2021 Hazardous Waste Scanning Project

File Form Naming Convention.

(*File_Type*).(*Program*).(*Site_Number*).(*YYYY-MM-DD*).(*File_Name*).pdf

Note 1: Each category is separated by a period "."
Note 2: Each word within category is separated by an underscore "_"

Specific File Naming Convention Label:

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ABB ENVIRONMENTAL SERVICES

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SUPERFUND STANDBY CONTRACT

LOVE CANAL UNITS B9 AND 18

Niagara Falls, New York

WORK ASSIGNMENT NO. D002472-7.1



FINAL REPORT FOR REMEDIATION OF FRONTIER AVE./100TH ST. AND EDA 4 HOUSE LOTS VOLUME II - APPENDICES

RECEIVED
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NYSDEC SUPERFUND STANDBY CONTRACT
WORK ASSIGNMENT NO. D002472-7.1

FINAL REPORT
FOR
LOVE CANAL UNITS B9 AND 18
REMEDIATION OF FRONTIER AVE./100TH ST.
AND EDA 4 HOUSE LOTS
NIAGARA FALLS, NEW YORK

VOLUME II - APPENDICES

Submitted to:

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Albany, New York

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September 1993

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FINAL REPORT
FOR
LOVE CANAL UNITS B9 AND 18
REMEDIATION OF FRONTIER AVE./100TH ST.
AND EDA 4 HOUSE LOTS

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APPENDIX A

WEEKLY CONSTRUCTION REPORTS

CONSTRUCTION PROGRESS REPORT

SHEET 1 OF 4

PROJECT REMEDIATION OF FRONTIER AVE/100TH STREET AND EDA 4 LOTS — PROJECT NO. 06609-40 SC 6

CONTRACTOR ENTECH — REPORT NO. 2

CONTRACTOR'S REP. BILL GALLOWAY — PERIOD ENDING 11/20/92

CONTRACT TIME _____

EXTENSIONS 0

DAYS ELAPSED _____

DAYS REMAINING _____

WEATHER AND SITE CONDITIONS

MON.	OVERCAST/SNOW	23-31°F
TUES	SNOW/MIST	33-35°F
WED	OVERCAST	35-37°F
THURS.	OVERCAST/CLEARING	32-40°F
FRI	OVERCAST/SUNNY	33°-47°F

MONDAY 11/16/92

1. ENTECH CONTINUED EXCAVATING THE SOIL LAYER FROM THE CAP LINER WHILE ADVANCED ANALYTICAL PROVIDING MONITORING SERVICES.
2. THE LINER WAS CUT AND PULLED BACK AS THE SOIL WAS REMOVED FROM IT. ENTECH HAND EXCAVATED THE EDGES OF THE EXCAVATION. ADVANCED ANALYTICAL DID NOT DETECH ANY CONTAMINANTS.
3. MOBILIZED TO EXCAVATE A TYPE A TESTPIT ON THE NORTHERN SIDE OF THE LASALLE EXPRESSWAY. A DIG SAFE SIGN INDICATED A TELEPHONE CABLE RUNS THROUGH THE TESTPIT LOCATION. ENTECH HAS CLEARANCE FROM NEW YORK TELEPHONE CO. TO EXCAVATE AT EACH LOCATION SHOWN ON THE CONTRACT DRAWINGS, BUT WILL RECONFIRM THE CLEARANCE FOR THIS TEST PIT ON ~~THE~~ 11/17/92.
4. VISITORS TO SITE: JOHN SPELLMAN OF NYSDEC AND PETER OWEN OF ABB-ES

TUESDAY 11/17/92

1. ENTECH CONTINUED REMOVING THE SOIL LAYER AND LINER AT THE CAP REMEDIATION SITE. ADVANCED ANALYTICAL CONTINUED AIR MONITORING THE AREA, BUT DID NOT SET UP PARTICULATE COLLECTION DUE TO PRECIPITATION.
2. ISSUED FIELD ORDER NO. 1 REGARDING THE PLACEMENT OF THE EXCAVATED CLAY/TILL MATERIAL INTO THE DEPRESSIONS AT THE CAP REMEDIATION SITE. THE LINER WILL BE PLACED OVER THIS COMPACTED MATERIAL. THE REMAINING CLAY/TILL MATERIAL WILL BE PLACED OVER THE LINER, FOLLOWED BY BACKFILL FROM THE NORTHEAST STOCKPILE ON THE LANDFILL AND THE EXCAVATED TOPSOIL.
3. ENTECH BEGAN EXCAVATING THE NO. 2 TESTPIT ON THE SOUTH SIDE OF MANHOLE NO. 404. NO CONTAMINATION WAS VISIBLE NOR DETECTED BY MONITORING EQUIPMEN

SUBMITTED BY Laura E Carter

EC JORDAN CO.

FORM CSO-3
REV 3/83

4. ISSUED FIELD ORDER No. 2 REGARDING RELOCATION OF TEST PIT No. 2 TO THE NORTHSIDE OF MANHOLE No. 404. THE RELOCATION OF THIS TESTPIT WILL ALLOW THE INSPECTION OF THE GRAVEL BEDDING BENEATH THE 42" STORM DRAIN. CLAY BEDDING WAS USED ON THE SOUTH SIDE OF MANHOLE No. 404.
5. ENTECH IS WAITING FOR NYTEL TO LOCATE THE UNDERGROUND PHONE CABLE LOCATED IN TESTPIT No. 1 BEFORE BEGINNING EXCAVATION.
6. ENTECH MOBILIZED A PC120 EXCAVATOR TO THE EDA 4 SITE.
7. VISITORS TO SITE: JOHN SPELLMAN OF NYSDEC

WEDNESDAY 11/18/92

1. ENTECH COMPLETED THE REMOVAL OF MATERIAL FROM THE CAP LINER, REMOVAL OF THE LINER, AND BACKFILLING OF THE DEPRESSIONS IN THE CAP REMEDIATION AREA.
2. ENTECH DECONTAMINATED THE EXCAVATOR BUCKET AT THE CAP REMEDIATION SITE AND MOBILIZED THE BUCKET TO THE EXCAVATOR AT THE EDA 4 SITE.
3. ENTECH ATTEMPTED TO BEGIN COMPACTION OF THE CLAY/TILL MATERIAL ON THE CAP WITH A TAMPER. THE MATERIAL IS TOO WET TO COMPACT BY THIS METHOD. A SMOOTH DRUM ROLLER WAS MOBILIZED TO SITE. THE ROLLER ALSO SUNK INTO THE CLAY MATERIAL. ENTECH WILL WAIT UNTIL 11/19/92 TO TRY AGAIN.
4. ENTECH PLANNED TO BEGIN EXCAVATION OF THE 1044 100TH STREET SITE TODAY, BUT COULD NOT GET ACCESS TO THE 102ND STREET LANDFILL. JIM TUK OF NYSDEC MADE ARRANGEMENTS FOR THE LANDFILL TO OPEN AT 8:30 TOMORROW MORNING (11/19/92).
5. ENTECH SENT HOME TWO TRUCKS AND DRIVERS AT NOON.
6. NYTEL NOTIFIED ENTECH THAT THE CABLE LOCATED IN TEST PIT No. 1 IS A DEAD PHONE CABLE WHICH MAY BE BROKEN.
7. ENTECH EXCAVATED TEST PIT No. 1. NO VISIBLE CONTAMINATION WAS FOUND IN THE GRAVEL BEDDING BENEATH THE PIPE. THE AIR MONITORING INSTRUMENTS ALL REGISTERED 0.0 P.P.M.
8. VISITORS TO SITE: JIM TUK of NYSDEC.

THURSDAY 11/19/92

1. ENTECH POSTPONED THE LINER INSTALLATION UNTIL MONDAY, 11/23/92 DUE TO WET CONDITIONS.
2. ENTECH SET UP CONTROL ZONES AT THE 1044 100TH STREET AND 9909 BLACK CREEK DRIVE SITES. ENTECH DRAPED 6 MIL. POLY OVER THE SIDE OF EACH DUMP TRUCK PRIOR TO FILLING AND REMOVED THE POLY PRIOR TO HAULING THE EXCAVATED MATERIAL TO THE 102ND STREET LANDFILL.
3. ENTECH EXCAVATED THE AREA SHOWN ON THE PLANS 1 Ft. DEEP AT 1044 100TH STREET. APPROXIMATELY 68 CY WERE EXCAVATED AND HAULED TO THE 102ND STREET LANDFILL. THERE WERE NO VISIBLE NOR INSTRUMENT DETECTED CONTAMINANTS IN THE EXCAVATED SOIL. THE SOIL CONSISTED OF 2 to 3" of TOPSOIL AND THE REMAINDER WAS CLAY.
4. ENTECH MOVED THE EXCAVATOR TO BLACK CREEK DRIVE BY TRAVELLING ON POLY.
5. ENTECH EXCAVATED 2 ft DEEP FROM THE NORTHEAST CORNER OF THE FRONT YARD TO THE DRIVEWAY AND FROM THE HOUSE TO THE SIDEWALK. APPROXIMATELY 71 CY WERE EXCAVATED AND HAULED TO THE 102ND STREET LANDFILL.
6. DECONTAMWATED THE PC120 EXCAVATOR AT THE CAP REMEDIATION SITE.
7. INSTALLED BARRICADE FENCING AROUND THE EDA 4 EXCAVATIONS
5. SITE VISITORS: JIM TUK OF NYSDEC.

FRIDAY 11/20/92

1. ENTECH DECONTAMINATED THE 1400 BC BACKHOE AND MOBILIZED IT TO 1044 100TH STREET.
2. ENTECH BACKFILLED AND COMPACTED GRANULAR MATERIAL FROM NIAGARA STONE TO AN 8" DEPTH AT 1044 100TH STREET.
3. ENTECH PLACED 4" of LOAM FROM LEO BRENNONS IN NIAGARA FALLS OVER THE COMPACTED SUBGRADE.
4. ENTECH DEMOBILIZED THE PC 120 EXCAVATOR FROM THE CAP REMEDIATION SITE.
5. ENTECH POSTPONED THE LINER INSTALLATION UNTIL MONDAY, 11/30/92 DUE TO WET CONDITIONS.
6. SITE VISITORS: JIM TUK of NYSDEC.

CONSTRUCTION PERSONNEL & EQUIPMENT REPORT

PROJECT REMEDIATION OF FRONTIER AVE / 100TH STREET AND EDA 4 LOTS PROJECT NO. 06609 - 40 50 60

CONTRACTOR ENTECH WEEK ENDING 11/20/92

	MON.		TUES.		WED.		THURS.		FRI.		SAT.		SUN.	
DATE	11/16/92		11/17/92		11/18/92		11/19/92		11/20/92					
PERSONNEL CLASSIFICATION	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.
ENTECH														
PROJECT MANAGER	1	4	1	1	1	9	1	4	1	8				
SUPERINTENDENT	1	8.5	1	9	1	9	1	12	D	0				
TECHNICIAN	2	8.5	2	9	2	9	2	12	2	8				
LABORER	0	0	0	0	0	0	0	0	0	0				
FMC														
SECURITY GUARD	1	8	1	9	1	8	1	5	1	8				
ADVANCED ANALYTICAL														
TECHNICIAN	1	3.5	1	9	1	9	1	9	1	8				
M+M TRUCKING														
TRUCK DRIVERS					2	3½	2	9	0	0				
EQUIPMENT														
PC 120 EXCAVATOR	1	8.5	1	9	2	5/*	5/*	9/*	2	8/**				
1400 B BACKHOE	1	0.5	1	6	1	4	1	*	1	8				
10 WHEEL DUMP TRUCK					2	3½	2	9	0	0				
DRUM ROLLER					1	1	1	1	1	*				

REMARKS: * = NOT UTILIZED

** = DEMOBILIZED

EC JORDAN CO.
FORM CSD-2

REPRESENTATIVE Louis E Cate

CONSTRUCTION PROGRESS REPORT

SHEET 1 OF 2

PROJECT REMEDATION OF FRONTIER AVE / 100TH STREET — PROJECT NO. 0669-40 SD 6

CONTRACTOR ENTECH AND EDA 4 LOTS — REPORT NO. 3

CONTRACTOR'S REP. BILL GALLOWAY — PERIOD ENDING 11/27/92

CONTRACT TIME

EXTENSIONS 0

DAYS ELAPSED

DAYS REMAINING

WEATHER AND SITE CONDITIONS

MON	SHOWERS	42 - 44°
TUES	MIST / OVERCAST	39 - 44°
WED	OVERCAST / SUNNY	44 - 51°
THURS	HOLIDAY	
FRI	HOLIDAY	

MONDAY 11/23/92

1. ENTECH CONTINUED EXCAVATING 2 FEET OF MATERIAL AT THE EDA 4 LOT ON BLACK CREEK DRIVE. ADVANCED ANALYTICAL PROVIDED AIR MONITORING SERVICES. APPROXIMATELY 129 CY WERE EXCAVATED AND HAULED TO THE 102ND STREET LANDFILL.
2. SIX ROLL-OFF CONTAINERS WERE DELIVERED TO THE TREATMENT PLANT DECON PAD.

TUESDAY 11/24/92

1. ENTECH BEGAN EXCAVATING THE BACKYARD AREA AT 9909 BLACK CREEK DRIVE. ADVANCED ANALYTICAL CONTINUED AIR MONITORING.
2. THE AREA BEHIND THE GARAGE CONTAINED CONSTRUCTION DEBRIS - BRICKS, PIECES OF PIPE, SAWBLADES, GRINDSTONES, PIECES OF WIRE, etc. A DRUM WAS EXPOSED APPROXIMATELY 10 ft FROM THE GARAGE AND 5 ft OFF OF THE FENCELINE. THE DRUM WAS CRUSHED, RUSTED, AND FULL OF HOLES. THE AREA AROUND THE DRUM CONTAINED A GRAY POWDERY MATERIAL APPROXIMATELY 8 TO 10" DEEP.
3. FIELD ORDER NO. 3 WAS ISSUED DIRECTING ENTECH TO PLACE THE DRUM IN AN OVERPACK AND THE GRAY MATERIAL INTO 55 GALLON DRUMS PROVIDED BY NYSDEC. ENTECH OVERPACKED THE DRUM AND COLLECTED 2 55 GALLON DRUMS OF THE GRAY MATERIAL. NYSDEC COLLECTED A SAMPLE OF THE GRAY MATERIAL.
4. APPROXIMATELY 100 CY OF EXCAVATED SOIL WAS HAULED TO THE 102ND STREET LANDFILL.
5. VISITORS TO SITE: JIM TUK of NYSDEC

WEDNESDAY 11/25/92

1. EXCAVATED AND HAULED APPROXIMATELY 205 CY OF SOIL FROM THE BACKYARD OF 9909 BLACKCREEK DRIVE. EXPOSED ADDITIONAL (2-4 TRUCK LOADS) ~~EE~~ GRAY MATERIAL. NYSDEC IS DETERMINING WHAT TO DO WITH THE MATERIAL.
2. RESCHEDULED THE CAP LINER REPLACEMENT FROM 11/30 TO 12/7/92.
3. DEMOBILIZED THE SMOOTH DRUM ROLLER.

SUBMITTED BY Lynn E Carter

E.C. JORDAN CO.

FORM C 30-3
REV 3/83

CONSTRUCTION PERSONNEL & EQUIPMENT REPORT

PROJECT REMEDIATION OF FRONTIER AVE / 100TH STREET AND EDA 4 LOTS — PROJECT NO. 06609-40, 50, 60

CONTRACTOR ENTECH — WEEK ENDING 11/27/92

	MON.		TUES.		WED.		THURS.		FRI.		SAT.		SUN.	
DATE	11/23/92		11/24/92		11/25/92		11/26/92		11/27/92					
PERSONNEL CLASSIFICATION	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.
ENTECH														
SUPERINTENDENT	1	4	1	9.5	1	8								
PROJECT MANAGER	1	9		9.5	1	8								
TECHNICIAN	2	4/9	2	9.5	2	8								
LABORER	1	9	1	9.5	1	8								
ADVANCED ANALYTICAL														
TECHNICIAN	1	9	1	9	1	8								
FMC														
SECURITY GUARD	1	9	1	8	1	8								
M+M TRUCKING														
DRIVER	2	8	2	8	2	8								
EQUIPMENT														
PC 120 EXCAVATOR	1	9	1	9	1	8								
1400 BC BACKHOE	1	*	1	*	1	*								
DUMP TRUCK	2	9	2	8	2	8								
SMOOTH DRUM ROLLER	1	*	1	*	1	**								

REMARKS: * = NOT UTILIZED **: DEMOBILIZED

11/26/92 AND 11/27/92 - NO ONE WAS ONSITE DUE TO THANKSGIVING HOLIDAY

EC JORDAN CO.
FORM CSD-2

REPRESENTATIVE Laura E Cate

CONSTRUCTION PROGRESS REPORT

SHEET 1 OF 4

PROJECT LOVE CANAL - REMEDIATION of FRONTIER AVE, 100TH STREET AND EDA-4 LOTS — PROJECT NO. 06609-40.50

CONTRACTOR ENTECH — REPORT NO. 4

CONTRACTOR'S REP. BILL GALLOWAY — PERIOD ENDING 12/4/92

CONTRACT TIME _____

EXTENSIONS C

DAYS ELAPSED _____

DAYS REMAINING _____

WEATHER AND SITE CONDITIONS

MON	OVERCAST / MIST	37-38°F
TUES	OVERCAST / FLURRIES	37-38°F
WED	OVERCAST / FLURRIES	36°F
THURS	OVERCAST / FLURRIES	35°F
FRI	OVERCAST / SNOW	31-33°F

MONDAY 11/30/92

- ENTECH CUT DOWN THE TREES LOCATED BESIDE THE GARAGE AT 9909 BLACK CREEK DRIVE. ONE TREE HAD GROWN INTO THE ROOF CAUSING THE ROOF TO ROT IN THAT AREA. THE SAME TREE HAS GROWN UNDER THE GARAGE FLOOR SLAB - REMOVAL OF THE STUMP MAY CAUSE DAMAGE TO THE SLAB.
- ENTECH EXCAVATED THE 6 FT DEEP AREA AND THE AREA IN THE 9903 BLACK CREEK DRIVE YARD AS SHOWN ON THE DRAWINGS. THE 6 FT DEEP AREA AT 9909 CONTAINED DEBRIS INCLUDING BRICKS, PIPE, VINYL SIDING, PIPE, GRINDSTONES, SCRAP METAL, GRINDSTONE BACKING MATERIAL, AND SCRAP LUMBER.. THREE RUSTED, CRUSHED DRUMS WERE REMOVED FROM THIS AREA. THE DRUMS WERE PLACED IN OVERPACKS PROVIDED BY NYSDEC. THE AREA IN THE 9903 LOT CONSISTED OF A 1"± LAYER OF WHITE MATERIAL ON TOP OF A 2"± LAYER OF BLACK MATERIAL APPROXIMATELY 1 FT BELOW GRADE. JIM TUK OF NYSDEC DIRECTED ENTECH TO OVER EXCAVATE INTO THE LOT - THE WHITE AND BLACK MATERIAL CONTINUED. THE AREA ALSO CONTAINED THE DEBRIS LISTED ABOVE. A RUSTED, CRUSHED 55 GAL. DRUM WAS REMOVED FROM THIS AREA. A TEST PIT WAS EXCAVATED TO DETERMINE HOW EXTENSIVE THE DEBRIS IS IN THIS AREA.
- ADVANCED ANALYTICAL PROVIDED AIR MONITORING SERVICES.
- 315 CY OF EXCAVATED MATERIAL WAS HAULED TO THE 102ND STREET LANDFILL THAT INCLUDES 166 CY OF OVER EXCAVATION TO REMOVE DEBRIS IN THE 6 FT EXCAVATION AND TO EXPLORE THE 9903 LOT.
- VISITOR TO SITE: JIM TUK OF NYSDEC

TUESDAY 12/1/92

- ENTECH DECONTAMINATED THE EXCAVATOR AND MOBILIZED IT FOR BACKFILLING THE FRONT YARD AT 9909 BLACK CREEK DRIVE.
- ENTECH WORKED ON GENERAL SITE CLEANUP AND BEGAN BACKFILLING.
- JOHN SPELLMAN OF NYSDEC AND LAURA CARTER TOOK A GRAB AND COMPOSITE SAMPLE FROM THE 9903 AREA.
- MR. E.C. JORDAN NOTIFIED JOHN BODDECKER, CITY OF NIAGARA FALLS, THAT ENTECH PLANS TO BEGIN WORK ON FRONTIER AVE AND 100TH STREET ON 12/8/92. VISITORS TO SITE: JIM TUK AND JOHN SPELLMAN OF NYSDEC.

SUBMITTED BY Laura E Carter

E.C. JORDAN CO.

FORM CSD-3
REV 3/83

WEDNESDAY, 12/2/92

- ENTECH CONTINUED BACKFILLING THE FRONT YARD AT 9909 BLACK CREEK DRIVE.
- ENTECH REPOSITIONED THE LOOSE CURBING IN FRONT OF 9909 BLACK CREEK
- ENTECH MULCHED THE YARD AT 1044 100TH STREET TO CONTROL EROSION.
- ENTECH MOVED THE STACKED ROLL-OFFS OFF OF THE DECONTAMINATION PAD AT THE TREATMENT PLANT TO SEPARATE THEM. THE INTERIOR PAINT SCRATCHED IN THE ROLL OFFS DURING THE SEPARATION PROCEDURE.
- VISITORS TO SITE: JIM TUK AND JOHN SPELLMAN OF NYSDEC.

THURSDAY 12/3/92

- ENTECH PLACED A TARP OVER ONE ROLLOFF. A BLOWER/HEATER WAS PLACED INSIDE IT TO DRY IT OUT PRIOR TO PAINTING.
- JOHN SPELLMAN OF NYSDEC REQUESTED THAT ENTECH CLEANUP THE 6 ft EXCAVATION AT 9909 BLACK CREEK DRIVE BY REMOVING ONE BUCKET WIDTH AROUND THE EXCAVATION AND CONTINUE BACK INTO ANY DEBRIS BY 4 TO 5 ft. HE ALSO ASKED THAT ANY VISIBLE DEBRIS ON THE SURFACE OF THE 2 ft EXCAVATION BE REMOVED. THE DEEP EXCAVATION WILL BE BACKFILLED UP TO THE 2 ft LEVEL PRIOR TO THE WEEKEND.
- ENTECH BEGAN EXCAVATING AS DESCRIBED ABOVE. THREE DISTINCT AREAS OF CONTAMINATION WERE FOUND. TWO CONSISTED BLACK MATERIAL ON TOP OF A BLUE TARP (ONE IN THE SOUTHERN FACE OF THE EXCAVATION AND ONE IN THE SOUTHWEST CORNER). THE THIRD AREA CONSISTED OF THE PREVIOUSLY DESCRIBED DEBRIS MIXED WITH THE GRAY MATERIAL SAMPLED ON 11/24/92 LOCATED IN THE NORTHEAST END OF THE EXCAVATION.
- JIM TUK OF NYSDEC REQUESTED THAT ENTECH REMOVE THE MATERIAL IN THE SOUTHERN FACE, EXCAVATE THE SOUTHWEST CORNER TO THE EDGE OF THE 2 ft CUT (IN LINE WITH THE WESTERNMOST FENCE POST), AND TO LEAVE THE DEBRIS UNTIL THE SAMPLE ANALYSIS IS COMPLETED.
- ENTECH REMOVED THE SOUTHERN CONTAMINATION AND BEGAN EXCAVATING THE SOUTHWEST PORTION. ONE CRUSHED DRUM WAS BROUGHT UP FOR OVERPACKING. ANOTHER DRUM WAS BROKEN INTO. A THICK BLACK LIQUID POURED OUT OF THIS DRUM. THE LIQUID WAS CONTAINED BY A CLAY DIKE. E.C. JORDAN COLLECTED A SAMPLE FOR NYSDEC. JIM TUK DIRECTED ENTECH TO COVER THE AREA WITH POLY FOR THE NIGHT - TOO LATE IN THE DAY TO OBTAIN OVERPACKS AND DRUMS.
- VISITORS TO SITE: JOHN SPELLMAN AND JIM TUK OF NYSDEC AND RICK DAY OF EC JORDAN.

FRIDAY 12/4/92

- ENTECH HAULED 147 CY OF EXCAVATED MATERIAL FROM 9909 BLACK CREEK DRIVE TO THE 102ND STREET LANDFILL
- ISSUED FIELD ORDER No. 4 REGARDING OVERPACKING AND DRUMMING MATERIALS FOUND AT 9909 BLACK CREEK DRIVE.
- ENTECH OVERPACKED 1 CRUSHED DRUM AND ONE BROKEN, BUT FILLED WITH "PRODUCT" DRUM. ENTECH FILLED 2 55 gal. DRUMS WITH "PRODUCT", FLOCKSIL AND CONTAMINATED SOIL. DUE TO LACK OF DRUMS THE "PRODUCT" WAS DIKED AND COVERED WITH POLY. JIM TUK DIRECTED ENTECH TO LEAVE THE FULL OVERPACKS AND DRUMS IN THE EXCAVATION, COVERED WITH POLY FOR THE WEEKEND.
- VISITORS TO SITE: JIM TUK of NYSDEC

CONSTRUCTION PERSONNEL & EQUIPMENT REPORT

PROJECT Love Canal - Remediation of Frontier Ave, 101st Street and EDA 4 PROJECT NO. 06609-40,50,60

CONTRACTOR ENTECH WEEK ENDING 12/4/92

	MON		TUES.		WED.		THURS.		FRI.		SAT.		SUN.	
DATE	11/30/92		12/1/92		12/2/92		12/3/92		12/4/92					
PERSONNEL CLASSIFICATION	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.
ENTECH														
SUPERINTENDENT	1	9.5	1	8	1	8.5	1	9	1	8 1/2				
TECHNICIAN	1	9.5	1	8	2	8.5	2	9/4	2	8 1/2				
FMC														
SECURITY GUARD	1	9	1	9	1	8.5	1	9	1	8 1/2				
ADVANCED ANALYTICAL														
TECHNICIAN	1	9.5	1	9	1	8.5	1	9	1	8 1/2				
M + M TRUCKING														
DRIVER	2	8							1	4				
EQUIPMENT														
PC 120 EXCAVATOR	1	9	1	8	1	8	1	5	1	5				
1400 BC BACKHOE	1	*	1	*	1	*	1	*	1	3				
SMOOTHDRUM ROLLER	1	*	1	*	1	*	1	*	1	*				
DUMP TRUCKS	2	8							1	4				

REMARKS: * NOT USED

EC MODIANCO

CONSTRUCTION PROGRESS REPORT

SHEET 1 OF 3

PROJECT LOVE CANAL - REMEDIATION OF FRONTIER AVE, 100TH ST, AND EDA 4 LOTS — PROJECT NO. 06609 40 SC

CONTRACTOR ENTECH — REPORT NO. 5

CONTRACTOR'S REP. BILL GALLOWAY — PERIOD ENDING 12/11/92

CONTRACT TIME

EXTENSIONS 0

DAYS ELAPSED

DAYS REMAINING

WEATHER AND SITE CONDITIONS

MON. OVERCAST/FLURRIES	31 - 32°
TUES. FLURRIES	25 - 27°
WED. OVERCAST/SUNNY	23 - 31°
THURS. SNOW/SLEET	33 - 35°
FRI. SNOW	

MONDAY 12/7/92

- ENTECH COMPLETED THE CONTAINMENT OF THE BLACK MATERIAL FOUND AT 9909 BLACK CREEK DRIVE. THIRTEEN 55 GAL. DRUMS AND 2 OVERPACKS WERE USED.
- ADVANCED ANALYTICAL LABS, INC. PROVIDED AIR MONITORING SERVICES.
- VISITOR TO SITE: JIM TUK OF NYSDEC.

TUESDAY 12/8/92

- ENTECH ASSISTED NYSDEC WITH LOADING AND UNLOADING NYSDEC'S PERMITTED TRUCK. FIFTEEN 55 gal. DRUMS AND 2 OVERPACKS WERE TRANSPORTED FROM 9909 BLACK CREEK DRIVE TO THE DRUM BARN AT THE LOVE CANAL TREATMENT FACILITY.
- ENTECH DECONTAMINATED THE DRUMS AND ONE OVERPACK AS WELL AS THEIR CONTAMINATED EQUIPMENT. THE OVERPACK CONTAINING THE DRUM AND BLACK MATERIAL FOUND ON 12/3/92 WAS MISSHAPED BY THE DRUM SUCH THAT A COVER WILL NOT GO ON IT. NYSDEC PLACED THE OVERPACK ON THE PAD BESIDE THE TREATMENT PLANT UNTIL LAB RESULTS COME BACK OR A LARGER OVERPACK IS OBTAINED. ENTECH WRAPPED THE OVERPACK WITH POLY TO NYSDEC'S SATISFACTION.
- A PROGRESS MEETING WAS HELD AT THE TREATMENT PLANT ADMINISTRATION BLDG. SEE MEETING MINUTES FOR DETAILS.

VISITORS TO SITE: JIM TUK OF NYSDEC, RICK DAY AND STEVE MITCHELL OF E.C. JORDAN.

WEDNESDAY 12/9/92

- ENTECH BACKFILLED THE DEEP EXCAVATION AT 9909 BLACK CREEK DRIVE (287 CY).
- ENTECH PREPARED TWO ROLL-OFFS FOR STOCK PILE "A" MATERIAL WITH POLY. BOTH ROLL-OFFS WERE FILLED; A SHEET OF POLY WAS PLACED OVER THE MATERIAL, THE CROSS BOWS WERE INSTALLED AND THE TARPS WERE TIED DOWN WITH NYLON ROPE.

SUBMITTED BY Laura E Carter

EC JORDAN CO.

FORM CSO-3
REV 3/83

- A ROLL-OFF TRUCK MOVED THE ROLL-OFFS FROM THE LOADING AREA TO THE STAGING AREA AT THE TREATMENT PLANT. THE ROLL-OFFS ARE BEING LINED UP TO FORM A SNOW FENCE PER THE REQUEST OF THE TREATMENT PLANT OPERATOR.

- VISITOR TO SITE: JIM TUK of NYSDEC.

THURSDAY 12/10/92

- ENTECH PREPARED AND LOADED 4 ROLL-OFF CONTAINERS WITH MATERIAL FROM STOCK PILE "A."

- ENTECH SEPARATED THE SECOND DELIVERY OF ROLL-OFF CONTAINERS, INSTALLED TWO DOORS, AND BEGAN CLEANING FOR TOUCH-UP PAINT. ONE ROLL-OFF WAS TOUCHED UP.

FRIDAY 12/11/92

SITE CONDITIONS: 10 TO 12" of SNOW FELL OVERNIGHT. SNOW IS CURRENTLY FALLING AT THE RATE OF 1" PER ~~MINUTE~~. HOUR.

ENTECH MOVED THE ROLL OFFS TO THE STAGING AREA AT THE TREATMENT. THEY COVERED AND HEATED TWO ROLLOFFS FOR TOUCH-UP PAINTING.

ENTECH STOPPED WORK AT 12:00 DUE TO WEATHER CONDITIONS.

CONSTRUCTION PERSONNEL & EQUIPMENT REPORT

PROJECT LOVE CANAL - REMEDIATION of FRONTIER AVE, 100TH ST. AND EDA 4 LOTS PROJECT NO. 06609-40 SC 60

CONTRACTOR ENTECH WEEK ENDING 12/11/92

	MON.		TUES.		WED.		THURS.		FRI.		SAT.		SUN.	
DATE	12/7/92		12/8/92		12/9/92		12/10/92		12/11/92					
PERSONNEL CLASSIFICATION	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.
ENTECH														
PROJECT MANAGER	1	1												
SUPERINTENDENT	1	8.5	1	8.5	1	8.5	1	8.5	1	4				
TECHNILIAN	1	8.5	1	8.5	2	8.5	2	8.5	2	4				
LABORER														
EMC														
SECURITY GUARD	1	8.5	1	8.5	1	8.5	1	8.5	1	4				
ADVANCED ANALYTICAL LABS														
TECHNICIAN	1	8.5	1	8.5	1	8.5	1	8.5	1	4				
EQUIPMENT														
PC 120 EXCAVATOR	1	7	1	4	1	8.5	1	5	1	4				
SUPERDIG BACKHOE	1	8	1	4	1	**								
SMOOTHDRUM ROLLER	1	*	1	*	1	**								
WA70 FRONT END LOADER					1	3	1	8	1	*				

REMARKS: * NOT UTILIZED

** : DEMOBILIZED

EC JORDAN CO

FORM CSD-2

REPRESENTATIVE Laura E. Carter

CONSTRUCTION PROGRESS REPORT

SHEET 1 OF 3

PROJECT LOVE CANAL - REMEDIATION OF FRONTIER AVE 100TH ST. AND EDA-4 LOTS — PROJECT NO. 006 09-40 56 6

CONTRACTOR ENTECH — REPORT NO. 6

CONTRACTOR'S REP. BILL GALLOWAY — PERIOD ENDING 12/18/92

CONTRACT TIME _____

EXTENSIONS 0

DAYS ELAPSED _____

DAYS REMAINING _____

WEATHER AND SITE CONDITIONS

MON	SUNNY	21-35°F
TUES	OVERCAST	20-46°F
WED	OVERCAST/SUNNY	49-45°F
THURS	RAIN/SUNNY	39-45°F
FRI	SUNNY	40's

MONDAY 12/14/92

- ENTECH REMOVED SNOW FROM THE ROLL-OFF CONTAINERS AND PREPARED THEM FOR EXCAVATED STOCKPILE MATERIAL.
- ENTECH WAS DELAYED ON THE STOCKPILE REMOVAL OPERATION FOR A FEW HOURS DUE TO A FROZEN CAP TO THE GASTANK ON THE FRONT END LOADER. ENTECH FILLED 4 ROLLOFF CONTAINERS WITH MATERIAL FROM STOCKPILE A.
- ENTECH EXPLORED MANHOLE NO. 406 AND NO. 412 IN LEVEL B. CONFINED SPACE ENTRY PROCEDURES WERE USED. ENTECH DISCOVERED THAT THE LINE BETWEEN MANHOLES 406 AND 412 ~~WERE~~ IS 33" NOT THE 36"Ø SHOWN IN THE CONTRACT DWGS.
- ADVANCED ANALYTICAL LABS PROVIDED AIR MONITORING SERVICES DURING THE STOCKPILE REMOVAL AND MANHOLE EXPLORATION.

TUESDAY 12/15/92

- ENTECH MOVED THE FILLED ROLL-OFFS INTO STORAGE POSITION.
- SIX ROLL-OFFS WERE DELIVERED TO SITE. ENTECH UNLOADED THE CONTAINERS, INSTALLED THE DOORS, AND APPLIED TOUCH-UP PAINT AS NEEDED.
- ENTECH PLACED STOCKPILE B IN 1 1/2 ROLL-OFF CONTAINERS. ENTECH ALSO FILLED 2 CONTAINERS FROM STOCKPILE A.
- ADVANCED ANALYTICAL LABS PROVIDED AIR MONITORING SERVICES.
- ENTECH ORDERED MATERIALS FOR THE STORM DRAIN REPLACEMENT ON 12/14/92. THE RC PIPE MANUFACTURER IS ON SHUTDOWN UNTIL 1/2/93. ENTECH'S SUPPLIER HAS THE PIPE BUT HAS PROMISED IT TO SOMEONE ELSE - IF THEY DON'T NEED IT BEFORE 1/2/93, ENTECH WILL RECEIVE IT. THE MANHOLES WILL REQUIRE ONE WEEK TO PRODUCE. THE 18" PVC PIPE IS AVAILABLE.

WEDNESDAY 12/16/92

- ENTECH COMPLETED REMOVAL OF STOCKPILE A (1/2 ROLLOFF CONTAINER)
- ENTECH BACKFILLED THE ORIGINAL TEST PIT NO. 2 ON THE SOUTHSIDE OF MH 402 AND EXCAVATED A TEST PIT ON THE NORTH (UPSTREAM) SIDE OF THE MANHOLE. THERE WAS NO VISUAL CONTAMINANTS IN THE TEST PITS. TWO SAMPLES WERE TAKEN OF THE BEDDING BENEATH

SUBMITTED BY James E Carter

EC JORDAN CO

FORM CSO-3
REV 3/83

THE 42" ø STORMDRAIN. THE HEADSPACE ON THE SAMPLES HAD A READING OF 4.0 ppm ON THE HNU AND 0.0 ppm ON THE TIP. THE SAMPLES WERE GIVEN TO JIM TUK OF NYSDEC FOR PROCESSING.

- ADVANCED ANALYTICAL LABS PROVIDED AIR MONITORING SERVICES.
- VISITORS TO SITE: JIM TUK, NYSDEC AND DAMIAN DUDA OF USEPA.

THURSDAY 12/17/92

- ENTECH REQUESTED A LETTER STATING THAT THE PAVEMENT AND CONCRETE FROM 100TH STREET AND FRONTIER AVENUE IS NOT CONTAMINATED. JOHN SPELLMAN OF NYSDEC WILL PROVIDE THE LETTER.

- ENTECH SUBMITTED A PAY REQUISITION.

- ENTECH DECIDED TO SHUT DOWN THE PROJECT UNTIL 12/28/92 DUE TO THE FOLLOWING CONCERNS ABOUT THE STORMDRAIN REPLACEMENT:
  1) QUANTITY OF STORMWATER TO DIVERT (14" SNOWMELT PLUS RAINFALL)
  2) QUANTITY OF GROUNDWATER TO REMOVE FROM THE TRENCH
  3) ABILITY TO COMPLETE THE 18" PVC LINE AND BACKFILL PRIOR TO THE HOLIDAY - DOES NOT WANT TO CHECK PUMPS AND ROAD CONDITION DURING THE HOLIDAY.

- E.C JORDAN UPDATED THE FOLLOWING PEOPLE REGARDING ENTECH'S SHUTDOWN:
  JOHN SPELLMAN, NYSDEC (MESSAGE)
  JIM TUK, NYSDEC
  JOHN BODDECKER, NIAGARA FALLS CITY ENGINEER (MESSAGE)
  JOE KOHLMER, OXY'S CONSULTANT
  BRIAN SADOWSKI, NYSDEC, LOVE CANAL TREATMENT PLANT

- ENTECH'S TENATIVE SCHEDULE:
  12/28 - 12/31 INSTALL TEMPORARY COVER ON THE CAP REMEDIATION SITE
  BACKFILL 9909 BLACK CREEK DRIVE - IF DIRECTED BY NYSDEC
  1/4/93 BEGIN REMOVAL OF 18" STORMDRAIN ON 100TH STREET

- ENTECH CLEANED UP THE SITES.

FRIDAY 12/18/92

- NO SITE WORK COMPLETED.

CONSTRUCTION PERSONNEL & EQUIPMENT REPORT

PROJECT LOVE CANAL - REMEDIATION OF FRONTIER AVE, 100TH STREET AND EDA 4 LOTS PROJECT NO. 06609-40 50 60

CONTRACTOR ENTECH WEEK ENDING 12/18/92

	MON.		TUES.		WED.		THURS.		FRI.		SAT.		SUN.	
DATE	12/14/92		12/15/92		12/16/92		12/17/92		12/18/92					
PERSONNEL CLASSIFICATION	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.
ENTECH														
PROJECT MANAGER	1	9	1	8.5	1	8	1	4						
SUPERINTENDENT	1	9	1	8.5	1	8	1	4						
TECHNICIAN	2	9	2	8.5	2	8	1	4						
FMC														
SECURITY GUARD	1	9	1	8.5	1	8	1	4						
ADVANCED ANALYTICAL LAB														
TECHNICIAN	1	9	1	8.5	1	8								
EQUIPMENT														
PC 120 EXCAVATOR	1	2	1	4	1	6	1	*						
WA 70 LOADER	1	4	1	8	1	4	1	**						

REMARKS: * NOT UTILIZED

** DEMOBILIZED

EC JORDAN CO.
FORM CSD-2

REPRESENTATIVE Donna E Cote

CONSTRUCTION PROGRESS REPORT

SHEET 1 OF 5

PROJECT LOVE CANAL - REMEDIATION OF FRONTIER AVE, 100TH STREET, AND EDA 4 — PROJECT NO. 06609-40 50

CONTRACTOR ENTECH — REPORT NO. 7

CONTRACTOR'S REP. BILL GALLOWAY — PERIOD ENDING 1/1/93

CONTRACT TIME _____

EXTENSIONS 0

DAYS ELAPSED _____

DAYS REMAINING _____

WEATHER AND SITE CONDITIONS

MON	SUNNY	28 - 35°F
TUES	OVERCAST/RAIN	36 - 42°F
WED	RAIN	39 - 45°F
THURS	OVERCAST/SUNNY	45 - 56°F
FRI	HOLIDAY	

MONDAY 12/28/92

- ENTECH WAS NOT ON SITE.
- L. CARTER CALLED ENTECH. ENTECH IS ATTEMPTING TO REACH AN AGREEMENT WITH NYSDEC ON THE PRICE OF PLACING A TEMPORARY COVER ON THE LANDFILL CAP REMEDIATION AREA.
- ENTECH GATHERED MATERIALS (STRAW, POLY, ETC) FOR PLACEMENT OF THE TEMPORARY COVER. THEY ALSO MADE SAND BAGS.
- JIM TUK VISITED SITE

TUESDAY 12/29/92

- ENTECH DELIVERED (VIA A FARMER'S TRUCK) AND UNLOADED 279 BALES OF STRAW.
- E.C JORDAN AND ENTECH DISCUSSED THE CHANGE ORDER STATUS - NO AGREEMENT HAS BEEN REACHED. ENTECH IS AWARE THAT NYSDEC MIGHT NOT PAY THE PRICE ENTECH IS REQUESTING. ENTECH CHOSE TO CONTINUE UNLOADING THE BALES AND BEGAN PLACING THE 1ST LAYER OF 6 MIL REINFORCED POLY.
- AT 12:15 BILL GALLOWAY OF ENTECH SHUT DOWN THE JOB BECAUSE AN AGREEMENT ON THE CHANGE ORDER PRICE HAS NOT BEEN REACHED.
- NYSDEC DIRECTED E.C. JORDAN TO REMAIN ON SITE UNTIL FURTHER NOTICE.

WEDNESDAY 12/30/92

- ENTECH INSTALLED THE TEMPORARY COVER SYSTEM ON THE CAP REMEDIATION. ENTECH USED 7 ROLLS OF 6 MIL REINFORCED POLY, 140 BALES OF STRAW, AND 54 SAND BAGS.

SUBMITTED BY Laura E Cate

THURSDAY, 12/31/92

- ENTECH RECUT THE PAVEMENT ON 100TH STREET. THE PREVIOUS CUT RAN PARALLEL TO THE CURB, NOT THE PIPELINE. ENTECH ALSO CUT THE AREA ON 100TH AND FRONTIER INTO SMALLER SECTIONS FOR EASIER REMOVAL.

- ENTECH CLEANED UP THE WORKSITE AT THE TEMPORARY CAP COVER.

