chlorophenol	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
1,3-Dichlorobenzene	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
1,4-Dichlorobenzene	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
1,2-Dichlorobenzene	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
Bis(2-chloroisopropylether)	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
2-Methylphenol	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
Hexachloroethane	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
N-Nitrosodi-N-propylamine	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
3-Methylphenol/4-Methylphenol	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
Nitrobenzene	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
Isophorone	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
2-Nitrophenol	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
2,4-Dimethylphenol	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
Bis(2-chloroethoxymethane)	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
2,4-Dichlorophenol	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
1,2,4-Trichlorobenzene	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
Naphthalene	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
4-Chloroaniline	U	ug/kg	11000	26-JUL-00 15:28	EPA 8270	00-64-1673
Hexachlorobutadiene	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
4-Chloro-3-methylphenol	U	ug/kg	11000	26-JUL-00 15:28	EPA 8270	00-64-1673
2-Methylnaphthalene	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
Hexachlorocyclopentadiene	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
2,4,6-Trichlorophenol	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
2,4,5-Trichlorophenol	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
2-Chloronaphthalene	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
2-Nitroaniline	U	ug/kg	22000	26-JUL-00 15:28	EPA 8270	00-64-1673

QC C NY 10252 NJ 73168 PA 68180 EPA NY 00033

Approved by: _____ Lab Director

KEY: ND or U = None Detected < = less than ug/L = micrograms per liter (equivalent to parts per billion)
mg/L = milligrams per liter (equivalent to parts per million) mg/kg = milligrams per kilogram (equivalent to parts per million)
B = analyte was detected in the method or trip blank J = result estimated below the quantitation limit

FLI
FRIEND LABORATORY INC

ONE RESEARCH CIRCLE WAVERLY, NY 14892-1582
TELEPHONE (607) 565-3500 FAX (607) 565-4058

DATE 28-JUL-2000

LAB SAMPLE ID L53520-1

Clean Venture
John Murphy
201 South First Street
Elizabeth, NJ 07206

DEC-SITE 7-54-012
LOPKE FILL PILE
GRAB
20-JUL-00 00:00 by CLIENT
20-JUL-00 15:33
N/A

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Dimethyl phthalate	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
Acenaphthylene	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
2,6-Dinitrotoluene	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
3-Nitroaniline	U	ug/kg	22000	26-JUL-00 15:28	EPA 8270	00-64-1673
Acenaphthene	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
2,4-Dinitrophenol	U	ug/kg	22000	26-JUL-00 15:28	EPA 8270	00-64-1673
Dibenzofuran	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
2,6-Dinitrotoluene	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
4-Nitrophenol	U	ug/kg	22000	26-JUL-00 15:28	EPA 8270	00-64-1673
Diethyl phthalate	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
Fluorene	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
4-Chlorophenylphenylether	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
4-Nitroaniline	U	ug/kg	22000	26-JUL-00 15:28	EPA 8270	00-64-1673
2-Methyl-4,6-dinitrophenol	U	ug/kg	22000	26-JUL-00 15:28	EPA 8270	00-64-1673
N-Nitrosodiphenylamine	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
4-Bromophenylphenylether	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
Hexachlorobenzene	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
Pentachlorophenol	U	ug/kg	22000	26-JUL-00 15:28	EPA 8270	00-64-1673
Phenanthrene	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
Anthracene	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
Carbazole	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
Di-n-butyl phthalate	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
Fluoranthene	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
Pyrene	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
Butylbenzyl phthalate	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
Benzo(a)anthracene	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
3,3-Dichlorobenzidine	U	ug/kg	11000	26-JUL-00 15:28	EPA 8270	00-64-1673
Chrysene	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
Bis-2-ethylhexyl phthalate	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
Di-n-octyl phthalate	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
Benzo(b)fluoranthene	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
Benzo(k)fluoranthene	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
Benzo(a)pyrene	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
Indeno(1,2,3-cd)pyrene	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
Dibenzo(a,h)anthracene	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
Benzo(g,h,i)perylene	U	ug/kg	5400	26-JUL-00 15:28	EPA 8270	00-64-1673
Extraction Information:				25-JUL-00 00:00		00-079-64