CONSTRUCTION PERSONNEL & EQUIPMENT REPORT

PROJECT LOVE CANAL - REMEDIATION OF FRONTIER AVE, 100TH STREET AND EDA 4 PROJECT NO. 06609-40, 50, 60

CONTRACTOR ENTECH WEEK ENDING 1/1/93

	MON.		TUES.		WED.		THURS.		FRI.		SAT.		SUN.	
DATE	12/28/92		12/29/92		12/30/92		12/31/92		1/1/93					
PERSONNEL CLASSIFICATION	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.
ENTECH														
PROJECT MANAGER			1	4	1	9	1	6						
SUPERINTENDENT														
TECHNICIAN			2	5/4.5	2	9	2	3/6						
EQUIPMENT														
PC 120 EXCAVATOR	1	*	1	*	1	*	1	0.5						

REMARKS: * = NOT USED

ENTECH WAS NOT ON SITE ON 12/28/92 AND 1/1/93

EC JORDAN CO.

FORM CSD-2

REPRESENTATIVE Lauren E Cate

CONSTRUCTION PROGRESS REPORT

PROJECT LOVE CANAL - REMEDIATION OF FRONTIER AVE, 100TH STREET AND EDA 4 LOTS — PROJECT NO. C66009-40, 50

CONTRACTOR ENTECH — REPORT NO. 8

CONTRACTOR'S REP. BILL GALLOWAY — PERIOD ENDING 1/8/93

CONTRACT TIME

EXTENSIONS 0

DAYS ELAPSED

DAYS REMAINING

WEATHER AND SITE CONDITIONS

MON	RAIN	60°F
TUES	MIST/CLEARING	45-35°F
WED	OVERCAST/FLURRIES	33-34°F
THURS	OVERCAST	
FRI		

MONDAY 1/4/93

- ENTECH DID NOT WORK ON SITE; MOBILIZED EQUIPMENT AND MATERIALS TO THEIR OFFICE IN BUFFALO.
- ABB-ES FAXED MEETING NOTICES AND AGENDAS FOR THURSDAY'S MEETING.
- ENTECH SUBMITTED DAILY WORK REPORTS DATED FROM 10/29/92 TO 12/31/92.
- ENTECH CALLED TO REPORT THAT THEY WILL NOT BE WORKING ON THIS PROJECT TOMORROW DUE TO THE NATIONAL WEATHER SERVICE'S FORECAST FOR HEAVY RAIN.

TUESDAY 1/5/93

- ENTECH WAS NOT ON SITE.
- JIM TUK VISITED SITE.
- J. TUK AND L. CARTER INSPECTED THE TEMPORARY CAP COVER. J. TUK REQUESTED THAT ADDITIONAL SANDBAGS BE PLACED ON THE COVER. FIELD ORDER NO. 6 REGARDING THE SANDBAGS WAS PREPARED.
- JIM TUK STARTED THE FURNACE IN THE OFFICE TRAILER. ENTECH TURNED IT OFF ON 12/17/92. ENTECH WOULD NOT START IT UP LAST WEEK BECAUSE NYSDEC WOULD NOT PAY FOR THE TRAILERS AS PART OF THE TEMPORARY CAP COVER CHANGE ORDER.

WEDNESDAY 1/6/93

- L. CARTER AND B. GALLOWAY REVIEWED AND SIGNED ENTECH'S DAILY WORK REPORTS.
- ENTECH PLACED 21 ADDITIONAL SANDBAGS ON THE TEMPORARY CAP COVER.
- ENTECH ATTEMPTED TO TIGHTEN THE ROLL-OFF CONTAINER TARPS - REQUIRED ADDITIONAL TECHNICIANS TO ACCOMPLISH THE TASK. ENTECH WILL TIGHTEN THE TARPS AT A LATER DATE.
- ENTECH ANNOUNCED THAT THEY WILL START WORK ON MONDAY, 1/11/92

THURSDAY 1/7/93

- PROGRESS MEETING WAS HELD. SEE THE MEETING MINUTES FOR DETAILS.

SUBMITTED BY Laura L Carter

CONSTRUCTION PERSONNEL & EQUIPMENT REPORT

PROJECT Love Canal - Remediation of Frontier Ave 100th Street and EDA 4 Lots PROJECT NO. 06669-40,50,60

CONTRACTOR Entech WEEK ENDING 1/8/93

	MON.		TUES.		WED.		THURS.		FRI.		SAT.		SUN.	
DATE	1/4/93		1/5/93		1/6/93		1/7/93		1/8/93					
PERSONNEL CLASSIFICATION	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.
Entech														
Project Manager	1	1.5			1	2.5	1	1.5						
Technician					1	1.5								
Superintendent							1	1.5						
EQUIPMENT														
PC 120 Excavator	1	*	1	*	1	*	1	*						

REMARKS: * Not used

Entech was not on site on 1/5/93

L. Carter was not on site 1/6/93 - Entech mobilized materials.

EC JORDAN CO.

FORM CSD-2

REPRESENTATIVE Laura E. Carter

CONSTRUCTION PROGRESS REPORT

SHEET 1 OF

PROJECT LOVE CANAL - REMEDIATION OF FRONTIER AVE, 100TH ST. AND EDA 4 LOTS
PROJECT NO. 06609-40 SO 6

CONTRACTOR ENTECH
REPORT NO. 9

CONTRACTOR'S REP. BILL GALLOWAY
PERIOD ENDING 1/15/93

CONTRACT TIME
EXTENSIONS 0
DAYS ELAPSED
DAYS REMAINING

WEATHER AND SITE CONDITIONS

MON	FLURRIES/OVERCAST	24 - 27°F
TUES	OVERCAST	27 - 33°F
WED	FREEZING RAIN/RAIN	32 - 34°F
THURS	OVERCAST/FLURRIES	22 - 27°F
FRI	FLURRIES	25 - 30°F

MONDAY 1/11/93

- SITE CONDITIONS: 6" OF SNOW ON THE GROUND
- ENTECH BEGAN EXCAVATION OF PAVEMENT AND CONCRETE ON 100TH STREET (64 LF)
- EXCAVATED A TYPE B TEST PIT ON 100TH STREET. ENTECH HAULED THE EXCAVATED MATERIAL TO THE STOCKPILE AT THE NORTHEAST SIDE OF THE LOVE CANAL LANDFILL FACILITY.
- ENTECH PREPARED 5 ROLL-OFF CONTAINERS BY PLACING 10ML POLY TO LINE THE INSIDE AND NYSDEC'S LEFTOVER HDPE LINER IN THE BOTTOM OVER THE POLY.
- ENTECH DISCUSSED CLOSING 100TH STREET AND FRONTIER AVE. WITH JOHN BODDECKER, CITY ENGINEER. THE CITY REQUESTED A STREET CLOSURE PLAN, WHICH ENTECH SUBMITTED AT THE END OF THE DAY.
- VELANE BROS. DELIVERED 36" RCP TO SITE

TUESDAY 1/12/93

- ENTECH CONTINUED PREPARING THE ROLL-OFF CONTAINERS. THREE ROLL-OFFS WERE MOBILIZED TO 100TH STREET.
- ENTECH EXCAVATED 81 CY OF OVERBURDEN ON 100TH ST. THE OVERBURDEN WAS HAULED TO THE NORTHEAST STOCKPILE. THE TRENCH BANKS CAVED IN ONLY AT THE LOCATION OF THE FORMER TEST PIT. THE REST OF THE TRENCH IS STABLE.
- JIM TUK OF NYSDEC VISITED SITE.
- ED LOZAW, A BUSINESS AGENT FOR THE INTERNATIONAL UNION OF OPERATING ENGINEERS VISITED SITE. HE INFORMED ENTECH THAT IF THEY DID NOT HIRE UNION OPERATORS BY THE END OF THE DAY, HE WILL "DO WHAT HE HAS TO DO TOMORROW."
- ENTECH CALLED ED LOZAW AT THE END OF THE DAY. THEY SAID THEY WOULD BE INTERESTED IN A LOADER OPERATOR TO BACKFILL THE TRENCHES AND REQUESTED RATES

WEDNESDAY 1/13/93

- THE CITY APPROVED ENTECH'S STREET CLOSURE PLAN.
- VELANE BROS. DELIVERED 33" RCP TO SITE.
- ENTECH SPENT THE DAY OBTAINING SIGNS FOR THE STREET CLOSURE.
- JIM TUK VISITED SITE.

SUBMITTED BY James E Cate

EC JORDAN CO.

FORM CSO-3
REV 3/83

THURSDAY 1/14/93

- ENTECH CLOSED FRONTIER AVENUE AND 100TH STREET TO TRAFFIC.
- ENTECH INSTALLED A "PLUG" IN THE 18" DIAM. CLAY PIPE OUTLET IN MANHOLE No. 413.

ENTECH MOBILIZED A 4" PUMP TO PUMP FROM MANHOLE No. 413 TO MANHOLE No. 406. ENTECH DID NOT MEASURE THE DISTANCE BETWEEN THE MANHOLES PRIOR TO RENTING THE 4" DISCHARGE HOSE. THEY WERE SHORT BY 100 FT. ADDITIONAL HOSE ARRIVED LATE IN THE DAY. THE MANHOLE WAS PUMPED DRY PRIOR TO LEAVING SITE FOR THE DAY.

- ENTECH REMOVED AND STOCKPILED 26 SF of PAVEMENT AND CONCRETE ON 100TH STREET
- ENTECH REMOVED 35 CY OF OVERBURDEN DOWN TO THE TOP OF THE ~~PIPE~~ PIPE.

ENTECH CRUSHED THE 18" VITREOUS CLAY PIPE AT THE NORTHERN AND SOUTHERN ENDS OF THE TRENCH TO REMOVE THE OVERBURDEN DOWN TO THE SPRINGLINE OF THE PIPE.

- THE TRENCH IS 7ft WIDE AT THE NORTH END AND 5ft WIDE AT THE SOUTHERN END. THIS WIDTH IS TOO WIDE TO SAFELY EXCAVATE THE TRENCH BY STRADDLING IT WITH THE PC 120 EXCAVATOR. ENTECH BROUGHT IN TWO 8'x3' STEEL PLATES TO PLACE ACROSS THE TRENCH FOR THE MACHINE TO OPERATE ON. ENTECH STRUGGLED TO POSITION THE PLATES ACROSS THE TRENCH BUT FINALLY SUCCEEDED. L. CARTER TOLD B. GALLOWAY THAT THE PLATES WERE NOT SAFE TO USE. ENTECH ATTEMPTED TO USE THE PLATES ANYWAY. THEY SUCCESSFULLY CRUSHED THE PIPE AND REMOVED OVERBURDEN FROM THE CENTER OF THE TRENCH.
- L. CARTER REQUESTED THAT ENTECH SET UP SAFETY FENCE AROUND THE EXCAVATION. ENTECH BEGAN TO QUESTION THE NEED FOR THE FENCE SINCE THE ROAD IS CLOSED, BUT AGREED AFTER Jim TUK INTERVENED. ENTECH SENT A TECHNICIAN TO BUFFALO TO OBTAIN THE FENCE. THE TECHNICIAN COMPLETED THE FENCE INSTALLATION AT 7:00.

VISITORS TO SITE: Jim TUK OF NYSDEC AND Joe KOLMER OF J.R. KOLMER + ASSOCIATES, OXY'S REPRESENTATIVE.

~~THURSDAY 1/14/93~~ FRIDAY 1/15/93

FIVE ROLL-OFF CONTAINERS WERE DELIVERED TO SITE.

- STONE WAS DELIVERED TO SITE AND STOCKPILED ON FRONTIER AVENUE.
- ~~44~~ ENTECH MOBILIZED A PC 200 LC EXCAVATOR AND DEMOBILIZED THE PC 120 EXCAVATOR.
- ENTECH PLACED SALT ON THE ICY ROAD SURROUNDING THE TRENCH ON 100TH STREET.
- ENTECH REINFLATED THE PLUG IN MANHOLE No. 413. A TANK TRUCK WAS MOBILIZED AND REMOVED APPROXIMATELY 150 gal. OF WATER FROM THE TRENCH. THE WATER WAS HAULED TO THE LOVE CANAL TREATMENT PLANT.

- ENTECH REMOVED 7 cy OF OVERBURDEN FROM THE TOP OF THE PIPE TO THE PIPE SPRINGLINE. NOTE: THE PC 200.LL SAFELY STRADDLES THE TRENCH.

- ENTECH REMOVED 10 CY OF PIPE BEDDING FROM THE NORTH END OF THE TRENCH. TWO AREAS APPROX. 6" IN DIAMETER CONTAINED BLACK MATERIAL. THE BEDDING WAS PUT INTO ONE ROLL-OFF CONTAINER.

- JIM TUK REQUESTED THAT THE LOADED ROLL-OFF CONTAINERS BE REMOVED FROM THE SITE BY THE END OF THE DAY. ENTECH CONTACTED OXY, WHICH WAS NOT READY TO RECEIVE THE ROLL-OFF CONTAINERS. L. CARTER CALLED J. SPELLMAN. JOHN STATED THAT THE ROLL-OFFS MAY BE MOVED TO THE TREATMENT PLANT PAD. HE ALSO STATED THAT A MANIFEST IS NOT REQUIRED TO HAUL THE ROLL-OFFS FROM 100TH STREET TO THE TREATMENT PLANT. JOHN WILL FAX A LETTER STATING THE ABOVE ON MONDAY.

- L. CARTER LEFT SITE AT 4:00 TO CATCH A 5:15 FLIGHT. AT 4:00 ENTECH WAS SETTING UP SAFETY FENCE AROUND THE EXCAVATION AND WAITING FOR A TRUCK TO ARRIVE TO HAUL ONE ROLL-OFF CONTAINER TO THE TREATMENT PLANT.

CONSTRUCTION PERSONNEL & EQUIPMENT REPORT

PROJECT Love Canal - Remediation of Frontier Ave, 100th St, and EDA 4 Lots PROJECT NO. 06609-40, 50, 60

CONTRACTOR E.N.Tech WEEK ENDING 1/15/93

	MON.		TUES.		WED.		THURS.		FRI.		SAT.		SUN.	
DATE	1/11/93		1/12/93		1/13/93		1/14/93		1/15/93					
PERSONNEL CLASSIFICATION	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.
E.N.TECH														
SUPERINTENDENT	1	8.5	1	7			1	10	1	8.5				
PROJECT MANAGER	1	8.5	1	9	1	8.5	1	10	1	8.5				
TECHNICIAN	2	8.5	2	7	1	1	2	10/11	2	8.5				
F.M.C														
SECURITY GUARD	1	8.5	1	7.5	1	8	1	9.5	1	8.5				
M+M TRUCKING														
DRIVER	2	4.5/5.5	1	2.5			1	5						
ADVANCED ANALYTICAL LABS														
TECHNICIAN			1	7	1	8	1	10	1	8.5				
EQUIPMENT														
PC 120 EXCAVATOR	1	6	1	3	1	*	1	5	1	4				
WA 70 LOADER	1	2	1	2	1	*	1	1	1	4				
DUMP TRUCK	2	4.5/5.5	1	2.5			1	5						
4" PUMP	1	*	1	*	1	*	1	*	1	1				

REMARKS: * - NOT UTILIZED

EC JORDAN CO

FORM CSD-2

REPRESENTATIVE Laura E. Cate

CONSTRUCTION PROGRESS REPORT

SHEET 1 OF

PROJECT LOVE CANAL - REMEDIATION OF FRONTIER AVE. 100TH ST. AND ED+4 LOTS PROJECT NO. 06604-40.56

CONTRACTOR ENTECH REPORT NO. # 10

CONTRACTOR'S REP. BILL GALLOWAY PERIOD ENDING 1/22/93

CONTRACT TIME

EXTENSIONS 0

DAYS ELAPSED

DAYS REMAINING

WEATHER AND SITE CONDITIONS

MON	SUNNY	17 - 23°F
TUES	OVERCAST / CLEARING	22 - 24°F
WED	SUNNY	23 - 37°F
THURS	OVERCAST / RAIN	18 - 45°F
FRI	OVERCAST / MIST	36 - 35°F

MONDAY 1/18/93

- ENTECH MOBILIZED ROLL-OFF CONTAINERS TO FRONTIER AVE.
- THE REPLACEMENT MANHOLES WERE DELIVERED TO SITE.
- THE 6" Ø WATERMAIN RUNNING PARALLEL TO 100TH ST. SANK 5 1/2" AT THE SHUTOFF VALVE. ENTECH DISCOVERED THIS CONDITION ON SATURDAY, 1/16/93 BUT ~~WERE~~ WAS AFRAID TO DO ANYTHING WITH IT. THEY PLANNED TO CALL THE WATER DISTRICT WHEN THE TRENCH IS BEING BACKFILLED TO DISCUSS LIFTING THE MAIN BACK INTO POSITION. ABB-ES RECOMMENDED CALLING IMMEDIATELY. JERRY GROSE OF THE WATER DISTRICT WAS NOT CONCERNED ABOUT THE LINE. HE SUGGESTED PLACING A JACK UNDER THE LINE TO PREVENT IT FROM DROPPING ANY FURTHER. ENTECH PLACED THE TRENCH BOX BESIDE THE SHUT OFF VALVE TO PREVENT ANY MOVEMENT INTO THE TRENCH.
- ENTECH COMPLETED THE REMOVAL OF 18" VITRIFIED CLAY PIPE AND BEDDING MATERIAL IN 100TH STREET. 11.5 CY WERE PLACED INTO 2 ROLL-OFF CONTAINERS. A 1/4" THICK LAYER OF BLACK MATERIAL WAS FOUND BETWEEN STA 0+00 AND, 0+05 BENEATH THE PIPE.
- ENTECH PLACED POLY OVER THE MATERIAL IN THE ROLL-OFFS AND TARPED THE ROLL-OFF CONTAINERS. ENTECH HAULED THE CONTAINERS TO THE LOVE CANAL TREATMENT PLANT PAD.
- ENTECH ~~COMPLET~~ DECONTAMINATED THE EXCAVATOR BUCKET.

TUESDAY 1/19/93

- ENTECH EXCAVATED 240 lf of PAVEMENT AND CONCRETE FROM FRONTIER AVE. (ONLY 165 lf WERE TO BE REMOVED). THE MATERIAL WAS HAULED TO AL SUBAR AND WALCK BROS. ENTECH WILL REPAIR 75 lf OF PAVEMENT AT NO COST TO NYDE
- JIM TUK VISITED SITE.
- L. CARTER CALLED JOE KOLMER OF KOLMER ASSOCIATES TO UPDATE HIM ON ENTECH'S TENATIVE SCHEDULE: COMPLETE PAVEMENT/CONCRETE REMOVAL ON 1/19, REMOVE OVERBURDEN ON 1/20, EXCAVATE BEDDING ON 1/21 AND 1/22, INSTALL PIPE NEXT WEEK.

SUBMITTED BY Laura E. Carter

EC JORDAN CO

FORM CSO-3
REV 3/83

WEDNESDAY, 1/20/93

- A CREW FROM THE WATER DISTRICT VISITED SITE TO SHUT-OFF WATER TO THE MAIN IN THE 100TH STREET TRENCH.
- ENTECH PUMPED DOWN THE WATER IN ~~THE~~ MANHOLE No. 413 THROUGH THE STORMWATER DIVERSION.
- ENTECH EXCAVATED 160.4 CY OF OVERBURDEN FROM THE ~~100TH STRE~~ FRONTIER AVE. TRENCH BETWEEN STA 0+00 AND 1+70. THE 33" RCP STORM DRAIN BETWEEN MANHOLES 406 AND 412 IS BEDDED IN 3/4" STONE. THE 36" RCP STORMDRAIN LOCATED EAST OF MANHOLE 406 IS BEDDED IN CLAY.
- GERRY GROSE OF THE WATER DISTRICT VISITED SITE TO MAKE ARRANGEMENTS WITH ENTECH FOR REPLACEMENT OF A PORTION OF THE WATER MAIN IN THE 100TH STREET TRENCH.
- ENTECH REQUESTED PERMISSION TO PUMP THE WATER IN THE 100TH STREET TRENCH INTO THE STORMDRAIN SYSTEM SINCE THE CONTAMINATED MATERIALS IN THE TRENCH WERE REMOVED. JOHN SPELLMAN AND JIM TUK WERE BOTH ON SITE. THEY AGREED TO ALLOW ENTECH TO PUMP FROM THE 100TH ST. TRENCH INTO THE STORMDRAW AT MH 412 AS LONG AS STRAW BALES ARE PLACED IN MANHOLE 406 TO PREVENT SILT FROM REACHING THE RIVER.

THURSDAY, 1/21/93

- THE TRENCH BANKS ON FRONTIER AVENUE CAVED IN BETWEEN MANHOLES 406 AND 412. ENTECH SPENT MOST OF THE DAY DETERMINING HOW TO EXCAVATE THE PIPE AND BEDDING MATERIAL SAFELY.
- ENTECH PREPARED THE REMAINING ROLL-OFF CONTAINERS BY PLACING POLY AND HDPE LINER IN THE CONTAINERS.
- ENTECH CLEANED-UP THE STOCKPILE OF OVERBURDEN MATERIAL LOCATED ON THE NORTH EAST SIDE OF THE LOVE CANAL LANDFILL.
- NYSDEC REQUESTED A TEST PIT ON THE EAST SIDE OF MANHOLE No. 406 TO DETERMINE IF CONTAMINANTS HAVE MIGRATED INTO THE CLAY BEDDING. IF NO CONTAMINATION IS FOUND, THE 36" RCP ON THE EAST SIDE OF MANHOLE 406 WILL NOT BE REMOVED AND REPLACED.
- ENTECH DECIDED TO OBTAIN A LARGER TRENCH BOX, ONE WHICH WILL SUPPORT THE EXCAVATOR OVER THE TRENCH. THE TRENCH BOX WAS LOCATED IN WATERTOWN, NY. IT SHOULD ARRIVE ON SITE FRIDAY AFTERNOON.
- VISITORS TO SITE: GERALD RIDER, JOHN SPELLMAN, AND JIM TUK.

FRIDAY, 1/22/93

- ENTECH DID NOT MONITOR THE STORMWATER DIVERSION DURING HEAVY, OVERNIGHT RAINS. THIS ~~RESULTED~~ CAUSED THE FOLLOWING PROBLEMS:
  - THE PLUG IN MANHOLE No. 413 WAS FLOATING IN THE MANHOLE.
  - THE DIKE PREVENTING WATER FROM ENTERING MANHOLE No. 412 WAS WASHED OUT.
  - WATER FLOWED THROUGH THE TRENCH ON 100TH ST. AND INTO MANHOLE No. 412.
- OTHER PROBLEMS FOUND FIRST THING IN THE MORNING INCLUDE:
  - COLLAPSE OF THE TRENCH BANKS ON 100TH STREET CAUSING THE EXPOSURE AND SINKING OF AN ADDITIONAL 32 lf. of WATER MAIN.
  - COLLAPSE OF THE TRENCH BANKS ON FRONTIER AVE WHICH EXPOSED

A 4" CLAY UNDERDRAIN ON THE EAST SIDE OF MANHOLE No. 406. THIS UNDERDRAIN LOCATED APPROX. 2 ft DEEP IN THE SOUTH TRENCH BANK HAD ALSO COLLAPSED.

- ENTECH PUMPED DOWN THE WATER IN MANHOLE No. 413 AND REINSTALLED THE PLUG INTO THE 18" VITRIFIED CLAY LINE.
- ENTECH PLACED STRAW BALES IN MANHOLES 412 AND 404 TO REDUCE TRANSPORT OF SILT TO THE NIAGARA RIVER.
- A TRENCH BOX WAS DELIVERED TO SITE AT 1:15.
- THE WATER DISTRICT VISITED SITE TO ISOLATE THE WATERMAIN ON 100TH STREET.
- BILL GALLOWAY OF ENTECH WILL MONITOR THE STORMWATER DIVERSION OVER THE WEEKEND.
- ENTECH PLANS TO REMOVE OVERBURDEN, MANHOLES, PIPE, AND BEDDING ON 1/25/93 AND TO BEGIN PIPE INSTALLATION ON 1/26/93.
- L. CARTER CALLED JOE KOLMER TO UPDATE HIM ON ENTECH'S PLANS WHICH DO NOT SOUND REALISTIC. J. KOLMER REQUESTED AN UPDATE ON MONDAY.
- JIM TUK VISITED SITE.

CONSTRUCTION PERSONNEL & EQUIPMENT REPORT

PROJECT Love Canal - Remediation of Frontier Ave, 100th Street and EDA-4 Lots PROJECT NO. 0666-40, 50, 60

CONTRACTOR ENTECH WEEK ENDING 1/22/93

	MON.		TUES.		WED.		THURS.		FRI.		SAT.		SUN.	
DATE	1/18/93		1/19/93		1/20/93		1/21/93		1/22/93					
PERSONNEL CLASSIFICATION	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.
ENTECH														
SUPERINTENDENT	1	10	1	8	1	8.5	1	7						
PROJECT MANAGER	1	7	1	9.5	1	9.5	1	8	1	8				
TECHNICIAN	2	8.5			2	8.5	2	7	1	4				
EMC														
SECURITY GUARD	1	8.5	1	8	1	8.5	1	7	1	8				
M+M TRUCKING														
DRIVERS			2	7.5	1	8								
EQUIPMENT														
PC 200 LC EXCAVATOR	1	8	1	8	1	8	1	2	1	*				
WA70 LOADER	1	8	1	8	1	8	1	2	1	*				
DUMP TRUCK			2	7.5	1	8								
4" PUMP	1	1	1	1	1	1	1	1	1	4				

REMARKS: * : NOT UTILIZED

EC JORDAN CO.
FORM CSD-2

REPRESENTATIVE Laura E. Cate

CONSTRUCTION PROGRESS REPORT

SHEET 1 OF

PROJECT LOVE CANAL - REMEDIATION OF FRONTIER AVE/100TH ST AND EDA-4 LOTS — PROJECT NO. 0660-40

CONTRACTOR ENTECH — REPORT NO. 11

CONTRACTOR'S REP. PAUL POLINO — PERIOD ENDING 1/29/93

CONTRACT TIME

EXTENSIONS

DAYS ELAPSED

DAYS REMAINING

WEATHER AND SITE CONDITIONS

MON OVERCAST/CLEARING	24 - 29°F
TUES CLEAR	28 - 33°F
WED CLEAR/FLURRIES	35 - 21°F
THURS SNOW/FLURRIES	23 - 27°F
FRI SNOW	

MONDAY, 1/25/93

- ENTECH WORKED OVER THE WEEKEND (1/23 AND 1/24) TO IMPROVE THE TRENCH CONDITIONS. ENTECH INSTALL PLYWOOD SHORING ON 100TH SIREET AND EXCAVATED THE COLLAPSED MATERIAL IN THE TRENCH ON FRONTIER AVE. ENTECH DID NOT NOTIFY E.C. JORDAN AND NYSDEC OF THEIR PLAN TO WORK OVER THE WEEKEND.

- ENTECH INSTALLED A PLUG IN THE 24" RCP LINE ENTERING MANHOLE No. 412. THE TECHNICIAN FELT AN EXISTING PLUG IN THE LINE. HE ALSO NOTED THAT WATER IS TRICKLING INTO THE MANHOLE FROM BENEATH THE PIPE. ENTECH ALSO PLACED A PLUG IN THE 33" RCP LINE ENTERING MANHOLE No. 406.

- ENTECH REMOVED OVERBURDEN TO THE SPRINGLINE OF THE 33" RCP LINE.

- A CONSTRUCTION MEETING WAS HELD. SEE THE MEETING MINUTES FOR DETAILS.

- NOTIFIED JOE KOLMER OF ENTECH'S PLANS TO REMOVE MANHOLE No. 412 AND PIPE AND BEDDING ON FRONTIER AVE. HE WILL VISIT SITE TOMORROW.

SUBMITTED BY Paul E. Cate

EC JORDAN CO

FORM CSO-3
REV 3/83

- VISITORS TO SITE: JOHN SPELLMAN, JIM TUK, AND RICK DAY

TUESDAY 1/26/93

- ENTECH'S PLANS FOR THE DAY WERE TO REMOVE MANHOLE NO. 412, DIG A TYPE A TESTPIT EAST OF MANHOLE No. 406, AND TO SHORE THE MANHOLE AREA.

- ENTECH THAWED THE STORMWATER DIVERSION PUMP AND LINE.

- ENTECH MOBILIZED A ROLL-OFF CONTAINER TO THE EAST SIDE OF THE 100TH STREET TRENCH.

ENTECH BEGAN REMOVAL OF MANHOLE No. 412. THE TWO 10" CLAY LINES ENTERING THE MANHOLE ARE PLUGGED - ONE WITH CONCRETE, THE OTHER WITH BRICKS.

THE FIRST TWO SECTIONS OF 33" RCP OUT OF MANHOLE No. 412 WERE REMOVED. A BLACK/BROWN FLUID FLOWED OUT OF THE BEDDING AND THE PIPE INTO THE WATER IN THE TRENCH. THE WATER HAD BEEN STANDING INSIDE THE 33" RCP. THERE WAS ALSO APPROXIMATELY 2" OF SEDIMENT IN THE PIPE. FRANK'S VACUUM TRUCK SERVICES REMOVED 1000 gal. OF FLUID FROM THE TRENCH. THE FLUID WAS HAULED TO THE LOVE CANAL TREATMENT PLANT AND UNLOADED PER THE DIRECTION OF THE TREATMENT PLANT OPERATOR.

- ENTECH WRAPPED THE EXCAVATOR BUCKET IN POLY AND EXCHANGED THE BUCKET FOR A CLEAN ONE.

- ENTECH BEGAN EXCAVATING THE TESTPIT ON THE EAST SIDE OF MANHOLE No. 406. A HYDRAULIC HOSE BROKE ON THE EXCAVATOR, FORCING WORK TO STOP UNTIL IT IS REPAIRED.

- VISITORS ON SITE JOE KOLNER AND JIM TUK

WEDNESDAY 1/27/93

- ENTECH'S PLANS FOR THE DAY WERE TO COMPLETE THE TESTPIT ON THE EAST SIDE OF MANHOLE No. 406 AND TO REMOVE PIPE AND BEDDING ON FRONTIER AVE.

- ENTECH COMPLETED EXCAVATION OF THE TESTPIT ON THE EAST SIDE OF MANHOLE No. 406. NAPL WAS FOUND BENEATH THE 36" RCP LINE.

- ENTECH BROUGHT FRANK'S VACUUM TRUCK SERVICE TO SITE TO REMOVE THE FLUID IN THE FRONTIER AVE. TRENCH. A 50 MICRON BAG WAS PLACED OVER THE INTAKE PER THE REQUEST OF MAURICE MOORE. NOTHING COULD BE PUMPED THROUGH THE FILTER. THE STRAINER BASKET REPLACED THE FILTER. 1500 GALLONS WERE HAULED TO THE LOVE CANAL TREATMENT PLANT.

- ENTECH REMOVED THE EXISTING SLAB FOR MANHOLE No. 412. WATER POURED INTO THE TRENCH FROM BENEATH THE 24" RCP. NAPL WAS PRESENT IN THE WATER. THE CUT-OFF WALL TO THE WEST OF MANHOLE No. 412 CAME DOWN TO THE SPRINGLINE OF THE PIPE. IT WAS NOT KEYED INTO THE CLAY BENEATH THE PIPE.

- VISITORS ON SITE JIM TUK

THURSDAY 1/28/93

- ENTECH'S PLAN FOR THE DAY WAS TO REMOVE THE WATER FROM THE TRENCH. AFTER THAT WAS COMPLETED THEY PLANNED TO REMOVE PIPE AND BEDDING BETWEEN MANHOLES 412 AND 406. JIM TUK RECOMMENDED THAT ONLY THE PIPE SHOULD BE REMOVED, BECAUSE THE BOTTOM OF THE TRENCH COULD BE RECONTAMINATED.

- ENTECH HAULED 4615 gal OF WATER FROM THE FRONTIE AVE. TRENCH TO THE LOVE CANAL TREATMENT PLANT.

- ENTECH PLACED THE 33" RCP INTO 2 1/3 ROLL-OFF CONTAINERS. THE PIPE WAS REMOVED FROM STA 0+05 TO 0+96. THE BOTTOM OF EACH PIPE SECTION WAS BLACK. THE POCKETS FORMED IN THE BEDDING WHERE THE PIPE HAD BEEN FILLED WITH A BLACK/BROWN LIQUID. WATER IN THE TRENCH HAD A SHEEN ON IT.

- VISITORS ON SITE JIM TUK

FRIDAY 1/29/93

- ENTECH'S PLAN FOR THE DAY WAS TO PLACE THE LINER MATERIAL FROM THE CAP INTO A ROLL-OFF CONTAINER, LOAD OVERBURDEN STOCKPILED IN THE TRENCH EAST OF MANHOLE No. 406 INTO DUMP TRUCKS AND HAUL TO THE OVERBURDEN STOCKPILE AREA, HAUL ROLL-OFF CONTAINERS TO OCCIDENTAL, AND BEGIN PLACEMENT OF THE NEW CUT-OFF WALL AFTER RESOLUTION OF RESPONSIBILITIES IF THE 24" PIPE IS BROKEN DURING REMOVAL OF THE CUT-OFF WALL.

- ENTECH DECONTAMINATED THE EXCAVATOR BUCKET.

- NYTEL WILL SUPPORT POWER POLE NYT402 PRIOR TO ENTECH'S EXCAVATION OF THE EXISTING CUT-OFF WALL. NYTEL WILL NOT BE AVAILABLE TO SUPPORT THE POLE UNTIL AT LEAST 2/2/93.

- E.C JORDAN AND NYSDEC ISSUED FIELD ORDER No. 10 REGARDING REPLACEMENT OF THE CUT-OFF WALL ON THE WEST SIDE OF MANHOLE No. 412.

- ENTECH REMOVED ~~AS~~ OVERBURDEN MATERIAL STOCKPILED IN THE TRENCH EAST OF MANHOLE No. 406 DOWN TO THE GRADE OF THE ROAD. THE REMAINING MATERIAL WAS LEFT IN PLACE TO SUPPORT THE TRENCH BANKS OVER THE WEEKEND.

- Jim Tok STATED THAT ENTECH MAY REMOVE THE PIPE AND BEDDING IN FRONTIER AVE AS LONG AS THE CONTAMINATED WATER COMING IN FROM BENEATH THE 24" PIPE IS CONTAINED.

- ENTECH HAULED ONE ROLL-OFF CONTAINER WITH A MANIFEST TO THE LOVE CANAL TREATMENT PLANT PAD. IT WAS TOO LATE IN THE DAY FOR OCCIDENTAL TO RECEIVE THE ROLL-OFF.

- VISITORS TO SITE: RICK DAY AND WARD TAYLOR OF ABB-ES AND Jim Tok of NYSDEC.

CONSTRUCTION PERSONNEL & EQUIPMENT REPORT

PROJECT REMEDIATION OF FRONTIER AVE/100TH ST. AND ED-4 PROJECT NO. 06609-40.SC.GC

CONTRACTOR ENTECH WEEK ENDING 1/29/93

	MON.		TUES.		WED.		THURS.		FRI.		SAT.		SUN.	
DATE	1/25/93		1/26/93		1/27/93		1/28/93		1/29/93					
PERSONNEL CLASSIFICATION	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.
ENTECH														
SUPERINTENDENT	1	5	1	8.5	1	8.5	1	9	1	8				
HEALTH + SAFETY OFFICER	1	8	1	8.5	1	8.5	1	9	1	8				
TECHNICIAN	2	8	2	8.5	2	8.5	2	9	2	8				
FMC														
SECURITY GUARD	1	8	1	8.5	1	8.5	1	8	1	8				
ADVANCED ANALYTICAL														
TECHNICIAN					1	8.5	1	9						
FRANK'S ~~PUMP~~ VACUUM TRUCK SERVICE														
OPERATOR			1	4	1	4	1	8						
EQUIPMENT														
PC200LC EXCAVATOR	1	3	1	6	1	6	1	8	1	8				
WA70 LOADER	1	3	1	4	1	6	1	8	1	8				
4" PUMP	1	1	1	1	1	1	1	1	1	1				

REMARKS: * : NOT UTILIZED

EC JORDAN CO.
FORM CSD-2

REPRESENTATIVE Laura S Cates

CONSTRUCTION PROGRESS REPORT

SHEET 1 OF

PROJECT LOVE CANAL - REMEDIATION OF FRONTIER AVE / 100TH ST. AND EDA-4 LOTS — PROJECT NO. 06609-40

CONTRACTOR ENTECH — REPORT NO. 12

CONTRACTOR'S REP. PAUL POLINO — PERIOD ENDING 2/5/93

CONTRACT TIME

EXTENSIONS

DAYS ELAPSED

DAYS REMAINING

WEATHER AND SITE CONDITIONS

MON.	NOT ON SITE	
TUES.	NOT ON SITE	
WED.	CLEAR/OVERCAST	31-34°F
THURS.	CLEAR	27-34°F
FRI.	SUNNY	34-41°F

MONDAY 2/1/93 AND TUESDAY 2/2/93

- ENTECH REPORTED A WIND CHILL FACTOR TEMPERATURE OF -50°F ON MONDAY MORNING. SINCE IT WAS TOO COLD TO WORK, ENTECH SENT ITS EMPLOYEES HOME FOR THE DAY AT 9:00.
- ENTECH STATED THAT THE FORECAST FOR TUESDAY WAS FOR EVEN COLDER TEMPERATURES, THEREFORE ENTECH WOULD NOT BE ON SITE.
- L. CARTER DISCOVERED ENTECH'S PLANS WHEN CALLING FROM THE BOSTON AIRPORT TO INFORM ENTECH OF HER LATER ARRIVAL TIME DUE TO A DELAYED DEPARTURE FROM PORTLAND. L. CARTER RETURNED TO PORTLAND.

WEDNESDAY 2/3/93

- ENTECH'S PLANS FOR THE DAY INCLUDED HAULING THE STOCKPILED GRAY MATERIAL FROM 9909 BLACK CREEK DRIVE TO THE 102ND STREET LANDFILL, DECONTAMINATE THE EXCAVATOR BUCKET, AND TO REMOVE PIPE BEDDING ON FRONTIER AVE.
- ENTECH SET UP DUST/PARTICULATE AIR MONITORING SYSTEMS AT 9909 BLACK CREEK DRIVE.
- ENTECH REMOVED 1 DUMP TRUCK LOAD OF STOCKPILED GRAY MATERIAL FROM 9909 BLACK CREEK DRIVE. M+M TRUCKING HAULED THE LOAD TO THE 102ND STREET LANDFILL. ALSO HAULED 4 LOADS OF BACKFILL TO SITE.
- IT WAS TOO LATE IN THE DAY TO HAUL CONTAMINATED WATER FROM THE FRONTIER AVE TRENCH TO THE LOVE CANAL TREATMENT PLANT BY THE TIME ENTECH DECIDED TO CALL FRANK'S VACUUM TRUCK SERVICE (1:30). THE CUT-OFF TIME FOR ARRIVING AT THE PLANT IS 3:00.
- ENTECH AND ABB-ES CHECKED FOR INTERFERENCE BETWEEN THE EXISTING CUT-OFF WALL AND THE REPLACEMENT MANHOLE NO. 412. THERE WILL BE APPROXIMATELY 8" CLEARANCE BETWEEN THE STRUCTURES.

SUBMITTED BY Laura E. Carter

EC JORDAN CO
FORM CSO-3
REV 3/83

- VISITORS TO SITE: JIM TUK AND NYTEL LINESMEN.
- NOTE: ENTECH HAD TWO TECHNICIANS ON SITE ON 2/2/93 TO WAIT FOR NYTEL TO ARRIVE TO SUPPORT POWER POLE NYT 204. NYTEL DID NOT ARRIVE UNTIL 2/3/92. THEY WILL BE BACK ON EITHER 2/4 OR 2/5 TO SUPPORT THE POLE. ENTECH'S TECHNICIANS PLACED POLY AND HDPE LINER IN THE REMAINING ROLL-OFF CONTAINERS WHILE THEY WAITED.

THURSDAY 2/4/93

- ENTECH PLANNED TO BACKFILL THE BACKYARD AT 9909 BLACK CREEK DRIVE AND TO REMOVE SNOW AND ICE FROM THE ROLL-OFF CONTAINER TARPS.

- M+M TRUCKING HAULED BACKFILL MATERIAL TO 9909 BLACK CREEK DRIVE.

- ENTECH PLACED AND COMPACTED THE BACKFILL AS IT ARRIVED AT THE 9909 BLACK CREEK DRIVE LOT.

- NYTEL SUPPORTED ~~THE~~ POWER POLE NYT 404 WITH A CABLE AND TOE SYSTEM.

- ENTECH REMOVED THE ICE AND SNOW FROM THE TARPS ON THE ROLL-OFF CONTAINERS LOCATED AT THE LOVE CANAL TREATMENT FACILITY. THE TARPS WERE TIGHTENED ACROSS THE CONTAINERS.

- ENTECH NOTIFIED ABB-ES THAT THEY ARE HAVING DIFFICULTY LOCATING A CARRIER LICENSED TO HAUL U-129 WASTE. U-129 IS THE DESCRIPTION FOR THE MATERIAL IN THE ROLL-OFF CONTAINERS.

- ABB-ES NOTIFIED JOHN SPELLMAN OF NYSDEC OF THE U-129 LICENSE PROBLEM. J. SPELLMAN WILL LOOK INTO THE MATTER.

- ENTECH NOTIFIED ABB-ES OF THEIR PLAN TO NOT WORK ON 2/5/93 UNTIL NYSDEC APPROVES THE LUMP SUM COST SUBMITED BY ENTECH FOR INSTALLATION OF A CUT-OFF WALL ON FRONTIER AVE. ENTECH DETERMINED THAT THE CONTAMINATED WATER ENTERING THE TRENCH FROM BENEATH THE 24" RCP LINE COULD NOT BE COMPLETELY CONTAINED UNTIL THE CUT-OFF WALL IS INSTALLED.

FRIDAY 2/5/93

- ENTECH PLANNED TO BEGIN WORKING ON THE FRONTIER AVE CUT-OFF WALL AS SOON AS NYSDEC AGREES UPON A PRICE FOR THE WORK.

- AT 10:30 ENTECH DECIDED TO RENT A CONCRETE SAW TO CUT THE PAVEMENT WHERE ENTECH OVEREXCAVATED ON FRONTIER AVE. THE SAW ARRIVED AT 1:00. ENTECH COMPLETED SMOOTHING UP THE EDGE OF PAVEMENT AT APPROX. 4:00.

- AN ADDENDUM TO FIELD ORDER 10 (REVISED) WILL BE ISSUED. THE EXISTING CUT-OFF WALL WILL BE REMOVED, THE 24" RCP CUT, THE TRENCH DEWATERED AS NECESSARY AND A NEW CUT-OFF WALL WILL BE CONSTRUCTED.

CONSTRUCTION PERSONNEL & EQUIPMENT REPORT

PROJECT Love Canal - Remediation of Frontier Ave/ 100th Street and EDA-4 Lots PROJECT NO. 06609-40, 50, 60

CONTRACTOR Entech WEEK ENDING 2/5/93

	MON.		TUES.		WED.		THURS.		FRI.		SAT.		SUN.	
DATE	2/1/93		2/2/93		2/3/93		2/4/93		2/5/93					
PERSONNEL CLASSIFICATION	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.
Entech														
Superintendent	1	1			1	8	1	8.5						
Health + Safety Officer	1	1			1	8	1	6.5	1	8.5				
Technician	2	1	2	8	2	8	2	8.5	2	4.5				
FMC														
Security Guard	1	1			1	8	1	8	1	8				
M+M Trucking														
Driver					1	5	1	8						
EQUIPMENT														
PC 200 LC Excavator					1	2	1	6	1	*				
WA70 Loader					1	3.5	1	4	1	*				
4" Pump					1	1	1	1	1	*				
Dump Truck					1	5	1	8						
Concrete Saw									1	3.5				

REMARKS: Entech left site at 9:00 on 2/1/93 due to cold weather.
Entech had technicians on site on 2/2/93 to meet NYTEL. Entech did not work due to cold weather.
* = not utilized.

EC JORDAN CO.
FORM C 50-2

REPRESENTATIVE Laura E Cate

CONSTRUCTION PROGRESS REPORT

SHEET 1 OF

PROJECT Love Canal Remediation of Frontier Ave / 100TH St and FOA 4 lots
PROJECT NO. 06609-40
CONTRACTOR Entech
REPORT NO. 13
CONTRACTOR'S REP. Paul Peline
PERIOD ENDING 2/12/93

CONTRACT TIME
EXTENSIONS
DAYS ELAPSED
DAYS REMAINING

WEATHER AND SITE CONDITIONS
Mon: Clear: 24°-29°
Tues Clear: 27°-33°
Wed: Clear: 35°-39°
Thrs: Cloudy: 19°-21°
Fri: SNOW: 25°

Monday 2/8/93

- Waiting for approval of price quote to replace cut off wall west of MH #412.
- Pumped water from the Frontier Ave. trench and hauled to the treatment plant.
- John Nadeau on-site today to become familiar with project in preparation for Laura Carters departure.

Tuesday 2/9/93

- Pumped water from Frontier Ave. trench and hauled to the treatment plant.
- Excavated to expose cut off wall. Bottom of the wall extends to the full depth of the bedding below the pipe. Bottom approx. 2 FT of the wall was stained black. Mobilized an excavator to the site equiped with a concrete breaker to break up the wall and remove from the trench. The stained concrete was loaded into a Roll off Box. The remaining concrete was hauled to the stock pile.
- Loaded concrete base from M.H. #412 into a roll off Box

SUBMITTED BY

PROJECT	COMP. BY	JOB NO.
Love Canal Remediation of Frontier Ave/ 100TH St. and EDA 4 lots		06609-40
	CHK. BY	~~DATE~~ Rpt No. 13

Construction Progress Report

Wednesday 2/10/93

- Pumped water from excavation near the cut off wall into 55 gallon drums. Drums were staged near the drum handling facility.
- Excavated and removed overburden to allow construction of new cut off wall. Material was hauled to stockpile.
- Removed one section of 24" pipe from trench west of M.H # 412 and excavated bedding material to allow construction of Cut off wall.

Thursday 2/11/93

- Excavated an approximately 1-Ft deep key way into the surface of the naturally deposited undisturbed clay for the bearing surface of the new cut of wall. Key Way was cut into walls and bottom of bearing surface.
- Constructed forms and placed concrete for Cut off wall. The wall was formed to measure 4 Ft width by 15-Ft length running at an angle across trench by 4 Ft height with an additional 1 Ft of depth for ~~width~~ of Key Way.
- Joe Kolmer of jr Kolmer Associates on site videotaping work.

Friday 2/12/93

- Excavated and removed part of bedding material from Frontier Ave. trench. Placed excavated material in Roll Off Box.

PROJECT	COMP. BY	JOB NO.
Love Canal Remediation at Frontier Ave / 100th St and EDA 4 Lots		06609-40
	CHK. BY	~~DATE~~ Rpt No. 13

Construction Progress Report

- Moved loaded roll off boxes to parking lot near treatment plant.
- Joe Kolmer of jr Kolmer Associates videotaped the excavation today.

CONSTRUCTION PERSONNEL & EQUIPMENT REPORT

PROJECT Love Canal Remediation Frontier Ave / 100th St and ED-4 H lots PROJECT NO. 06609-40

CONTRACTOR Entech WEEK ENDING 2/12/93

	MON.		TUES.		WED.		THURS.		FRI.		SAT.		SUN.	
DATE	2/8/93		2/9/93		2/10/93		2/11/93		2/12/93					
PERSONNEL CLASSIFICATION	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.
Entech:														
Superintendant	1	5	1	9	1	9	1	10	1	5				
H & S Officer	1	9.5	1	9.5	1	8.5	1	10	1	3				
Technician	2	11.5	2	18	2	16.5	2	20	2	8.25				
FMC:														
Sec Guard	1	8	1	8	1	8	1	8	1	8				
M & M Trucking:														
Driver					1	8								
Vac Truck Driver	1	6.5	1	9										
EQUIPMENT														
P.C. 200 LC Excavator	1	*	1	9	1	9	1	10	1	5				
WA 70 Loader	1	*	1	9	1	9	1	10	1	5				
4" Pump	1	*	1	*	1	*	1	*	1	*				
Vac Truck	1	6.5	1	9										
RC 120 LC Excavator			1	2										
10 wheel Dump truck					1	8								

REMARKS: * = Not Utilized

2/12/93 left early due to heavy Snow

EC JORDAN CO.

FORM CSD-2

REPRESENTATIVE

CONSTRUCTION PROGRESS REPORT

SHEET 1 OF 4

PROJECT Lore Local Remediation at 100TH St / Frontier Ave. and EDA N lots
PROJECT NO. 016609-10
CONTRACTOR Entech
REPORT NO. 44
CONTRACTOR'S REP. Paul Polino
PERIOD ENDING 2/19/93

CONTRACT TIME
EXTENSIONS
DAYS ELAPSED
DAYS REMAINING

WEATHER AND SITE CONDITIONS
Mon: ~~Snow 28° 32°~~ Sunny 29° -
Tues: ~~Cloudy 20° 26°~~ Snow 28° -
Wed: ~~Sunny 20° 16°~~ Cloudy 20° -24°
Thrs: Sunny 16° -16°
Fri: Sunny / Sunny 12°-14°

Monday 2/15/93

- Excavated and removed any caved material or ice from the 100TH St. trench, and from the location of M.H #412.
- Placed crushed stone for Manhole bedding at location for Manhole 412.

Tuesday 2/16/93

- Entech added three new technicians to the crew today to perform pipe work.
- Pumped water from M.H. 413 to M.H. 412.
- Compacted crushed stone bedding material at M.H. 412 with a Jumping Jack type compactor.
- Constructed forms, installed rebar and placed concrete for base of M.H. 412. The Manhole was installed and set approx. 6-inches into the concrete base.
- Issued Field Order No. 11 revision. to aquire six additional roll off boxes

SUBMITTED BY

ECJORDAN

PROJECT	COMP. BY	JOB NO.
Love Canal Frontier Ave/100TH St Remediation	CHK. BY	06609-40 DATE 2/19/93

Construction Progress Report

Wednesday 2/17/93

- Three new roll off boxes delivered to the site today.
- Completed excavation to remove loose and slufting materials from the 100TH St. trench. Material was hauled to the stockpile.
- Began installation of 18-inch PVC pipe in the 100TH St. trench. Pipe was bedded in crushed stone from 8-inches below the pipe to approx. 12-inches above the pipe.

Thursday 2/18/93

- Continued installation of the 18-inch PVC in the 100TH St. trench. The existing clay tile pipe was 21-inch pipe not the 18-inch that was expected. Work to install the pipe was discontinued until Friday 2/19/93 when the necessary materials could be delivered to the site to complete the connection.

PROJECT	COMP. BY	JOB NO.
Lore Canal Frontier Ave / 100TH St Remediation	CHK. BY	06609-40 DATE 2/19/93

Construction Progress Report Page 3 of 4

- One roll off box delivered yesterday 2/17/93 does not have the specified sealing system, and will be removed from the site.
- Pumped water from the Frontier Ave. trench into 55 gallon drums.

2/19/93 Friday

- Pumped water from the Frontier Ave trench into 9 – 55 gallon drums.
- Completed installation of 18" PVC storm drain in 100 TH St. The 18-inch PVC was directly coupled to the clay tile pipe with a Fernco Coupling.
- Backfilled and compacted the 100 TH St. trench upto required grade for repair of water Main.
- Worked to remove the existing ductile iron water main and began installation of new ductile iron pipe.
- Bill Galloway of Entech stated that the water Utility representative was informed the work was taking place today.
- Excavated contaminated bedding material in Frontier Ave trench. Excavated to within ± 5-Ft of MH. #406

CONSTRUCTION PERSONNEL & EQUIPMENT REPORT

PROJECT Love Canal Remediation & Frontier Ave/100th St and BOA 4 & 5 PROJECT NO. 06609-40

CONTRACTOR Entech WEEK ENDING 2/19/93

	MON.		TUES.		WED.		THURS.		FRI.		SAT.		SUN.	
DATE	2/15/93		2/16/93		2/17/93		2/18/93		2/19/93					
PERSONNEL CLASSIFICATION	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.
Entech:														
Superintendent	1	9	1	9.5	1	9.5	1	8	1	6.5				
H&S Officer	1	9.5	1	9.5	1	9.5	1	9.5	1	9.5				
Technicians	2	18	5	47.5	5	47.5	5	40	5	40				
EMC:														
Sec. Guard	1	8	1	8	1	8	1	8	1	8				
EQUIPMENT														
PC 200 LC Excavator	1	9	1	9.5	1	9.5	1	8	1	8				
Ford 655C Backhoe	1	9	1	9.5	1	9.5	1	8	1	8				
WA 70 Loader	1	9	1	9.5	1	9.5	1	8	1	8				
4" Pump					1	3	1	8	1	8				
6 Wheel Dump Truck					1	3	1	8	1	8				

REMARKS:

EC JORDAN CO

REPRESENTATIVE

CONSTRUCTION PROGRESS REPORT

SHEET 1 OF 4

PROJECT Love Canal Remediation of Frontier Ave/100th and EDA 4 lots — PROJECT NO. 06609-40

CONTRACTOR Entech — REPORT NO. # 15

CONTRACTOR'S REP. Paul Polino — PERIOD ENDING 2/26/93

CONTRACT TIME

EXTENSIONS

DAYS ELAPSED

DAYS REMAINING

WEATHER AND SITE CONDITIONS

Mon:		
Tues:	Snow showers	16° – 22°
Wed:	Sunny	11° – 14°
Thrs:	Sunny	9° – 24°
Fri:	Sunny	12° – 26°

Monday 2/22/93

- Installed water main in 100th St. trench.
- John Nadeau of ABB-ES visited the site at the end of the day and observed work performed today, and site conditions.

Tuesday 2/23/93

- Representatives of the local water utility visited the site and inspected the newly installed water main. They requested the pipe be backfilled with the exception of the pipe joints. After the backfilling is done the pipe may be charged. The pipe was backfilled as requested.

SUBMITTED BY John E Vick

EC JORDAN CO

FORM CSD-3

REV 3/83

PROJECT	COMP. BY	JOB NO.
Love Canal. Remediation of Frontier Ave. / 100TH St. and EDA-H lots	TEN	06609-40
	CHK. BY	DATE 2/26/93

Construction Progress Report

Wednesday 2/24/93

- Excavated overburden from the Frontier Ave. trench east of Manhole No. 406. The material was hauled to the stockpile at the northeast corner of the cap.
- The local water utility visited the site and recharged the water main.
- Backfilled the 100TH St. trench to within several feet of the road grade. Material was placed in approximately 8 to 10-inch thick lifts and compacted with several passes of a large hand guided vibratory plate compactor.
- Compaction testing was performed on material placed today. Test results indicate acceptable compaction.

Thursday 2/25/93

- Monthly progress meeting held and minutes distributed.
- Excavated and removed material to the required depth below pipe inverts in the trench east of Manhole No. 406. Material was placed in roll offs
- Completed placement and compaction of backfill in the 100TH St. trench.

PROJECT	COMP. BY	JOB NO.
Love Canal: Remediation of Frontier Ave. /100TH St. and EDA 4/16	JEN	06609-40
	CHK. BY	DATE 2/26/93

Construction Progress Report

Friday 2/26/93

- Removed water from the Frontier Ave trench with a Vac Truck and hauled to the treatment plant.
- Excavated and removed Manhole No. 406. The pit was cleaned of all visible contamination with the exception of some stained material below the pipe extending toward the Lasalle Expressway. Conversations with Jim Tuk of NYSDEC indicated we would not excavate and remove pipe toward the expressway.
- Removed Komatsu P.C. 200 LC Backhoe from the site and Mobilized a Komatsu P.C. 300 L.C. Backhoe. The first attempt to Decontaminate and remove the Backhoe was unacceptable and Entech was directed to perform additional cleaning befor demobilizing.

C.C. Rick Day
Steve Mitchell
John Spellman

CONSTRUCTION PERSONNEL & EQUIPMENT REPORT

PROJECT Love Canal. Remediation Frontier Ave. /100th St. PROJECT NO. 06609-40

CONTRACTOR Entech. WEEK ENDING 2/26/93

	MON.		TUES.		WED.		THURS.		FRI.		SAT.		SUN.	
DATE	2/22/93		2/23/93		2/24/93		2/25/93		2/26/93					
PERSONNEL CLASSIFICATION	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.
Entech:														
Superintendant					1	5.5	1	4.5	1	10				
H & S. officer	1	9.5	1	9.5	1	9.5	1	9.5	1	9.5				
Technicians	3	24	2	16	2	19	2	19	3	30				
FMC														
Sec. Guard	1	8	1	8	1	8	1	8	1	8				
Truck Drivers					1	4			2	20				
EQUIPMENT														
PC. 200 L.C. Excavator	1	*	1	9.5	1	9.5	1	9.5	1	8				
WA 70 loader	1	*	1	9.5	1	9.5	1	9.5	1	9.5				
4" Pump	1	*	1	9.5	1	9.5	1	9.5	1	9.5				
Plate Compactor	1	*	1	9.5	1	9.5	1	9.5	1	9.5				
P.C. 300 L.C Excavator									1	3.5				
Vac Truck									1	12				
Tank truck									1	8				
10 wheel Dump Truck					1	4								

REMARKS: Note: * Not used

EC JORDAN CO.
FORM CSD-2

REPRESENTATIVE

CONSTRUCTION PROGRESS REPORT

SHEET 1 OF 3

PROJECT Erie Canal Remediation at Frontier Ave / 100TH St
PROJECT NO. C616E7-46
CONTRACTOR Entech
REPORT NO. 16
CONTRACTOR'S REP. Paul Polina
PERIOD ENDING 3/5/93

CONTRACT TIME
EXTENSIONS
DAYS ELAPSED
DAYS REMAINING

WEATHER AND SITE CONDITIONS

Mon.	Sunny	27° - 33°
Tues:	Fog - Sunny	30° - 38°
Wed:	Fog - Sunny	28° - 42°
Thrs:	Cloudy	33° - 35°
Fri:	Snow	32° - 34°

Monday 3/1/93

- Placed temporary pavement patch in 100TH St. trench.
- Attempted to install Manhole number 406. The manhole broke during installation attempts. A new manhole will need to be delivered to the site.

Tuesday 3/2/93

- Installed 36-inch RCP pipe east of Manhole 406 location. The pipe was left approximately 2 lengths shy of the Manhole location. The new pipe was fit into the existing pipe and concrete was placed around the joint to seal the 2 pipes.
- Began backfilling at the east end of the Frontier Ave. trench.
- Prepaired for installation of the 36-inch RCP in the Frontier Ave. trench west of Manhole 406 location.

SUBMITTED BY

EC JORDAN CO
FORM C 3 0 - 3
REV 3/83

CC John Spellman
Rick Day
Steve Mitchell

PROJECT	COMP. BY	JOB NO.
Love Canal Remediation of Frontier Ave./100th St. and EDA H lots	JEA	66669-40, 52, 60
	CHK. BY	DATE 3/5/93

Construction Progress Report

Wednesday 3/3/93

- Installed 36-inch RCP in Frontier Ave west of Manhole 406 location. The pipe was installed to within approximately 4 pipe lengths of the location of Manhole 406.

Thursday 3/4/93

- Installed 2 additional lengths of 36-inch RCP in Frontier Ave west of Manhole No. 406 location. The pipe is completed to within approximately 2 pipe lengths of the location of Manhole No. 406.
- Continued backfilling in Frontier Ave. trench. Performed Compaction tests on the backfilled material. Test results were in accordance with project specifications.

Friday 3/5/93

- Installed base section of Manhole 406 and completed Installation of 36-inch and 33-inch RCP.
- The 8-inch clay tile Sanitary Sewer pipe adjacent to the Frontier Ave trench was exposed due to sluffing of the trench walls. An approximately 2-Ft long section of pipe was broken and received with Fernco Couplings and 8-inch PIC pipe.

CONSTRUCTION PERSONNEL & EQUIPMENT REPORT

PROJECT Los Canal Remediation at Frontier Ave / 100th St PROJECT NO. C6669-40, 50, 60

CONTRACTOR Entech WEEK ENDING 3/5/93

	MON.		TUES.		WED.		THURS.		FRI.		SAT.		SUN.	
DATE	3/1/93		3/2/93		3/3/93		3/4/93		3/5/93					
PERSONNEL CLASSIFICATION	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.
Entech:														
Superintendant	1	8.5	1	9.0	1	10	1	9.5	1	8.5				
H&S officer	1	9.5	1	9.5	1	10	1	9.5	1	8.5				
Technicians	3	25.5	4	36	4	40	4	38	4	34				
Drivers			1	4	1	4	1	4	1	4				
EQUIPMENT														
PC 20 LC Excavator	1	8.5	1	9.0	1	10	1	9.5	1	8.5				
1½ yd loader	1	8.5	1	9.0	1	10	1	9.5	1	8.5				
4" Pump	1	8.5	1	9.0	1	10	1	9.5	1	8.5				
Plate Compactor	1	8.5	1	9.0	1	10	1	9.5	1	8.5				
10 wheel Dump truck			1	4	1	4	1	4	1	4				

REMARKS:

EC JORDAN CO. Page 5 of 5

FORM CSD-2

REPRESENTATIVE

CONSTRUCTION PROGRESS REPORT

SHEET 1 OF

PROJECT Love Canal Remediation of Frontier Ave / 102nd St and EPA 4 lots — PROJECT NO. 666-C9-4C-SP,6C

CONTRACTOR Envitech — REPORT NO. 17

CONTRACTOR'S REP. Paul Polino — PERIOD ENDING 3/12/93

CONTRACT TIME

EXTENSIONS

DAYS ELAPSED

DAYS REMAINING

WEATHER AND SITE CONDITIONS

Mon.	Fog	35° - 37°
Tues.	Snow Flurries	32° - 37°
Wed.	Sunny	23° - 29°
Thurs.	Cloudy	25° - 32°
Fri.	Sunny	14°

Monday 3/8/93

- Backfilled Frontier Ave trench around manholes 406 & 412
- Began Construction of Inverts in manholes 406 & 412
- Pressure washed the 42-inch RCP under the Lasalle Expy. The water was recollected and pumped into a tank truck. The tank truck will be off loaded at the treatment plant tomorrow.

Tuesday 3/9/93

- Completed Construction of inverts in manholes 406 & 412.
- Placed top on manhole 412 and installed Rim and cover.
- Backfilled around manhole 412 to required grade for paving.
- Demobilized the pressure washer for the 42-inch RCP.
- Off loaded the tank truck containing water from washing the 42-inch RCP. The water was pumped to the treatment plant.

SUBMITTED BY

PROJECT	COMP. BY	JOB NO.
Love Canal Remediation of Frontier Ave/ 100 TH St and EDA 4 lots	JEN	26609-42, 50, 62
	CHK. BY	DATE 3/12/93

Construction Progress Report

- Began moving roll off boxes to Occidental Chemical.
- Performed general cleanup around site.
- Repaired the roadway box to the water main shut off.
- Monthly Construction progress meeting held and the minutes were distributed.

Friday 3/12/93

- Moved all drums containing water to the drum handling facility. The drums will be left in the facility until Monday to allow the ice to melt. The water will then be pumped to the treatment plant. The drums will be removed from the handling facility on Monday.
- Completed placement of temporary paving patch.
- Installed hay bales around the stockpile.
- Performed General cleanup.
- Completed moving 11 roll off boxes to Occidental Chemica

PROJECT	COMP. BY	JOB NO.
Love Canal Remediation of Frontier Ave/ 100TH St and EDit H lots	SEN	06669-46,50,60
	CHK. BY	DATE 3/12/93

Construction Progress Report Page 2 of 5

Wednesday 3/10/93

- Installed top of manhole 406 and set the rim and cover.
- Backfilled around manhole 406 upto required grade for temporary trench paving patch.
- Cleaned the concrete and paving from the Frontier Ave. and 100TH St. site and mixed it to the stockpile at the northeast corner of the cap. The disposal area proposed for the material is not accessable due to snow. The material will need to be removed and disposed of properly when work resumes in the spring time.

Thursday 3/11/93

- Completed backfilling and grading of Frontier Ave. trench to required grades for placement of temporary trench patch.
- Began placement of temporary trench patch on Frontier Ave.

PROJECT	COMP. BY	JOB NO.
Love Canal Remediation at Frontier Ave/ 100 TH St and EDA 4 lots	JRN	06609-46, 50, 60
	CHK. BY	DATE 3/12/95

Construction Progress Report 4 of 5

- The City of Niagra Falls was contacted and plowed Frontier Ave and 100 TH st. The Streets were reopened to traffic.
- Paul Polino spoke with the city of Niagra Falls representative who stated if any settlement of the temporary trench patch occurs it will need to be brought back to grade. Mr. Polino agreed this would be done.
- John Nadeau of ABB Environmental demobilized from the site.

Distribution:

R Day J. Spellman

S. Mitchell

CONSTRUCTION PERSONNEL & EQUIPMENT REPORT

PROJECT Love Canal Remediation of Frontier Ave / 102nd St and EPA 4 HRS — PROJECT NO. 06609-1R,SP,LO

CONTRACTOR Envitech — WEEK ENDING 3/12/93

	MON.		TUES.		WED.		THURS.		FRI.		SAT.		SUN.	
DATE	3/8/93		3/9/93		3/10/93		3/11/93		3/12/93					
PERSONNEL CLASSIFICATION	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.
Envitech:														
Superintendant	1	3	1	4	1	4	1	2						
H&S Officer	1	9.5	1	9.5	1	9.5	1	10.5	1	9.5				
Technicians	2	19	2	18.5	2	19	2	21	2	19				
FMC:														
Sec Guard	1	8	1	8	1	8	1	8	1	8				
EQUIPMENT														
PC 300 LC Excavator	1	9.5	1	9.5	1	9.5	1	10.5	1	9.5				
416 JC loader	1	9.5	1	9.5	1	9.5	1	10.5	1	9.5				
Plate Compactor	1	9.5	1	9.5	1	9.5	1	10.5	1	9.5				
4" Pump	1	9.5	1	9.5	1	9.5	1	10.5	1	9.5				

REMARKS:

E.C. JORDAN CO.
FORM CSD-2

REPRESENTATIVE

CONSTRUCTION PROGRESS REPORT

SHEET 1 OF 1

PROJECT Love Canal Remediation at Frontier Ave & 100 TH St. and EDA 4 Lots PROJECT NO: 6109-10-50160

CONTRACTOR Entech Management Services REPORT NO. 18

CONTRACTOR'S REP. Paul Polino PERIOD ENDING 5/28/93

CONTRACT TIME _____

EXTENSIONS _____

DAYS ELAPSED _____

DAYS REMAINING _____

WEATHER AND SITE CONDITIONS

~~Mon~~ Tues: Cloudy Temp: 50's

~~Tues~~:

Wed: Sunny 60's

Thus: Sunny 40's

Fri: Cloudy 60's

5/25/93

- Saw Cut Concrete and asphault around the perimeter of the trench in 100 TH St. and Frontier Ave. The saw cutting was a minimum of one foot beyond the limits of the trench.
- Regraded around manhole No. 404 and straightened the rim of the manhole.
- Removed Fence around 9909 Black Creek Drive.
- Began excavating and hauling to off-site disposal facility the Concrete and asphault in 100 TH St. trench.
- Hay and plastic covering has been removed from the Cap repair area. Entech has been pumping to remove standing water from the area.

5/26/93

Resumed excavation and disposal of Concrete and asphault from trenches in 100TH St. and Frontier Ave. A mix up oeared scheduling the trucks to haul material off-site and no trucks were on-site

SUBMITTED BY John E Nadl

PROJECT	COMP. BY	JOB NO.
Love Canal Remediation of Frontier Ave / 100TH St and EDA 4 Lots		0609-40.50.00
	CHK. BY	DATE 5/28/93

Weekly Construction Progress Report Continued Page 2 of 5

until 1030 hours today. Only one truck was available due to the scheduling mix up and the excavation process was slow as a result.

- John Nadeau telephoned Steve Mitchel (ABB-ES) and informed him that the loam for 9909 Black Creek Drive was scheduled to be delivered within the next several days. Mr. Mitchel relayed the message to Ben Lorado (NYSDEC). If the loam is spread it will be disturbed if any other work will need to be performed in the area.
- Thomas Kukulka, Construction inspector for the City of Niagra Fall, Engineering Department visited the site. Mr. Kukulka agreed with the limits for removal of asphault and concrete. Also the curb underdrain will need replacing.
- Entered Sewer Manhole No. 459 and attempted to view a light shining through the pipe from Manhole 450. Could not see the light through the pipe. Will make other attempts to verify the condition of the pipe.

PROJECT	COMP. BY	JOB NO.
Love Canal Remediation at Frontier Ave./100TH St. and EDA 4 lots	CHK. BY	066609-40,50,60
		DATE 5-28-93

Weekly Construction Progress Report Continued page 3 of 4 5

- Hauled gravel from the 100 TH St trench to 9909 Black Creek Drive to be used for Driveway Stone.

5/27/93

- Worked to regrade the cap repair area.
- Continued excavation and disposal of Concrete and asphault from the 100TH St. and Frontier Avenue trenches.
- An easy Rooter sewer saking device was rented by ~~Entech~~ and attempts were made to insert the 3/4" device into the Sewer pipe beginning from Sewer Manhole No. 459. The device encountered substantial resistance but was inserted to 80-Ft which is beyond the area of alleged damage to the pipe. Attached a 4-inch PVC ~~pipe~~ Plug to the device and attempted to push it through the pipe. Attempts were not successful. It is believed that Solids and debris in the pipe are blocking the ~~pipe section~~ Plug from being pushed through the Sewer line. The Sewer pipe will be cleaned and will reattempt to insert plug.

PROJECT	COMP. BY	JOB NO.
Love Canal Remediation of Frontier Ave. / 100TH St. and EOA 4 lots		0409-[illegible]60
	CHK. BY	DATE 5/28/93

Weekly Construction Progress Report Continued

5/28/93 • Cleaned sewer pipe between manholes 450 and 459. then successfully pulled an approximately 6-inch diameter plug through the pipe. This indicates that no damage exists between the two manholes.

• Compacted Gravel backfill in Frontier Ave and 100TH St. using a large hand guided vibratory plate compactor and a 10 Ton dual drum vibratory roller. A representative of Professional Services Industries Inc. visited the site and performed in-place field unit weight density tests on the gravel backfill. The test results showed the density of the backfill to be in compliance with the project specifications.

• Excavated and searched for the end of the existing clay tile curb drain pipe. The excavation was along the existing curb at the east end of the Frontier Ave. trench. Uncovered only fragments of

PROJECT	COMP. BY	JOB NO.
Love Canal Remediation of Frontier Ave. / 100th St. and EDA 4 lots	CHK. BY	06609-40,50,60
		DATE 5/28/93

Weekly Construction Progress Report Continued

- a crushed and fragmented pipe. The condition of the existing pipe prevented coupling of the new corrugated slotted 4-inch ADS curb drain. The new pipe was run the full length of the trench where curbing had been removed and the end of the pipe was installed abuting the existing pipe.

Distribution:

R. Day
B. Loredo
S. Mitchell
G. Ryder

CONSTRUCTION PERSONNEL & EQUIPMENT REPORT

PROJECT Love Canal Remediation at Frontier Ave./100th St. PROJECT NO. 0160.09-40, 50, 60.

CONTRACTOR Entech Management Services WEEK ENDING 5/28/93

	MON.		TUES.		WED.		THURS.		FRI.		SAT.		SUN.	
DATE	5/24/93		5/25/93		5/26/93		5/27/93		5/28/93					
PERSONNEL CLASSIFICATION	NO.	HRS.	NO.	Total HRS.	NO.	Total HRS.	NO.	Total HRS.	NO.	Total HRS.	NO.	HRS.	NO.	HRS.
Entech:														
Superintendent			1	8	1	8.5	1	8.5	1	4.0				
Laborers			3	24	3	25.5	3	25.5	3	21				
Security Guard			1	8	1	8	1	8	1	7.0				
Sub Contractors:														
Sewer Cleaning									2	3.0				
Compaction Testing									1	3.0				
EQUIPMENT														
Entech:														
Komatsu PC 90 Excavator		1	1	8	1	8.5	1	8.5	1	7.0				
Komatsu WA 70 loader			1	8	1	8.5	1	8.5	1	7.0				
Plate Compactor									1	7.0				
Dual Drum Roller									1	5.0				
Sewer Rooter (Snake)									1	1.5				
Sub Contractors:														
High Pressure Sewer Cleaner							1	2.0						

REMARKS:

E.C. JORDAN CO.
FORM CSD-2

REPRESENTATIVE

CONSTRUCTION PROGRESS REPORT

SHEET 1 OF 1

PROJECT Love Canal Remediation of Frontier Ave/100th St and 20A 4 Lots PROJECT NO. 06609-40506.00

CONTRACTOR Entech Management Services REPORT NO. 19

CONTRACTOR'S REP. Paul Polino PERIOD ENDING 6/4/93

CONTRACT TIME _____

EXTENSIONS _____

DAYS ELAPSED _____

DAYS REMAINING _____

WEATHER AND SITE CONDITIONS

Tues: Sunny 45°

Wed: Sunny 50's

Thrs: Sunny 70's

Fri: Sunny 60's

6/1/93

- Completed regrading and compacting gravel in Frontier Ave. trench. A representative of Professional Services Industries, Inc was on site and performed in-place field unit weight density testing on gravel in Frontier Ave. trench. Test results showed the material to be in compliance with the Project specification.

- Lindy Jedrysic Site Contractor Co. (Jedrysik) reported to the site as a sub contractor to Entech. Jedrysik will perform final grading and concrete and asphault work.

- Placed concrete for 100TH St.

- Began installation of Curbing along Frontier Ave.

SUBMITTED BY John E Nash

PROJECT	COMP. BY	JOB NO.
Love Canal Remediation of Frontier Ave / 100TH St and EDA 4 house Lots	CHK. BY	06609-40,50,60
		DATE 6/4/93

Weekly Construction Progress Report

6/2/93

- Completed installation of Granite Curb along Frontier Ave. and placed concrete behind the curb.
- Completed placement of Concrete for Frontier Ave. roadway.
- placed Concrete for replacement of 2 sections of Sidewalk along Frontier Ave.
- Pumped to dewater surface of cap repair area. Spread sandy fill material over cap area and graded by hand shovel.
- Spread loam in pack yard of 9909 Black Creek Drive. Subsequent to placement of loam John Nadeau (ABB-ES) spoke with Steve Mitchell (ABB-ES) who stated Ben Lorado had spoken with Entech and directed them not to spread loam at 9909 Black Creek Drive. John Nadeau had not been made aware of that conversation. Paul Pilino stated he had not been told by Ben Lorado not to spread Loam at 9909

PROJECT	COMP. BY	JOB NO.
Love Canal Remediation of Frontier Ave./100TH St and EDA 4 house lots	CHK. BY	06609-40,50,60
		DATE 6/4/93

Weekly Construction Progress Report

Black Creek Drive.

6/3/93

- Continued work to hand grade cap area.
- Spread loam along Frontier Ave., and hand rated.
- Bill Galloway of Entech had spoken to Ben Lorado of NYSDEC and discussed spreading of loam at 9909 Black Creek Drive. Mr. Galloway was under the understanding that the only area not to receive loam cover at this time was where the excavation had extended into the backyard of the house next door to 9909 Black Creek Drive.
- John Nadeau (ABB-ES) met with Jim Tuk (NYSDEC) and discussed the loam placement. Both Mr. Tuk and Mr. Nadeau were in agreement

PROJECT	COMP. BY	JOB NO.
Love Canal Remediation of Frontier Ave / 100TH St and EDA 4 house Lots	CHK. BY	01609-40,50,60
		DATE 6/4/93

Weekly Construction Progress Report

that because the majority of the loam was already spread, the contract requires seeding by June 15TH and the schedule for work at 9909 was not certain but was not likely to happen in the immediate future due; to sampling and turn around time, the work at 9909 should be completed to the full extent of the contract at this time.

- Removed concrete stockpiled near the north east corner of the cap from the site.

6/4/93

- Completed placement of loam along Frontier Ave.
- Spread loam in back yard at 9909 Black Creek Drive.
- Roto tilled loam at 9909 Black Creek Drive and 1044 100TH St.

Distribution: S. Mitchell, R. Day, Ben Lorado, Gerald Ryder

CONSTRUCTION PERSONNEL & EQUIPMENT REPORT

PROJECT Love Canal Remediation of Frontier Ave / 100TH St. PROJECT NO. 06609-40,50,60

CONTRACTOR Entech Management Services WEEK ENDING 6/4/93

	MON.		TUES.		WED.		THURS.		FRI.		SAT.		SUN.	
DATE			6/1/93		6/2/93		6/3/93		6/4/93					
PERSONNEL CLASSIFICATION	NO.	HRS.	NO.	Total HRS.	NO.	Total HRS.	NO.	Total HRS.	NO.	Total HRS.	NO.	HRS.	NO.	HRS.
Entech:														
Super			1	8.0	1	8.0	1	3.0	1	4.5				
Laborers			3	24.0	3	24.0	3	25.5	3	25.5				
Sec Guard			1	8.0	1	8.0	1	8.0	1	8.0				
Sub Contractors:														
Tedrysik:														
Super			1	8.0	1	8.0								
laborers			4	32.0	4	32.0								
PSI:														
Techs			1	3.0										
Wack Bros.														
Truck Driver							1	3.5						
EQUIPMENT														
Entech:														
PC 90 Excavato			1	8.0	1	8.0	1	8.5	1	8.0				
WA 70 loader			1	8.0	1	8.0	1	8.5	1	8.0				
Dual Drum Roller			1	8.0	1	8.0	1	*	1	*				
Plate compactor			1	8.0										
Roto Tiller									1	8.0				
Tendrysik:														
Bobcat			1	8.0	1	8.0								
Wack Bros.														
10 Wheel Dump Truck							1	3.5						

REMARKS: * Not used

EC JORDAN CO

FORM CSD-2

REPRESENTATIVE

CONSTRUCTION PROGRESS REPORT

SHEET 1 OF 11

PROJECT Love Canal Remediation of Frontier Ave/ 100 Th St. and ED # 4 Lots
PROJECT NO. 06609-4050, 62

CONTRACTOR Entech Management Services
REPORT NO. 20

CONTRACTOR'S REP. Paul Polino
PERIOD ENDING 6/11/93

CONTRACT TIME
EXTENSIONS
DAYS ELAPSED
DAYS REMAINING

WEATHER AND SITE CONDITIONS
Mon: Clear 60's
Tues: Rainy 70's
Wed: Showers 60's
Thrs: Sunny 70's
Fri: Sunny 70's

6/7/93
- John Nodeau (ABB-ES) was on-site this weekend and pumped to dewater the cap repair area.
- Site Conditions were wet this morning due to rain overnight.
- Linda Jedrysic Site Contractor Co. did not report to the site this morning due to wet conditions. By 1030 hrs the site was dry and Jedrysic was telephoned to report to the site this afternoon. Jedrysic did not report to the site.
- Entech had only one man on site all day today doing paper work and one man on-site ½ day regrading the stockpile near the site trailers.

6/8/93
- Constructed forms for Concrete Sidewalk and walkways at 9909 Black Creek Drive.
- Solmax Geosynthetics Co. mobilized today but were not able to begin cap repairs due to wet subgrade and rain at 1100 hours.
- Entech had one laborer attempting to dry and grade

SUBMITTED BY

PROJECT	COMP. BY	JOB NO.
Love Canal Remediation of Frontier Ave / 100 TH St and EDA 4 house Lots	CHK. BY	01609-40,50,60
		DATE 6/11/93

Weekly Construction Progress Report

the Cap repair area.

- John Nadeau had met with Linda Jedrysic on Sunday 6 June 1993. Ms Jedrysik asked if pavement could be placed by hand rather than using a paving machine. John Nadeau stated the specifications do not require a paving machine be used, but if done by hand racking, extreme attention to grading and consistancy will be required to provide a uniformly graded surface.

- Began placement of 2 ½-inch Binder pavement in 100 TH St. The material was hand racked and compacted with a dual drum vibratory roller. At 1400 hrs heavy rain began and paving was discontinued for the day.

6/9/93 - Continued to construct forms and place No. 1 Stone for Sidewalk and walkways at 9909 Black Creek Drive

PROJECT	COMP. BY	JOB NO.
Love Canal Remediation of Frontier Ave./100 TH St and EDA 4 house Lots	CHK. BY	06609-40,50,60
		DATE 6/11/93

Weekly Construction Progress Report

- Completed placement of 2 ½ - inches of Binder pavement in Frontier Ave. and 100 TH St.

- Began placement of 1 ½ - inches of top coat of paving in 100 TH St. All edges of the trench patch were painted with tackcoat extending at least six inches beyond the edge of the trench.

- John Nadeau (ABB-ES) met with Jim Tuk (NYSDEC) Mr. Tuk requested that the rim of Manhole number 412 be raised to match with the proposed grade for finish paving in Frontier Ave. John Nadeau met with Paul Polino (Entech) Mr. Polino will get the appropriate riser sections to adjust the rim elevations of Manholes No. 412 and 406. The rims will be reset prior to placement of top coat paving in the respective areas.

- Worked to regrade stockpile at the site trailers.

- Solmax Geosynthetics Co. (Solmax) began installation of 40 mil liner on the north half of the cap repair area. Extra pieces of liner material (Rubsheets)

PROJECT	COMP. BY	JOB NO.
Love Canal Remediation of Frontier Ave / 100 TH St and EDA 4 house Lots	CHK. BY	01609-40,50,60
		DATE 6/11/93

Weekly Construction Progress Report

were layed out below any areas where seams were being welded. The liner panels were layed out on the grassy area adjacent to the cap repair area, and the panels were welded to gether then draged into place.

- The perimeter of the cap repair was welded to the existing liner material. Prior to welding all water was removed and the HDPE liner material was cleaned with hand towels to provide a clean dry Surface for welding.
- Performed pressure tests on the dual hot wedge seam welds. The tests were performed in accordance with the project specificatims and were acceptable.
- John Nadeau provided Brian Sadowsky (NYSDEC) with a section of the old Liner material and informed him that the piece provided had been exposed to Sun and air for an extended period of time.
- John Strang, Ben Lorado and Gary Mcphearson of (NYSDEC) visited the site this afternoon and met with John Nadeau (ABB-ES) to review site

PROJECT	COMP. BY	JOB NO.
Love Canal Remediation of Frontier Ave / 100 TH St and EDA 4 house Lots	CHK. BY	01609-40,50,60
		DATE 6/11/93

Weekly Construction Progress Report

activities and Conditions.

6/10/93 o Resumed placement of top coat of pavement in Frontier Ave. 100 TH st. Was completed yesterday. The rim elevation of Manhole 412 was raised by adding a metal riser to the rim.

o Excavated and removed an approximately 8-Ft by 10-Ft area of soft saturated material in the driveway at 9909 Black Creek Drive. The area was next to the garage and was excavated to approximately 2-Ft depth. Replaced the excavated area with No. 2 Crushed stone and compacted with a dual drum vibratory roller. The soft and weaving condition ~~failure~~ of this area has been elimenated.

o Rick Day (ABB-ES) was on-site and met with John Nadeau to review site conditions and activities. John Strang (NYSDEC) joined messrs Day and Nadeau and observed and discussed the poor quality of the paving in place at Frontier Ave.

PROJECT	COMP. BY	JOB NO.
Love Canal Remediation of Frontier Ave / 100 TH St and EDA 4 house Lots	CHK. BY	01609-40,50,60
		DATE 6/11/93

Weekly Construction Progress Report

the pavement is in place to the required grade, but is uneaven and the edges are loose and uneaven. The paved area has numerous shimed patches added to try and level the grading. It is likely that these areas will unravel and peal away.

- John Nadeau (ABB-ES) met with P. Polino at 1230 hours and requested Mr. Polino Submit a price to change the requirements for an asphault driveway at 9909 Black Creek Drive to a concrete driveway. Mr. polino stated he would get back to Mr. Nadeau with a price later in the day and that he was leaving the site for a 1330 meeting.

- John Nadeau met with Ben Lorado (NYSDEC) and observed the condition of the above noted pavement in Frontier Ave. The conditions are unacceptable. John Nadeau will ask Entech to suggest a method for correcting the unacceptable work.

PROJECT	COMP. BY	JOB NO.
Love Canal Remediation of Frontier Ave / 100TH St and EDA 4 house Lots	CHK. BY	06609-40,50,60
		DATE 6/11/93

Weekly Construction Progress Report

o Messrs Lorado and Nadeau visited 9909 Black Creek Drive where a binder coat of pavement had been placed. Mr. Paul Polino (Entech) was on-site and stated the material had been placed without his knowledge and while he was off-site. Mr. Polino had not prepaired a price for placing concrete instead of the asphault which was now in-place.

Linda Jedrysik joined the conversation and was informed the pavement at Frontier Ave. was not acceptable. John Nadeau told Paul Polino to discuss the options to correct the work and make a proposal in the morning tomorrow 11 June 1993.

o Solmax Geosynthetics Co. Completed installation of the HDPE liner cap repair today. The liner panels were welded together next to the cap with the use of rub sheets, and pulled into place.

PROJECT	COMP. BY	JOB NO.
Love Canal Remediation of Frontier Ave./100TH St and EDA 4 house Lots	CHK. BY	06609-40,50,60
		DATE 6/11/93

Weekly Construction Progress Report

- Wiped and dryed the surface of the HDPE liner around the perimeter to facilitate completion of welding to the existing liner. The attachment to the old liner was completed and all in field testing was performed.

- John Nadeau met with Mr. Denis Guyegg (Solmax) and directed Mr. Guyegg where to obtain 3 Samples for laboratory destruct testing. The samples were cut and sent to J & L Testing Co. Inc. (J&LT). Solmax performed repairs to the areas where samples were taken.

6/11/93 - Solmax performed the additional work to add an extrusion weld around the perimeter of the cap repair area. Denis Guyegg stated the additional weld was added as additional protection and because he was suspect of the weld to attach to the old liner material.

PROJECT	COMP. BY	JOB NO.
Love Canal Remediation of Frontier Ave / 100TH St and EDA 4 house Lots		06609-40,50,60
	CHK. BY	DATE 6/11/93

Weekly Construction Progress Report

- Received Liner Destructive test results from ATLT. Sample D-2 failed the Peel Test for Film tear Bond. Cut 2 samples Numbers D-4 and D-5 of the perimeter Seam, Subsequent to the addition of an extrusion weld, and sent to ATLT as a retest for failed test No. D-2. Solmax Capped and repaired the areas where D-4 & D-5 were taken.
- Solmax Demobilized from the site today.
- Placed top coat of paving for Driveway at 9909 Black Creek Drive. The paving was continious from Garage to roadway and to facilitate installation. The asphault will be cut and removed as necessary to facilitate the intersection by the concrete sidewalk.
- Placed two coats of asphault at house east of 9909 Black Creek Drive to repair the driveway.