QC NY 10252 NJ 73188 PA 68180 EPA NY 00093

Approved by: Lab Director

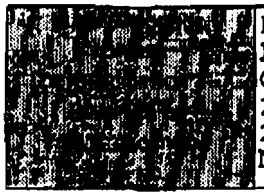
KEY: ND or U = None Detected < = less than ug/L = micrograms per liter (equivalent to parts per billion)
mg/L = milligrams per liter (equivalent to parts per million) mg/kg = milligrams per kilogram (equivalent to parts per million)
B = analyte was detected in the method or trip blank J = result estimated below the quantitation limit

FLI
FRIEND LABORATORY, INC.
ONE RESEARCH CIRCLE WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

DATE 28-JUL-2000

LAB SAMPLE ID :L53520-1

Clean Venture
John Murphy
201 South First Street
Elizabeth, NJ 07206



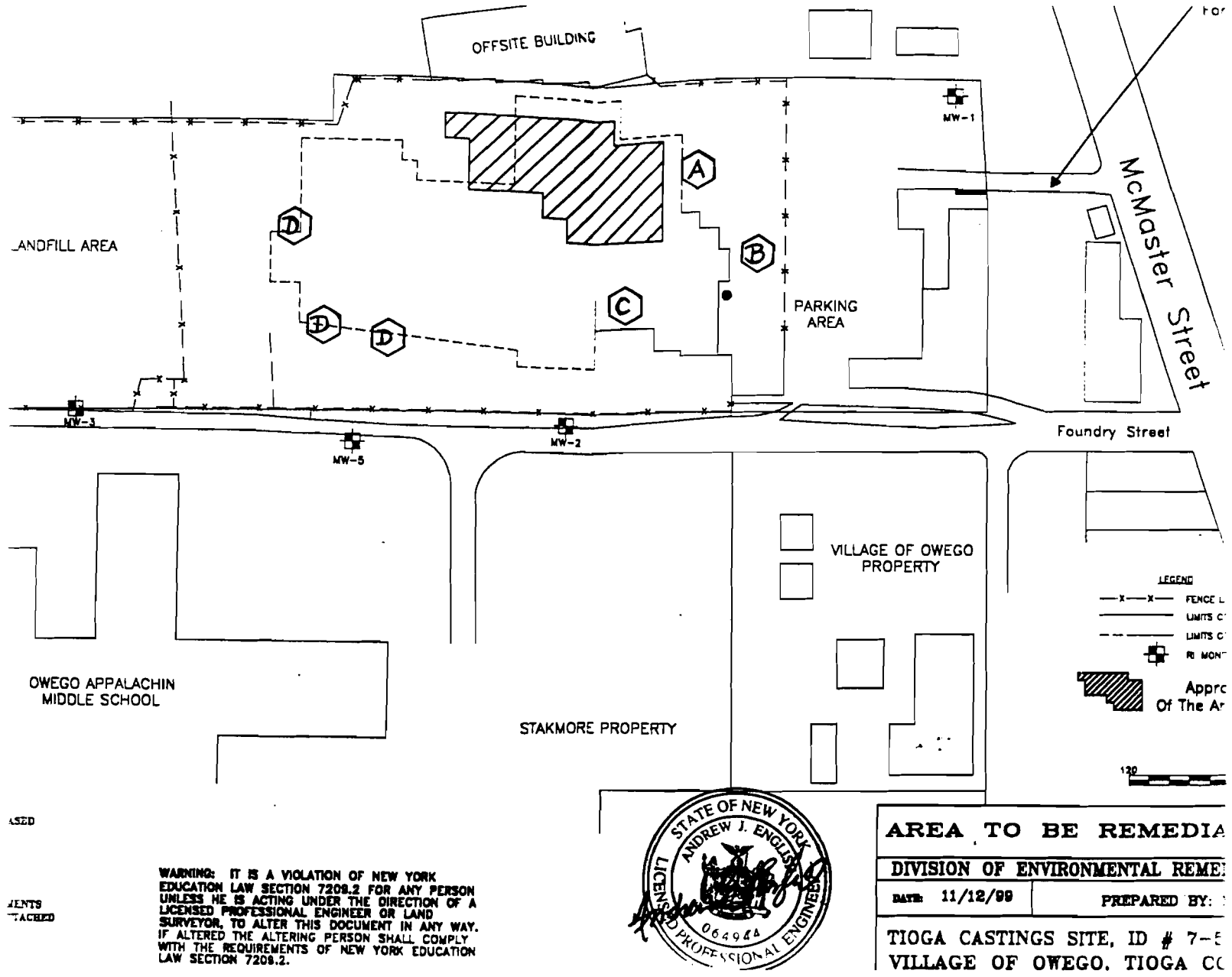
DEC-SITE 7-54-012
LOPKE FILL PILE
GRAB
20-JUL-00 00:00 by CLIENT
20-JUL-00 15:33
N/A