PROJECT	COMP. BY	JOB NO.
Love Canal Remediation of Frontier Ave / 100TH St and EDA 4 house lots	CHK. BY	01009-40,50,60
		DATE 6/11/93

Weekly Construction Progress Report

o Met on-site at Frontier Ave. to observe and discuss repair of asphault paving in place. Meeting attendants are listed below.

NYSDEC	ABB-ES	Entech
Jim Tuk	Rick Day	Bill Galloway
	John Nadeau	* Paul Polino

City of Niagra Falls

Thomas Kukulka

The result agreement by all attendees was that the area would be regraded to level by adding and compacting asphault. Then the area would be overlayed with top coat and would have only one jag of the ~~perm~~ edge line. The edge will need to be controlled to be kept straight. Also Manhole Number 406 will be adjusted to meet grade and the roadway box for the water shut off will be raised to meet grade.

* Paul Polino arrived at end of meeting, ~~and~~ was briefed and agreed to corrective action.

o Paved the driveway at 1044, 100TH St.

PROJECT	COMP. BY	JOB NO.
Love Canal Remediation of Frontier Ave / 100 TH St and EDA 4 house Lots	CHK. BY	06609-40,50,60
		DATE 6/11/93

Weekly Construction Progress Report

- Overlayed the entire trench patch of Frontier Ave extending from 6-inches beyond the existing patch to the curb. One jog was placed in the edge of the pavement. Manhole 406 and the roadway box for the water shut off were raised to meet grade. The surface was graded more strictly and was compacted to provide a surface more level than the privious unaccepted work.
- Placed Concrete for Side walk and walkways at 9909 Black Creek Drive and adjacent house.
- Worked to grade stockpile near site trailers.

CC:

NYSDEC
B. Loredo
J. Strang
G. Ryder

ABB-ES
S. Mitchell
R. Day

CONSTRUCTION PERSONNEL & EQUIPMENT REPORT

PROJECT Love Canal Remediation of Frontier Ave / 100 7th St. and EDA 4 Lots PROJECT NO. DLC09-40,50,60

CONTRACTOR Entech Management Services WEEK ENDING 6/11/93

	MON.		TUES.		WED.		THURS.		FRI.		SAT.		SUN.	
DATE	6/7/93		6/8/93		6/9/93		6/10/93		6/11/93					
PERSONNEL CLASSIFICATION	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.
Entech:														
Superintendant	1	5.5	1	6.5	1	11.5	1	9.0	1	8.0				
Health Safety Officer	1	8.0	1	10.0	1	12.5	1	10.0	1	9.5				
Laborer					1	12.5	1	10.0	1	9.5				
Jedrysik:														
Superintendant			1	10.0	1	11.0	1	10.0	1	10.0				
Laborers			5	50.0	6	66.0	6	60.0	6	60.0				
Solmax:														
Technicians			2	8	2	21.0	2	24	2	13.0				
EQUIPMENT														
Entech:														
PC 90 Excavator	*	5.5	1	100	1	12.5	1	10.0	1	9.5				
WA 70 Loader	*		1	100	1	12.5	1	10.0	1	9.5				
Jedrysik:														
Dual Drum Roller			1	10.0	1	11.0	1	10.0	1	10.0				
Dump Truck			1	10.0	1	11.0	1	10.0	1	10.0				

REMARKS: * Not used

EC JORDAN CO

FORM CSD-2

REPRESENTATIVE

CONSTRUCTION PROGRESS REPORT

SHEET 1 OF 3

PROJECT Love Canal Remediation at Frontier Ave./ 100TH St. and EDA 4 lots — PROJECT NO. 06609-49.5960

CONTRACTOR Entech Management Services — REPORT NO. 21

CONTRACTOR'S REP. Paul Polino — PERIOD ENDING 6/18/93

CONTRACT TIME

EXTENSIONS

DAYS ELAPSED

DAYS REMAINING

WEATHER AND SITE CONDITIONS

Mon: Sunny 70's
Tues: Sunny 70's
Wed: cloudy 70's
Thrs: Sunny 70's
Fri: Sunny 70's

6/14/93

- Entech placed and graded loam along Frontier Ave. and 100TH St.
- Swept street and performed general clean-up
- Entech received notification from TLT Testing Company of results of Destructive testing performed on HDPE liner samples. Test results showed material to be in compliance with the project specifications

6/15/93

- Began backfilling caprepair area using sandy materials stockpiled adjacent to repair area. The sandy material was being placed in approximately one foot thick lifts. The material was placed by reaching with an excavator. No vehicle traffic was allowed over the backfilling area.
- Continued placing loam and grading along Frontier Ave. and 100TH St.
- placed and graded additional loam at 9909 Black Creek Dr.
- John Nadeau (ABB-ES) met with Paul Polino (Entech) and informed him

SUBMITTED BY John E Nadeau

PROJECT	COMP. BY	JOB NO.
Love Canal Remediation of Frontier Ave./100TH St and EDA 4 house Lots	CHK. BY	06609-40,50,60
		DATE 6/18/93

Weekly Construction Progress Report

the condition of the walkway next to the house at 9913 Black Creek Drive was unacceptable. The new concrete abutes jaged uneaven edges of old Concrete, and the grading is uneaven. Also the jointing of the new and old Concrete sidewalks at 9909 Black Creek Drive are not squared to the next available joint and are therefore unacceptable.

6/16/93 o Continued grading loam at 9909 Black Creek Drive and performed general clean up and removal of debris.

o Continued backfilling Cap repair area using Sandy Soils. The backfilling was performed by reaching with a backhoe. No vehicle traffic was allowed on the cap repair area.

o John Nadeau (ABB-ES) Met with Jim Tuk (NYSDEC) Mr. Tuk informed Mr. Nadeau that Jeff Principe of LCARA had visited the EDA 4 lots

PROJECT	COMP. BY	JOB NO.
Love Canal Remediation of Frontier Ave./100TH St and EDA 4 house Lots	CHK. BY	06609-40,50,60
		DATE 6/18/93

Weekly Construction Progress Report

and said the sidewalks placed in the area did not meet city Code and were not acceptable.

- John Nadeau Met with Mr. Principe and Paul Polino at the EDA 4 lots and reviewed and discussed the conditions. Sidewalks are missing Construction joints and are not placed in 5-Ft square blocks. The driveway at 1044, 100TH St. has been overlayed with asphault and covers the previous sidewalk. Mr. Principe stated this did not meet City Code. Mr. Polino believed the sidewalk area to have been covered with asphault prior to work at the site, and was replaced in kind.

6/17/93 - Cleaned decon pads at site of Sand Filters, South end of Cap, behind treatment building and in front of administration building. The cleanings were placed in one of the projects roll off Boxes stored near the treatment plant.

PROJECT	COMP. BY	JOB NO.
Love Canal Remediation of Frontier Ave. / 100TH St and EDA 4 house lots	CHK. BY	06609-40,50,60
		DATE 6/18/93

Weekly Construction Progress Report

- Continued backfilling cap repair area and placing topsoil in the repair area. Only after restoring to grade with topsoil is vehicle traffic allowed over the repair area.
- John Nadeau Met with Paul Polino and discussed additional work needed at sidewalk areas of EDA 4 lots. Mr. Principe also wants the sidewalk at 9913 Black Creek Drive replaced, due to cracking. Mr. Polino Stated he would not replace the Sidewalk at 9913 or remove the asphault from the Sidewalk at 1044, 100TH St.

6/18/93
- Linda Jedrysik Site Contractor on-site today and began removal of Concrete Sidewalks in place which do not meet the requirements of the project specification or the City of Niagra Falls requirements.
- John Nadeau Met with Paul Polino and reviewed the construction photographs

PROJECT	COMP. BY	JOB NO.
Love Canal Remediation of Frontier Ave./100TH St and EDA 4 house lots	CHK. BY	06609-40,50,60
		DATE 6/18/93

Weekly Construction Progress Report

The pictures show evidence that the sidewalk at 1044, 100TH St. may have been concrete with asphault used as a filler in the low and broken areas. Mr. Polino agreed he would remove that sidewalk as well as at 9913 Black Creek drive as requested by Jeff Principe.

- Smoothed and graded the area of previous "Stockpile A"

CC:

NYSDEC	ABB-ES
G. Ryder	R. Day
B. Lorado	S. Mitchell
J. Strang	

CONSTRUCTION PERSONNEL & EQUIPMENT REPORT

PROJECT Love Canal Remediation at Frontier Sites / 100 TH St. and EDA 4 lots PROJECT NO. 06609-40,50,60

CONTRACTOR Entech Management Services WEEK ENDING 6/18/93

	MON.		TUES.		WED.		THURS.		FRI.		SAT.		SUN.	
DATE	6/14/93		6/15/93		6/16/93		6/17/93		6/18/93					
PERSONNEL CLASSIFICATION	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.	NO.	HRS.
Entech:														
P. Polino Superintendent	1	6.0	1	6.0	1	7.5	1	4.0	1	6.0				
B. Galloway, HSO	1	8.5	1	8.5	1	8.5	1	8.0	1	8.0				
Laborers	4	32.0	4	32.0	4	32.0	1	8.0	1	8.0				
Sec. Guard	1	8.0	1	8.0	1	8.0	1	8.0	1	8.0				
Sub Contractors:														
Jedrysik:														
Linda Jedrysik									1	8.0				
Foreman									1	8.0				
EQUIPMENT														
Entech:														
WA 70 loader	1	8.0	1	8.5	1	8.0	1	8.0	1	8.0				
PC 90 Excavator	1	8.0	1	8.5	1	8.0	1	8.0	1	8.0				

REMARKS:

EC JORDAN CO

FORM CSD-2

REPRESENTATIVE

CONSTRUCTION PROGRESS REPORT

SHEET 1 OF 4

PROJECT Love Canal Remediation of Frontier Ave./100th St. & EDA 4 Lots PROJECT NO. 06609-10,52,6

CONTRACTOR Entech Management Services REPORT NO. 22

CONTRACTOR'S REP. Paul Palino PERIOD ENDING 6/25/93

CONTRACT TIME

EXTENSIONS

DAYS ELAPSED

DAYS REMAINING

WEATHER AND SITE CONDITIONS

Tues: Sunny 70's

Wed: Sunny 70's

Thrs: Sunny 70's

6/21/93

- John Nadeau (ABB-ES) not on-site today
- Work on-site was limited due to rain

6/22/93

- John Nadeau returned to the site today.
- Entech has two men on-site working to spread mulch at area of "stockpile A"
- Thomas Kukulka from the City of Niagra Falls Engineering Department visited the site. Mr. Kukulka stated that no construction permit had been applied for or issued to Entech for work being done at the EDA 4 lots. Mr. Kukulka also rejected the concrete sidewalks in place at 9909 Black Creek Dr., because the do not meet with City Codes. Mr. Kukulka met with Bill Galloway and John Nadeau and reviewed the Conditions and the additional work needed to

SUBMITTED BY John E Palino

PROJECT	COMP. BY	JOB NO.
Love Canal Remediation of Frontier Ave / 100 TH St and EDA 4 house lots	CHK. BY	00609-40,50,60
		DATE 6/25/93

Weekly Construction Progress Report

bring the sidewalks into Compliance with City Codes. John Nadeau met with Jeff Principe of LCARA and requested he attend a Construction meeting to be held at the Love Canal Treatment Plant Administration Building on Thursday 24 June 1993 at 1000 hours. Mr. Principe will attend the meeting.

On Friday 18 June 1993 John Nadeau met with Paul Blino (Entech) and discussed scheduling a Construction meeting for Thursday 24 June 1993. Mr. Blino was agreeable to holding the meeting at that date. At approximately 1200 hours today Steve Mitchell Faxed copies of the notice for the Construction meeting to be held at 1300 hours on 24 June 1993 as Mr. Blino had agreed. At approximately 1500 hours Mr. Polino Faxed a letter to John Nadeau indicating he would not likely attend the meeting.

PROJECT	COMP. BY	JOB NO.
Love Canal Remediation of Frontier Ave. / 100TH St and EDA 4 house lots	CHK. BY	06609-40,50,60
		DATE 6/25/93

Weekly Construction Progress Report

6/23/93

- Three laborers excavating with hand shovels to the required depth for placement of No. 1 crushed stone in the sidewalk areas.
- Worked to grade surface of cap repair area using a Front End Loader and an Excavator.
- Thomas Lukulka and Frank Dalsignora of the City Engineers office visited the site and met with John Nadeau and Paul Polino. They rejected the pavement at Frontier Ave. and 100TH Street due to inconsistant grading and the rim of manhole 406 is to high.
- Cosmo Polino visited the site and met with Paul Polino.
- Removed additional concrete sidewalk that was installed by Envtech but rejected by the city Engineers representative.

6/24/93

- Worked to prepair for placement of sidewalks in the EDA 4 lots

PROJECT	COMP. BY	JOB NO.
Love Canal Remediation of Frontier Ave. / 100 TH St and EDA 4 house Lots	CHK. BY	06609-40,50,60
		DATE 6/25/93

Weekly Construction Progress Report

- Construction meeting held, and final punch list developed. The meeting minutes and punch list were distributed.

6/25/93

- Meeting held between Ben Lorado, Rick Day and Paul Polino to review and discuss punch list.
- John Nadeau ~~did~~ not on-site today.

cc.

ABB-ES	NYSDEC
S. Mitchell	B Lorado
R. Day	G. Ryder

CONSTRUCTION PERSONNEL & EQUIPMENT REPORT

PROJECT Love Canal Remediation of Frontier Level / 100TH St and EOA 4 lots PROJECT NO. 06609-40,50,60

CONTRACTOR Entech Management Services WEEK ENDING ~~6/20/93~~ 6/25/93

	MON.		TUES.		WED.		THURS.		FRI.		SAT.		SUN.	
Date	6/21/93		6/22/93		6/23/93		2/24/93		6/25/93		6/26/93		6/27/93	
Personnel Classification	No.	Hrs.	No.	Hrs.	No.	Hrs.	No.	Hrs.	No.	Hrs.	No.	Hrs.	No.	Hrs.
Superintendant	*		—	—	1	7	—	—	*					
HSO	*		1	8	1	9.5	1	8.0	*					
Laborers	*		1	8	3	28.5	2	16.0	*					
Equipment														
PC 90 Excavator	*		1	8	1	8	1	8	*					
WA 70 Loader	*		1	8	1	8	1	8	*					

* Note: ABB-ES not on-site to monitor Construction

F.C. JORDAN CO. REPRESENTATIVE

CONSTRUCTION PROGRESS REPORT

Love Canal Remediation of Frontier Ave.

SHEET 1 OF

PROJECT 100 TH St. and EDA 4 lots

PROJECT NO. 0166-8-4

CONTRACTOR Entech Management Services

REPORT NO. 23

CONTRACTOR'S REP. Paul Polino

PERIOD ENDING 7/2/93

CONTRACT TIME

EXTENSIONS

DAYS ELAPSED

DAYS REMAINING

WEATHER AND SITE CONDITIONS

Mon:	Showers	70's
Tues:	Sunny	70's
Wed:	Sunny	80's
THrs:	Sunny	80's
Fri:	Sunny	80's

6/28/93 Paved full width of Frontier Ave. and 100 TH St.

A York Rake was delivered to the site and used to grade the cap repair area.

6/29/93 Completed removal of the rejected sidewalks and walkways at the EDA 4 house lots.

Removed the rejected precast stairs at 9909 Black Creek Dr.

Placed the required 4-inch thickness of No. 1 crushed stone to the required grades for sidewalk and walkway base. Compacted the stone with a plate compactor.

Continued to grade the cap repair area using a York Rake and hand tools.

Constructed forms for sidewalks, walkways and stairs at the EDA 4 house lots, and placed concrete. The sidewalk across the driveway at 1044, 100 TH St. was placed but did not match with the determined grades of the city of Niagara Falls Engineer. The sidewalk was removed.

Mr. Jeff Principe of LCARA visited the site prior to placement of concrete and stated the prepared conditions for concrete placement looked good.

6/30/93 Continued to grade the cap repair area using a York Rake and hand tools.

Placed concrete for sidewalk at 1044, 100 TH St.

Placed one additional truck load of loam and York Raked and hand raked at the EDA 4 house lots.

Removed the apron to the driveway at 1044, 100TH St. and 8-Ft. of the driveway so that the asphalt may be replaced to match the grades of the new sidewalk.

SUBMITTED BY John E. Vlach

LOVE CANAL
REMEDIATION OF FRONTIER AVE./
100 TH ST. AND EDA 4 LOTS

06609-40,50,60

July 2. 1993
Page 2 of 2

WEEKLY CONSTRUCTION PROGRESS REPORT

7/1/93 Mr. Thomas Kukulka and Mr. Frank Delsignior of the City of Niagara Falls Engineering Department visited the site and stated the pavement at Frontier Ave. and 100 TH St. and the sidewalks at the EDA 4 house lots were accepted.

Mr. Jeff Principe of LCARA supplied landscape rakes for use in raking the loam at the house lots. The rakes provided a smoother more level grade.

Mr. Principe and Mr. Jim Tuk (NYSDEC) visited the site and met with John Nadeau both agreed that the work at the house lots was completed with the exception of the replacement of the driveway at 1044, 100 TH St. and seeding and mulching. Messrs Principe and Tuk accepted the work.

Performed general clean up around the house lots.

York Raked along Frontier Ave. Tire ruts were left by the Bobcat used to operate the rake, and will need additional work.

Paved the driveway at 1044, 100 TH St.

7/2/93 The only work performed was general cleanup.

Paul Polino was not on-site to review punch list with John Nadeau.

cc: R. Day ABB-ES
S. Mitchell ABB-ES
B. Lorado NYSDEC
G. Ryder NYSDEC

CONSTRUCTION PERSONNEL & EQUIPMENT REPORT

PROJECT Love Canal Remediation of Frontier Ave./100TH St. & EDA 4 Lots
PROJECT NO. 06609-H9.50.60
CONTRACTOR Entech Management Services
WEEK ENDING 7/2/93

	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	6/28/93	6/29/93	6/30/93	7/1/93	7/2/93		
PERSONNEL CLASSIFICATION	NO. HRS	NO. HRS	NO. HRS	NO. HRS	NO. HRS	NO. HRS	NO. HRS
P. Polino		1 - 7.0	1 - 10.5	1 - 8.5			
B. Galloway	1 - 8.0	1 - 12.0	1 - 14.5	1 - 14.0			
Laborers	1 - 10.0	3 - 31.5	2 - 23.0	2 - 19.0			
JEDRYSIK:							
Laborers		3 - 30.0	3 - 6.0				
Merrit Paving:							
laborers	4 - 20.0			4 - 8.0			
EQUIPMENT							
WA 70 loader	1 - 10.0	1 - 10.0	1 - 10.5	1 - 8.5			
PC 90 Excavator	1 - 10.0	1 - 10.0	1 - 10.5	1 - 8.5			
Bobcat with YorkRake	1 - 10.0	1 - 10.0	1 - 10.5	1 - 8.5			
Merrit Paving:							
Paver	1 - 5.0						
Dump Trucks	2 - 10.0			1 - 2.0			
Roller	1 - 5.0			1 - 2.0			

REMARKS

ABB ENVIRONMENTAL SERVICES, INC. REPRESENTATIVE

CONSTRUCTION PROGRESS REPORT

SHEET 1 OF 1

PROJECT Love Canal Remediation at Frontier Ave / 100 th St. and EDA 4 House Lots — PROJECT NO. 06609-40.50.60

CONTRACTOR Entech Management Services — REPORT NO. 24

CONTRACTOR'S REP. Paul Polino — PERIOD ENDING 7/15/93

CONTRACT TIME

EXTENSIONS

DAYS ELAPSED

DAYS REMAINING

WEATHER AND SITE CONDITIONS

Mon: Sunny 70's

Tues: Sunny 80's

Wed: Sunny 80's

8/9/93 Established exclusion zone and decontamination station.

Limits of excavation have been painted on the ground by Jim Tuk of NYSDEC.

Excavated to approximately one foot and removed topsoil. The topsoil was stockpiled on plastic at the southeast corner of the house lot.

8/10/93 Excavated and removed all black ash from designated area. All excavation was carried to depths exceeding those shown on the boring logs for contamination in the respective areas.

Entech performed air monitoring throughout the excavation activities.

Decontaminated the backhoe, trucks and all equipment used during excavation.

John Nadeau and Paul Polino measured the dimensions of the excavation and calculated a quantity of 239 cubic yards of soil removed.

8/11/93 Backfilled the excavation and compacted the fill in approximately eight inch lifts using a dual drum walk behind vibratory roller.

John Nadeau met with Paul Polino and reviewed pay requisition for period ending July 1, 1993. Also reviewed change order information submittal dated July 23, 1993 and July 27, 1993. Additional information is required of Entech to demonstrated the information is correct. Paul Polino stated he would telephone John Nadeau on August 12, 1993 with the required information.

SUBMITTED BY J. E. Nadeau

cc: R Day
S. Mitchell
B. Lorado
G. Ryder

CONSTRUCTION PERSONNEL & EQUIPMENT REPORT

Love Canal Remediation-ok

PROJECT Frontier Ave / 100TH St. PROJECT NO. 06609-40

CONTRACTOR Envitech Management Services WEEK ENDING 8/13/93

	MON		TUES		WED		THURS		FRI		SAT		SUN	
DATE	8/9/93		8/10/93		8/11/93									
PERSONNEL CLASSIFICATION	NO.	HRS	NO.	HRS	NO.	HRS	NO.	HRS	NO.	HRS	NO.	HRS	NO.	HRS
Paul Poling	1	7	1	9	1	9								
Bill Galloway	1	7	1	9	1	9								
Laborer	1	7	1	9	1	9								
Truck Driver			2	18	2	18								
EQUIPMENT														
PC 120 Excavator	1	7	1	9	1	9								
Rock Truck	1	- 9	1	9	1	9								
Dump Truck			2	18	2	18								
Dual Drum Roller					1	9								

REMARKS

ABB ENVIRONMENTAL SERVICES, INC. REPRESENTATIVE

APPENDIX B

CONCEPTUAL DESIGN REPORT

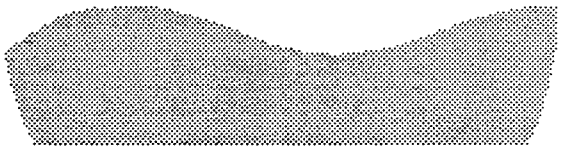
E.C. JORDAN CO. ENGINEERS & SCIENTISTS

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SUPERFUND STANDBY CONTRACT

LOVE CANAL OPERABLE UNIT 18

Niagara Falls, Niagara County, New York
WORK ASSIGNMENT NO. D002472-7



CONCEPTUAL DESIGN REPORT
REVISION 1

JANUARY 1992

NYSDEC SUPERFUND STANDBY CONTRACT
LOVE CANAL OPERABLE UNIT 18
WORK ASSIGNMENT NO. D002472-7

CONCEPTUAL DESIGN REPORT
REVISION 1

Submitted to:

Division of Hazardous Waste Remediation
New York State Department of Environmental Conservation
50 Wolf Road
Albany, New York 12233-7010

By:

E.C. Jordan Co.
261 Commercial Street
Portland, Maine 04101

JANUARY 31, 1992

Stephen H. Mitchell, P.E.
Project Manager
E.C. Jordan Co.

William J. Weber
NSSC Program Manager
E.C. Jordan Co.

LOVE CANAL OPERABLE UNIT 18
CONCEPTUAL DESIGN REPORT
REVISION 1

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LOVE CANAL OPERABLE UNIT 18
CONCEPTUAL DESIGN REPORT
REVISION 1

LIST OF FIGURES

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LOVE CANAL OPERABLE UNIT 18
CONCEPTUAL DESIGN REPORT
REVISION 1

LIST OF TABLES

Table	Title	Page No.
4-1	Conceptual Estimates of Construction Costs	4-2

1.0 INTRODUCTION

E.C. Jordan (Jordan) is submitting this Conceptual Design Report for remediation of contaminated storm sewer bedding in the Love Canal Emergency Declaration Area Operable Unit 18, the Frontier Avenue Storm Sewer. This Conceptual Design Report has been prepared in accordance with the requirements of the New York State Department of Environmental Conservation (NYSDEC) Superfund Standby Contract and the January 1991 Work Plan for Work Assignment No. D002472-7.

This Conceptual Design Report Consists of four sections. Section 1 presents the site description and presumed extent of bedding contamination. Section 2 presents the design approach which has been chosen by NYSDEC to remediate the bedding contamination. Section 3 presents the sequencing of the remedial construction, and Section 4 presents the preliminary estimated construction costs for the remediation.

1.1 SITE DESCRIPTION

The Love Canal Site, located within the City of Niagara Falls, Niagara County, New York is an inactive hazardous waste landfill site. Within the Love Canal Emergency Declaration Area (EDA), a number of operable units have been created to address the various remedial activities required. This Conceptual Design Report addresses Operable Unit No. 18, the Frontier Avenue storm sewer.

Frontier Avenue is located at the southern boundary of the Love Canal Site (see Figure 1-1). Contaminated storm sewer pipe bedding was discovered during past investigation of the storm sewer located on Frontier Avenue, west of 100th Street. Previous work to address this situation has included replacement of pipe bedding and installation of trench cutoff walls to isolate the contaminants and stop further migration. Until recently, it had not been proven that contaminants in the pipe bedding had migrated to manhole 412, located at the intersection of 100th Street and Frontier Avenue. However, during the installation of an additional cutoff wall at the upstream (west) side of manhole 412, additional contamination was discovered in the storm sewer pipe bedding. Based on this discovery, during the Summer of 1990 four test pits were excavated downstream (east) of manhole 412 to manhole 406 (located between 100th and 101st streets) to provide a limited indication of the extent of migration (See Figure 1-1). Additional contamination

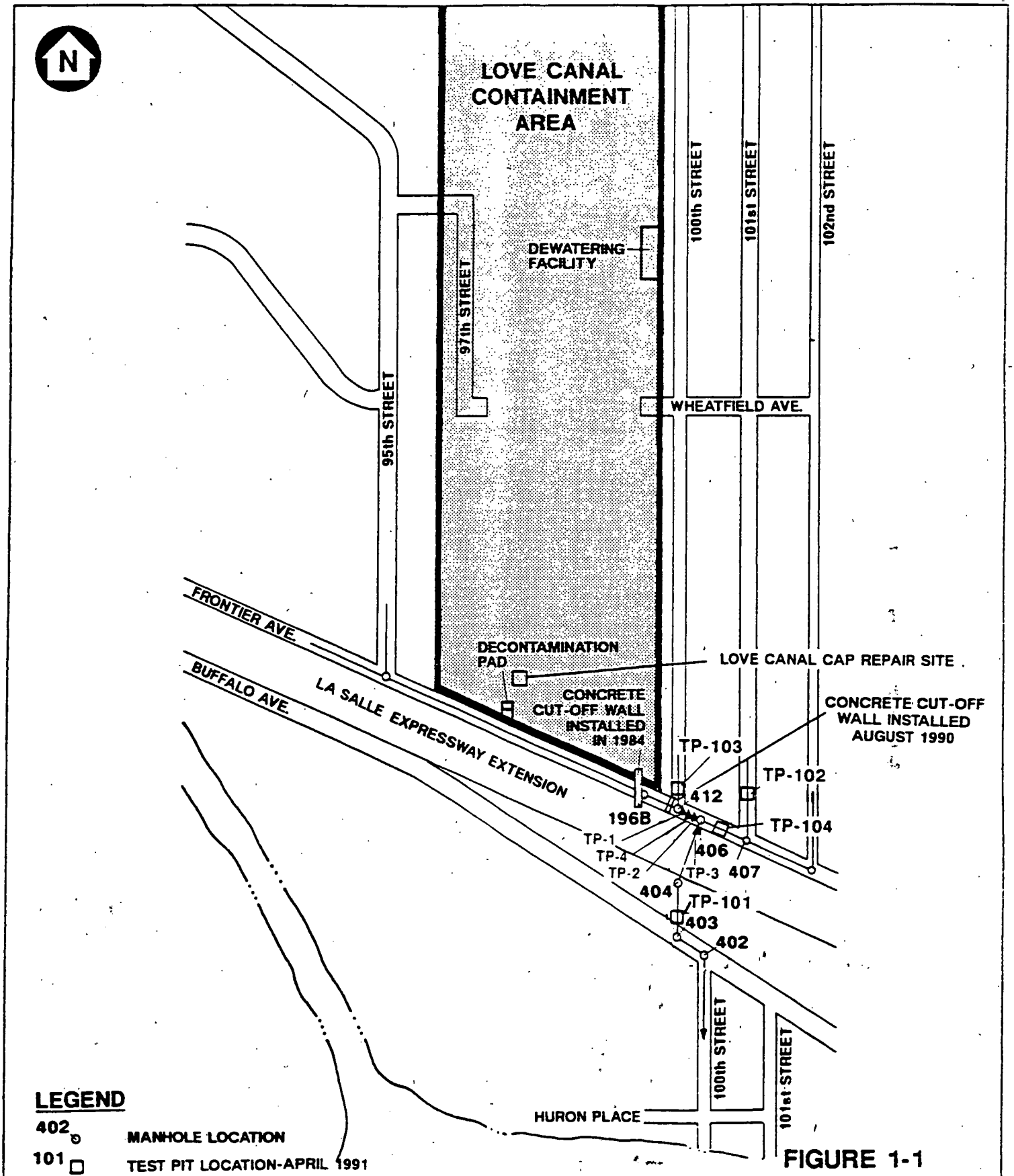


FIGURE 1-1

MANHOLE AND TEST PIT LOCATION MAP
LOVE CANAL OPERABLE UNIT 18
NEW YORK STATE DEPARTMENT
OF ENVIRONMENTAL CONSERVATION

E.C.JORDAN CO.

6609-00

was discovered in the pipe bedding in three of the four test pit excavations including the pit on the downstream (south) side of manhole 406. The contamination is assumed to have come from historic migration from the Love Canal Site prior to site remediation.

The only test pit where evidence of contaminated pipe bedding was not discovered was the pit directly east of manhole 412. The storm sewer in this pit was encased in concrete which was assumed to be part of the "poured-in-place" concrete base of the manhole. It is assumed that the reason for finding no visual evidence of contamination in the pipe bedding of this test pit was because the pit was too close to the manhole. The bedding material of the large poured-in-place manhole base may have allowed a different migration path past the test pit.

In April 1991, NYSDEC authorized Jordan to determine, through a program of test pits, the limits of migration of the contamination in the storm sewer bedding. Four test pits (TP-101, TP-102, TP-103, and TP-104) were excavated at the locations shown on Figure 1-1. No evidence of bedding contamination, based on visual observations, field instrumentation readings and analytical results, was found at any of these four locations. All of these test pits were excavated to at least one foot below the bottom of the storm sewer into natural material. The pipe bedding material at all four test pits was clay. No evidence of gravel or sand bedding was evident.

In June, 1991 NYSDEC provided Jordan with a copy of an underground utilities map of the Frontier Avenue area of the Love Canal Site. This map (prepared in 1986) was presented to NYSDEC by Occidental Chemical. The map shows an abandoned 24-inch storm sewer which runs east-west parallel to and south of Frontier Avenue. The map also shows three 4-inch drains which run south under the LaSalle Expressway. The map also indicates that an 8-inch storm sewer ran on 100th Street to a manhole which connected the 8-inch storm sewer with the three tile drains.

It is not known whether the bedding of the 24-inch storm sewer or the 8-inch and three 4-inch drains are contaminated, however certain observations can be made concerning potential contaminant distribution.

The contaminated bedding observed by NYSDEC in August 1990 on the Frontier Avenue storm sewer occurred in the bedding at or below the bottom of the sewer, and the invert of this sewer is approximately elevation 564 feet MSL. The inverts of the 8-inch sewer on 100th Street and the three 4-inch drains are approximately

elevation 568 MSL, four feet above the Frontier Avenue sewer elevation. This would seem to indicate that these four sewers are high enough not to be contaminated by crossing the Frontier Avenue sewer or the abandoned 24-inch sewer. Additionally, during the test pit program performed by Jordan in April 1991, the 8-inch sewer on 100th Street was exposed and broken. No indications of contamination were observed in the pipe or its bedding.

The abandoned 24-inch storm sewer runs parallel to and under the LaSalle Expressway embankment. Its invert at elevation 564 is basically the same as the Frontier Avenue sewer and the 42-inch sewer under the expressway. It is possible that the 24-inch sewer's bedding could be contaminated from conection with potentially contaminated bedding of the 42-inch sewer or from contamination in the abandoned sewer or in its bedding. This potential contamination may have originated from other upgradient contaminated areas. However, the results of test pit investigations conducted by NYSDEC in August 1990 and Jordan in April 1991, indicate that older storm sewers such as the 24-inch sewer were typically bedded in natural clay soils while newer sewers such as the 42-inch sewer were bedded in granular bedding materials. Therefore the abandoned 24-inch sewer is anticipated to be isolated under the embankment.

Based on the findings of the two test pit exploration programs and a review of the design drawings, provided to Jordan by the NYSDEC, of the storm drains in the area, Jordan believes that the contamination extends along Frontier Avenue easterly from the pipe cutoff west of manhole 412 to manhole 406. Test pits along this section of Frontier Avenue found granular bedding under the storm sewer. This section of storm sewer is believed to have been replaced circa 1967 as part of the LaSalle Expressway construction. The design drawings do not indicate that construction extended easterly beyond manhole 406, and the clay bedding in test pit 104 indicates that it probably did not. Some contamination may have migrated a relatively short distance easterly along Frontier Avenue from manhole 406 in the new bedding and into the "old" clay bedding. A similar situation may exist on the storm sewer extending northerly up 100th Street from manhole 412 at the intersection of Frontier Avenue and 100th Street. Test pit 103 exhibited clay bedding under and around the 18-inch clay tile storm sewer on 100th Street. This situation would indicate that bedding contamination may extend a relatively short distance north of manhole 412 through the granular bedding around the manhole.

It is not known whether contamination extends under the LaSalle Expressway. It was not found in test pit 101, which found clay bedding under and around the storm drain. Contamination was found, however, just south of manhole 406 during the August 1990 test pit investigation. However, this may have been contamination which had just migrated to the bedding of manhole 406. A test pit was not excavated further south of manhole 406 because of the proximity of below ground gas, telephone, and highway storm sewer utilities and the embankment slope. A test pit was not excavated north of manhole 404 because of the proximity of the embankment slope and the time necessary to obtain NYSDOT approval for construction.

It is quite possible that contamination has extended under the expressway. A review of the design drawings (circa 1967) presented to Jordan by the NYSDEC, indicates that the 42-inch storm sewer was to be reconstructed between manholes 404 and 406 as part of the same construction for the section of Frontier Avenue which has exhibited contamination. It would appear reasonable to assume that the pipe bedding under the expressway would be similar to that along that section of Frontier Avenue. Test pits to further define the contamination limits are recommended as the initial step in the remedial construction. These test pits would be extended south of manhole 406, then north of manhole 404. The bedding under the expressway may also have been contaminated from contamination in the abandoned 24-inch storm sewer which runs parallel to the expressway. Contamination was found inside the 42-inch storm drain under the expressway during Jordan's May 1991 observation to determine the condition of the sewer for lining. This contamination may have flowed into the sewer during storm events or seeped into the sewer through pipe joints.

2.0 DESIGN APPROACH

The NYSDEC has concluded that the design approach for remediating the storm sewer bedding contamination is to remove and provide for disposal of the contaminated bedding, storm sewer and manholes along the sections of Frontier Avenue and 100th Street where the bedding has been found to be contaminated. Excavation will extend to the location of test pits TP-103 and TP-104 where confirmatory sampling has demonstrated the extent of contamination. If the bedding of the 42-inch storm sewer under the LaSalle Expressway is found to be contaminated, as indicated by the identification of contamination in the test pit south of manhole 406 and north of manhole 404, the contamination between manhole 404 and 406 will be contained and left in place. In addition, if contamination is found only at the test pit north of manhole 404, the contamination between manhole 404 and 406 will be contained and left in place. Containment will consist of lining the interior of the sewer between the manholes, replacing the manholes and constructing concrete cutoff walls around the sewer near manholes 404 and 406. If, during installation of a new manhole at the manhole 404 location, contamination is found to extend downstream (south), NYSDEC will address the issue at a later date. If contamination is not found at manhole 404, the entire construction will consist of the work on Frontier Avenue.

2.1 PRE-DESIGN STUDIES

Prior to the start of detailed design, several studies need to be performed to provide information for the detailed design. These studies consist of:

- observation of the 42-inch sewer under the LaSalle Expressway to determine its condition and ability to be lined (completed in May 1991),
- field verification, and modification if necessary, of the 1990 50' = 1" scale map which was obtained from aerial photogrammetry. This field verification would also be performed for underground utilities in the locale and for the storm sewer size and elevations,
- study the type of lining and the material to be used for lining the 42-inch sewer so that it is not degraded by the contamination in the bedding nor abraded or abused by sediment, rocks, tree limbs, and

trash,

- evaluation of the hydraulic carrying capacities of the unlined and lined sewer under the expressway. If the lined sewer carrying capacity is found to be less than the unlined sewer, a hydrologic study of the upstream drainage area would be performed to determine if the lined pipe could carry the design storm flow.

- permits from the NYSDOT and coordination with NYSDOT and the City of Niagara Falls to include their requirements for test pit construction adjacent to the LaSalle Expressway embankment and lining the 42-inch storm sewer under the expressway.

The NYSDEC in conversations with Jordan has decided that the remedial construction will be performed under one construction contract with base and optional portions. The base portion will consist of replacing the sections of storm sewer on Frontier Avenue and 100th Street which contain contaminated bedding. The optional portion will consist of lining the sewer under the LaSalle Expressway and the construction of cutoff walls. The optional portion will only be performed if explorations at manholes 404 and 406 during the start of the base portion indicate that there is contamination under the LaSalle Expressway.

3.0 REMEDIAL CONSTRUCTION SEQUENCING

The following paragraphs present the planned elements of the construction. Because the NYSDEC desires to complete this construction during 1992, the design and preparation of bidding and contract documents will be performed for both portions of the construction.

3.1 BASE CONSTRUCTION - REPLACEMENT OF FRONTIER AVENUE STORM DRAIN

The first step in the base portion will be to excavate test pits at manholes 404 and 406. The test pits will be sized and located to be able to determine if bedding contamination extends under the expressway. The test pit at manhole 406 will extend south of manhole 406 and may extend into the embankment toe. It will be on NYSDOT property and will require their approval. The test pit will cross a 12-inch gas main, below ground telephone cable, 18-inch highway sewer and will be adjacent to a utility pole and under overhead power lines. The test pit at manhole 404 will extend north of manhole 404. The storm sewer bedding south of manhole 406 and north of manhole 404 will be observed both visually and with field instrumentation (i.e. photoionization detector) to see if contamination has migrated to the bedding of the 42-inch storm sewer under the expressway. The test pits at manholes 404 and 406 will be sized to provide for construction of concrete cutoffs. The optional portion of the contract consists of lining the interior of the 42-inch storm sewer under the expressway and construction of concrete cutoffs around the 42-inch sewer to prevent the further migration of contaminants from the 42-inch sewer.

Approximately 190 feet of storm sewer and contaminated bedding between the cutoff at manhole 412 and test pit TP-104 on Frontier Avenue will be excavated and placed in roll-off containers to be provided by the construction contractor for NYSDEC's use. An additional 95 feet of storm sewer and contaminated bedding will be removed from manhole 412 to test pit TP-103 along 100th Street. Prior to their use, the roll-off containers will be stored at the staging area of the Love Canal treatment plant. The construction contractor will haul the containers to the work site, fill them and haul up to six roll-off containers to Occidental Chemical's main plant on Buffalo Avenue. The remaining roll-off containers will be hauled to the treatment plant storage area for transport and disposal by Occidental. A new storm sewer of the same size will be laid in the location of the existing

contaminated sewer. The new storm sewer grades will be suitable to maintain storm water flow in the direction of the LaSalle Expressway crossing. Excavated materials, exclusive of pavement, from about the top of sewer to the pavement elevation will be considered uncontaminated and will be transported offsite as clean fill. Clean crushed gravel backfill will be placed in compacted lifts within the trench in accordance with the requirements of the City of Niagara Falls. Pavement and other debris will also be disposed offsite. The construction will be scheduled so that the storm sewer can accept runoff through the construction period. Provisions will be made in the design for pumping dry weather and storm water flows from upstream manholes on Frontier Avenue, 100th Street and 101st Street to the 18-inch highway sewer and, if necessary, onto Frontier Avenue towards 102nd Street. If runoff flows into a contaminated excavation, the runoff will be pumped from the excavation into tank trucks if practical, for transport to and treatment at the Love Canal Treatment Plant.

The 42-inch storm drain between manholes 404 and 406 will be hydraulically cleaned by using high pressure water. The wash water and sediment will be considered contaminated. The wash water will be contained (i.e. vacuum truck) and transported by the contractor to the Love Canal treatment plant for treatment. Solids are to be removed from the waste water prior to placement in the treatment plant system. The sediments will be considered as contaminated materials and disposed along with the contaminated bedding excavated on Frontier Avenue.

If examination of the test pits south of manhole 406 and north of manhole 404 at the start of the base construction portion indicate that contamination does not extend under the expressway, the base construction would proceed, and the optional construction portion would not be performed. If contamination is found at manhole 406 but not at manhole 404, the optional portion of the construction will not be performed. However, if contamination is found only at manhole 404, then the optional portion of the construction will be performed.

3.2 OPTIONAL CONSTRUCTION - CONTAINMENT OF CONTAMINATION UNDER THE LASALLE EXPRESSWAY

If bedding contamination is found under the expressway, based on the test pits by manholes 404 and 406 in the base construction portion, the optional construction portion will proceed. The test pit at manhole 404 just south of the expressway would be constructed large enough to provide for inserting the liner into the 42-

inch pipe. The liner has been chosen as 36-inch HDPE for purposes of this report. The actual materials will be chosen during final design. Manhole 404 would be removed. Any contaminated pipe and excavated soils would be transported and disposed of under the same procedures as contained in the base construction. If contamination is found to have migrated south of manhole 404, NYSDEC will address this issue at a later date. The 42-inch sewer between manholes 404 and 406 will be lined with 36-inch HDPE pipe. Concrete cutoffs will be constructed adjacent to manholes 404 and 406 at the ends of the lined pipe. The construction will be scheduled to provide for runoff to flow throughout the project. Provisions will be made, however, as in the base construction, for pumping from upstream manholes to the 18-inch highway sewer, and, if necessary, onto Frontier Avenue. Also, as in the base construction, if runoff flows into contaminated excavation areas, it will be pumped into tank trucks and transported to the Love Canal Treatment Plant, if practical, for treatment. Solids will be removed from the waste water prior to placement of the liquid in the treatment system. Following lining of the 42-inch sewer under the expressway, replacement of manhole 404, excavation and construction of the concrete cutoff walls, backfilling of the excavations, paving and landscaping will complete the construction.

4.0 CONCEPTUAL ESTIMATED COST OF CONSTRUCTION

Conceptual estimates of construction cost were prepared for both the base and optional portions of construction. These estimates assume that construction would occur in the Spring of 1992. These estimated costs are presented in Table 4-1. Storm sewer replacement on Frontier Avenue includes: 95 feet of storm sewer replacement on 100th Street, from manhole 412 to test pit TP-103; and 190 feet east on Frontier Avenue from the cutoff at manhole 412, to the location of test pit TP-104. Separate estimates were prepared for base construction depending on whether the optional portion was or was not performed. If the optional portion is not performed, the estimated cost for the base construction will be greater than if the optional portion is performed, because the test pit by manhole 406 would need to be filled and the area refurbished. The replacement downstream of manhole 404 is included as a provision for potential migration into the bedding downstream of the manhole and also because of the need to remove a length of downstream sewer to provide for insertion of the liner into the 42-inch sewer. The cost for hydraulically cleaning the 42-inch storm sewer between manholes 404 and 406 is contained in the base construction.

TABLE 4-1

CONCEPTUAL ESTIMATES OF CONSTRUCTION COSTS
FOR FRONTIER AVENUE STORM SEWER BEDDING FOR
REMEDIAL CONSTRUCTION WITH BASE AND OPTIONAL PORTIONS

Base Construction - Replacement of Frontier Avenue Storm Sewer		
	With Optional Portion	Without Optional Portion
Mobilization/Demobilization	$ 33,000	$ 33,500
Manhole 406 test pit	$ 24,500	$ 27,500
Manhole 404 test pit	$ 27,500	$ 27,500
Replacement of storm sewer from cutoff by Manhole 412 to Test Pit TP-104	$101,500	$102,500
Replacement of manholes 196B, 412 and 406	$ 21,000	$ 31,500
Purchase of 12 roll-offs, transport of 6 to Occidental Chemical Plant, transport of 6 to Love Canal WWTP	$100,000	$100,000
Cleaning 42-inch storm sewer between manholes 404 and 406	$ 6,000	$ 6,000
Runoff control during construction	$ 6,000	$ 6,000
SUBTOTAL	$319,500	$334,500
30% CONTINGENCY	$ 96,000	$100,500
SUBTOTAL	$415,500	$435,000
DESIGN AND ENGINEERING DURING CONSTRUCTION - 20% OF CONSTRUCTED COST	$207,500	$ 87,000
TOTAL CONCEPTUAL ESTIMATE OF CONSTRUCTED COST	$623,000	$522,000

NOTE: These estimated costs do not include transportation or disposal costs for contaminated excavation bedding, piping, and manholes; except for transportation of 6 roll-offs to Occidental Chemical's Niagara Falls main plant and 6 roll-offs to Love Canal Wastewater Treatment Plant staging area. Purchase of 12 roll-offs is included.

TABLE 4-1
(continued)

CONCEPTUAL ESTIMATES OF CONSTRUCTION COSTS FOR FRONTIER AVENUE STORM SEWER BEDDING FOR REMEDIAL CONSTRUCTION WITH BASE AND OPTIONAL PORTIONS

Optional Construction - Containment of Bedding Contamination Under the LaSalle Expressway	
	With Optional Construction
Mobilization/Demobilization	$31,500
Manhole 406 test pit removal	$12,000
Lining 42-inch sewer	$78,000
Site work for liner insertion area	$ 8,000
2 Concrete cutoffs	$ 3,000
Replacement of manhole 404	$21,000
Runoff control during construction	$ 6,000
SUBTOTAL	$159,500
30% CONTINGENCY	$ 48,000
SUBTOTAL	$207,500
DESIGN AND ENGINEERING DURING CONSTRUCTION - 20% OF CONSTRUCTED COST	$ 41,500
TOTAL CONCEPTUAL ESTIMATE OF CONSTRUCTED COST	$249,000

APPENDIX C

AIR QUALITY MONITORING DATA



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COPY

PROJECT DOCUMENTATION

WEATHER CONDITION LOG
FOR
LOVE CANAL
BUFFALO, NY

AAL PROJECT # PH92151

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Environmental Testing
Air Quality • Asbestos • Lead • Soil
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NVLAP
#1820

WEATHER CONDITIONS

PROJECT NAME: LOVE CANAL DATE: 11-18-92

PROJECT #: PH92151 TECHNICIAN: D. GUPKO

TIME	TEMP.	BAROMETER	WIND DIRECTION	WIND SPEED
09:30	35°	29.53	60°	0
10:30	37°	29.52	50°	0
11:30	37°	29.63	50°	0
12:30	38°	29.61	20°	3
13:30	36°	29.64	20°	2
14:30	36°	29.63	20°	2
15:30	36°	29.65	20°	2
16:30	35°	29.61	20°	1

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NVLAP
#1820

WEATHER CONDITIONS

PROJECT NAME: LOVE CANAL

DATE: 11-19-92

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	TEMP.	BAROMETER	WIND DIRECTION	WIND SPEED
08:00	31°	29.54	50°	0
09:00	33°	29.59	50°	0
10:00	36°	29.20	50°	0
11:00	37°	29.79	60°	1
12:00	38°	29.83	50°	0
13:00	39°	29.88	50°	1
14:00	40°	29.81	60°	0
15:00	39°	29.87	50°	5
16:00	38°	29.90	60°	2
17:00	36°	29.80	60°	2

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WEATHER CONDITIONS

PROJECT NAME: LOVE CANAL DATE: 11-20-92

PROJECT #: PH92151 TECHNICIAN: D. GUPKO

TIME	TEMP.	BAROMETER	WIND DIRECTION	WIND SPEED
08:00	31°	29.59	90°	2
09:00	32°	29.64	120°	3
10:00	36°	29.60	90°	2
11:00	39°	29.73	90°	2
12:00	40°	29.63	80°	3
13:00	42°	29.59	90°	5
15:00	46°	29.79	290°	1
16:00	46°	29.72	90°	1

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WEATHER CONDITIONS

PROJECT NAME: LOVE CANAL

DATE: 11-23-92

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	TEMP.	BAROMETER	WIND DIRECTION	WIND SPEED
08:00	43°	28.74	90°	0
09:00	49°	28.72	90°	0
10:00	45°	28.82	90°	0
11:00	47°	28.94	340°	5
12:00	48°	28.96	330°	3
13:00	47°	29.00	350°	5
14:00	44°	29.04	50°	2
15:00	41°	29.14	80°	3
16:00	40°	29.05	80°	3
17:00	39°	29.16	90°	1

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WEATHER CONDITIONS

PROJECT NAME: LOVE CANAL **DATE:** 11-24-92

PROJECT #: PH92151 **TECHNICIAN:** D. GUPKO

TIME	TEMP.	BAROMETER	WIND DIRECTION	WIND SPEED
08:00	39°	29.23	80°	2
09:00	40°	29.30	80°	2
10:00	41°	29.38	80°	2
11:00	41°	29.40	90°	2
12:00	43°	29.42	90°	1
13:00	44°	29.43	90°	3
14:00	44°	29.43	90°	2
15:00	44°	29.38	90°	3
16:00	44°	29.36	90°	3

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WEATHER CONDITIONS

PROJECT NAME: LOVE CANAL DATE: 11-25-92

PROJECT #: PH92151 TECHNICIAN: D. GUPKO

TIME	TEMP.	BAROMETER	WIND DIRECTION	WIND SPEED
08:00	45°	29.24	50°	0
09:00	45°	29.27	20°	1
10:00	45°	29.27	20°	0
11:00	44°	29.33	20°	2
12:00	44°	29.34	20°	2
13:00	44°	29.34	20°	0
14:00	45°	29.26	20°	0
15:00	46°	29.37	20°	0
16:00	46°	29.29	20°	0

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WEATHER CONDITIONS

PROJECT NAME: LOVE CANAL

DATE: 11-30-92

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	TEMP.	BAROMETER	WIND DIRECTION	WIND SPEED
08:00	39°	28.85	290°	10
09:00	39°	28.89	290°	8
10:00	39°	28.91	280°	10
11000	40°	28.90	290°	10
12:00	39°	28.87	280°	8
13:00	39°	28.85	290°	5
14:00	39°	28.84	290°	6
15:00	39°	28.84	360°	3
16:00	39°	28.86	360°	3
17:00	39°	28.87	330°	5

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WEATHER CONDITIONS

PROJECT NAME: LOVE CANAL **DATE:** 12-01-92

PROJECT #: PH92151 **TECHNICIAN:** D. GUPKO

TIME	TEMP.	BAROMETER	WIND DIRECTION	WIND SPEED
08:00	35°	28.99	290°	3
09:00	36°	28.97	300°	5
10:00	37°	28.94	330°	3
11:00	38°	298.98	300°	6
12:00	39°	28.97	330°	3
13:00	37°	28.94	330°	2
14:00	38°	28.96	290°	6
15:00	39°	28.95	330°	3
16:00	38°	28.94	340°	2

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WEATHER CONDITIONS

PROJECT NAME: LOVE CANAL DATE: 12-02-92

PROJECT #: PH92151 TECHNICIAN: D. GUPKO

TIME	TEMP.	BAROMETER	WIND DIRECTION	WIND SPEED
08:00	37°	28.82	290°	5
09:00	38°	28.79	290°	5
10:00	39°	28.78	250°	3
11:00	38°	28.798	280°	7
12:00	38°	28.76	290°	3
13:00	36°	28.72	300°	6
14:00	36°	28.75	290°	2
15:00	36°	28.78	290°	6
16:00	36°	28.78	290°	3

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WEATHER CONDITIONS

PROJECT NAME: LOVE CANAL DATE: 12-03-92

PROJECT #: PH92151 TECHNICIAN: D. GUPKO

TIME	TEMP.	BAROMETER	WIND DIRECTION	WIND SPEED
08:00	33°	28.88	330°	5
09:00	34°	29.00	330°	3
10:00	32°	29.01	330°	6
11:00	32°	29.048	330°	5
12:00	32°	29.04	330°	5
13:00	32°	29.07	250°	6
14:00	33°	29.13	340°	6
15:00	33°	29.14	330°	3
16:00	33°	29.14	330°	3
17:00	33°	29:14	330°	6

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WEATHER CONDITIONS

PROJECT NAME: LOVE CANAL **DATE:** 12-04-92

PROJECT #: PH92151 **TECHNICIAN:** D. GUPKO

TIME	TEMP.	BAROMETER	WIND DIRECTION	WIND SPEED
08:00	31°	28.92	90°	2
09:00	32°	29.01	250°	5
10:00	33°	29.06	90°	2
11:00	34°	29.08	330°	2
12:00	36°	29.06	250°	5
13:00	37°	29.02	300°	3
14:00	34°	28.955	290°	5
15:00	34°	28.92	290°	2
16:00	34°	28.86	290°	5

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WEATHER CONDITIONS

PROJECT NAME: LOVE CANAL **DATE:** 12-07-92

PROJECT #: PH92151 **TECHNICIAN:** D. GUPKO

TIME	TEMP.	BAROMETER	WIND DIRECTION	WIND SPEED
08:00	30°	28.72	330°	7
09:00	30°	28.79	330°	6
10:00	32°	28.84	330°	5
11:00	35°	28.92	330°	3
12:00	35°	28.97	340°	5
13:00	34°	28.99	260°	6
14:00	34°	28.94	330°	5
15:00	34°	28.94	340°	5
16:00	33°	29.01	330°	2

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WEATHER CONDITIONS

PROJECT NAME: LOVE CANAL **DATE:** 12-08-92

PROJECT #: PH92151 **TECHNICIAN:** D. GUPKO

TIME	TEMP.	BAROMETER	WIND DIRECTION	WIND SPEED
08:00	25°	29.08	90°	5
09:00	25°	29.22	90°	2
10:00	25°	29.26	90°	6
11:00	26°	29.30	80°	2
12:00	27°	29.38	140°	3
13:00	27°	29.38	80°	2
14:00	27°	29.41	90°	3
15:00	27°	29.34	90°	3
16:00	26°	29.39	90°	2

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WEATHER CONDITIONS

PROJECT NAME: LOVE CANAL DATE: 12-09-92

PROJECT #: PH92151 TECHNICIAN: D. GUPKO

TIME	TEMP.	BAROMETER	WIND DIRECTION	WIND SPEED
08:00	23°	29.53	90°	0
09:00	24°	29.48	90°	1
10:00	27°	29.48	80°	2
11:00	29°	29.49	120°	3
12:00	31°	29.52	60°	5
13:00	32°	29.53	130°	5
14:00	32°	29.60	90°	5
15:00	31°	29.63	90°	3
16:00	30°	29.68	80°	1

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WEATHER CONDITIONS

PROJECT NAME: LOVE CANAL

DATE: 12-10-92

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	TEMP.	BAROMETER	WIND DIRECTION	WIND SPEED
08:00	33°	28.92	210°	5
09:00	31°	28.93	250°	6
10:00	31°	28.90	210°	6
11:00	32°	28.87	300°	5
12:00	33°	28.90	250°	5
13:00	35°	28.90	250°	7
14:00	34°	28.90	90°	1
15:00	34°	28.89	40°	1
16:00	33°	28.90	90°	2

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WEATHER CONDITIONS

PROJECT NAME: LOVE CANAL **DATE:** 12-11-92

PROJECT #: PH92151 **TECHNICIAN:** D. GUPKO

TIME	TEMP.	BAROMETER	WIND DIRECTION	WIND SPEED
08:00	33°	28.88	80°	4
09:00	33°	28.88	80°	2
10:00	33°	28.83	83°	1
11:00	33°	28.82	120°	0
12:00	32°	SNOW	BLIZZARD	

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WEATHER CONDITIONS

PROJECT NAME: LOVE CANAL

DATE: 12-14-92

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	TEMP.	BAROMETER	WIND DIRECTION	WIND SPEED
08:00	23°	29.18	270°	0
09:00	24°	29.30	270°	0
10:00	27°	29.43	270°	0
11:00	30°	29.46	270°	0
12:00	32°	29.38	270°	0
13:00	35°	29.58	270°	0
14:00	36°	29.50	270°	0
15:00	36°	29.20	270°	0
16:00	35°	29.41	270°	0
17:00	30°	29.32	270°	0

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WEATHER CONDITIONS

PROJECT NAME: LOVE CANAL **DATE:** 12-15-92

PROJECT #: PH92151 **TECHNICIAN:** D. GUPKO

TIME	TEMP.	BAROMETER	WIND DIRECTION	WIND SPEED
08:00	20°	29.08	270°	0
09:00	23°	29.05	270°	0
10:00	28°	29.15	270°	0
11:00	37°	29.19	270°	0
12:00	43°	29.29	270°	0
13:00	44°	29.23	270°	0
14:00	48°	29.12	270°	0
15:00	43°	29.02	270°	0
16:00	42°	28.96	270°	0

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WEATHER CONDITIONS

PROJECT NAME: LOVE CANAL **DATE:** 12-16-92

PROJECT #: PH92151 **TECHNICIAN:** D. GUPKO

TIME	TEMP.	BAROMETER	WIND DIRECTION	WIND SPEED
08:00	49°	28.89	225°	8
09:00	48°	28.82	225°	8
10:00	45°	28.83	225°	8
11:00	45°	28.93	225°	8
12:00	46°	28.94	225°	8
13:00	45°	28.92	225°	8
14:00	45°	28.95	225°	8
15:00	44°	29.03	225°	8
16:00	44°	28.98	225°	8

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WEATHER CONDITIONS

PROJECT NAME: LOVE CANAL DATE: 01-14-93

PROJECT #: PH92151 TECHNICIAN: D. GUPKO

TIME	TEMP.	BAROMETER	WIND DIRECTION	WIND SPEED
08:00	22°	29.13	60°	1
09:00	22°	29.03	60°	2
10:00	23°	29.14	60°	3
11:00	24°	29.09	60°	3
12:00	24°	29.17	60°	1
13:00	23°	29.29	60°	2
14:00	23°	29.24	60°	0
15:00	23°	29.22	60°	0
16:00	23°	29.22	60°	1
17:00	23°	29.12	60°	2

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WEATHER CONDITIONS

PROJECT NAME: LOVE CANAL DATE: 01-15-93

PROJECT #: PH92151 TECHNICIAN: D. GUPKO

TIME	TEMP.	BAROMETER	WIND DIRECTION	WIND SPEED
08:00	28°	29.06	60°	1
09:00	28°	28.95	60°	2
10:00	29°	28.98	50°	3
11:00	30°	29.03	330°	7
12:00	31°	29.00	340°	3
13:00	31°	28.99	330°	5
14:00	32°	28.94	340°	3
15:00	31°	29.00	330°	5
16:00	30°	29.04	330°	5
17:00	28°	28.90	330°	5

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WEATHER CONDITIONS

PROJECT NAME: LOVE CANAL DATE: 01-27-93

PROJECT #: PH92151 TECHNICIAN: D. GUPKO

TIME	TEMP.	BAROMETER	WIND DIRECTION	WIND SPEED
08:00	32°	28.83	10°	1
09:00	32°	29.89	10°	2
10:00	35°	28.86	10°	3
11:00	35°	28.89	330°	6
12:00	35°	28.78	330°	5
13:00	34°	28.83	330°	5
14:00	33°	28.87	10°	6
15:00	32°	28.85	20°	6
16:00	32°	28.98	20°	6

WEATHER CONDITIONS

PROJECT NAME: LOVE CANAL

DATE: 01-28-93

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	TEMP.	BAROMETER	WIND DIRECTION	WIND SPEED
08:00	22°	28.81	90°	2
09:00	22°	28.79	100°	2
10:00	23°	28.79	200°	2
11:00	26°	28.83	240°	1
12:00	30°	28.78	290°	7
13:00	32°	28.73	260°	3
14:00	31°	28.65	250°	5
15:00	33°	28.50	290°	2
16:00	33°	28.57	290°	1

DAILY WEATHER LOG

LOVE CANAL (project # 9-32-020)

DATE	TIME STANDARD	TEMPERATURE DEGREE F	BAROMETRIC PRESSURE "HG	WIND DIRECTION DEGREE	WIND SPEEED MPH.
01/18/93	8:00 AM	17	29.02	30	0
	9:00 AM	19	29.08	30	1
	10:00 AM	23	29.22	50	1
	11:00 AM	23	29.37	50	3
	12:00 PM	22	29.45	20	5
	1:00 PM	25	29.47	360	2
	2:00 PM	24	29.59	10	1
	3:00 PM	23	29.67	10	1
	4:00 PM	22	29.64	10	0
01/19/93	8:00 AM	22	29.44	330	3
	9:00 AM	23	29.41	330	2
	10:00 AM	25	29.48	330	2
	11:00 AM	28	29.58	330	2
	12:00 PM	30	29.86	330	3
	1:00 PM	32	29.73	330	2
	2:00 PM	31	29.73	330	3
	3:00 PM	31	29.64	330	5
	4:00 PM	31	29.67	330	5
01/20/93	8:00 AM	23	29.35	320	6
	9:00 AM	26	29.40	330	2
	10:00 AM	30	29.56	330	5
	11:00 AM	32	29.55	330	3
	12:00 PM	35	29.56	330	2
	1:00 PM	35	29.65	330	3
	2:00 PM	36	29.62	330	2

DATE	TIME STANDARD	TEMPERATURE DEGREE F	BAROMETRIC PRESSURE "HG	WIND DIRECTION DEGREE	WIND SPEED MPH.
01/20/93	3:00 PM	36	29.64	330	2
	4:00 PM	35	29.38	340	3
01/21/93	8:00 AM	18	28.96	330	0
	9:00 AM	22	28.97	340	0
	10:00 AM	31	29.11	340	1
	11:00 AM	36	29.14	10	0
	12:00 PM	43	29.14	10	2
	1:00 PM	45	29.11	290	6
	2:00 PM	39	29.08	290	2
	3:00 PM	38	29.02	210	1
	4:00 PM	38	29.00	210	2
01/22/93	8:00 AM	36	28.74	310	5
	9:00 AM	36	28.72	300	6
	10:00 AM	37	28.72	310	8
	11:00 AM	37	28.74	290	10
	12:00 PM	36	28.72	300	6
	1:00 PM	36	28.72	320	7
	2:00 PM	36	28.68	330	5
	3:00 PM	36	28.66	330	7
	4:00 PM	36	28.68	330	7
01/25/93	8:00 AM	24	28.91	330	6
	9:00 AM	26	28.98	330	5
	10:00 AM	30	29.03	330	6
	11:00 AM	30	29.18	330	5
	12:00 PM	29	29.17	330	6
	1:00 PM	31	29.20	330	5
	2:00 PM	30	29.19	300	5

DATE	TIME STANDARD	TEMPERATURE DEGREE F	BAROMETRIC PRESSURE "HG	WIND DIRECTION DEGREE	WIND SPEED MPH
	3:00 PM	30	29.20	330	6
	4:00 PM	30	29.20	330	5
01/26/93	8:00 AM	20	29.21	240	0
	9:00 AM	24	29.11	290	3
	10:00 AM	28	29.22	290	5
	11:00 AM	28	29.28	240	6
	12:00 PM	29	29.26	290	2
	1:00 PM	30	29.20	280	8
	2:00 PM	30	29.12	220	6
	3:00 PM	30	29.11	280	8
	4:00 PM	32	29.04	260	7
01/29/93	8:00 AM	21	28.77	360	10
	9:00 AM	21	28.93	40	7
	10:00 AM	19	29.08	10	8
	11:00 AM	20	29.03	10	8
	12:00 PM	20	20.07	340	3
	1:00 PM	21	29.12	330	6
	2:00 PM	21	29.08	20	5
	3:00 PM	22	29.08	330	3
	4:00 PM	21	29.03	330	3
02/03/93	8:00 AM	32	28.76	300	7
	9:00 AM	35	28.84	330	5
	10:00 AM	37	28.94	330	8
	11:00 AM	37	28.98	320	6
	12:00 PM	37	28.99	300	11
	1:00 PM	38	28.99	330	6
	2:00 PM	39	29.07	300	10

DATE	TIME STANDARD	TEMPERATURE DEGREE F	BAROMETRIC PRESSURE "HG	WIND DIRECTION DEGREE	WIND SPEED MPH
	3:00 PM	39	29.06	330	5
	4:00 PM	37	28.96	330	7
02/04/93	8:00 AM	23	29.24	40	0
	9:00 AM	26	29.28	20	5
	10:00 AM	29	29.36	20	3
	11:00 PM	29	29.42	30	3
	12:00 PM	31	29.55	10	5
	1:00 PM	32	29.55	330	3
	2:00 PM	35	29.55	330	3
	3:00 PM	35	29.56	330	3
	4:00 PM	34	29.38	330	5
02/05/93	8:00 AM	33	28.82	340	5
	9:00 AM	39	28.91	330	5
	10:00 AM	42	28.95	360	6
	11:00 AM	45	29.03	330	5
	12:00 PM	45	28.99	350	2
	1:00 PM	45	28.93	340	5
	2:00 PM	45	29.03	330	6
	3:00 PM	43	29.06	330	3
	4:00 PM	42	29.08	310	2
02/08/93	8:00 AM	27	28.95	30	8
	9:00 AM	27	28.94	40	3
	10:00 AM	29	29.10	20	5
	11:00 AM	29	29.18	30	2
	12:00 PM	24	29.20	60	5
	1:00 PM	23	29.06	20	5
	2:00 PM	23	29.08	30	5

DATE	TIME STANDARD F	TEMPERATURE DEGREE "HG	BAROMETRIC PRESSURE DEGREE	WIND DIRECTION MPH	WIND SPEED
	3:00 PM	23	29.02	30	2
	4:00 PM	22	29.02	20	5
02/09/93	8:00 AM	12	28.98	50	0
	9:00 AM	16	28.99	50	6
	10:00 AM	23	29.07	90	3
	11:00 AM	27	29.24	300	2
	12:00 PM	29	29.38	40	1
	1:00 PM	31	29.19	20	0
	2:00 PM	32	29.95	90	8
	3:00 PM	32	29.22	50	1
	4:00 PM	33	29.37	50	2
02/10/93	8:00 AM	34	28.97	330	1
	9:00 AM	35	29.02	330	2
	10:00 AM	36	28.97	330	2
	11:00 AM	38	28.99	330	2
	12:00 PM	39	29.03	330	1
	1:00 PM	39	28.98	330	2
	2:00 PM	39	29.02	330	2
	3:00 PM	39	29.00	330	2
	4:00 PM	39	29.09	330	0
02/11/93	8:00 AM	20	29.23	100	7
	9:00 AM	19	29.26	100	11
	10:00 AM	20	29.28	100	8
	11:00 AM	20	29.30	90	12
	12:00 PM	19	29.31	50	6
	1:00 PM	19	29.32	240	5
	2:00 PM	19	29.27	100	12

DATE	TIME STANDARD	TEMPERATURE DEGREE F	BAROMETRIC PRESSURE "HG	WIND DIRECTION DEGREE	WIND SPEED MPH
	3:00 PM	19	29.21	90	10
	4:00 PM	19	29.19	100	12
02/12/93	8:00 AM	24	28.73	90	7
	9:00 AM	25	28.78	150	7
	10:00 AM	26	28.81	90	6
	11:00 AM	28	28.81	100	5
	12:00 PM	30	28.74	100	7
	1:00 PM	30	28.71	100	7
02/15/93	8:00 AM	29	28.95	330	3
	9:00 AM	30	28.94	330	5
	10:00AM	32	29.01	330	3
	11:00 AM	34	29.08	320	6
	12:00 PM	35	29.17	330	5
	1:00 PM	39	29.24	320	5
	2:00 PM	40	29.38	320	3
	3:00 PM	37	29.17	320	5
	4:00 PM	37	29.14	330	6
02/16/93	8:00 AM	28	28.84	90	3
	9:00 AM	29	28.76	90	2
	10:00 AM	29	28.78	70	1
	11:00 AM	30	28.74	90	5
	12:00 PM	31	28.69	100	3
	1:00 PM	32	28.69	90	2
	2:00 PM	32	28.65	90	2
	3:00 PM	32	28.57	90	1
	4:00 PM	32	28.58	90	3
02/17/93	8:00 AM	20	28.79	340	2

DATE	TIME STANDARD	TEMPERATURE DEGREE F	BAROMETRIC PRESSURE "HG	WIND DIRECTION DEGREE	WIND SPEED MPH
	9:00 AM	21	28.81	330	3
	10:00 AM	22	28.85	340	2
	11:00 AM	24	28.97	340	5
	12:00 PM	24	29.06	10	10
	1:00 PM	25	28.96	20	5
	2:00 PM	25	28.98	330	2
	3:00 PM	26	28.96	330	3
	4:00 PM	25	28.82	330	3
02/18/93	8:00 AM	10	28.50	340	2
	9:00 AM	12	28.54	330	5
	10:00 AM	15	28.58	330	8
	11:00 AM	16	28.66	300	11
	12:00 PM	15	28.64	330	8
	1:00 PM	16	28.66	340	6
	2:00 PM	15	28.62	330	6
	3:00 PM	15	28.66	340	10
	4:00 PM	15	28.64	340	8
02/19/93	8:00 AM	10	28.74	330	2
	9:00 AM	10	28.82	320	3
	10:00 AM	14	28.87	330	5
	11:00 AM	17	28.92	320	6
	12:00 PM	16	28.91	330	3
	1:00 PM	16	28.82	320	5
	2:00 PM	17	28.83	320	6
	3:00 PM	18	28.80	330	5
	4:00 PM	18	28.74	290	12
02/23/93	8:00 AM	16	28.19	340	3

DATE	TIME STANDARD	TEMPERATURE DEGREE F	BAROMETRIC PRESSURE "HG	WIND DIRECTION DEGREE	WIND SPEED MPH
	9:00 AM	17	28.23	340	5
	10:00 AM	19	28.31	340	3
	11:00 AM	20	28.34	340	3
	12:00 PM	20	28.36	340	3
	1:00 PM	22	28.39	340	10
	2:00 PM	21	28.40	340	3
	3:00 PM	20	28.38	340	5
	4:00 PM	20	28.37	340	3
02/24/93	8:00 AM	11	28.59	340	2
	9:00 AM	12	28.64	340	2
	10:00 AM	15	28.71	340	6
	11:00 AM	17	28.88	340	7
	12:00 AM	18	28.96	340	2
	1:00 PM	18	28.96	340	8
	2:00 PM	19	28.89	340	6
	3:00 PM	19	28.91	340	5
	4:00 PM	19	28.94	340	8
02/25/93	8:00 AM	9	29.05	330	2
	9:00 AM	15	29.13	330	0
	10:00 AM	19	29.23	330	2
	11:00 AM	23	29.35	290	3
	12:00 PM	22	29.38	290	5
	1:00 PM	22	29.34	290	2
	2:00 PM	24	29.26	330	0
	3:00 PM	24	29.30	330	0
	4:00 PM	22	29.32	330	1
02/26/93	8:00 AM	12	28.88	90	0

DATE	TIME STANDARD	TEMPERATURE DEGREE F	BAROMETRIC PRESSURE "HG	WIND DIRECTION DEGREE	WIND SPEED MPH
	9:00 AM	15	28.93	90	3
	10:00 AM	20	29.05	80	3
	11:00 AM	24	29.13	100	5
	12:00 PM	24	29.01	70	3
	1:00 PM	25	29.03	90	6
	2:00 PM	26	29.15	90	2
	3:00 PM	26	29.26	100	6
	4:00 PM	25	29.18	50	8
03/01/93	8:00 AM	27	28.59	300	5
	9:00 AM	29	28.64	330	2
	10:00 AM	30	28.62	300	6
	11:00 AM	30	28.64	330	5
	12:00 PM	30	28.65	330	6
	1:00 PM	31	28.65	330	5
	2:00 PM	32	28.63	300	6
	3:00 PM	32	28.64	320	5
	4:00 PM	33	28.70	320	3
03/02/93	8:00 AM	30	28.51	330	5
	9:00 AM	31	28.52	330	3
	10:00 AM	32	28.56	300	8
	11:00 AM	34	28.60	300	3
	12:00 PM	35	28.60	300	7
	1:00 PM	36	28.61	290	6
	2:00 PM	38	28.60	280	7
	3:00 PM	38	28.62	300	5
	4:00 PM	38	28.67	330	5
03/03/93	8:00 AM	29	28.84	20	0

DATE	TIME STANDARD	TEMPERATURE DEGREE F	BAROMETRIC PRESSURE "HG	WIND DIRECTION DEGREE	WIND SPEED MPH
	9:00 AM	31	28.70	20	0
	10:00 AM	33	28.79	70	1
	11:00 AM	34	28.94	80	2
	12:00 PM	39	29.07	80	2
	1:00 PM	41	29.18	90	5
	2:00 PM	42	29.00	20	2
	3:00 PM	42	29.11	85	5
	4:00 PM	41	28.92	140	6
03/04/93	8:00 AM	33	28.76	100	15
	9:00 AM	43	28.72	150	11
	10:00 AM	34	28.76	100	11
	11:00 AM	35	28.76	90	7
	12:00 PM	35	28.77	150	10
	1:00 PM	34	28.72	110	6
	2:00 PM	33	28.68	80	10
	3:00 PM	33	28.62	100	18
	4:00 PM	33	28.60	140	16
03/05/93	8:00 AM	32	28.28	60	8
	9:00 AM	32	28.29	170	6
	10:00 AM	33	28.36	100	7
	11:00 AM	33	28.43	140	12
	12:00 PM	34	28.45	110	10
	1:00 PM	34	28.51	90	5
	2:00 PM	34	28.53	90	6
	3:00 PM	34	28.57	100	8
	4:00 PM	34	28.52	110	3
03/08/93	8:00 AM	35	28.38	330	2

DATE	TIME STANDARD F	TEMPERATURE DEGREE "HG	BAROMETRIC PRESSURE DEGREE	WIND DIRECTION MPH	WIND SPEED
	9:00 AM	35	28.38	330	3
	10:00 AM	36	28.41	330	2
	11:00 AM	36	28.46	330	3
	12:00 PM	35	28.43	290	5
	1:00 PM	37	28.42	330	1
	2:00 PM	37	28.42	320	3
	3:00 PM	37	28.46	330	2
	4:00 PM	37	28.47	330	5
03/09/93	9:00 AM	32	28.69	20	6
	10:00 AM	36	28.76	20	5
	11:00 AM	37	28.88	20	2
	12:00 PM	37	28.98	40	7
	1:00 PM	35	28.90	20	5
	2:00 PM	34	28.85	30	6
	3:00 PM	34	28.88	20	3
	4:00 PM	33	28.81	40	5
03/10/93	8:00 AM	23	28.57	10	0
	9:00 AM	25	28.64	10	0
	10:00 AM	26	28.70	170	2
	11:00 AM	27	28.70	90	1
	12:00 PM	28	26.68	100	5
	1:00 PM	29	28.67	90	2
	2:00 PM	29	28.64	240	6
	3:00 PM	29	28.54	110	8
	4:00 PM	28	28.51	250	5
03/11/93	8:00 AM	23	28.67	40	3
	9:00 AM	27	28.64	40	3

DATE	TIME STANDARD	TEMPERATURE DEGREE F	BAROMETRIC PRESSURE "HG	WIND DIRECTION DEGREE	WIND SPEED MPH
	10:00 AM	30	28.87	50	6
	11:00 AM	30	28.94	50	5
	12:00 PM	30	29.01	40	3
	1:00 PM	30	20.03	10	1
	2:00 PM	31	28.98	10	3
	3:00 PM	31	29.00	10	5
	4:00 PM	31	28.96	330	2
03/12/93	8:00 AM	14	28.84	50	0
	9:00 AM	17	28.85	90	3
	10:00 AM	19	29.01	90	2
	11:00 AM	21	29.12	90	2
	12:00 PM	21	29.19	80	2
	1:00 PM	21	29.29	60	2
	2:00 PM	23	29.86	60	1
	3:00 PM	23	28.80	60	3
	4:00 PM	23	28.95	60	5

TOTAL ORGANIC VAPORS
FOR
LOVE CANAL
BUFFALO, NY

AAL PROJECT # PH92151

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NVLAP #1820

PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-13-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION

PROJECT #: PH92151

TECHNICIAN: J. JENKINS

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
09:30	EXCAVATION	2	EXCAVATION	1.5 ppm
14:30	EXCAVATION	6	W. SIDE EXCAV.	0.0 ppm
14:45	EXCAVATION	7	N. SIDE EXCAV.	1.2 ppm
14:50	EXCAVATION	8	N. SIDE EXCAV.	1.2 ppm
15:00	EXCAVATION	9	STATION 1	0.7 ppm
15:03	EXCAVATION	10	BEHIND BACKHOE	1.6 ppm

SIGNATURE: J. Jenkins

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-17-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
10:15	REMOVAL-TOP LAYER CLAY	BKG	STATION 1	0.0 ppm
10:15	REMOVAL-TOP LAYER CLAY	BKG	STATION 2	0.0 ppm
10:15	REMOVAL-TOP LAYER CLAY	BKG	STATION 3	0.0 ppm
10:35	REMOVAL-TOP LAYER CLAY	BKG	STATION 1	0.0 ppm
10:35	REMOVAL-TOP LAYER CLAY	BKG	STATION 2	0.0 ppm
10:35	REMOVAL-TOP LAYER CLAY	BKG	STATION 3	0.0 ppm
10:45	REMOVAL-TOP LAYER CLAY	BKG	STATION 1	0.0 ppm
10:45	REMOVAL-TOP LAYER CLAY	BKG	STATION 2	0.0 ppm
10:45	REMOVAL-TOP LAYER CLAY	BKG	STATION 3	0.0 ppm
11:15	REMOVAL-TOP LAYER CLAY	BKG	STATION 1	0.0 ppm
11:15	REMOVAL-TOP LAYER CLAY	BKG	STATION 2	0.0 ppm
11:15	REMOVAL-TOP LAYER CLAY	BKG	STATION 3	0.0 ppm
11:30	REMOVAL-TOP LAYER CLAY	BKG	STATION 1	0.0 ppm
11:30	REMOVAL-TOP LAYER CLAY	BKG	STATION 2	0.0 ppm
11:30	REMOVAL-TOP LAYER CLAY	BKG	STATION 3	0.0 ppm
11:40	REMOVAL-TOP LAYER CLAY	BKG	STATION 1	0.0 ppm
11:40	REMOVAL-TOP LAYER CLAY	BKG	STATION 2	0.0 ppm
11:40	REMOVAL-TOP LAYER CLAY	BKG	STATION 3	0.0 ppm

SIGNATURE: Dal Gupko

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1820

PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-17-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
13:30	REMOVAL-CLAY CAP	BKG	STATION 1	0.0 ppm
13:30	REMOVAL-CLAY CAP	BKG	STATION 2	0.0 ppm
13:30	REMOVAL-CLAY CAP	BKG	STATION 3	0.0 ppm
13:45	REMOVAL-CLAY CAP	BKG	STATION 1	0.0 ppm
13:45	REMOVAL-CLAY CAP	BKG	STATION 2	0.0 ppm
13:45	REMOVAL-CLAY CAP	BKG	STATION 3	0.0 ppm
14:00	REMOVAL-CLAY CAP	BKG	STATION 1	0.0 ppm
14:00	REMOVAL-CLAY CAP	BKG	STATION 2	0.0 ppm
14:00	REMOVAL-CLAY CAP	BKG	STATION 3	0.0 ppm
14:15	REMOVAL-CLAY CAP	BKG	STATION 1	0.0 ppm
14:15	REMOVAL-CLAY CAP	BKG	STATION 2	0.0 ppm
14:15	REMOVAL-CLAY CAP	BKG	STATION 3	0.0 ppm
14:30	REMOVAL-CLAY CAP	BKG	STATION 1	0.0 ppm
14:30	REMOVAL-CLAY CAP	BKG	STATION 2	0.0 ppm
14:30	REMOVAL-CLAY CAP	BKG	STATION 3	0.0 ppm
14:45	REMOVAL-CLAY CAP	BKG	STATION 1	0.0 ppm
14:45	REMOVAL-CLAY CAP	BKG	STATION 2	0.0 ppm
14:45	REMOVAL-CLAY CAP	BKG	STATION 3	0.0 ppm

SIGNATURE: D. M. Gupko

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NVLAP #1820

PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-17-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
15:00	CLAY CAP REMOVAL	BKG	STATION 1	0.0 ppm
15:00	CLAY CAP REMOVAL	BKG	STATION 2	0.0 ppm
15:00	CLAY CAP REMOVAL	BKG	STATION 3	0.0 ppm
15:15	CLAY CAP REMOVAL	BKG	STATION 1	0.0 ppm
15:15	CLAY CAP REMOVAL	BKG	STATION 2	0.0 ppm
15:15	CLAY CAP REMOVAL	BKG	STATION 3	0.0 ppm
15:30	CLAY CAP REMOVAL	BKG	STATION 1	0.0 ppm
15:30	CLAY CAP REMOVAL	BKG	STATION 2	0.0 ppm
15:30	CLAY CAP REMOVAL	BKG	STATION 3	0.0 ppm
15:45	CLAY CAP REMOVAL	BKG	STATION 1	0.0 ppm
15:45	CLAY CAP REMOVAL	BKG	STATION 2	0.0 ppm
15:45	CLAY CAP REMOVAL	BKG	STATION 3	0.0 ppm
16:00	CLAY CAP REMOVAL	BKG	STATION 1	0.0 ppm
16:00	CLAY CAP REMOVAL	BKG	STATION 2	0.0 ppm
16:00	CLAY CAP REMOVAL	BKG	STATION 3	0.0 ppm
16:15	CLAY CAP REMOVAL	BKG	STATION 1	0.0 ppm
16:15	CLAY CAP REMOVAL	BKG	STATION 2	0.0 ppm
16:15	CLAY CAP REMOVAL	BKG	STATION 3	0.0 ppm

SIGNATURE: Dhd Gupko

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NVLAP #1820

PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-17-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
10:20	EXCAVATING PIT	BKG	STATION 1	0.0 ppm
10:20	EXCAVATING PIT	BKG	STATION 2	0.0 ppm
10:20	EXCAVATING PIT	BKG	STATION 3	0.0 ppm
10:35	EXCAVATING PIT	BKG	STATION 1	0.0 ppm
10:35	EXCAVATING PIT	BKG	STATION 2	0.0 ppm
10:35	EXCAVATING PIT	BKG	STATION 3	0.0 ppm
10:50	EXCAVATING PIT	BKG	STATION 1	0.0 ppm
10:50	EXCAVATING PIT	BKG	STATION 2	0.0 ppm
10:50	EXCAVATING PIT	BKG	STATION 3	0.0 ppm
11:05	EXCAVATING PIT	BKG	STATION 1	0.0 ppm
11:05	EXCAVATING PIT	BKG	STATION 2	0.0 ppm
11:05	EXCAVATING PIT	BKG	STATION 3	0.0 ppm
11:20	EXCAVATING PIT	BKG	STATION 1	0.0 ppm
11:20	EXCAVATING PIT	BKG	STATION 2	0.0 ppm
11:20	EXCAVATING PIT	BKG	STATION 3	0.0 ppm
11:35	EXCAVATING PIT	BKG	STATION 1	0.0 ppm
11:35	EXCAVATING PIT	BKG	STATION 2	0.0 ppm
11:35	EXCAVATING PIT	BKG	STATION 3	0.0 ppm

SIGNATURE: Dkl f Sgh

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-17-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
11:50	TEST PIT EXCAVATION	BKG	STATION 1	0.0 ppm
11:50	TEST PIT EXCAVATION	BKG	STATION 2	0.0 ppm
11:50	TEST PIT EXCAVATION	BKG	STATION 3	0.0 ppm
12:05	TEST PIT EXCAVATION	BKG	STATION 1	0.0 ppm
12:05	TEST PIT EXCAVATION	BKG	STATION 2	0.0 ppm
12:05	TEST PIT EXCAVATION	BKG	STATION 3	0.0 ppm
12:20	TEST PIT EXCAVATION	BKG	STATION 1	0.0 ppm
12:20	TEST PIT EXCAVATION	BKG	STATION 2	0.0 ppm
12:20	TEST PIT EXCAVATION	BKG	STATION 3	0.0 ppm
12:35	TEST PIT EXCAVATION	BKG	STATION 1	0.0 ppm
12:35	TEST PIT EXCAVATION	BKG	STATION 2	0.0 ppm
12:35	TEST PIT EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: Robert A. Gupko

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-18-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION-TEST PIT

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
13:45	EXCAVATION	BKG	STATION 1	0.0 ppm
13:45	EXCAVATION	BKG	STATION 2	0.0 ppm
13:45	EXCAVATION	BKG	STATION 3	0.0 ppm
14:00	EXCAVATION	BKG	STATION 1	0.0 ppm
14:00	EXCAVATION	BKG	STATION 2	0.0 ppm
14:00	EXCAVATION	BKG	STATION 3	0.0 ppm
14:15	EXCAVATION	BKG	STATION 1	0.0 ppm
14:15	EXCAVATION	BKG	STATION 2	0.0 ppm
14:15	EXCAVATION	BKG	STATION 3	0.0 ppm
14:30	EXCAVATION	BKG	STATION 1	0.0 ppm
14:30	EXCAVATION	BKG	STATION 2	0.0 ppm
14:30	EXCAVATION	BKG	STATION 3	0.0 ppm
14:45	EXCAVATION	BKG	STATION 1	0.0 ppm
14:45	EXCAVATION	BKG	STATION 2	0.0 ppm
14:45	EXCAVATION	BKG	STATION 3	0.0 ppm
15:00	EXCAVATION	BKG	STATION 1	0.0 ppm
15:00	EXCAVATION	BKG	STATION 2	0.0 ppm
15:00	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: Dale Gupko

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TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-18-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION-TEST PIT

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
15:15	EXCAVATION	BKG	STATION 1	0.0 ppm
15:15	EXCAVATION	BKG	STATION 2	0.0 ppm
15:15	EXCAVATION	BKG	STATION 3	0.0 ppm
15:30	EXCAVATION	BKG	STATION 1	0.0 ppm
15:30	EXCAVATION	BKG	STATION 2	0.0 ppm
15:30	EXCAVATION	BKG	STATION 3	0.0 ppm
15:45	EXCAVATION	BKG	STATION 1	0.0 ppm
15:45	EXCAVATION	BKG	STATION 2	0.0 ppm
15:45	EXCAVATION	BKG	STATION 3	0.0 ppm
16:00	EXCAVATION	FINAL	STATION 1	0.0 ppm
16:00	EXCAVATION	FINAL	STATION 2	0.0 ppm
16:00	EXCAVATION	FINAL	STATION 3	0.0 ppm