Analyte Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Surrogate Recovery:						
Terphenyl-d14	74	%				00-64-1673
2-Fluorophenol	69	%				00-64-1673
Phenol-d5	64	%				00-64-1673
2,4,6-Tribromophenol	62	%				00-64-1673
Nitrobenzene-d5	67	%				00-64-1673
2-Fluorobiphenyl	72	%				00-64-1673
Analysis Comment:Results calculated on a dry weight basis.						

QC NY 10252 NJ 78168 PA 68180 EPA NY 00033 Approved by: Lab Director

KEY: ND or U = None Detected < = less than ug/L = micrograms per liter (equivalent to parts per billion)
mg/L = milligrams per liter (equivalent to parts per million) mg/kg = milligrams per kilogram (equivalent to parts per million)
B = analyte was detected in the method or trip blank J = result estimated below the quantitation limit

Asbestos



ASED

MENTS
TTACHED

WARNING: IT IS A VIOLATION OF NEW YORK EDUCATION LAW SECTION 7209.2 FOR ANY PERSON UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW SECTION 7209.2.

STATE OF NEW YORK
ANDREW J. ENGLISH
064944
LICENSED PROFESSIONAL ENGINEER

AREA TO BE REMEDIA

DIVISION OF ENVIRONMENTAL REME	
DATE: 11/12/99	PREPARED BY:

TIOGA CASTINGS SITE, ID # 7-5
VILLAGE OF OWEGO, TIOGA CO

SCILAB
SERVICE ENVIRONMENTAL LABORATORIES

SCIENTIFIC LABORATORIES, INC.
117 EAST 30TH STREET
NEW YORK, NY 10016
TEL: (212) 679-8600 • FAX: (212) 679-9392

PLM Bulk Asbestos Report

rke Incorporated
Timothy O'Rourke
:e Street

), NY 13827

Date Received 07/16/2000 **SciLab Job No.** 200072790
Date Examined 07/16/2000 **P.O. #** NYS-DEC
ELAP Number 11480 **Page** 1 **of** 1
RE: NYS-DEC; Tioga Castings, Owego, NY

No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
	200072790-01	*Yes*	17 %

Location: TC/01

(A)

Description: Grey, Homogeneous, Debris
Asbestos Types: Chrysotile 17. %
Other Material: Cellulose Trace, Non-fibrous 83. %

ing Notes:

yzed by: Paul Mucha

D/NSD = no asbestos detected; NA = not analyzed; NAPS = not analyzed positive stop; Bulk Asbestos Analysis per 40 763, Subpart F, Appendix A and ELAP Analysis Protocols 198.1/198.4 for NY samples; Note: PLM is not consistently le in detecting asbestos in floor coverings and similar non-friable organically bound materials. TEM is currently the only od that can be used to determine if this material can be considered or treated as non-asbestos-containing in NY State (see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). National Institute of Standards and Technology Accreditation rements mandate that this report must not be reproduced except in full with the approval of the laboratory. This repon s ONLY to the items tested. ELAP #11480 NY Cert #AL016085

:wed By:

2 OF 5

SCILAB
INDUSTRIAL SERVICES ENVIRONMENTAL LABORATORIES

SCIENTIFIC LABORATORIES, INC.
117 EAST 30TH STREET
NEW YORK, NY 10016
TEL: (212) 679-8600 • FAX: (212) 679-9392

PLM Bulk Asbestos Report

.ourke Incorporated
1: Timothy O'Rourke
.ake Street

:go, NY 13827

Date Received 08/24/2000 **SciLab Job No.** 200083976
Date Examined 08/24/2000 **P.O. #** Clean Venture

RE: Clean Venture ; Tioga Castings Elizabeth, NJ

nt No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
01	200083976-01	*No*	NAD

Location: Spray - On Insulation (D)

Description: Green, Homogeneous, Spray - On Insulation
Asbestos Types:
Other Material: Cellulose 90. %, Non-fibrous 10. %

02	200083976-02	*Yes*	50 %

Location: Paper Wrap (C)