SIGNATURE: Dhl Jusk

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TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-19-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
14:15	EXCAVATION	BKG	STATION 1	0.0 ppm
14:15	EXCAVATION	BKG	STATION 2	0.0 ppm
14:15	EXCAVATION	BKG	STATION 3	0.0 ppm
14:30	EXCAVATION	BKG	STATION 1	0.0 ppm
14:30	EXCAVATION	BKG	STATION 2	0.0 ppm
14:30	EXCAVATION	BKG	STATION 3	0.0 ppm
14:45	EXCAVATION	BKG	STATION 1	0.0 ppm
14:45	EXCAVATION	BKG	STATION 2	0.0 ppm
14:45	EXCAVATION	BKG	STATION 3	0.0 ppm
15:00	EXCAVATION	BKG	STATION 1	0.0 ppm
15:00	EXCAVATION	BKG	STATION 2	0.0 ppm
15:00	EXCAVATION	BKG	STATION 3	0.0 ppm
15:15	EXCAVATION	BKG	STATION 1	0.0 ppm
15:15	EXCAVATION	BKG	STATION 2	0.0 ppm
15:15	EXCAVATION	BKG	STATION 3	0.0 ppm
15:30	EXCAVATION	BKG	STATION 1	0.0 ppm
15:30	EXCAVATION	BKG	STATION 2	0.0 ppm
15:30	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: Dell J. Sykes

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CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-19-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
15:45	EXCAVATION	BKG	STATION 1	0.0 ppm
15:45	EXCAVATION	BKG	STATION 2	0.0 ppm
15:45	EXCAVATION	BKG	STATION 3	0.0 ppm
16:00	EXCAVATION	BKG	STATION 1	0.0 ppm
16:00	EXCAVATION	BKG	STATION 2	0.0 ppm
16:00	EXCAVATION	BKG	STATION 3	0.0 ppm
16:15	EXCAVATION	BKG	STATION 1	0.0 ppm
16:15	EXCAVATION	BKG	STATION 2	0.0 ppm
16:15	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: Dell Gupko

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CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-19-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
09:15	EXCAVATION	BKG	STATION 1	0.0 ppm
09:15	EXCAVATION	BKG	STATION 2	0.0 ppm
09:15	EXCAVATION	BKG	STATION 3	0.0 ppm
09:30	EXCAVATION	BKG	STATION 1	0.0 ppm
09:30	EXCAVATION	BKG	STATION 2	0.0 ppm
09:30	EXCAVATION	BKG	STATION 3	0.0 ppm
09:45	EXCAVATION	BKG	STATION 1	0.0 ppm
09:45	EXCAVATION	BKG	STATION 2	0.0 ppm
09:45	EXCAVATION	BKG	STATION 3	0.0 ppm
10:00	EXCAVATION	BKG	STATION 1	0.0 ppm
10:00	EXCAVATION	BKG	STATION 2	0.0 ppm
10:00	EXCAVATION	BKG	STATION 3	0.0 ppm
10:15	EXCAVATION	BKG	STATION 1	0.0 ppm
10:15	EXCAVATION	BKG	STATION 2	0.0 ppm
10:15	EXCAVATION	BKG	STATION 3	0.0 ppm
10:30	EXCAVATION	BKG	STATION 1	0.0 ppm
10:30	EXCAVATION	BKG	STATION 2	0.0 ppm
10:30	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: Dilt Gupko

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CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-19-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
10:45	EXCAVATION	BKG	STATION 1	0.0 ppm
10:45	EXCAVATION	BKG	STATION 2	0.0 ppm
10:45	EXCAVATION	BKG	STATION 3	0.0 ppm
11:00	EXCAVATION	BKG	STATION 1	0.0 ppm
11:00	EXCAVATION	BKG	STATION 2	0.0 ppm
11:00	EXCAVATION	BKG	STATION 3	0.0 ppm
11:15	EXCAVATION	BKG	STATION 1	0.0 ppm
11:15	EXCAVATION	BKG	STATION 2	0.0 ppm
11:15	EXCAVATION	BKG	STATION 3	0.0 ppm
11:30	EXCAVATION	BKG	STATION 1	0.0 ppm
11:30	EXCAVATION	BKG	STATION 2	0.0 ppm
11:30	EXCAVATION	BKG	STATION 3	0.0 ppm
11:45	EXCAVATION	BKG	STATION 1	0.0 ppm
11:45	EXCAVATION	BKG	STATION 2	0.0 ppm
11:45	EXCAVATION	BKG	STATION 3	0.0 ppm
12:00	EXCAVATION	BKG	STATION 1	0.0 ppm
12:00	EXCAVATION	BKG	STATION 2	0.0 ppm
12:00	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: Debbi Gupko

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TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES **DATE:** 11-19-92

PROJECT: LOVE CANAL **TYPE OF ACTIVITY:** EXCAVATION

PROJECT #: PH92151 **TECHNICIAN:** D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
12:15	EXCAVATION	BKG	STATION 1	0.0 ppm
12:15	EXCAVATION	BKG	STATION 2	0.0 ppm
12:15	EXCAVATION	BKG	STATION 3	0.0 ppm
12:30	EXCAVATION	BKG	STATION 1	0.0 ppm
12:30	EXCAVATION	BKG	STATION 2	0.0 ppm
12:30	EXCAVATION	BKG	STATION 3	0.0 ppm
12:45	EXCAVATION	BKG	STATION 1	0.0 ppm
12:45	EXCAVATION	BKG	STATION 2	0.0 ppm
12:45	EXCAVATION	BKG	STATION 3	0.0 ppm
13:00	EXCAVATION	BKG	STATION 1	0.0 ppm
13:00	EXCAVATION	BKG	STATION 2	0.0 ppm
13:00	EXCAVATION	BKG	STATION 3	0.0 ppm
13:15	EXCAVATION	BKG	STATION 1	0.0 ppm
13:15	EXCAVATION	BKG	STATION 2	0.0 ppm
13:15	EXCAVATION	BKG	STATION 3	0.0 ppm
13:30	EXCAVATION	BKG	STATION 1	0.0 ppm
13:30	EXCAVATION	BKG	STATION 2	0.0 ppm
13:30	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: _____

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TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-19-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
13:45	EXCAVATION	FINAL	STATION 1	0.0 ppm
13:45	EXCAVATION	FINAL	STATION 2	0.0 ppm
13:45	EXCAVATION	FINAL	STATION 3	0.0 ppm

SIGNATURE: Dell Gupk

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-23-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATE-FRONT YARD

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
08:45	EXCAVATION	BKG	STATION 1	0.0 ppm
08:45	EXCAVATION	BKG	STATION 2	0.0 ppm
08:45	EXCAVATION	BKG	STATION 3	0.0 ppm
09:00	EXCAVATION	BKG	STATION 1	0.0 ppm
09:00	EXCAVATION	BKG	STATION 2	0.0 ppm
09:00	EXCAVATION	BKG	STATION 3	0.0 ppm
09:15	EXCAVATION	BKG	STATION 1	0.0 ppm
09:15	EXCAVATION	BKG	STATION 2	0.0 ppm
09:15	EXCAVATION	BKG	STATION 3	0.0 ppm
09:30	EXCAVATION	BKG	STATION 1	0.0 ppm
09:30	EXCAVATION	BKG	STATION 2	0.0 ppm
09:30	EXCAVATION	BKG	STATION 3	0.0 ppm
09:45	EXCAVATION	BKG	STATION 1	0.0 ppm
09:45	EXCAVATION	BKG	STATION 2	0.0 ppm
09:45	EXCAVATION	BKG	STATION 3	0.0 ppm
10:00	EXCAVATION	BKG	STATION 1	0.0 ppm
10:00	EXCAVATION	BKG	STATION 2	0.0 ppm
10:00	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: D. L. Gupko

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-23-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATE-FRONT YARD

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
10:15	EXCAVATION	BKG	STATION 1	0.0 ppm
10:15	EXCAVATION	BKG	STATION 2	0.0 ppm
10:15	EXCAVATION	BKG	STATION 3	0.0 ppm
10:30	EXCAVATION	BKG	STATION 1	0.0 ppm
10:30	EXCAVATION	BKG	STATION 2	0.0 ppm
10:30	EXCAVATION	BKG	STATION 3	0.0 ppm
10:45	EXCAVATION	BKG	STATION 1	0.0 ppm
10:45	EXCAVATION	BKG	STATION 2	0.0 ppm
10:45	EXCAVATION	BKG	STATION 3	0.0 ppm
11:00	EXCAVATION	BKG	STATION 1	0.0 ppm
11:00	EXCAVATION	BKG	STATION 2	0.0 ppm
11:00	EXCAVATION	BKG	STATION 3	0.0 ppm
11:15	EXCAVATION	BKG	STATION 1	0.0 ppm
11:15	EXCAVATION	BKG	STATION 2	0.0 ppm
11:15	EXCAVATION	BKG	STATION 3	0.0 ppm
11:30	EXCAVATION	BKG	STATION 1	0.0 ppm
11:30	EXCAVATION	BKG	STATION 2	0.0 ppm
11:30	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: Dell Gupko

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TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-23-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATE-FRONT YARD

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
11:45	EXCAVATION	BKG	STATION 1	0.0 ppm
11:45	EXCAVATION	BKG	STATION 2	0.0 ppm
11:45	EXCAVATION	BKG	STATION 3	0.0 ppm
12:00	EXCAVATION	BKG	STATION 1	0.0 ppm
12:00	EXCAVATION	BKG	STATION 2	0.0 ppm
12:00	EXCAVATION	BKG	STATION 3	0.0 ppm
12:15	EXCAVATION	BKG	STATION 1	0.0 ppm
12:15	EXCAVATION	BKG	STATION 2	0.0 ppm
12:15	EXCAVATION	BKG	STATION 3	0.0 ppm
12:30	EXCAVATION	BKG	STATION 1	0.0 ppm
12:30	EXCAVATION	BKG	STATION 2	0.0 ppm
12:30	EXCAVATION	BKG	STATION 3	0.0 ppm
12:45	EXCAVATION	BKG	STATION 1	0.0 ppm
12:45	EXCAVATION	BKG	STATION 2	0.0 ppm
12:45	EXCAVATION	BKG	STATION 3	0.0 ppm
13:00	EXCAVATION	BKG	STATION 1	0.0 ppm
13:00	EXCAVATION	BKG	STATION 2	0.0 ppm
13:00	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: D. Gupko

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TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-23-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATE-FRONT YARD

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
13:15	EXCAVATION	BKG	STATION 1	0.0 ppm
13:15	EXCAVATION	BKG	STATION 2	0.0 ppm
13:15	EXCAVATION	BKG	STATION 3	0.0 ppm
13:30	EXCAVATION	BKG	STATION 1	0.0 ppm
13:30	EXCAVATION	BKG	STATION 2	0.0 ppm
13:30	EXCAVATION	BKG	STATION 3	0.0 ppm
13:45	EXCAVATION	BKG	STATION 1	0.0 ppm
13:45	EXCAVATION	BKG	STATION 2	0.0 ppm
13:45	EXCAVATION	BKG	STATION 3	0.0 ppm
14:00	EXCAVATION	BKG	STATION 1	0.0 ppm
14:00	EXCAVATION	BKG	STATION 2	0.0 ppm
14:00	EXCAVATION	BKG	STATION 3	0.0 ppm
14:15	EXCAVATION	BKG	STATION 1	0.0 ppm
14:15	EXCAVATION	BKG	STATION 2	0.0 ppm
14:15	EXCAVATION	BKG	STATION 3	0.0 ppm
14:30	EXCAVATION	BKG	STATION 1	0.0 ppm
14:30	EXCAVATION	BKG	STATION 2	0.0 ppm
14:30	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: Deb Gupko

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-23-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATE-FRONT YARD

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
14:45	EXCAVATION	BKG	STATION 1	0.0 ppm
14:45	EXCAVATION	BKG	STATION 2	0.0 ppm
14:45	EXCAVATION	BKG	STATION 3	0.0 ppm
15:00	EXCAVATION	BKG	STATION 1	0.0 ppm
15:00	EXCAVATION	BKG	STATION 2	0.0 ppm
15:00	EXCAVATION	BKG	STATION 3	0.0 ppm
15:15	EXCAVATION	BKG	STATION 1	0.0 ppm
15:15	EXCAVATION	BKG	STATION 2	0.0 ppm
15:15	EXCAVATION	BKG	STATION 3	0.0 ppm
15:30	EXCAVATION	BKG	STATION 1	0.0 ppm
15:30	EXCAVATION	BKG	STATION 2	0.0 ppm
15:30	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: Dell Gupko

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-24-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATE-BACK YARD

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
08:45	EXCAVATION	BKG	STATION 1	0.0 ppm
08:45	EXCAVATION	BKG	STATION 2	0.0 ppm
08:45	EXCAVATION	BKG	STATION 3	0.0 ppm
09:00	EXCAVATION	BKG	STATION 1	0.0 ppm
09:00	EXCAVATION	BKG	STATION 2	0.0 ppm
09:00	EXCAVATION	BKG	STATION 3	0.0 ppm
09:15	EXCAVATION	BKG	STATION 1	0.0 ppm
09:15	EXCAVATION	BKG	STATION 2	0.0 ppm
09:15	EXCAVATION	BKG	STATION 3	0.0 ppm
09:30	EXCAVATION	BKG	STATION 1	0.0 ppm
09:30	EXCAVATION	BKG	STATION 2	0.0 ppm
09:30	EXCAVATION	BKG	STATION 3	0.0 ppm
09:45	EXCAVATION	BKG	STATION 1	0.0 ppm
09:45	EXCAVATION	BKG	STATION 2	0.0 ppm
09:45	EXCAVATION	BKG	STATION 3	0.0 ppm
10:00	EXCAVATION	BKG	STATION 1	0.0 ppm
10:00	EXCAVATION	BKG	STATION 2	0.0 ppm
10:00	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: Donald Gupko

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10:30	EXCAVATION	BKG	STATION 3	0.0 ppm
10:45	EXCAVATION	BKG	STATION 1	0.0 ppm
10:45	EXCAVATION	BKG	STATION 2	0.0 ppm
10:45	EXCAVATION	BKG	STATION 3	0.0 ppm
11:00	EXCAVATION	BKG	STATION 1	0.0 ppm
11:00	EXCAVATION	BKG	STATION 2	0.0 ppm
11:00	EXCAVATION	BKG	STATION 3	0.0 ppm
11:15	EXCAVATION	BKG	STATION 1	0.0 ppm
11:15	EXCAVATION	BKG	STATION 2	0.0 ppm
11:15	EXCAVATION	BKG	STATION 3	0.0 ppm
11:30	EXCAVATION	BKG	STATION 1	0.0 ppm
11:30	EXCAVATION	BKG	STATION 2	0.0 ppm
11:30	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: Debd f. Gupko

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CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-24-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATE-BACK YARD

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
11:45	EXCAVATION	BKG	STATION 1	0.0 ppm
11:45	EXCAVATION	BKG	STATION 2	0.0 ppm
11:45	EXCAVATION	BKG	STATION 3	0.0 ppm
12:00	EXCAVATION	BKG	STATION 1	0.0 ppm
12:00	EXCAVATION	BKG	STATION 2	0.0 ppm
12:00	EXCAVATION	BKG	STATION 3	0.0 ppm
12:15	EXCAVATION	BKG	STATION 1	0.0 ppm
12:15	EXCAVATION	BKG	STATION 2	0.0 ppm
12:15	EXCAVATION	BKG	STATION 3	0.0 ppm
12:30	EXCAVATION	BKG	STATION 1	0.0 ppm
12:30	EXCAVATION	BKG	STATION 2	0.0 ppm
12:30	EXCAVATION	BKG	STATION 3	0.0 ppm
12:45	EXCAVATION	BKG	STATION 1	0.0 ppm
12:45	EXCAVATION	BKG	STATION 2	0.0 ppm
12:45	EXCAVATION	BKG	STATION 3	0.0 ppm
13:00	EXCAVATION	BKG	STATION 1	0.0 ppm
13:00	EXCAVATION	BKG	STATION 2	0.0 ppm
13:00	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: D. Gupko

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PROJECT: LOVE CANAL
TYPE OF ACTIVITY: EXCAVATE-BACK YARD

PROJECT #: PH92151
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13:30	EXCAVATION	BKG	STATION 3	0.0 ppm
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13:45	EXCAVATION	BKG	STATION 2	0.0 ppm
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14:15	EXCAVATION	BKG	STATION 1	0.0 ppm
14:15	EXCAVATION	BKG	STATION 2	0.0 ppm
14:15	EXCAVATION	BKG	STATION 3	0.0 ppm
14:30	EXCAVATION	BKG	STATION 1	0.0 ppm
14:30	EXCAVATION	BKG	STATION 2	0.0 ppm
14:30	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: Dell Gupko

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TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES **DATE:** 11-24-92

PROJECT: LOVE CANAL **TYPE OF ACTIVITY:** EXCAVATE-BACK YARD

PROJECT #: PH92151 **TECHNICIAN:** D. GUPKO

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14:45	EXCAVATION	BKG	STATION 3	0.0 ppm
15:00	EXCAVATION	BKG	STATION 1	0.0 ppm
15:00	EXCAVATION	BKG	STATION 2	0.0 ppm
15:00	EXCAVATION	BKG	STATION 3	0.0 ppm
15:15	EXCAVATION	BKG	STATION 1	0.0 ppm
15:15	EXCAVATION	BKG	STATION 2	0.0 ppm
15:15	EXCAVATION	BKG	STATION 3	0.0 ppm
15:30	EXCAVATION	BKG	STATION 1	0.0 ppm
15:30	EXCAVATION	BKG	STATION 2	0.0 ppm
15:30	EXCAVATION	BKG	STATION 3	0.0 ppm
15:45	EXCAVATION	BKG	STATION 1	0.0 ppm
15:45	EXCAVATION	BKG	STATION 2	0.0 ppm
15:45	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: _____

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PROJECT: LOVE CANAL

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PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
08:30	EXCAVATION	BKG	STATION 1	0.0 ppm
08:30	EXCAVATION	BKG	STATION 2	0.0 ppm
08:30	EXCAVATION	BKG	STATION 3	0.0 ppm
08:45	EXCAVATION	BKG	STATION 1	0.0 ppm
08:45	EXCAVATION	BKG	STATION 2	0.0 ppm
08:45	EXCAVATION	BKG	STATION 3	0.0 ppm
09:00	EXCAVATION	BKG	STATION 1	0.0 ppm
09:00	EXCAVATION	BKG	STATION 2	0.0 ppm
09:00	EXCAVATION	BKG	STATION 3	0.0 ppm
09:15	EXCAVATION	BKG	STATION 1	0.0 ppm
09:15	EXCAVATION	BKG	STATION 2	0.0 ppm
09:15	EXCAVATION	BKG	STATION 3	0.0 ppm
09:30	EXCAVATION	BKG	STATION 1	0.0 ppm
09:30	EXCAVATION	BKG	STATION 2	0.0 ppm
09:30	EXCAVATION	BKG	STATION 3	0.0 ppm
09:45	EXCAVATION	BKG	STATION 1	0.0 ppm
09:45	EXCAVATION	BKG	STATION 2	0.0 ppm
09:45	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: D. Gupko

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DATE: 11-25-92

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TYPE OF ACTIVITY: EXCAVATE-BACK YARD

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
10:00	EXCAVATION	BKG	STATION 1	0.0 ppm
10:00	EXCAVATION	BKG	STATION 2	0.0 ppm
10:00	EXCAVATION	BKG	STATION 3	0.0 ppm
10:15	EXCAVATION	BKG	STATION 1	0.0 ppm
10:15	EXCAVATION	BKG	STATION 2	0.0 ppm
10:15	EXCAVATION	BKG	STATION 3	0.0 ppm
10:30	EXCAVATION	BKG	STATION 1	0.0 ppm
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10:30	EXCAVATION	BKG	STATION 3	0.0 ppm
10:45	EXCAVATION	BKG	STATION 1	0.0 ppm
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10:45	EXCAVATION	BKG	STATION 3	0.0 ppm
11:00	EXCAVATION	BKG	STATION 1	0.0 ppm
11:00	EXCAVATION	BKG	STATION 2	0.0 ppm
11:00	EXCAVATION	BKG	STATION 3	0.0 ppm
11:15	EXCAVATION	BKG	STATION 1	0.0 ppm
11:15	EXCAVATION	BKG	STATION 2	0.0 ppm
11:15	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: Dd Gupko

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-25-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATE-BACK YARD

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
11:30	EXCAVATION	BKG	STATION 1	0.0 ppm
11:30	EXCAVATION	BKG	STATION 2	0.0 ppm
11:30	EXCAVATION	BKG	STATION 3	0.0 ppm
11:45	EXCAVATION	BKG	STATION 1	0.0 ppm
11:45	EXCAVATION	BKG	STATION 2	0.0 ppm
11:45	EXCAVATION	BKG	STATION 3	0.0 ppm
12:00	EXCAVATION	BKG	STATION 1	0.0 ppm
12:00	EXCAVATION	BKG	STATION 2	0.0 ppm
12:00	EXCAVATION	BKG	STATION 3	0.0 ppm
12:15	EXCAVATION	BKG	STATION 1	0.0 ppm
12:15	EXCAVATION	BKG	STATION 2	0.0 ppm
12:15	EXCAVATION	BKG	STATION 3	0.0 ppm
12:30	EXCAVATION	BKG	STATION 1	0.0 ppm
12:30	EXCAVATION	BKG	STATION 2	0.0 ppm
12:30	EXCAVATION	BKG	STATION 3	0.0 ppm
12:45	EXCAVATION	BKG	STATION 1	0.0 ppm
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12:45	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: Dilli Gupko

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES **DATE:** 11-25-92

PROJECT: LOVE CANAL **TYPE OF ACTIVITY:** EXCAVATE-BACK YARD

PROJECT #: PH92151 **TECHNICIAN:** D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
13:00	EXCAVATION	BKG	STATION 1	0.0 ppm
13:00	EXCAVATION	BKG	STATION 2	0.0 ppm
13:00	EXCAVATION	BKG	STATION 3	0.0 ppm
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10:00	EXCAVATION	BKG	STATION 1	0.0 ppm
10:00	EXCAVATION	BKG	STATION 2	0.0 ppm
10:00	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: Dilip Gupko

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CLIENT: ENTECH MANAGEMENT SERVICES

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NVLAP #1820

PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES **DATE:** 11-30-92

PROJECT: LOVE CANAL **TYPE OF ACTIVITY:** EXCAVATE-BACK YARD

PROJECT #: PH92151 **TECHNICIAN:** D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
11:45	EXCAVATION	BKG	STATION 1	0.0 ppm
11:45	EXCAVATION	BKG	STATION 2	0.0 ppm
11:45	EXCAVATION	BKG	STATION 3	0.0 ppm
12:00	EXCAVATION	BKG	STATION 1	0.0 ppm
12:00	EXCAVATION	BKG	STATION 2	0.0 ppm
12:00	EXCAVATION	BKG	STATION 3	0.0 ppm
12:15	EXCAVATION	BKG	STATION 1	0.0 ppm
12:15	EXCAVATION	BKG	STATION 2	0.0 ppm
12:15	EXCAVATION	BKG	STATION 3	0.0 ppm
12:30	EXCAVATION	BKG	STATION 1	0.0 ppm
12:30	EXCAVATION	BKG	STATION 2	0.0 ppm
12:30	EXCAVATION	BKG	STATION 3	0.0 ppm
12:45	EXCAVATION	BKG	STATION 1	0.0 ppm
12:45	EXCAVATION	BKG	STATION 2	0.0 ppm
12:45	EXCAVATION	BKG	STATION 3	0.0 ppm
13:00	EXCAVATION	BKG	STATION 1	0.0 ppm
13:00	EXCAVATION	BKG	STATION 2	0.0 ppm
13:00	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: D. Gupko

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-30-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATE-BACK YARD

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
13:15	EXCAVATION	BKG	STATION 1	0.0 ppm
13:15	EXCAVATION	BKG	STATION 2	0.0 ppm
13:15	EXCAVATION	BKG	STATION 3	0.0 ppm
13:30	EXCAVATION	BKG	STATION 1	0.0 ppm
13:30	EXCAVATION	BKG	STATION 2	0.0 ppm
13:30	EXCAVATION	BKG	STATION 3	0.0 ppm
13:45	EXCAVATION	BKG	STATION 1	0.0 ppm
13:45	EXCAVATION	BKG	STATION 2	0.0 ppm
13:45	EXCAVATION	BKG	STATION 3	0.0 ppm
14:00	EXCAVATION	BKG	STATION 1	0.0 ppm
14:00	EXCAVATION	BKG	STATION 2	0.0 ppm
14:00	EXCAVATION	BKG	STATION 3	0.0 ppm
14:15	EXCAVATION	BKG	STATION 1	0.0 ppm
14:15	EXCAVATION	BKG	STATION 2	0.0 ppm
14:15	EXCAVATION	BKG	STATION 3	0.0 ppm
14:30	EXCAVATION	BKG	STATION 1	0.0 ppm
14:30	EXCAVATION	BKG	STATION 2	0.0 ppm
14:30	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: D. Gupko

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-30-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATE-BACK YARD

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
14:45	EXCAVATION	BKG	STATION 1	0.0 ppm
14:45	EXCAVATION	BKG	STATION 2	0.0 ppm
14:45	EXCAVATION	BKG	STATION 3	0.0 ppm
15:00	EXCAVATION	BKG	STATION 1	0.0 ppm
15:00	EXCAVATION	BKG	STATION 2	0.0 ppm
15:00	EXCAVATION	BKG	STATION 3	0.0 ppm
15:15	EXCAVATION	BKG	STATION 1	0.0 ppm
15:15	EXCAVATION	BKG	STATION 2	0.0 ppm
15:15	EXCAVATION	BKG	STATION 3	0.0 ppm
15:30	EXCAVATION	BKG	STATION 1	0.0 ppm
15:30	EXCAVATION	BKG	STATION 2	0.0 ppm
15:30	EXCAVATION	BKG	STATION 3	0.0 ppm
15:45	EXCAVATION	BKG	STATION 1	0.0 ppm
15:45	EXCAVATION	BKG	STATION 2	0.0 ppm
15:45	EXCAVATION	BKG	STATION 3	0.0 ppm
16:00	EXCAVATION	BKG	STATION 1	0.0 ppm
16:00	EXCAVATION	BKG	STATION 2	0.0 ppm
16:00	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: Dell Gupko

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-30-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATE-BACK YARD

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
16:15	EXCAVATION	BKG	STATION 1	0.0 ppm
16:15	EXCAVATION	BKG	STATION 2	0.0 ppm
16:15	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: Dil Gupko

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-03-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATE-BACK YARD

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
15:00	EXCAVATION	BKG	STATION 1	0.0 ppm
15:00	EXCAVATION	BKG	STATION 2	0.0 ppm
15:00	EXCAVATION	BKG	STATION 3	0.0 ppm
15:15	EXCAVATION	BKG	STATION 1	0.0 ppm
15:15	EXCAVATION	BKG	STATION 2	0.0 ppm
15:15	EXCAVATION	BKG	STATION 3	0.0 ppm
15:30	EXCAVATION	BKG	STATION 1	0.0 ppm
15:30	EXCAVATION	BKG	STATION 2	0.0 ppm
15:30	EXCAVATION	BKG	STATION 3	0.0 ppm
15:45	EXCAVATION	BKG	STATION 1	0.0 ppm
15:45	EXCAVATION	BKG	STATION 2	0.0 ppm
15:45	EXCAVATION	BKG	STATION 3	0.0 ppm
16:00	EXCAVATION	BKG	STATION 1	0.0 ppm
16:00	EXCAVATION	BKG	STATION 2	0.0 ppm
16:00	EXCAVATION	BKG	STATION 3	0.0 ppm
16:15	EXCAVATION	BKG	STATION 1	0.0 ppm
16:15	EXCAVATION	BKG	STATION 2	0.0 ppm
16:15	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: Donald J. Gupko

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-03-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATE-BACK YARD

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
16:30	EXCAVATION	BKG	STATION 1	0.0 ppm
16:30	EXCAVATION	BKG	STATION 2	0.0 ppm
16:30	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: _____

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TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-04-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATE-BACK YARD

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
09:30	EXCAVATION	BKG	STATION 1	0.0 ppm
09:30	EXCAVATION	BKG	STATION 2	0.0 ppm
09:30	EXCAVATION	BKG	STATION 3	0.0 ppm
09:45	EXCAVATION	BKG	STATION 1	0.0 ppm
09:45	EXCAVATION	BKG	STATION 2	0.0 ppm
09:45	EXCAVATION	BKG	STATION 3	0.0 ppm
10:00	EXCAVATION	BKG	STATION 1	0.0 ppm
10:00	EXCAVATION	BKG	STATION 2	0.0 ppm
10:00	EXCAVATION	BKG	STATION 3	0.0 ppm
10:15	EXCAVATION	BKG	STATION 1	0.0 ppm
10:15	EXCAVATION	BKG	STATION 2	0.0 ppm
10:15	EXCAVATION	BKG	STATION 3	0.0 ppm
10:30	EXCAVATION	BKG	STATION 1	0.0 ppm
10:30	EXCAVATION	BKG	STATION 2	0.0 ppm
10:30	EXCAVATION	BKG	STATION 3	0.0 ppm
10:45	EXCAVATION	BKG	STATION 1	0.0 ppm
10:45	EXCAVATION	BKG	STATION 2	0.0 ppm
10:45	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: Dell Gupko

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TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-04-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATE-BACK YARD

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
11:00	EXCAVATION	BKG	STATION 1	0.0 ppm
11:00	EXCAVATION	BKG	STATION 2	0.0 ppm
11:00	EXCAVATION	BKG	STATION 3	0.0 ppm
11:15	EXCAVATION	BKG	STATION 1	0.0 ppm
11:15	EXCAVATION	BKG	STATION 2	0.0 ppm
11:15	EXCAVATION	BKG	STATION 3	0.0 ppm
11:30	EXCAVATION	BKG	STATION 1	0.0 ppm
11:30	EXCAVATION	BKG	STATION 2	0.0 ppm
11:30	EXCAVATION	BKG	STATION 3	0.0 ppm
11:45	EXCAVATION	BKG	STATION 1	0.0 ppm
11:45	EXCAVATION	BKG	STATION 2	0.0 ppm
11:45	EXCAVATION	BKG	STATION 3	0.0 ppm
12:00	EXCAVATION	BKG	STATION 1	0.0 ppm
12:00	EXCAVATION	BKG	STATION 2	0.0 ppm
12:00	EXCAVATION	BKG	STATION 3	0.0 ppm
12:15	EXCAVATION	BKG	STATION 1	0.0 ppm
12:15	EXCAVATION	BKG	STATION 2	0.0 ppm
12:15	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: Donald Gupko

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES **DATE:** 12-04-92

PROJECT: LOVE CANAL **TYPE OF ACTIVITY:** EXCAVATE-BACK YARD

PROJECT #: PH92151 **TECHNICIAN:** D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
12:30	EXCAVATION	BKG	STATION 1	0.0 ppm
12:30	EXCAVATION	BKG	STATION 2	0.0 ppm
12:30	EXCAVATION	BKG	STATION 3	0.0 ppm
12:45	EXCAVATION	BKG	STATION 1	0.0 ppm
12:45	EXCAVATION	BKG	STATION 2	0.0 ppm
12:45	EXCAVATION	BKG	STATION 3	0.0 ppm
13:00	EXCAVATION	BKG	STATION 1	0.0 ppm
13:00	EXCAVATION	BKG	STATION 2	0.0 ppm
13:00	EXCAVATION	BKG	STATION 3	0.0 ppm
13:15	EXCAVATION	BKG	STATION 1	0.0 ppm
13:15	EXCAVATION	BKG	STATION 2	0.0 ppm
13:15	EXCAVATION	BKG	STATION 3	0.0 ppm
13:30	EXCAVATION	BKG	STATION 1	0.0 ppm
13:30	EXCAVATION	BKG	STATION 2	0.0 ppm
13:30	EXCAVATION	BKG	STATION 3	0.0 ppm
13:45	EXCAVATION	BKG	STATION 1	0.0 ppm
13:45	EXCAVATION	BKG	STATION 2	0.0 ppm
13:45	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: Dell Gupko

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-04-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATE-BACK YARD

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
14:00	EXCAVATION	BKG	STATION 1	0.0 ppm
14:00	EXCAVATION	BKG	STATION 2	0.0 ppm
14:00	EXCAVATION	BKG	STATION 3	0.0 ppm
14:15	EXCAVATION	BKG	STATION 1	0.0 ppm
14:15	EXCAVATION	BKG	STATION 2	0.0 ppm
14:15	EXCAVATION	BKG	STATION 3	0.0 ppm
14:30	EXCAVATION	BKG	STATION 1	0.0 ppm
14:30	EXCAVATION	BKG	STATION 2	0.0 ppm
14:30	EXCAVATION	BKG	STATION 3	0.0 ppm
14:45	EXCAVATION	BKG	STATION 1	0.0 ppm
14:45	EXCAVATION	BKG	STATION 2	0.0 ppm
14:45	EXCAVATION	BKG	STATION 3	0.0 ppm
15:00	EXCAVATION	BKG	STATION 1	0.0 ppm
15:00	EXCAVATION	BKG	STATION 2	0.0 ppm
15:00	EXCAVATION	BKG	STATION 3	0.0 ppm
15:15	EXCAVATION	BKG	STATION 1	0.0 ppm
15:15	EXCAVATION	BKG	STATION 2	0.0 ppm
15:15	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: Dab Gupko

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES **DATE:** 12-04-92

PROJECT: LOVE CANAL **TYPE OF ACTIVITY:** EXCAVATE-BACK YARD

PROJECT #: PH92151 **TECHNICIAN:** D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
15:30	EXCAVATION	BKG	STATION 1	0.0 ppm
15:30	EXCAVATION	BKG	STATION 2	0.0 ppm
15:30	EXCAVATION	BKG	STATION 3	0.0 ppm
15:45	EXCAVATION	BKG	STATION 1	0.0 ppm
15:45	EXCAVATION	BKG	STATION 2	0.0 ppm
15:45	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: _____

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-07-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: SOIL EXCAVATION/ DRUM LOADING

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
09:30	EXCAVATION	BKG	STATION 1	0.0 ppm
09:30	EXCAVATION	BKG	STATION 2	0.0 ppm
09:30	EXCAVATION	BKG	STATION 3	0.0 ppm
09:45	EXCAVATION	BKG	STATION 1	0.0 ppm
09:45	EXCAVATION	BKG	STATION 2	0.0 ppm
09:45	EXCAVATION	BKG	STATION 3	0.0 ppm
10:00	EXCAVATION	BKG	STATION 1	0.0 ppm
10:00	EXCAVATION	BKG	STATION 2	0.0 ppm
10:00	EXCAVATION	BKG	STATION 3	0.0 ppm
12:00	EXCAVATION	BKG	STATION 1	0.0 ppm
12:00	EXCAVATION	BKG	STATION 2	0.0 ppm
12:00	EXCAVATION	BKG	STATION 3	0.0 ppm
12:15	EXCAVATION	BKG	STATION 1	0.0 ppm
12:15	EXCAVATION	BKG	STATION 2	0.0 ppm
12:15	EXCAVATION	BKG	STATION 3	0.0 ppm
12:30	EXCAVATION	BKG	STATION 1	0.0 ppm
12:30	EXCAVATION	BKG	STATION 2	0.0 ppm
12:30	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: Dulal J. Gupko

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-07-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: SOIL EXCAVATION/ DRUM FILLING

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
12:45	EXCAVATION	BKG	STATION 1	0.0 ppm
12:45	EXCAVATION	BKG	STATION 2	0.0 ppm
12:45	EXCAVATION	BKG	STATION 3	0.0 ppm
13:00	EXCAVATION	BKG	STATION 1	0.0 ppm
13:00	EXCAVATION	BKG	STATION 2	0.0 ppm
13:00	EXCAVATION	BKG	STATION 3	0.0 ppm
13:15	EXCAVATION	BKG	STATION 1	0.0 ppm
13:15	EXCAVATION	BKG	STATION 2	0.0 ppm
13:15	EXCAVATION	BKG	STATION 3	0.0 ppm
13:30	EXCAVATION	BKG	STATION 1	0.0 ppm
13:30	EXCAVATION	BKG	STATION 2	0.0 ppm
13:30	EXCAVATION	BKG	STATION 3	0.0 ppm
13:45	EXCAVATION	BKG	STATION 1	0.0 ppm
13:45	EXCAVATION	BKG	STATION 2	0.0 ppm
13:45	EXCAVATION	BKG	STATION 3	0.0 ppm
14:00	EXCAVATION	BKG	STATION 1	0.0 ppm
14:00	EXCAVATION	BKG	STATION 2	0.0 ppm
14:00	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: Debbie Gupko

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-07-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: SOIL EXCAVATION/ DRUM FILLING

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
14:15	EXCAVATION	BKG	STATION 1	0.0 ppm
14:15	EXCAVATION	BKG	STATION 2	0.0 ppm
14:15	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: Donald Gupko

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TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-09-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: LOADING DUMPSTERS

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
11:00	STOCK PILE LOADING	BKG	STATION 1	0.0 ppm
11:00	STOCK PILE LOADING	BKG	STATION 2	0.0 ppm
11:00	STOCK PILE LOADING	BKG	STATION 3	0.0 ppm
11:15	STOCK PILE LOADING	BKG	STATION 1	0.0 ppm
11:15	STOCK PILE LOADING	BKG	STATION 2	0.0 ppm
11:15	STOCK PILE LOADING	BKG	STATION 3	0.0 ppm
11:30	STOCK PILE LOADING	BKG	STATION 1	0.0 ppm
11:30	STOCK PILE LOADING	BKG	STATION 2	0.0 ppm
11:30	STOCK PILE LOADING	BKG	STATION 3	0.0 ppm
11:45	STOCK PILE LOADING	BKG	STATION 1	0.0 ppm
11:45	STOCK PILE LOADING	BKG	STATION 2	0.0 ppm
11:45	STOCK PILE LOADING	BKG	STATION 3	0.0 ppm
12:00	STOCK PILE LOADING	BKG	STATION 1	0.0 ppm
12:00	STOCK PILE LOADING	BKG	STATION 2	0.0 ppm
12:00	STOCK PILE LOADING	BKG	STATION 3	0.0 ppm
12:15	STOCK PILE LOADING	BKG	STATION 1	0.0 ppm
12:15	STOCK PILE LOADING	BKG	STATION 2	0.0 ppm
12:15	STOCK PILE LOADING	BKG	STATION 3	0.0 ppm

SIGNATURE: Donald J. Gupko

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-09-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: LOADING DUMPSTERS

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
12:30	STOCK PILE LOADING	BKG	STATION 1	0.0 ppm
12:30	STOCK PILE LOADING	BKG	STATION 2	0.0 ppm
12:30	STOCK PILE LOADING	BKG	STATION 3	0.0 ppm
14:15	STOCK PILE LOADING	BKG	STATION 1	0.0 ppm
14:15	STOCK PILE LOADING	BKG	STATION 2	0.0 ppm
14:15	STOCK PILE LOADING	BKG	STATION 3	0.0 ppm
14:30	STOCK PILE LOADING	BKG	STATION 1	0.0 ppm
14:30	STOCK PILE LOADING	BKG	STATION 2	0.0 ppm
14:30	STOCK PILE LOADING	BKG	STATION 3	0.0 ppm
14:45	STOCK PILE LOADING	BKG	STATION 1	0.0 ppm
14:45	STOCK PILE LOADING	BKG	STATION 2	0.0 ppm
14:45	STOCK PILE LOADING	BKG	STATION 3	0.0 ppm
15:00	STOCK PILE LOADING	BKG	STATION 1	0.0 ppm
15:00	STOCK PILE LOADING	BKG	STATION 2	0.0 ppm
15:00	STOCK PILE LOADING	BKG	STATION 3	0.0 ppm
15:10	STOCK PILE LOADING	BKG	STATION 1	0.0 ppm
15:10	STOCK PILE LOADING	BKG	STATION 2	0.0 ppm
15:10	STOCK PILE LOADING	BKG	STATION 3	0.0 ppm

SIGNATURE: D. Gupko

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-10-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: LOADING ROLL OFFS

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
08:30	LOADING ROLL OFF CONT.	BKG	STATION 1	0.0 ppm
08:30	LOADING ROLL OFF CONT.	BKG	STATION 2	0.0 ppm
08:30	LOADING ROLL OFF CONT.	BKG	STATION 3	0.0 ppm
08:45	LOADING ROLL OFF CONT.	BKG	STATION 1	0.0 ppm
08:45	LOADING ROLL OFF CONT.	BKG	STATION 2	0.0 ppm
08:45	LOADING ROLL OFF CONT.	BKG	STATION 3	0.0 ppm
09:00	LOADING ROLL OFF CONT.	BKG	STATION 1	0.0 ppm
09:00	LOADING ROLL OFF CONT.	BKG	STATION 2	0.0 ppm
09:00	LOADING ROLL OFF CONT.	BKG	STATION 3	0.0 ppm
09:15	LOADING ROLL OFF CONT.	BKG	STATION 1	0.0 ppm
09:15	LOADING ROLL OFF CONT.	BKG	STATION 2	0.0 ppm
09:15	LOADING ROLL OFF CONT.	BKG	STATION 3	0.0 ppm
09:30	LOADING ROLL OFF CONT.	BKG	STATION 1	0.0 ppm
09:30	LOADING ROLL OFF CONT.	BKG	STATION 2	0.0 ppm
09:30	LOADING ROLL OFF CONT.	BKG	STATION 3	0.0 ppm
09:45	LOADING ROLL OFF CONT.	BKG	STATION 1	0.0 ppm
09:45	LOADING ROLL OFF CONT.	BKG	STATION 2	0.0 ppm
09:45	LOADING ROLL OFF CONT.	BKG	STATION 3	0.0 ppm

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-10-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: LOADING ROLL OFFS

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
10:00	LOADING ROLL OFF CONT.	BKG	STATION 1	0.0 ppm
10:00	LOADING ROLL OFF CONT.	BKG	STATION 2	0.0 ppm
10:00	LOADING ROLL OFF CONT.	BKG	STATION 3	0.0 ppm
10:15	LOADING ROLL OFF CONT.	BKG	STATION 1	0.0 ppm
10:15	LOADING ROLL OFF CONT.	BKG	STATION 2	0.0 ppm
10:15	LOADING ROLL OFF CONT.	BKG	STATION 3	0.0 ppm
10:30	LOADING ROLL OFF CONT.	BKG	STATION 1	0.0 ppm
10:30	LOADING ROLL OFF CONT.	BKG	STATION 2	0.0 ppm
10:30	LOADING ROLL OFF CONT.	BKG	STATION 3	0.0 ppm
10:45	LOADING ROLL OFF CONT.	BKG	STATION 1	0.0 ppm
10:45	LOADING ROLL OFF CONT.	BKG	STATION 2	0.0 ppm
10:45	LOADING ROLL OFF CONT.	BKG	STATION 3	0.0 ppm
11:00	LOADING ROLL OFF CONT.	BKG	STATION 1	0.0 ppm
11:00	LOADING ROLL OFF CONT.	BKG	STATION 2	0.0 ppm
11:00	LOADING ROLL OFF CONT.	BKG	STATION 3	0.0 ppm
11:15	LOADING ROLL OFF CONT.	BKG	STATION 1	0.0 ppm
11:15	LOADING ROLL OFF CONT.	BKG	STATION 2	0.0 ppm
11:15	LOADING ROLL OFF CONT.	BKG	STATION 3	0.0 ppm