Description: Grey, Homogeneous, Paper Wrap
Asbestos Types: Chrysotile 50. %
Other Material: Cellulose 30. %, Non-fibrous 20. %

03	200083976-03	*No*	NAD

Location: Spray - On Insulation (D)

Description: OffWhite, Homogeneous, Spray - On Insulation
Asbestos Types:
Other Material: Cellulose 90. %, Non-fibrous 10. %

04	200083976-04	*No*	NAD

Location: Insulation - Board (D)

Description: Brown, Homogeneous, Insulation - Board
Asbestos Types:
Other Material: Cellulose 30. %, Non-fibrous 70. %

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3 of 5

SCILAB
SERVICE ENVIRONMENTAL LABORATORIES
SCIENTIFIC LABORATORIES, INC.
117 EAST 30TH STREET
NEW YORK, NY 10016
TEL: (212) 679-8600 • FAX: (212) 679-9392

PLM Bulk Asbestos Report

urke Incorporated
Timothy O'Rourke
ake Street

go, NY 13827

Date Received 08/24/2000 **SciLab Job No.** 200083976
Date Examined 08/24/2000 **P.O. #** Clean Venture
Page 2 of 2

RE: Clean Venture ; Tioga Castings Elizabeth, NJ

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orting Notes:

nalyzed by: Bonni Mora Bonni a. Mora

NAD/NSD = no asbestos detected; NA = not analyzed; NAPS = not analyzed positive stop; Bulk Asbestos Analysis per 0 CFR 763, Subpart F, Appendix A and ELAP Analysis Protocols 198.1/198.4 for NY samples; Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. TEM currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in NY State (see also EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full with the approval of the laboratory. This report relates ONLY to the items tested. ELAP #11480, Vt. Cert. AL016055

eviewed By:_____

O'Rourke, Inc.
23 Lake Street, PO Box 341
Owego, NY 13827
Phone: (607) 687-7434
Fax: (607) 687-7445

Untreated | Sodium thiosulfate | HCL pH <2 | Ascorbic acid & HCL pH <2 | HNO3 pH <2 | H2SO4 pH <2 | NaOH pH >12 | NaOH & Zinc acetate pH >9 | Acetic Buffer pH <3 | Sodium Sulfite

Client: Clean Venture
Attn to:
Address: Elizabeth, NJ.
Phone:
Fax:

Invoice to:
Attn to:
Address:

Sample Site: Tioga Castings
P.O. #

Project No./Name:

Copy To:
Address:

Date & Time of Sample Collection	Sample #	Origin	Number of Containers	Analyses / Tests Requested	Sample Number (Lab Use Only)
8/22/00	TC-01	Spray-on Insul	1 — Description: Grab Composite Other; Matrix: DW WW MW Soil Air Other	Friable Asbestos	
	TC-02	Paperwrap	1 — Description: Grab Composite Other; Matrix: DW WW MW Soil Air Other	" "	
	TC-03	Spray-on Insul.	1 — Description: Grab Composite Other; Matrix: DW WW MW Soil Air Other	" "	
	TC-04	Insul. Board	1 — Description: Grab Composite Other; Matrix: DW WW MW Soil Air Other	" "	

Samplers Signature/Relinquished By	Date / Time	Accepted By	Date / Time	Notes to Laboratory
Jerry Coleman	8/22/00	Cy Flemmery	8/24/00 1345	Need RUSH - 24 hr. TAT Please
Relinquished By	Date / Time	Accepted By	Date / Time	
Relinquished By	Date / Time	Accepted By	Date / Time	Suspected Contamination Level: None Slight Moderate High (please circle)

APPENDIX D

OFF-SITE DISPOSAL

TIOGA CASTINGS OFF-SITE DISPOSAL

Hazardous Soil
Disposed of at Max Environmental Technologies
Pittsburg, Pennsylvania

Contract + Change Order 1

Total 274.56 Cubic Yards

Nonhazardous Soil
Disposed of at Steuben County Landfill
Bath, New York

Contract + Change Order 1

Total 1651.77 Cubic Yards

Concrete
Disposed of at Tioga Gardens
Owego, New York

Contract + Change Order 1

Total 276.68 Cubic Yards

APPENDIX E

SELECTED PHOTOGRAPHS

SUBSURFACE CONDITIONS

PRIOR TO BACKFILL

SURFACE CONDITIONS
FOLLOWING BACKFILL