SIGNATURE: Dut Gupko

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-10-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: LOADING ROLL OFFS

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
14:15	LOADING ROLL OFF CONT.	BKG	STATION 1	0.0 ppm
14:15	LOADING ROLL OFF CONT.	BKG	STATION 2	0.0 ppm
14:15	LOADING ROLL OFF CONT.	BKG	STATION 3	0.0 ppm
14:30	LOADING ROLL OFF CONT.	BKG	STATION 1	0.0 ppm
14:30	LOADING ROLL OFF CONT.	BKG	STATION 2	0.0 ppm
14:30	LOADING ROLL OFF CONT.	BKG	STATION 3	0.0 ppm
14:45	LOADING ROLL OFF CONT.	BKG	STATION 1	0.0 ppm
14:45	LOADING ROLL OFF CONT.	BKG	STATION 2	0.0 ppm
14:45	LOADING ROLL OFF CONT.	BKG	STATION 3	0.0 ppm
15:00	LOADING ROLL OFF CONT.	BKG	STATION 1	0.0 ppm
15:00	LOADING ROLL OFF CONT.	BKG	STATION 2	0.0 ppm
15:00	LOADING ROLL OFF CONT.	BKG	STATION 3	0.0 ppm
15:15	LOADING ROLL OFF CONT.	BKG	STATION 1	0.0 ppm
15:15	LOADING ROLL OFF CONT.	BKG	STATION 2	0.0 ppm
15:15	LOADING ROLL OFF CONT.	BKG	STATION 3	0.0 ppm

SIGNATURE: Daniel J. Gupko

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TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-14-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: STOCK PILE REMOVAL

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
12:15	STOCK PILE REMOVAL	BKG	STATION 1	0.0 ppm
12:15	STOCK PILE REMOVAL	BKG	STATION 2	0.0 ppm
12:15	STOCK PILE REMOVAL	BKG	STATION 3	0.0 ppm
12:30	STOCK PILE REMOVAL	BKG	STATION 1	0.0 ppm
12:30	STOCK PILE REMOVAL	BKG	STATION 2	0.0 ppm
12:30	STOCK PILE REMOVAL	BKG	STATION 3	0.0 ppm
12:45	STOCK PILE REMOVAL	BKG	STATION 1	0.0 ppm
12:45	STOCK PILE REMOVAL	BKG	STATION 2	0.0 ppm
12:45	STOCK PILE REMOVAL	BKG	STATION 3	0.0 ppm
13:00	STOCK PILE REMOVAL	BKG	STATION 1	0.0 ppm
13:00	STOCK PILE REMOVAL	BKG	STATION 2	0.0 ppm
13:00	STOCK PILE REMOVAL	BKG	STATION 3	0.0 ppm
13:15	STOCK PILE REMOVAL	BKG	STATION 1	0.0 ppm
13:15	STOCK PILE REMOVAL	BKG	STATION 2	0.0 ppm
13:15	STOCK PILE REMOVAL	BKG	STATION 3	0.0 ppm
13:30	STOCK PILE REMOVAL	BKG	STATION 1	0.0 ppm
13:30	STOCK PILE REMOVAL	BKG	STATION 2	0.0 ppm
13:30	STOCK PILE REMOVAL	BKG	STATION 3	0.0 ppm

SIGNATURE: Dod A Hyk

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES **DATE:** 12-14-92

PROJECT: LOVE CANAL **TYPE OF ACTIVITY:** STOCK PILE REMOVAL

PROJECT #: PH92151 **TECHNICIAN:** D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
13:45	STOCK PILE REMOVAL	BKG	STATION 1	0.0 ppm
13:45	STOCK PILE REMOVAL	BKG	STATION 2	0.0 ppm
13:45	STOCK PILE REMOVAL	BKG	STATION 3	0.0 ppm
14:00	STOCK PILE REMOVAL	BKG	STATION 1	0.0 ppm
14:00	STOCK PILE REMOVAL	BKG	STATION 2	0.0 ppm
14:00	STOCK PILE REMOVAL	BKG	STATION 3	0.0 ppm
14:15	STOCK PILE REMOVAL	BKG	STATION 1	0.0 ppm
14:15	STOCK PILE REMOVAL	BKG	STATION 2	0.0 ppm
14:15	STOCK PILE REMOVAL	BKG	STATION 3	0.0 ppm
14:30	STOCK PILE REMOVAL	BKG	STATION 1	0.0 ppm
14:30	STOCK PILE REMOVAL	BKG	STATION 2	0.0 ppm
14:30	STOCK PILE REMOVAL	BKG	STATION 3	0.0 ppm
14:45	STOCK PILE REMOVAL	BKG	STATION 1	0.0 ppm
14:45	STOCK PILE REMOVAL	BKG	STATION 2	0.0 ppm
14:45	STOCK PILE REMOVAL	BKG	STATION 3	0.0 ppm
15:00	STOCK PILE REMOVAL	BKG	STATION 1	0.0 ppm
15:00	STOCK PILE REMOVAL	BKG	STATION 2	0.0 ppm
15:00	STOCK PILE REMOVAL	BKG	STATION 3	0.0 ppm

SIGNATURE: D. Gupko

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES **DATE:** 12-14-92

PROJECT: LOVE CANAL **TYPE OF ACTIVITY:** STOCK PILE REMOVAL

PROJECT #: PH92151 **TECHNICIAN:** D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
15:15	STOCK PILE REMOVAL	BKG	STATION 1	0.0 ppm
15:15	STOCK PILE REMOVAL	BKG	STATION 2	0.0 ppm
15:15	STOCK PILE REMOVAL	BKG	STATION 3	0.0 ppm
15:30	STOCK PILE REMOVAL	BKG	STATION 1	0.0 ppm
15:30	STOCK PILE REMOVAL	BKG	STATION 2	0.0 ppm
15:30	STOCK PILE REMOVAL	BKG	STATION 3	0.0 ppm
15:45	STOCK PILE REMOVAL	BKG	STATION 1	0.0 ppm
15:45	STOCK PILE REMOVAL	BKG	STATION 2	0.0 ppm
15:45	STOCK PILE REMOVAL	BKG	STATION 3	0.0 ppm
16:00	STOCK PILE REMOVAL	BKG	STATION 1	0.0 ppm
16:00	STOCK PILE REMOVAL	BKG	STATION 2	0.0 ppm
16:00	STOCK PILE REMOVAL	BKG	STATION 3	0.0 ppm
16:15	STOCK PILE REMOVAL	BKG	STATION 1	0.0 ppm
16:15	STOCK PILE REMOVAL	BKG	STATION 2	0.0 ppm
16:15	STOCK PILE REMOVAL	BKG	STATION 3	0.0 ppm
16:30	STOCK PILE REMOVAL	BKG	STATION 1	0.0 ppm
16:30	STOCK PILE REMOVAL	BKG	STATION 2	0.0 ppm
16:30	STOCK PILE REMOVAL	BKG	STATION 3	0.0 ppm
16:45	STOCK PILE REMOVAL	BKG	STATION 1	0.0 ppm
16:45	STOCK PILE REMOVAL	BKG	STATION 2	0.0 ppm
16:45	STOCK PILE REMOVAL	BKG	STATION 3	0.0 ppm

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-15-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: STOCK PILE REMOVAL

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
13:30	STOCK PILE REMOVAL	BKG	STATION 1	0.0 ppm
13:30	STOCK PILE REMOVAL	BKG	STATION 2	0.0 ppm
13:30	STOCK PILE REMOVAL	BKG	STATION 3	0.0 ppm
13:45	STOCK PILE REMOVAL	BKG	STATION 1	0.0 ppm
13:45	STOCK PILE REMOVAL	BKG	STATION 2	0.0 ppm
13:45	STOCK PILE REMOVAL	BKG	STATION 3	0.0 ppm
14:00	STOCK PILE REMOVAL	BKG	STATION 1	0.0 ppm
14:00	STOCK PILE REMOVAL	BKG	STATION 2	0.0 ppm
14:00	STOCK PILE REMOVAL	BKG	STATION 3	0.0 ppm
14:15	STOCK PILE REMOVAL	BKG	STATION 1	0.0 ppm
14:15	STOCK PILE REMOVAL	BKG	STATION 2	0.0 ppm
14:15	STOCK PILE REMOVAL	BKG	STATION 3	0.0 ppm
14:30	STOCK PILE REMOVAL	BKG	STATION 1	0.0 ppm
14:30	STOCK PILE REMOVAL	BKG	STATION 2	0.0 ppm
14:30	STOCK PILE REMOVAL	BKG	STATION 3	0.0 ppm
14:45	STOCK PILE REMOVAL	BKG	STATION 1	0.0 ppm
14:45	STOCK PILE REMOVAL	BKG	STATION 2	0.0 ppm
14:45	STOCK PILE REMOVAL	BKG	STATION 3	0.0 ppm

SIGNATURE: D. Gupko

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-15-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: STOCK PILE REMOVAL

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
15:00	STOCK PILE REMOVAL	BKG	STATION 1	0.0 ppm
15:00	STOCK PILE REMOVAL	BKG	STATION 2	0.0 ppm
15:00	STOCK PILE REMOVAL	BKG	STATION 3	0.0 ppm
15:15	STOCK PILE REMOVAL	BKG	STATION 1	0.0 ppm
15:15	STOCK PILE REMOVAL	BKG	STATION 2	0.0 ppm
15:15	STOCK PILE REMOVAL	BKG	STATION 3	0.0 ppm
15:30	STOCK PILE REMOVAL	BKG	STATION 1	0.0 ppm
15:30	STOCK PILE REMOVAL	BKG	STATION 2	0.0 ppm
15:30	STOCK PILE REMOVAL	BKG	STATION 3	0.0 ppm
15:45	STOCK PILE REMOVAL	BKG	STATION 1	0.0 ppm
15:45	STOCK PILE REMOVAL	BKG	STATION 2	0.0 ppm
15:45	STOCK PILE REMOVAL	BKG	STATION 3	0.0 ppm
16:00	STOCK PILE REMOVAL	BKG	STATION 1	0.0 ppm
16:00	STOCK PILE REMOVAL	BKG	STATION 2	0.0 ppm
16:00	STOCK PILE REMOVAL	BKG	STATION 3	0.0 ppm

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-16-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: STOCK PILE REMOVAL

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
09:30	STOCK PILE REMOVAL	BKG	STATION 1	0.0 ppm
09:30	STOCK PILE REMOVAL	BKG	STATION 2	0.0 ppm
09:30	STOCK PILE REMOVAL	BKG	STATION 3	0.0 ppm
09:45	STOCK PILE REMOVAL	BKG	STATION 1	0.0 ppm
09:45	STOCK PILE REMOVAL	BKG	STATION 2	0.0 ppm
09:45	STOCK PILE REMOVAL	BKG	STATION 3	0.0 ppm
10:00	STOCK PILE REMOVAL	BKG	STATION 1	0.0 ppm
10:00	STOCK PILE REMOVAL	BKG	STATION 2	0.0 ppm
10:00	STOCK PILE REMOVAL	BKG	STATION 3	0.0 ppm
10:15	STOCK PILE REMOVAL	BKG	STATION 1	0.0 ppm
10:15	STOCK PILE REMOVAL	BKG	STATION 2	0.0 ppm
10:15	STOCK PILE REMOVAL	BKG	STATION 3	0.0 ppm
10:30	STOCK PILE REMOVAL	BKG	STATION 1	0.0 ppm
10:30	STOCK PILE REMOVAL	BKG	STATION 2	0.0 ppm
10:30	STOCK PILE REMOVAL	BKG	STATION 3	0.0 ppm

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-16-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATE-TEST PIT B

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
12:15	DIGGING TEST PIT B	BKG	STATION 1	0.0 ppm
12:20	DIGGING TEST PIT B	BKG	STATION 2	0.0 ppm
12:25	DIGGING TEST PIT B	BKG	STATION 3	0.0 ppm
12:30	DIGGING TEST PIT B	BKG	STATION 1	0.0 ppm
12:35	DIGGING TEST PIT B	BKG	STATION 2	0.0 ppm
12:40	DIGGING TEST PIT B	BKG	STATION 3	0.0 ppm
12:45	DIGGING TEST PIT B	BKG	STATION 1	0.0 ppm
12:50	DIGGING TEST PIT B	BKG	STATION 2	0.0 ppm
13:00	DIGGING TEST PIT B	BKG	STATION 3	0.0 ppm
13:05	DIGGING TEST PIT B	BKG	STATION 1	0.0 ppm
13:10	DIGGING TEST PIT B	BKG	STATION 2	0.0 ppm
13:15	DIGGING TEST PIT B	BKG	STATION 3	0.0 ppm
13:20	DIGGING TEST PIT B	BKG	STATION 1	0.0 ppm
13:25	DIGGING TEST PIT B	BKG	STATION 2	0.0 ppm
13:30	DIGGING TEST PIT B	BKG	STATION 3	0.0 ppm
13:35	DIGGING TEST PIT B	BKG	STATION 1	0.0 ppm
13:40	DIGGING TEST PIT B	BKG	STATION 2	0.0 ppm
13:45	DIGGING TEST PIT B	BKG	STATION 3	0.0 ppm

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-16-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATE-TEST PIT B

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
13:50	DIGGING TEST PIT B	BKG	STATION 1	0.0 ppm
13:55	DIGGING TEST PIT B	BKG	STATION 2	0.0 ppm
14:00	DIGGING TEST PIT B	BKG	STATION 3	0.0 ppm
14:05	DIGGING TEST PIT B	BKG	SITE OF BANK	0.0 ppm
14:10	DIGGING TEST PIT B	BKG	ROADING	0.0 ppm
14:15	DIGGING TEST PIT B	FINAL		0.0 ppm

SIGNATURE: Dal Gupko

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 01-14-93

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATE-SOIL-ABOVE PIPE

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
15:00	EXCAVATION	BKG	STATION 1	0.0 ppm
15:00	EXCAVATION	BKG	STATION 2	0.0 ppm
15:00	EXCAVATION	BKG	STATION 3	0.0 ppm
15:15	EXCAVATION	BKG	STATION 1	0.0 ppm
15:15	EXCAVATION	BKG	STATION 2	0.0 ppm
15:15	EXCAVATION	BKG	STATION 3	0.0 ppm
15:30	EXCAVATION	BKG	STATION 1	0.0 ppm
15:30	EXCAVATION	BKG	STATION 2	0.0 ppm
15:30	EXCAVATION	BKG	STATION 3	0.0 ppm
15:45	EXCAVATION	BKG	STATION 1	0.0 ppm
15:45	EXCAVATION	BKG	STATION 2	0.0 ppm
15:45	EXCAVATION	BKG	STATION 3	0.0 ppm
16:00	EXCAVATION	BKG	STATION 1	0.0 ppm
16:00	EXCAVATION	BKG	STATION 2	0.0 ppm
16:00	EXCAVATION	BKG	STATION 3	0.0 ppm
16:15	EXCAVATION	FINAL	STATION 1	0.0 ppm
16:15	EXCAVATION	FINAL	STATION 2	0.0 ppm
16:15	EXCAVATION	FINAL	STATION 3	0.0 ppm

SIGNATURE: Dad J Byk

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 01-14-93

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: PLUGGING STORM DRAIN LINE

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
11:35	MANHOLE ENTRY	BKG	6' BELOW GRADE	0.0 ppm
11:50	MANHOLE ENTRY	FINAL	6' BELOW GRADE	0.0 ppm

SIGNATURE: D. Gupko

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 01-15-93

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATE-STORM DRAIN

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
15:00	EXCAVATION	BKG	STATION 1	0.0 ppm
15:00	EXCAVATION	BKG	STATION 2	0.0 ppm
15:00	EXCAVATION	BKG	STATION 3	0.0 ppm
15:15	EXCAVATION	BKG	STATION 1	0.0 ppm
15:15	EXCAVATION	BKG	STATION 2	0.0 ppm
15:15	EXCAVATION	BKG	STATION 3	0.0 ppm
15:30	EXCAVATION	BKG	STATION 1	0.0 ppm
15:30	EXCAVATION	BKG	STATION 2	0.0 ppm
15:30	EXCAVATION	BKG	STATION 3	0.0 ppm
15:45	EXCAVATION	BKG	STATION 1	0.0 ppm
15:45	EXCAVATION	BKG	STATION 2	0.0 ppm
15:45	EXCAVATION	BKG	STATION 3	0.0 ppm
16:00	EXCAVATION	BKG	STATION 1	0.0 ppm
16:00	EXCAVATION	BKG	STATION 2	0.0 ppm
16:00	EXCAVATION	BKG	STATION 3	0.0 ppm
16:15	EXCAVATION	FINAL	STATION 1	0.0 ppm
16:15	EXCAVATION	FINAL	STATION 2	0.0 ppm
16:15	EXCAVATION	FINAL	STATION 3	0.0 ppm

SIGNATURE: Dan Gupko

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: New York State DEC

PROJECT: Frontier Ave/100th Street Love Canal

PROJECT #: 9-320020

DATE: 1/18/93

TYPE OF ACTIVITY: Pipe & Trench Excavation

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
12:30 PM	Background	BKG	Station 1	0.00 PPM
12:30 PM	Background	BKG	Station 2	0.00 PPM
12:30 PM	Background	BKG	Station 3	0.00 PPM
12:45 PM	Excavation	BKG	Station 1	0.00 PPM
12:45 PM	Excavation	BKG	Station 2	0.00 PPM
12:45 PM	Excavation	BKG	Station 3	0.00 PPM
1:00 PM	Excavation	BKG	Station 1	0.00 PPM
1:00 PM	Excavation	BKG	Station 2	0.00 PPM
1:00 PM	Excavation	BKG	Station 3	0.00 PPM
1:15 PM	Excavation	BKG	Station 1	0.00 PPM
1:15 PM	Excavation	BKG	Station 2	0.00 PPM
1:15 PM	Excavation	BKG	Station 3	0.00 PPM
1:30 PM	Excavation	BKG	Station 1	0.00 PPM
1:30 PM	Excavation	BKG	Station 2	0.00 PPM
1:30 PM	Excavation	BKG	Station 3	0.00 PPM
1:45 PM	Excavation	BKG	Station 1	0.00 PPM
1:45 PM	Excavation	BKG	Station 2	0.00 PPM
1:45 PM	Excavation	BKG	Station 3	0.00 PPM

SIGNATURE: William G. Galloway Jr.

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: New York State DEC

PROJECT: Frontier Ave./100th Street Love Canal

PROJECT #: 9-32-020

DATE: 1/18/93

TYPE OF ACTIVITY: Pipe & Trench Excavation

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
2:00 PM	Excavation	Final	Station 1	0.00 PPM
2:00 PM	Excavation	Final	Station 2	0.00 PPM
2:00 PM	Excavation	Final	Station 3	0.00 PPM

SIGNATURE: William A. Galloway, Jr.

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: New York State DEC
Frontier Ave/100th Street

PROJECT: Love Canal

PROJECT #: 9-32-020

DATE: 1/25/93

TYPE OF ACTIVITY: Pipe & Trench Excavation

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
1:40 PM	Background	BKG	Station 1	0.00 PPM
1:40 PM	Background	BKG	Station 2	0.00 PPM
1:40 PM	Background	BKG	Station 3	0.00 PPM
1:55 PM	Excavation	BKG	Station 1	0.00 PPM
1:55 PM	Excavation	BKG	Station 2	0.00 PPM
1:55 PM	Excavation	BKG	Station 3	0.00 PPM
2:15 PM	Excavation	Final	Station 1	0.00 PPM
2:15 PM	Excavation	Final	Station 2	0.00 PPM
2:15 PM	Excavation	Final	Station 3	0.00 PPM

SIGNATURE: William A. Galloway, Jr.

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: New York State DEC
Frontier Ave./100th Street

DATE: 1/26/93

PROJECT: Love Canal

TYPE OF ACTIVITY: Pipe, Trench & Test P
Excavation

PROJECT #: 9-32-020

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
1:45 PM	Test Pit	BKG	Station 1	0.00 PPM
1:45 PM	Test Pit	BKG	Station 2	0.00 PPM
1:45 PM	Test Pit	BKG	Station 3	0.00 PPM
2:00 PM	Test Pit	Final	Station 1	0.00 PPM
2:00 PM	Test Pit	Final	Station 2	0.00 PPM
2:00 PM	Test Pit	Final	Station 3	0.00 PPM

SIGNATURE: William A. Galloway Jr.

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 01-27-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: TEST PIT ENTRY

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
08:45	TEST PIT ENTRY	BKG	FRONTIER ST	0.0 ppm
09:55	TEST PIT ENTRY	BKG	FRONTIER ST	0.0 ppm
10:05	TEST PIT ENTRY	BKG	FRONTIER ST	0.0 ppm
10:15	TEST PIT ENTRY	FINAL	FRONTIER ST	0.0 ppm

SIGNATURE: _____

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES **DATE:** 01-27-93

PROJECT: LOVE CANAL **TYPE OF ACTIVITY:** DRAIN PIPE REMOVAL

PROJECT #: PH92151 **TECHNICIAN:** D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
12:00	EXCAVATION	BKG	STATION 1	0.0 ppm
12:00	EXCAVATION	BKG	STATION 2	0.0 ppm
12:00	EXCAVATION	BKG	STATION 3	0.0 ppm
12:15	EXCAVATION	BKG	STATION 1	0.0 ppm
12:15	EXCAVATION	BKG	STATION 2	0.0 ppm
12:15	EXCAVATION	BKG	STATION 3	0.0 ppm
12:30	EXCAVATION	BKG	STATION 1	0.0 ppm
12:30	EXCAVATION	BKG	STATION 2	0.0 ppm
12:30	EXCAVATION	BKG	STATION 3	0.0 ppm
12:45	EXCAVATION	BKG	STATION 1	0.0 ppm
12:45	EXCAVATION	BKG	STATION 2	0.0 ppm
12:45	EXCAVATION	BKG	STATION 3	0.0 ppm
13:00	EXCAVATION	BKG	STATION 1	0.0 ppm
13:00	EXCAVATION	BKG	STATION 2	0.0 ppm
13:00	EXCAVATION	BKG	STATION 3	0.0 ppm
13:15	EXCAVATION	BKG	STATION 1	0.0 ppm
13:15	EXCAVATION	BKG	STATION 2	0.0 ppm
13:15	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: Dale Gupko

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 01-27-93

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: DRAIN PIPE REMOVAL

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
13:30	EXCAVATION	BKG	STATION 1	0.0 ppm
13:30	EXCAVATION	BKG	STATION 2	0.0 ppm
13:30	EXCAVATION	BKG	STATION 3	0.0 ppm
13:45	EXCAVATION	BKG	STATION 1	0.0 ppm
13:45	EXCAVATION	BKG	STATION 2	0.0 ppm
13:45	EXCAVATION	BKG	STATION 3	0.0 ppm
14:00	EXCAVATION	FINAL	STATION 1	0.0 ppm
14:00	EXCAVATION	FINAL	STATION 2	0.0 ppm
14:00	EXCAVATION	FINAL	STATION 3	0.0 ppm

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES **DATE:** 01-28-93

PROJECT: LOVE CANAL **TYPE OF ACTIVITY:** STORM DRAIN PIPE REMOVAL

PROJECT #: PH92151 **TECHNICIAN:** D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
10:00	EXCAVATION	BKG	STATION 1	0.0 ppm
10:00	EXCAVATION	BKG	STATION 2	0.0 ppm
10:00	EXCAVATION	BKG	STATION 3	0.0 ppm
10:15	EXCAVATION	BKG	STATION 1	0.0 ppm
10:15	EXCAVATION	BKG	STATION 2	0.0 ppm
10:15	EXCAVATION	BKG	STATION 3	0.0 ppm
10:30	EXCAVATION	BKG	STATION 1	0.0 ppm
10:30	EXCAVATION	BKG	STATION 2	0.0 ppm
10:30	EXCAVATION	BKG	STATION 3	0.0 ppm
10:45	EXCAVATION	BKG	STATION 1	0.0 ppm
10:45	EXCAVATION	BKG	STATION 2	0.0 ppm
10:45	EXCAVATION	BKG	STATION 3	0.0 ppm
11:00	EXCAVATION	BKG	STATION 1	0.0 ppm
11:00	EXCAVATION	BKG	STATION 2	0.0 ppm
11:00	EXCAVATION	BKG	STATION 3	0.0 ppm
11:15	EXCAVATION	BKG	STATION 1	0.0 ppm
11:15	EXCAVATION	BKG	STATION 2	0.0 ppm
11:15	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: Debi Gupko

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 01-28-93

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: STORM DRAIN PIPE REMOVAL

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
11:30	EXCAVATION	BKG	STATION 1	0.0 ppm
11:30	EXCAVATION	BKG	STATION 2	0.0 ppm
11:30	EXCAVATION	BKG	STATION 3	0.0 ppm
11:45	EXCAVATION	BKG	STATION 1	0.0 ppm
11:45	EXCAVATION	BKG	STATION 2	0.0 ppm
11:45	EXCAVATION	BKG	STATION 3	0.0 ppm
12:00	EXCAVATION	BKG	STATION 1	0.0 ppm
12:00	EXCAVATION	BKG	STATION 2	0.0 ppm
12:00	EXCAVATION	BKG	STATION 3	0.0 ppm
12:15	EXCAVATION	BKG	STATION 1	0.0 ppm
12:15	EXCAVATION	BKG	STATION 2	0.0 ppm
12:15	EXCAVATION	BKG	STATION 3	0.0 ppm
12:30	EXCAVATION	BKG	STATION 1	0.0 ppm
12:30	EXCAVATION	BKG	STATION 2	0.0 ppm
12:30	EXCAVATION	BKG	STATION 3	0.0 ppm
12:45	EXCAVATION	BKG	STATION 1	0.0 ppm
12:45	EXCAVATION	BKG	STATION 2	0.0 ppm
12:45	EXCAVATION	BKG	STATION 3	0.0 ppm

SIGNATURE: D. Gupko

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TOTAL ORGANIC VAPORS

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 01-28-93

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: STORM DRAIN PIPE REMOVAL

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
13:00	EXCAVATION	BKG	STATION 1	0.0 ppm
13:00	EXCAVATION	BKG	STATION 2	0.0 ppm
13:00	EXCAVATION	BKG	STATION 3	0.0 ppm
13:15	EXCAVATION	BKG	STATION 1	0.0 ppm
13:15	EXCAVATION	BKG	STATION 2	0.0 ppm
13:15	EXCAVATION	BKG	STATION 3	0.0 ppm
13:30	EXCAVATION	FINAL	STATION 1	0.0 ppm
13:30	EXCAVATION	FINAL	STATION 2	0.0 ppm
13:30	EXCAVATION	FINAL	STATION 3	0.0 ppm

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: New York State DEC
Frontier Ave./100th Street

PROJECT: Love Canal

PROJECT #: 9-32-020

DATE: 2/3/93

TYPE OF ACTIVITY: Loading Gray Material at 9909 Black Creek Dr.

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
11:35 AM	Background	BKG	Station 1	0.00 PPM
11:35 AM	Background	BKG	Station 2	0.00 PPM
11:35 AM	Background	BKG	Station 3	0.00 PPM
11:50 AM	Excavation/Loading	BKG	Station 1	0.00 PPM
11:50 AM	Excavation/Loading	BKG	Station 2	0.00 PPM
11:50 AM	Excavation/Loading	BKG	Station 3	0.00 PPM
12:05 PM	Excavation/Loading	Final	Station 1	0.00 PPM
12:05 PM	Excavation/Loading	Final	Station 2	0.00 PPM
12:05 PM	Excavation/Loading	Final	Station 3	0.00 PPM

SIGNATURE: William C. Galloway, Jr.

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: New York State DEC
PROJECT: Frontier Ave./100th Street Love Canal

DATE: 2/9/93
TYPE OF ACTIVITY: Pipe & Trench Excavation

PROJECT #: 9-32-020

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
9:45 am	Background	BKG	Station 1	0.00ppm
9:45 am	Background	BKG	Station 2	0.00ppm
9:45 am	Background	BKG	Station 3	0.00ppm
10:00 am	Excavation	BKG	Station 1	0.00ppm
10:00 am	Excavation	BKG	Station 2	0.00ppm
10:00 am	Excavation	BKG	Station 3	0.00ppm
10:15 am	Excavation	BKG	Station 1	0.00ppm
10:15 am	Excavation	BKG	Station 2	0.00ppm
10:15 am	Excavation	BKG	Station 3	0.00ppm
10:30 am	Excavation	BKG	Station 1	0.00ppm
10:30 am	Excavation	BKG	Station 2	0.00ppm
10:30 am	Excavation	BKG	Station 3	0.00ppm
10:45 am	Excavation	BKG	Station 1	0.00ppm
10:45 am	Excavation	BKG	Station 2	0.00ppm
10:45 am	Excavation	BKG	Station 3	0.00ppm
11:00 am	Excavation	BKG	Station 1	0.00ppm
11:00 am	Excavation	BKG	Station 2	0.00ppm
11:00 am	Excavation	BKG	Station 3	0.00ppm

SIGNATURE: William A. Galloway

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MANAGEMENT SERVICES CORP.

PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: New York State DEC
Fronier Ave./100th Street
PROJECT: Love Canal

DATE: 2/9/93

TYPE OF ACTIVITY: Pipe & Trench Excavatic

PROJECT #: 9-32-020

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
11:15 am	Excavation	BKG	Station 1	0.00ppm
11:15 am	Excavation	BKG	Station 2	0.00ppm
11:15 am	Excavation	BKG	Station 3	0.00ppm
11:30 am	Excavation	BKG	Station 1	0.00ppm
11:30 am	Excavation	BKG	Station 2	0.00ppm
11:30 am	Excavation	BKG	Station 3	0.00ppm
*Stopped excavating until 1:30pm when excavator with hammer arrived for breaking concrete slab.				
1:30 pm	Breaking Concrete	BKG	Station 1	0.00ppm
1:30 pm	Breaking Concrete	BKG	Station 2	0.00ppm
1:30 pm	Breaking Concrete	BKG	Station 3	0.00ppm
1:45 pm	Breaking Concrete	BKG	Station 1	0.00ppm
1:45 pm	Breaking Concrete	BKG	Station 2	0.00ppm
1:45 pm	Breaking Concrete	BKG	Station 3	0.00ppm
2:00 pm	Breaking Concrete	BKG	Station 1	0.00ppm
2:00 pm	Breaking Concrete	BKG	Station 2	0.00ppm
2:00 pm	Breaking Concrete	BKG	Station 3	0.00ppm

SIGNATURE: William D. Galloway

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ENTECH

MANAGEMENT SERVICES CORP.

PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: New York State DEC
PROJECT: Frontier Ave./100th Street
Love Canal
PROJECT #: 9-32-020

DATE: 2/9/93
TYPE OF ACTIVITY: Pipe & Trench Excavation
TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
2:15 pm	Breaking Concrete	BKG	Station 1	0.00ppm
2:15 pm	Breaking Concrete	BKG	Station 2	0.00ppm
2:15 pm	Breaking Concrete	BKG	Station 3	0.00ppm
2:30 pm	Excavation	BKG	Station 1	0.00ppm
2:30 pm	Excavation	BKG	Station 2	0.00ppm
2:30 pm	Excavation	BKG	Station 3	0.00ppm
2:45 pm	Excavation	BKG	Station 1	0.00ppm
2:45 pm	Excavation	BKG	Station 2	0.00ppm
2:45 pm	Excavation	BKG	Station 3	0.00ppm
3:00 pm	Excavation	BKG	Station 1	0.00ppm
3:00 pm	Excavation	BKG	Station 2	0.00ppm
3:00 pm	Excavation	BKG	Station 3	0.00ppm
3:15 pm	Excavation	BKG	Station 1	0.00ppm
3:15 pm	Excavation	BKG	Station 2	0.00ppm
3:15 pm	Excavation	BKG	Station 3	0.00ppm
3:30 pm	Excavation	BKG	Station 1	0.00ppm
3:30 pm	Excavation	BKG	Station 2	0.00ppm
3:30 pm	Excavation	BKG	Station 3	0.00ppm

SIGNATURE: William A. Galloway

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MANAGEMENT SERVICES CORP.

PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: New York State DEC
Frontier Ave./100th Street

PROJECT: Love Canal

PROJECT #: 9-32-020

DATE: 2/9/93

TYPE OF ACTIVITY: Pipe & Trench Excavatio

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
3:45 pm	Excavation	Final	Station 1	0.00ppm
3:45 pm	Excavation	Final	Station 2	0.00ppm
3:45 pm	Excavation	Finaal	Station 3	0.00ppm

SIGNATURE: William A. Galloway

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MANAGEMENT SERVICES CORP.

PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: New York State DEC
Frontier Ave./100th Street

PROJECT: Love Canal

PROJECT #: 9-32-020

DATE: 2/10/93

TYPE OF ACTIVITY: Excavation of non-haz. soil stockpile.

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
9:30 am	Background	BKG	Station 1	0.00ppm
9:30 am	Background	BKG	Station 2	0.00ppm
9:30 am	Background	BKG	Station 3	0.00ppm
9:45 am	Excavation	BKG	Station 1	0.00ppm
9:45 am	Excavation	BKG	Station 2	0.00ppm
9:45 am	Excavation	BKG	Station 3	0.00ppm
10:00 am	Excavation	BKG	Station 1	0.00ppm
10:00 am	Excavation	BKG	Station 2	0.00ppm
10:00 am	Excavation	BKG	Station 3	0.00ppm
10:15 am	Excavation	BKG	Station 1	0.00ppm
10:15 am	Excavation	BKG	Station 2	0.00ppm
10:15 am	Excavation	BKG	Station 3	0.00ppm
10:30 am	Excavation	BKG	Station 1	0.00ppm
10:30 am	Excavation	BKG	Station 2	0.00ppm
10:30 am	Excavation	BKG	Station 3	0.00ppm
10:45 am	Excavation	BKG	Station 1	0.00ppm
10:45 am	Excavation	BKG	Station 2	0.00ppm
10:45 am	Excavation	BKG	Station 3	0.00ppm

SIGNATURE: William A. Galloway

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MANAGEMENT SERVICES CORP.

PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: New York State DEC
Frontier Ave./100th Street

DATE: 2/10/93

PROJECT: Love Canal

TYPE OF ACTIVITY: Excavation of non-haz. soil stockpile.

PROJECT #: 9-32-020

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
11:00 am	Excavation	BKG	Station 1	0.00ppm
11:00 am	Excavation	BKG	Station 2	0.00ppm
11:00 am	Excavation	BKG	Station 3	0.00ppm
11:15 am	Excavation	BKG	Station 1	0.00ppm
11:15 am	Excavation	BKG	Station 2	0.00ppm
11:15 am	Excavation	BKG	Station 3	0.00ppm
*Stopped excacating until 1:00 pm to move trench box and to prepare for hand digging cut-off wall form.				
1:00 pm	Excavation	BKG	Station 1	0.00ppm
1:00 pm	Excavation	BKG	Station 2	0.00ppm
1:00 pm	Excavation	BKG	Station 3	0.00ppm
1:15 pm	Excavation	BKG	Station 1	0.00ppm
1:15 pm	Excavation	BKG	Station 2	0.00ppm
1:15 pm	Excavation	BKG	Station 3	0.00ppm
1:30 pm	Excavation	BKG	Station 1	0.00ppm
1:30 pm	Excavation	BKG	Station 2	0.00ppm
1:30 pm	Excavation	BKG	Station 3	0.00ppm

SIGNATURE: William R. Galloway

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MANAGEMENT SERVICES CORP.

PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: New York State DEC

PROJECT: Frontier Ave./100th Street Love Canal

PROJECT #: 9-32-020

DATE: 2/10/93

TYPE OF ACTIVITY: Excavation of non-haz. soil excavation.

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
1:45 pm	Excavation	BKG	Station 1	0.00ppm
1:45 pm	Excavation	BKG	Station 2	0.00ppm
1:45 pm	Excavation	BKG	Station 3	0.00ppm
2:00 pm	Excavation	BKG	Station 1	0.00ppm
2:00 pm	Excavation	BKG	Station 2	0.00ppm
2:00 pm	Excavation	BKG	Station 3	0.00ppm
2:15 pm	Excavation	BKG	Station 1	0.00ppm
2:15 pm	Excavation	BKG	Station 2	0.00ppm
2:15 pm	Excavation	BKG	Station 3	0.00ppm
2:30 pm	Excavation	BKG	Station 1	0.00ppm
2:30 pm	Excavation	BKG	Station 2	0.00ppm
2:30 pm	Excavation	BKG	Station 3	0.00ppm
2:45 pm	Excavation	BKG	Station 1	0.00ppm
2:45 pm	Excavation	BKG	Station 2	0.00ppm
2:45 pm	Excavation	BKG	Station 3	0.00ppm
3:00 pm	Excavation	Final	Station 1	0.00ppm
3:00 pm	Excavation	Final	Station 2	0.00ppm
3:00 pm	Excavation	Final	Station 3	0.00ppm

SIGNATURE: William A. Galloway

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MANAGEMENT SERVICES CORP.

PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: New York State DEC
Frontier Ave./100th Street

DATE: 2/11/93

PROJECT: Love Canal

TYPE OF ACTIVITY: Trench Excavation

PROJECT #: 9-32-020

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
9:45 am	Background	BKG	Station 1	0.00ppm
9:45 am	Background	BKG	Station 2	0.00ppm
9:45 am	Background	BKG	Station 3	0.00ppm
10:00 am	Excavation	BKG	Station 1	0.00ppm
10:00 am	Excavation	BKG	Station 2	0.00ppm
10:00 am	Excavation	BKG	Station 3	0.00ppm
10:15 am	Excavation	BKG	Station 1	0.00ppm
10:15 am	Excavation	BKG	Station 2	0.00ppm
10:15 am	Excavation	BKG	Station 3	0.00ppm
10:30 am	Excavation	BKG	Station 1	0.00ppm
10:30 am	Excavation	BKG	Station 2	0.00ppm
10:30 am	Excavation	BKG	Station 3	0.00ppm
10:45 am	Excavation	BKG	Station 1	0.00ppm
10:45 am	Excavation	BKG	Station 2	0.00ppm
10:45 am	Excavation	BKG	Station 3	0.00ppm
11:00 am	Excavation	BKG	Station 1	0.00ppm
11:00 am	Excavation	BKG	Station 2	0.00ppm
11:00 am	Excavation	BKG	Station 3	0.00ppm

SIGNATURE: William A. Galloway

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: New York State DEC
Frontier Ave./100th

PROJECT: Love Canal

PROJECT #: 9-32-020

DATE: 2/11/93

TYPE OF ACTIVITY: Trench Excavation

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
11:15 am	Excavation	BKG	Station 1	0.00ppm
11:15 am	Excavation	BKG	Station 2	0.00ppm
11:15 am	Excavation	BKG	Station 3	0.00ppm
11:30 am	Excavation	BKG	Station 1	0.00ppm
11:30 am	Excavation	BKG	Station 2	0.00ppm
11:30 am	Excavation	BKG	Station 3	0.00ppm
11:45 am	Excavation	BKG	Station 1	0.00ppm
11:45 am	Excavation	BKG	Station 2	0.00ppm
11:45 am	Excavation	BKG	Station 3	0.00ppm
12:00 pm	Excavation	BKG	Station 1	0.00ppm
12:00 pm	Excavation	BKG	Station 2	0.00ppm
12:00 pm	Excavation	BKG	Station 3	0.00ppm
12:15 pm	Excavation	FINAL	Station 1	0.00ppm
12:15 pm	Excavation	FINAL	Station 2	0.00ppm
12:15 pm	Excavation	FINAL	Station 3	0.00ppm

SIGNATURE: William A. Galloway

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PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: New York State DEC
Frontier Ave./100th Street

PROJECT: Love Canal

PROJECT #: 9-32-020

DATE: 2/12/93

TYPE OF ACTIVITY: Pipe & Trench Excavation

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
9:00 AM	Background	BKG	Station 1	0.00 PPM
9:00 AM	Background	BKG	Station 2	0.00 PPM
9:00 AM	Background	BKG	Station 3	0.00 PPM
9:15 AM	Excavation	BKG	Station 1	0 00 PPM
9:15 AM	Excavation	BKG	Station 2	0.00 PPM
9:15 AM	Excavation	BKG	Station 3	0.00 PPM
9:30 AM	Excavation	BKG	Station 1	0.00 PPM
9:30 AM	Excavation	BKG	Station 2	0.00 PPM
9:30 AM	Excavation	BKG	Station 3	0.00 PPM
9:45 AM	Excavation	BKG	Station 1	0.00 PPM
9:45 AM	Excavation	BKG	Station 2	0.00 PPM
9:45 AM	Excavation	BKG	Station 3	0.00 PPM
10:00 AM	Excavation	BKG	Station 1	0.00 PPM
10:00 AM	Excavation	BKG	Station 2	0.00 PPM
10:00 AM	Excavation	BKG	Station 3	0.00 PPM
10:15 AM	Excavation	BKG	Station 1	0.00 PPM
10:15 AM	Excavation	BKG	Station 2	0.00 PPM
10:15 AM	Excavation	BKG	Station 3	0.00 PPM

SIGNATURE: William A. Galloway Jr.

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MANAGEMENT SERVICES CORP.

PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: New York State DEC
Frontier Ave./100th Street
PROJECT: Love Canal

DATE: 2/12/93

TYPE OF ACTIVITY: Pipe & Trench Excavation

PROJECT #: 9-32-020

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
10:30 AM	Excavation	Final	Station 1	0.00 PPM
10:30 AM	Excavation	Final	Station 2	0.00 PPM
10:30 AM	Excavation	Final	Station 3	0.00 PPM

SIGNATURE: William D. Galloway Jr.

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MANAGEMENT SERVICES CORP.

PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: New York State DEC
Frontier Ave./100th Street

PROJECT: Love Canal

PROJECT #: 9-32-020

DATE: 2/19/93

TYPE OF ACTIVITY: Pipe & Trench Excavatic

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
12:00 PM	Background	BKG	Station 1	0.00 PPM
12:00 PM	Background	BKG	Station 2	0.00 PPM
12:00 PM	Background	BKG	Station 3	0.00 PPM
12:15 PM	Excavation	BKG	Station 1	0.00 PPM
12:15 PM	Excavation	BKG	Station 2	0.00 PPM
12:15 PM	Excavation	BKG	Station 3	0.00 PPM
12:30 PM	Excavation	BKG	Station 1	0.00 PPM
12:30 PM	Excavation	BKG	Station 2	0.00 PPM
12:30 PM	Excavation	BKG	Station 3	0.00 PPM
12:45 PM	Excavation	BKG	Station 1	0.00 PPM
12:45 PM	Excavation	BKG	Station 2	0.00 PPM
12:45 PM	Excavation	BKG	Station 3	0.00 PPM
1:00 PM	Excavation	BKG	Station 1	0.00 PPM
1:00 PM	Excavation	BKG	Station 2	0.00 PPM
1:00 PM	Excavation	BKG	Station 3	0.00 PPM
1:15 PM	Excavation	BKG	Station 1	0.00 PPM
1:15 PM	Excavation	BKG	Station 2	0.00 PPM
1:15 PM	Excavation	BKG	Station 3	0.00 PPM

SIGNATURE: William O. Galloway, Jr.

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MANAGEMENT SERVICES CORP.

PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: New York State DEC
Frontier Ave./100th Street

PROJECT: Love Canal

PROJECT #: 9-32-020

DATE: 2/19/93

TYPE OF ACTIVITY: Pipe & Trench Excavatic

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
1:30 PM	Excavation	Final	Station 1	0.00 PPM
1:30 PM	Excavation	Final	Station 2	0.00 PPM
1:30 PM	Excavation	Final	Station 3	0.00 PPM
1:00 PM	Excavated water pipe	inside	Scrape Pipe	0.00 PPM

SIGNATURE: William A. Galloway, Jr

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MANAGEMENT SERVICES CORP.

PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: New York State DEC
Frontier Ave./100th Street

DATE: 2/25/93

PROJECT: Love Canal

TYPE OF ACTIVITY: Pipe & Trench Excavatio

PROJECT #: 9-32-020

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
3:45 PM	Background	BKG	Station 1	0.00 PPM
3:45 PM	Background	BKG	Station 2	0.00 PPM
3:45 PM	Background	BKG	Station 3	0.00 PPM
4:00 PM	Excavation	BKG	Station 1	0.00 PPM
4:00 PM	Excavation	BKG	Station 2	0.00 PPM
4:00 PM	Excavation	BKG	Station 3	0.00 PPM
4:15 PM	Excavation	BKG	Station 1	0.00 PPM
4:15 PM	Excavation	BKG	Station 2	0.00 PPM
4:15 PM	Excavation	BKG	Station 3	0.00 PPM
4:30 PM	Excavation	BKG	Station 1	0.00 PPM
4:30 PM	Excavation	BKG	Station 2	0.00 PPM
4:30 PM	Excavation	BKG	Station 3	0.00 PPM
4:45 PM	Excavation	Final	Station 1	0.00 PPM
4:45 PM	Excavation	Final	Station 2	0.00 PPM
4:45 PM	Excavation	Final	Station 3	0.00 PPM

SIGNATURE: William A. Galloway, Jr.

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MANAGEMENT SERVICES CORP.

PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: New York State DEC
Frontier Ave./100th Street

PROJECT: Love Canal

PROJECT #: 9-32-020

DATE: 2/26/93

TYPE OF ACTIVITY: Pipe & Trench Excavati

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
8:00 AM	Background	BKG	Station 1	0.00 PPM
8:00 AM	Background	BKG	Station 2	0.00 PPM
8:00 AM	Background	BKG	Station 3	0.00 PPM
8:15 AM	Excavation	BKG	Station 1	0.00 PPM
8:15 AM	Excavation	BKG	Station 2	0.00 PPM
8:15 AM	Excavation	BKG	Station 3	0.00 PPM
8:30 AM	Excavation	BKG	Station 1	0.00 PPM
8:30 AM	Excavation	BKG	Station 2	0.00 PPM
8:30 AM	Excavation	BKG	Station 3	0.00 PPM
8:45 AM	Excavation	BKG	Station 1	0.00 PPM
8:45 AM	Excavation	BKG	Station 2	0.00 PPM
8:45 AM	Excavation	BKG	Station 3	0.00 PPM
9:00 AM	Excavation	BKG	Station 1	0.00 PPM
9:00 AM	Excavation	BKG	Station 2	0.00 PPM
9:00 AM	Excavation	BKG	Station 3	0.00 PPM
9:15 AM	Stopped Excavating	BKG	Station 1	0.00 PPM
9:15 AM	Stopped Excavating	BKG	Station 2	0.00 PPM
9:15 AM	Stopped Excavating	BKG	Station 3	0.00 PPM

SIGNATURE: William A. Galloway, Jr.

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MANAGEMENT SERVICES CORP.

PHOTOVAC MICROTIP HL 2000
TOTAL ORGANIC VAPORS

CLIENT: New York State DEC
Frontier Ave./100th Street

PROJECT: Love Canal

PROJECT #: 9-32-020

DATE: 2/26/93

TYPE OF ACTIVITY: Pipe & Trench Excavati

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	EVENT #	LOCATION	READING AVG./PPM
9:30 AM	Pump Water	BKG	Trench	------
9:30 AM	Pump Water	BKG	Trench	------
9:30 AM	Pump Water	BKG	Trench	------
9:45 AM	Pump Water	BKG	Trench	------
9:45 AM	Pump Water	BKG	Trench	------
9:45 AM	Pump Water	BKG	Trench	------
10:45 AM	Dispose of Water	BKG	Treat Facility	------
10:45 AM	Dispose of Water	BKG	Treat Facility	------
10:45 AM	Dispose of Water	BKG	Treat Facility	------
1:30 PM	Start Excavating	BKG	Station 1	0.00 PPM
1:30 PM	Start Excavating	BKG	Station 2	0.00 PPM
1:30 PM	Start Excavating	BKG	Station 3	0.00 PPM
1:45 PM	Excavation	BKG	Station 1	0.00 PPM
1:45 PM	Excavation	BKG	Station 2	0.00 PPM
1:45 PM	Excavation	BKG	Station 3	0.00 PPM
2:00 PM	Excavation	BKG	Station 1	0.00 PPM
2:00 PM	Excavation	BKG	Station 2	0.00 PPM
2:00 Pm	Excavation	BKG	Station 3	0.00 PPM

SIGNATURE: William R. Galloway, Jr.

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AAL PROJECT # PH92151

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1820

AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-12-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION

PROJECT #: PH92151

TECHNICIAN: J. JENKINS

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
15:30	BACKGROUND	STATION 1	0.00
15:40	BACKGROUND	STATION 2	0.00
15:42	BACKGROUND	STATION 3	0.00
15:50	EXCAVATION	STATION 1	0.00
15:53	EXCAVATION	STATION 2	0.01
15:54	EXCAVATION	STATION 3	0.01
16:05	EXCAVATION	STATION 1	0.01
16:10	EXCAVATION	STATION 2	0.01
16:11	EXCAVATION	STATION 3	0.01

SIGNATURE: _____

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AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-13-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION

PROJECT #: PH92151

TECHNICIAN: J. JENKINS

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
09:00	BACKGROUND	STATION 1	0.04
	BACKGROUND	STATION 2	0.03
	BACKGROUND	STATION 3	0.04
09:40	EXCAVATION	STATION 1	-0.05
	EXCAVATION	STATION 2	-0.05
	EXCAVATION	STATION 3	-0.04
09:50	EXCAVATION	STATION 1	0.04
	EXCAVATION	STATION 2	0.00
	EXCAVATION	STATION 3	0.02
10:05	EXCAVATION	STATION 1	0.04
	EXCAVATION	STATION 2	0.00
	EXCAVATION	STATION 3	0.01
10:15	EXCAVATION	STATION 1	0.02
	EXCAVATION	STATION 2	0.02
	EXCAVATION	STATION 3	0.02
10:30	EXCAVATION	STATION 1	0.03
	EXCAVATION	STATION 2	0.02
	EXCAVATION	STATION 3	0.00
11:20	EXCAVATION	STATION 1	0.00
	EXCAVATION	STATION 2	0.02
	EXCAVATION	STATION 3	0.01

SIGNATURE: J. Jenkins

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AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-13-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION

PROJECT #: PH92151

TECHNICIAN: J. JENKINS

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
13:15	EXCAVATION	STATION 1	0.02
	EXCAVATION	STATION 2	0.01
	EXCAVATION	STATION 3	0.01
13:30	EXCAVATION	STATION 1	0.00
	EXCAVATION	STATION 2	0.02
	EXCAVATION	STATION 3	0.03
13:45	EXCAVATION	STATION 1	0.02
	EXCAVATION	STATION 2	0.02
	EXCAVATION	STATION 3	0.02
14:00	EXCAVATION	STATION 1	0.01
	EXCAVATION	STATION 2	0.01
	EXCAVATION	STATION 3	0.02
14:15	EXCAVATION	STATION 1	0.02
	EXCAVATION	STATION 2	0.03
	EXCAVATION	STATION 3	0.02
14:30	EXCAVATION	STATION 1	0.02
	EXCAVATION	STATION 2	0.02
	EXCAVATION	STATION 3	0.02
14:55	EXCAVATION	STATION 1	0.03
	EXCAVATION	STATION 2	0.03
	EXCAVATION	STATION 3	0.02

SIGNATURE: J. Jenkins

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AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-13-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION

PROJECT #: PH92151

TECHNICIAN: J. JENKINS

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
15:15	EXCAVATION	STATION 1	0.00
	EXCAVATION	STATION 2	0.02
	EXCAVATION	STATION 3	0.06

SIGNATURE: _____

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AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-16-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION CAP REPAIR

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
08:30	BACKGROUND	STATION 1	0.04
	BACKGROUND	STATION 2	0.03
	BACKGROUND	STATION 3	0.05
08:45	EXCAVATION	STATION 1	0.06
	EXCAVATION	STATION 2	0.05
	EXCAVATION	STATION 3	0.04
09:00	EXCAVATION	STATION 1	0.04
	EXCAVATION	STATION 2	0.02
	EXCAVATION	STATION 3	0.03
09:15	EXCAVATION	STATION 1	0.03
	EXCAVATION	STATION 2	0.05
	EXCAVATION	STATION 3	0.04
09:30	EXCAVATION	STATION 1	0.04
	EXCAVATION	STATION 2	0.04
	EXCAVATION	STATION 3	0.04
09:45	EXCAVATION	STATION 1	0.05
	EXCAVATION	STATION 2	0.04
	EXCAVATION	STATION 3	0.06
10:00	EXCAVATION	STATION 1	0.07
	EXCAVATION	STATION 2	0.02
	EXCAVATION	STATION 3	0.02

SIGNATURE: _____

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CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-16-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION CAP REPAIR

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
10:15	EXCAVATION	STATION 1	0.08
	EXCAVATION	STATION 2	0.02
	EXCAVATION	STATION 3	0.03
10:30	EXCAVATION	STATION 1	0.01
	EXCAVATION	STATION 2	0.02
	EXCAVATION	STATION 3	0.03
10:45	EXCAVATION	STATION 1	0.02
	EXCAVATION	STATION 2	0.01
	EXCAVATION	STATION 3	0.01
11:00	EXCAVATION	STATION 1	0.01
	EXCAVATION	STATION 2	0.06
	EXCAVATION	STATION 3	0.04
11:15	EXCAVATION	STATION 1	0.06
	EXCAVATION	STATION 2	0.04
	EXCAVATION	STATION 3	0.01
11:30	EXCAVATION	STATION 1	0.04
	EXCAVATION	STATION 2	0.04
	EXCAVATION	STATION 3	0.03
11:45	EXCAVATION	STATION 1	0.03
	EXCAVATION	STATION 2	0.04
	EXCAVATION	STATION 3	0.02

SIGNATURE: Dahl Fitzpatrick

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CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-16-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION CAP REPAIR

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
12:00	EXCAVATION	STATION 1	0.06
	EXCAVATION	STATION 2	0.03
	EXCAVATION	STATION 3	0.01
12:15	EXCAVATION	STATION 1	0.02
	EXCAVATION	STATION 2	0.04
	EXCAVATION	STATION 3	0.07
12:30	EXCAVATION	STATION 1	0.01
	EXCAVATION	STATION 2	0.04
	EXCAVATION	STATION 3	0.01
12:45	EXCAVATION	STATION 1	0.06
	EXCAVATION	STATION 2	0.01
	EXCAVATION	STATION 3	0.01
13:00	EXCAVATION	STATION 1	0.02
	EXCAVATION	STATION 2	0.03
	EXCAVATION	STATION 3	0.02
13:15	EXCAVATION	STATION 1	0.03
	EXCAVATION	STATION 2	0.04
	EXCAVATION	STATION 3	0.01
13:30	EXCAVATION	STATION 1	0.01
	EXCAVATION	STATION 2	0.02
	EXCAVATION	STATION 3	0.03

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CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-16-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION CAP REPAIR

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
13:45	EXCAVATION	STATION 1	0.02
	EXCAVATION	STATION 2	0.04
	EXCAVATION	STATION 3	0.03
14:00	EXCAVATION	STATION 1	0.00
	EXCAVATION	STATION 2	0.03
	EXCAVATION	STATION 3	0.01
14:15	EXCAVATION	STATION 1	0.02
	EXCAVATION	STATION 2	0.04
	EXCAVATION	STATION 3	0.02
14:30	EXCAVATION	STATION 1	0.01
	EXCAVATION	STATION 2	0.05
	EXCAVATION	STATION 3	0.01
14:45	EXCAVATION	STATION 1	0.01
	EXCAVATION	STATION 2	0.03
	EXCAVATION	STATION 3	0.02
15:00	EXCAVATION	STATION 1	0.03
	EXCAVATION	STATION 2	0.02
	EXCAVATION	STATION 3	0.00
15:15	EXCAVATION	STATION 1	0.04
	EXCAVATION	STATION 2	0.03
	EXCAVATION	STATION 3	0.03

SIGNATURE: Debt Gupko

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CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-17-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION CAP REPAIR

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
10:15	BACKGROUND	STATION 1	0.00
	EXCAVATION	STATION 2	0.02
	EXCAVATION	STATION 3	0.03
13:30	EXCAVATION	STATION 1	0.06
	EXCAVATION	STATION 2	0.00
	EXCAVATION	STATION 3	0.01
13:45	EXCAVATION	STATION 1	0.01
	EXCAVATION	STATION 2	0.03
	EXCAVATION	STATION 3	0.05
14:00	EXCAVATION	STATION 1	0.02
	EXCAVATION	STATION 2	0.03
	EXCAVATION	STATION 3	0.02
14:15	EXCAVATION	STATION 1	0.02
	EXCAVATION	STATION 2	0.00
	EXCAVATION	STATION 3	0.02
14:30	EXCAVATION	STATION 1	0.02
	EXCAVATION	STATION 2	0.06
	EXCAVATION	STATION 3	0.02
14:45	EXCAVATION	STATION 1	0.00
	EXCAVATION	STATION 2	0.02
	EXCAVATION	STATION 3	0.04

SIGNATURE: Debi Gupko

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PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION CAP REPAIR

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
15:00	EXCAVATION	STATION 1	0.01
	EXCAVATION	STATION 2	0.00
	EXCAVATION	STATION 3	0.01
15:15	EXCAVATION	STATION 1	0.02
	EXCAVATION	STATION 2	0.00
	EXCAVATION	STATION 3	0.01
15:30	EXCAVATION	STATION 1	0.03
	EXCAVATION	STATION 2	0.00
	EXCAVATION	STATION 3	0.01
15:45	EXCAVATION	STATION 1	0.01
	EXCAVATION	STATION 2	0.01
	EXCAVATION	STATION 3	0.03
16:00	EXCAVATION	STATION 1	0.02
	EXCAVATION	STATION 2	0.04
	EXCAVATION	STATION 3	0.03
16:15	EXCAVATION	STATION 1	0.06
	EXCAVATION	STATION 2	0.03
	EXCAVATION	STATION 3	0.01
16:30	EXCAVATION	STATION 1	0.02
	EXCAVATION	STATION 2	0.00
	EXCAVATION	STATION 3	0.01

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AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-18-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION-TEST PIT

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
13:45	BACKGROUND	STATION 1	0.00
	BACKGROUND	STATION 2	0.00
	BACKGROUND	STATION 3	0.00
14:00	EXCAVATION	STATION 1	0.05
	EXCAVATION	STATION 2	0.06
	EXCAVATION	STATION 3	0.00
14:15	EXCAVATION	STATION 1	0.00
	EXCAVATION	STATION 2	0.00
	EXCAVATION	STATION 3	0.01
14:30	EXCAVATION	STATION 1	0.00
	EXCAVATION	STATION 2	0.00
	EXCAVATION	STATION 3	0.00
14:45	EXCAVATION	STATION 1	0.00
	EXCAVATION	STATION 2	0.01
	EXCAVATION	STATION 3	0.00
15:00	EXCAVATION	STATION 1	0.01
	EXCAVATION	STATION 2	0.00
	EXCAVATION	STATION 3	0.00
15:15	EXCAVATION	STATION 1	0.00
	EXCAVATION	STATION 2	0.00
	EXCAVATION	STATION 3	0.00

SIGNATURE: Dhl Gupt

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AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-18-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION-TEST PIT

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
15:30	EXCAVATION	STATION 1	0.00
	EXCAVATION	STATION 2	0.00
	EXCAVATION	STATION 3	0.00
15:45	EXCAVATION	STATION 1	0.00
	EXCAVATION	STATION 2	0.00
	EXCAVATION	STATION 3	0.00
16:00 (END OF	EXCAVATION	STATION 1	0.00
WORK FINAL)	EXCAVATION	STATION 2	0.00
	EXCAVATION	STATION 3	0.00

SIGNATURE: _____

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AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-19-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVAT-FRONT LAWN

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
14:15	BACKGROUND	STATION 1	0.00
	BACKGROUND	STATION 2	0.00
	BACKGROUND	STATION 3	0.00
14:30	EXCAVATION	STATION 1	0.00
	EXCAVATION	STATION 2	0.01
	EXCAVATION	STATION 3	0.02
14:45	EXCAVATION	STATION 1	0.00
	EXCAVATION	STATION 2	0.01
	EXCAVATION	STATION 3	0.00
15:00	EXCAVATION	STATION 1	0.01
	EXCAVATION	STATION 2	0.06
	EXCAVATION	STATION 3	0.00
15:15	EXCAVATION	STATION 1	0.00
	EXCAVATION	STATION 2	0.00
	EXCAVATION	STATION 3	0.00
15:30	EXCAVATION	STATION 1	0.00
	EXCAVATION	STATION 2	0.00
	EXCAVATION	STATION 3	0.00
15:45	EXCAVATION	STATION 1	0.00
	EXCAVATION	STATION 2	0.00
	EXCAVATION	STATION 3	0.00

SIGNATURE: D. Gupko

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AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-19-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVAT-FRONT LAWN

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
16:00	EXCAVATION	STATION 1	0.00
	BACKGROUND	STATION 2	0.00
	BACKGROUND	STATION 3	0.00
16:15	EXCAVATION	STATION 1	0.00
	EXCAVATION	STATION 2	0.00
	EXCAVATION	STATION 3	0.01
16:30	EXCAVATION	STATION 1	0.00
	EXCAVATION	STATION 2	0.00
	EXCAVATION	STATION 3	0.00

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AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-19-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAV-SOIL REMOVAL

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
09:15	BACKGROUND	STATION 1	0.02
	BACKGROUND	STATION 2	0.05
	BACKGROUND	STATION 3	0.00
09:30	EXCAVATION	STATION 1	0.04
	EXCAVATION	STATION 2	0.00
	EXCAVATION	STATION 3	0.04
09:45	EXCAVATION	STATION 1	0.00
	EXCAVATION	STATION 2	0.00
	EXCAVATION	STATION 3	0.00
10:00	EXCAVATION	STATION 1	0.01
	EXCAVATION	STATION 2	0.00
	EXCAVATION	STATION 3	0.00
10:15	EXCAVATION	STATION 1	0.01
	EXCAVATION	STATION 2	0.00
	EXCAVATION	STATION 3	0.00
10:30	EXCAVATION	STATION 1	0.00
	EXCAVATION	STATION 2	0.00
	EXCAVATION	STATION 3	0.02
10:45	EXCAVATION	STATION 1	0.01
	EXCAVATION	STATION 2	0.00
	EXCAVATION	STATION 3	0.00

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CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-19-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAV-SOIL REMOVAL

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
11:00	EXCAVATION	STATION 1	0.00
	EXCAVATION	STATION 2	0.01
	EXCAVATION	STATION 3	0.00
11:15	EXCAVATION	STATION 1	0.00
	EXCAVATION	STATION 2	0.00
	EXCAVATION	STATION 3	0.00
11:30	EXCAVATION	STATION 1	0.02
	EXCAVATION	STATION 2	0.03
	EXCAVATION	STATION 3	0.00
11:45	EXCAVATION	STATION 1	0.03
	EXCAVATION	STATION 2	0.00
	EXCAVATION	STATION 3	0.00
12:00	EXCAVATION	STATION 1	0.01
	EXCAVATION	STATION 2	0.00
	EXCAVATION	STATION 3	0.01
12:15	EXCAVATION	STATION 1	0.00
	EXCAVATION	STATION 2	0.02
	EXCAVATION	STATION 3	0.00
12:30	EXCAVATION	STATION 1	0.01
	EXCAVATION	STATION 2	0.00
	EXCAVATION	STATION 3	0.01

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CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-19-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAV-SOIL REMOVAL

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
12:45	EXCAVATION	STATION 1	0.00
	EXCAVATION	STATION 2	0.00
	EXCAVATION	STATION 3	0.00
13:00	EXCAVATION	STATION 1	0.00
	EXCAVATION	STATION 2	0.00
	EXCAVATION	STATION 3	0.00
13:15	EXCAVATION	STATION 1	0.00
	EXCAVATION	STATION 2	0.00
	EXCAVATION	STATION 3	0.00
13:30	EXCAVATION	STATION 1	0.01
	EXCAVATION	STATION 2	0.01
	EXCAVATION	STATION 3	0.00
13:45	EXCAVATION	STATION 1	0.02
	EXCAVATION	STATION 2	0.00
	EXCAVATION	STATION 3	0.00

SIGNATURE: _____

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NVLAP #1820

AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-23-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATE-FRONT YARD

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
08:45	BACKGROUND	STATION 1	0.01
08:45	BACKGROUND	STATION 2	0.02
08:45	BACKGROUND	STATION 3	0.02
09:00	EXCAVATION	STATION 1	0.00
09:00	EXCAVATION	STATION 2	0.00
09:00	EXCAVATION	STATION 3	0.01
09:15	EXCAVATION	STATION 1	0.01
09:15	EXCAVATION	STATION 2	0.00
09:15	EXCAVATION	STATION 3	0.01
09:30	EXCAVATION	STATION 1	0.00
09:30	EXCAVATION	STATION 2	0.02
09:30	EXCAVATION	STATION 3	0.01
09:45	EXCAVATION	STATION 1	0.01
09:45	EXCAVATION	STATION 2	0.02
09:45	EXCAVATION	STATION 3	0.01
10:00	EXCAVATION	STATION 1	0.00
10:00	EXCAVATION	STATION 2	0.00
10:00	EXCAVATION	STATION 3	0.01
10:15	EXCAVATION	STATION 1	0.00
10:15	EXCAVATION	STATION 2	0.00
10:15	EXCAVATIONS	STATION 3	0.01

SIGNATURE: _____

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AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-23-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATE-FRONT YARD

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
10:30	EXCAVATION	STATION 1	0.01
10:30	EXCAVATION	STATION 2	0.04
10:30	EXCAVATION	STATION 3	0.00
10:45	EXCAVATION	STATION 1	0.04
10:45	EXCAVATION	STATION 2	0.02
10:45	EXCAVATION	STATION 3	0.02
11:00	EXCAVATION	STATION 1	0.01
11:00	EXCAVATION	STATION 2	0.00
11:00	EXCAVATION	STATION 3	0.02
11:15	EXCAVATION	STATION 1	0.00
11:15	EXCAVATION	STATION 2	0.01
11:15	EXCAVATION	STATION 3	0.04
11:30	EXCAVATION	STATION 1	0.01
11:30	EXCAVATION	STATION 2	0.00
11:30	EXCAVATION	STATION 3	0.00
11:45	EXCAVATION	STATION 1	0.01
11:45	EXCAVATION	STATION 2	0.00
11:45	EXCAVATION	STATION 3	0.04
12:00	EXCAVATION	STATION 1	0.00
12:00	EXCAVATION	STATION 2	0.00
12:00	EXCAVATIONS	STATION 3	0.00

SIGNATURE: Debbie Gupko

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AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-23-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATE-FRONT YARD

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
12:15	EXCAVATION	STATION 1	0.00
12:15	EXCAVATION	STATION 2	0.00
12:15	EXCAVATION	STATION 3	0.01
12:30	EXCAVATION	STATION 1	0.00
12:30	EXCAVATION	STATION 2	0.00
12:30	EXCAVATION	STATION 3	0.00
12:45	EXCAVATION	STATION 1	0.00
12:45	EXCAVATION	STATION 2	0.02
12:45	EXCAVATION	STATION 3	0.00
13:00	EXCAVATION	STATION 1	0.00
13:00	EXCAVATION	STATION 2	0.00
13:00	EXCAVATION	STATION 3	0.00
13:15	EXCAVATION	STATION 1	0.01
13:15	EXCAVATION	STATION 2	0.00
13:15	EXCAVATION	STATION 3	0.00
13:30	EXCAVATION	STATION 1	0.00
13:30	EXCAVATION	STATION 2	0.00
13:30	EXCAVATION	STATION 3	0.01
13:45	EXCAVATION	STATION 1	0.00
13:45	EXCAVATION	STATION 2	0.00
13:45	EXCAVATIONS	STATION 3	0.00

SIGNATURE: Dell Gupko

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AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-23-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATE

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
14:00	EXCAVATION	STATION 1	0.00
14:00	EXCAVATION	STATION 2	0.00
14:00	EXCAVATION	STATION 3	0.02
14:15	EXCAVATION	STATION 1	0.00
14:15	EXCAVATION	STATION 2	0.01
14:15	EXCAVATION	STATION 3	0.00
14:30	EXCAVATION	STATION 1	0.02
14:30	EXCAVATION	STATION 2	0.00
14:30	EXCAVATION	STATION 3	0.01
14:45	EXCAVATION	STATION 1	0.00
14:45	EXCAVATION	STATION 2	0.02
14:45	EXCAVATION	STATION 3	0.00
15:00	EXCAVATION	STATION 1	0.00
15:00	EXCAVATION	STATION 2	0.00
15:00	EXCAVATION	STATION 3	0.01
15:15	EXCAVATION	STATION 1	0.00
15:15	EXCAVATION	STATION 2	0.01
15:15	EXCAVATION	STATION 3	0.00
15:30	EXCAVATION	STATION 1	0.00
15:30	EXCAVATION	STATION 2	0.00
15:30	EXCAVATIONS	STATION 3	0.00

SIGNATURE: _____

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AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-24-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: SOIL EXCAVATION

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
08:30	BACKGROUND	STATION 1	0.02
08:30	BACKGROUND	STATION 2	0.01
08:30	BACKGROUND	STATION 3	0.04
08:45	EXCAVATION	STATION 1	0.00
08:45	EXCAVATION	STATION 2	0.01
08:45	EXCAVATION	STATION 3	0.00
09:00	EXCAVATION	STATION 1	0.01
09:00	EXCAVATION	STATION 2	0.00
09:00	EXCAVATION	STATION 3	0.01
09:15	EXCAVATION	STATION 1	0.01
09:15	EXCAVATION	STATION 2	0.02
09:15	EXCAVATION	STATION 3	0.03
09:30	EXCAVATION	STATION 1	0.00
09:30	EXCAVATION	STATION 2	0.00
09:30	EXCAVATION	STATION 3	0.01
09:45	EXCAVATION	STATION 1	0.00
09:45	EXCAVATION	STATION 2	0.00
09:45	EXCAVATION	STATION 3	0.00
10:00	EXCAVATION	STATION 1	0.01
10:00	EXCAVATION	STATION 2	0.04
10:00	EXCAVATIONS	STATION 3	0.00

SIGNATURE: _____

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CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-24-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: SOIL EXCAVATION BACK YARD

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
10:15	EXCAVATION	STATION 1	0.01
10:15	EXCAVATION	STATION 2	0.04
10:15	EXCAVATION	STATION 3	0.00
10:30	EXCAVATION	STATION 1	0.04
10:30	EXCAVATION	STATION 2	0.00
10:30	EXCAVATION	STATION 3	0.03
10:45	EXCAVATION	STATION 1	0.00
10:45	EXCAVATION	STATION 2	0.01
10:45	EXCAVATION	STATION 3	0.01
11:00	EXCAVATION	STATION 1	0.01
11:00	EXCAVATION	STATION 2	0.00
11:00	EXCAVATION	STATION 3	0.01
11:15	EXCAVATION	STATION 1	0.00
11:15	EXCAVATION	STATION 2	0.01
11:15	EXCAVATION	STATION 3	0.00
11:30	EXCAVATION	STATION 1	0.00
11:30	EXCAVATION	STATION 2	0.00
11:30	EXCAVATION	STATION 3	0.01
11:45	EXCAVATION	STATION 1	0.00
11:45	EXCAVATION	STATION 2	0.01
11:45	EXCAVATIONS	STATION 3	0.00

SIGNATURE: D. Gupko

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CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-24-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: SOIL EXCAVATION
BACK YARD

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
12:00	EXCAVATION	STATION 1	0.01
12:00	EXCAVATION	STATION 2	0.03
12:00	EXCAVATION	STATION 3	0.01
12:15	EXCAVATION	STATION 1	0.01
12:15	EXCAVATION	STATION 2	0.00
12:15	EXCAVATION	STATION 3	0.00
12:30	EXCAVATION	STATION 1	0.00
12:30	EXCAVATION	STATION 2	0.00
12:30	EXCAVATION	STATION 3	0.01
12:45	EXCAVATION	STATION 1	0.00
12:45	EXCAVATION	STATION 2	0.05
12:45	EXCAVATION	STATION 3	0.03
13:00	EXCAVATION	STATION 1	0.00
13:00	EXCAVATION	STATION 2	0.01
13:00	EXCAVATION	STATION 3	0.00
13:15	EXCAVATION	STATION 1	0.00
13:15	EXCAVATION	STATION 2	0.00
13:15	EXCAVATION	STATION 3	0.00
13:30	EXCAVATION	STATION 1	0.01
13:30	EXCAVATION	STATION 2	0.00
13:30	EXCAVATIONS	STATION 3	0.01

SIGNATURE: D. Gupko

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CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-24-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: SOIL EXCAVATION BACK YARD

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
13:45	EXCAVATION	STATION 1	0.00
13:45	EXCAVATION	STATION 2	0.00
13:45	EXCAVATION	STATION 3	0.00
14:00	EXCAVATION	STATION 1	0.00
14:00	EXCAVATION	STATION 2	0.00
14:00	EXCAVATION	STATION 3	0.03
14:15	EXCAVATION	STATION 1	0.01
14:15	EXCAVATION	STATION 2	0.00
14:15	EXCAVATION	STATION 3	0.01
14:30	EXCAVATION	STATION 1	0.00
14:30	EXCAVATION	STATION 2	0.01
14:30	EXCAVATION	STATION 3	0.01
14:45	EXCAVATION	STATION 1	0.02
14:45	EXCAVATION	STATION 2	0.00
14:45	EXCAVATION	STATION 3	0.01
15:00	EXCAVATION	STATION 1	0.01
15:00	EXCAVATION	STATION 2	0.00
15:00	EXCAVATION	STATION 3	0.00
15:15	EXCAVATION	STATION 1	0.02
15:15	EXCAVATION	STATION 2	0.04
15:15	EXCAVATIONS	STATION 3	0.00

SIGNATURE: Del A. Gupk

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AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-24-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: SOIL EXCAVATION
BACK YARD

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
15:30	EXCAVATION	STATION 1	0.00
15:30	EXCAVATION	STATION 2	0.00
15:30	EXCAVATION	STATION 3	0.00
15:45	EXCAVATION	STATION 1	0.00
15:45	EXCAVATION	STATION 2	0.01
15:45	EXCAVATION	STATION 3	0.00

SIGNATURE: Dinesh A. Gupko

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AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-25-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
08:30	BACKGROUND	STATION 1	0.02
08:30	BACKGROUND	STATION 2	0.02
08:30	BACKGROUND	STATION 3	0.04
08:45	EXCAVATION	STATION 1	0.02
08:45	EXCAVATION	STATION 2	0.01
08:45	EXCAVATION	STATION 3	0.02
09:00	EXCAVATION	STATION 1	0.01
09:00	EXCAVATION	STATION 2	0.02
09:00	EXCAVATION	STATION 3	0.06
09:15	EXCAVATION	STATION 1	0.00
09:15	EXCAVATION	STATION 2	0.01
09:15	EXCAVATION	STATION 3	0.00
09:30	EXCAVATION	STATION 1	0.01
09:30	EXCAVATION	STATION 2	0.03
09:30	EXCAVATION	STATION 3	0.01
09:45	EXCAVATION	STATION 1	0.00
09:45	EXCAVATION	STATION 2	0.04
09:45	EXCAVATION	STATION 3	0.01
10:00	EXCAVATION	STATION 1	0.04
10:00	EXCAVATION	STATION 2	0.03
10:00	EXCAVATION	[illegible]	0.06

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CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-25-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
10:15	EXCAVATION	STATION 1	0.01
10:15	EXCAVATION	STATION 2	0.03
10:15	EXCAVATION	STATION 3	0.00
10:30	EXCAVATION	STATION 1	0.04
10:30	EXCAVATION	STATION 2	0.04
10:30	EXCAVATION	STATION 3	0.02
10:45	EXCAVATION	STATION 1	0.04
10:45	EXCAVATION	STATION 2	0.03
10:45	EXCAVATION	STATION 3	0.06
11:00	EXCAVATION	STATION 1	0.03
11:00	EXCAVATION	STATION 2	0.02
11:00	EXCAVATION	STATION 3	0.05
11:15	EXCAVATION	STATION 1	0.03
11:15	EXCAVATION	STATION 2	0.01
11:15	EXCAVATION	STATION 3	0.04
11:30	EXCAVATION	STATION 1	0.05
11:30	EXCAVATION	STATION 2	0.01
11:30	EXCAVATION	STATION 3	0.04
11:45	EXCAVATION	STATION 1	0.01
11:45	EXCAVATION	STATION 2	0.03
11:45	EXCAVATIONS	STATION 3	0.05

SIGNATURE: Dal Gupko

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CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-25-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
12:00	EXCAVATION	STATION 1	0.01
12:00	EXCAVATION	STATION 2	0.07
12:00	EXCAVATION	STATION 3	0.04
12:15	EXCAVATION	STATION 1	0.05
12:15	EXCAVATION	STATION 2	0.04
12:15	EXCAVATION	STATION 3	0.07
12:30	EXCAVATION	STATION 1	0.03
12:30	EXCAVATION	STATION 2	0.00
12:30	EXCAVATION	STATION 3	0.00
12:45	EXCAVATION	STATION 1	0.06
12:45	EXCAVATION	STATION 2	0.01
12:45	EXCAVATION	STATION 3	0.04
13:00	EXCAVATION	STATION 1	0.00
13:00	EXCAVATION	STATION 2	0.02
13:00	EXCAVATION	STATION 3	0.01
13:15	EXCAVATION	STATION 1	0.00
13:15	EXCAVATION	STATION 2	0.00
13:15	EXCAVATION	STATION 3	0.01
13:30	EXCAVATION	STATION 1	0.01
13:30	EXCAVATION	STATION 2	0.03
13:30	EXCAVATIONS	STATION 3	0.00

SIGNATURE: Donald J. Gupko

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CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-25-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
13:45	EXCAVATION	STATION 1	0.02
13:45	EXCAVATION	STATION 2	0.01
13:45	EXCAVATION	STATION 3	0.02
14:00	EXCAVATION	STATION 1	0.03
14:00	EXCAVATION	STATION 2	0.01
14:00	EXCAVATION	STATION 3	0.00

SIGNATURE: Dal J. Gupk

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AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-30-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
08:45	BACKGROUND	STATION 1	0.00
08:45	BACKGROUND	STATION 2	0.01
08:45	BACKGROUND	STATION 3	0.00
09:00	EXCAVATION	STATION 1	0.00
09:00	EXCAVATION	STATION 2	0.01
09:00	EXCAVATION	STATION 3	0.00
09:15	EXCAVATION	STATION 1	0.00
09:15	EXCAVATION	STATION 2	0.00
09:15	EXCAVATION	STATION 3	0.02
09:30	EXCAVATION	STATION 1	0.00
09:30	EXCAVATION	STATION 2	0.00
09:30	EXCAVATION	STATION 3	0.01
09:45	EXCAVATION	STATION 1	0.01
09:45	EXCAVATION	STATION 2	0.00
09:45	EXCAVATION	STATION 3	0.01
10:00	EXCAVATION	STATION 1	0.00
10:00	EXCAVATION	STATION 2	0.03
10:00	EXCAVATION	STATION 3	0.02
10:15	EXCAVATION	STATION 1	0.00
10:15	EXCAVATION	STATION 2	0.00
10:15	EXCAVATIONS	STATION 3	0.01

SIGNATURE: Donald J. Hughes

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AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-30-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
10:30	EXCAVATION	STATION 1	0.00
10:30	EXCAVATION	STATION 2	0.01
10:30	EXCAVATION	STATION 3	0.03
10:45	EXCAVATION	STATION 1	0.02
10:45	EXCAVATION	STATION 2	0.03
10:45	EXCAVATION	STATION 3	0.01
11:00	EXCAVATION	STATION 1	0.00
11:00	EXCAVATION	STATION 2	0.02
11:00	EXCAVATION	STATION 3	0.03
11:15	EXCAVATION	STATION 1	0.01
11:15	EXCAVATION	STATION 2	0.02
11:15	EXCAVATION	STATION 3	0.01
11:30	EXCAVATION	STATION 1	0.02
11:30	EXCAVATION	STATION 2	0.00
11:30	EXCAVATION	STATION 3	0.00
11:45	EXCAVATION	STATION 1	0.03
11:45	EXCAVATION	STATION 2	0.02
11:45	EXCAVATION	STATION 3	0.00
12:00	EXCAVATION	STATION 1	0.01
12:00	EXCAVATION	STATION 2	0.00
12:00	EXCAVATIONS	STATION 3	0.00

SIGNATURE: D. Gupko

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AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-30-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
12:15	EXCAVATION	STATION 1	0.01
12:15	EXCAVATION	STATION 2	0.02
12:15	EXCAVATION	STATION 3	0.01
12:30	EXCAVATION	STATION 1	0.01
12:30	EXCAVATION	STATION 2	0.00
12:30	EXCAVATION	STATION 3	0.02
12:45	EXCAVATION	STATION 1	0.01
12:45	EXCAVATION	STATION 2	0.00
12:45	EXCAVATION	STATION 3	0.00
13:00	EXCAVATION	STATION 1	0.01
13:00	EXCAVATION	STATION 2	0.01
13:00	EXCAVATION	STATION 3	0.00
13:15	EXCAVATION	STATION 1	0.00
13:15	EXCAVATION	STATION 2	0.01
13:15	EXCAVATION	STATION 3	0.02
13:30	EXCAVATION	STATION 1	0.00
13:30	EXCAVATION	STATION 2	0.00
13:30	EXCAVATION	STATION 3	0.01
13:45	EXCAVATION	STATION 1	0.00
13:45	EXCAVATION	STATION 2	0.02
13:45	EXCAVATIONS	STATION 3	0.01

SIGNATURE: [signature]

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AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-30-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
14:00	EXCAVATION	STATION 1	0.01
14:00	EXCAVATION	STATION 2	0.01
14:00	EXCAVATION	STATION 3	0.00
14:15	EXCAVATION	STATION 1	0.00
14:15	EXCAVATION	STATION 2	0.00
14:15	EXCAVATION	STATION 3	0.00
14:30	EXCAVATION	STATION 1	0.00
14:30	EXCAVATION	STATION 2	0.00
14:30	EXCAVATION	STATION 3	0.02
14:45	EXCAVATION	STATION 1	0.01
14:45	EXCAVATION	STATION 2	0.01
14:45	EXCAVATION	STATION 3	0.00
15:00	EXCAVATION	STATION 1	0.01
15:00	EXCAVATION	STATION 2	0.00
15:00	EXCAVATION	STATION 3	0.02
15:15	EXCAVATION	STATION 1	0.00
15:15	EXCAVATION	STATION 2	0.01
15:15	EXCAVATION	STATION 3	0.00
15:30	EXCAVATION	STATION 1	0.00
15:30	EXCAVATION	STATION 2	0.00
15:30	EXCAVATIONS	STATION 3	0.01

SIGNATURE: David J. Gupko

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AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 11-30-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
15:45	EXCAVATION	STATION 1	0.02
15:45	EXCAVATION	STATION 2	0.01
15:45	EXCAVATION	STATION 3	0.00
16:00	EXCAVATION	STATION 1	0.02
16:00	EXCAVATION	STATION 2	0.01
16:00	EXCAVATION	STATION 3	0.01
16:15	EXCAVATION	STATION 1	0.00
16:15	EXCAVATION	STATION 2	0.00
16:15	EXCAVATION	STATION 3	0.01

SIGNATURE: Ved Gupta

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AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-03-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
15:00	BACKGROUND	STATION 1	0.02
15:00	BACKGROUND	STATION 2	0.01
15:00	BACKGROUND	STATION 3	0.06
15:15	EXCAVATION	STATION 1	0.01
15:15	EXCAVATION	STATION 2	0.00
15:15	EXCAVATION	STATION 3	0.03
15:30	EXCAVATION	STATION 1	0.00
15:30	EXCAVATION	STATION 2	0.01
15:30	EXCAVATION	STATION 3	0.01
15:45	EXCAVATION	STATION 1	0.00
15:45	EXCAVATION	STATION 2	0.00
15:45	EXCAVATION	STATION 3	0.00
16:00	EXCAVATION	STATION 1	0.00
16:00	EXCAVATION	STATION 2	0.00
16:00	EXCAVATION	STATION 3	0.00
16:15	EXCAVATION	STATION 1	0.00
16:15	EXCAVATION	STATION 2	0.01
16:15	EXCAVATION	STATION 3	0.00
16:30	EXCAVATION	STATION 1	0.01
16:30	EXCAVATION	STATION 2	0.01
16:30	EXCAVATIONS	STATION 3	0.01

SIGNATURE: Donald J. Gupko

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AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-04-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
09:30	BACKGROUND	STATION 1	0.01
09:30	BACKGROUND	STATION 2	0.01
09:30	BACKGROUND	STATION 3	0.00
09:45	EXCAVATION	STATION 1	0.00
09:45	EXCAVATION	STATION 2	0.02
09:45	EXCAVATION	STATION 3	0.00
10:00	EXCAVATION	STATION 1	0.00
10:00	EXCAVATION	STATION 2	0.00
10:00	EXCAVATION	STATION 3	0.01
10:15	EXCAVATION	STATION 1	0.01
10:15	EXCAVATION	STATION 2	0.00
10:15	EXCAVATION	STATION 3	0.01
10:30	EXCAVATION	STATION 1	0.01
10:30	EXCAVATION	STATION 2	0.00
10:30	EXCAVATION	STATION 3	0.00
10:45	EXCAVATION	STATION 1	0.03
10:45	EXCAVATION	STATION 2	0.01
10:45	EXCAVATION	STATION 3	0.00
11:00	EXCAVATION	STATION 1	0.00
11:00	EXCAVATION	STATION 2	0.01
11:00	EXCAVATIONS	STATION 3	0.02

SIGNATURE: Donald J. Gupko

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CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-04-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
11:15	EXCAVATION	STATION 1	0.03
11:15	EXCAVATION	STATION 2	0.00
11:15	EXCAVATION	STATION 3	0.00
11:30	EXCAVATION	STATION 1	0.00
11:30	EXCAVATION	STATION 2	0.01
11:30	EXCAVATION	STATION 3	0.01
11:45	EXCAVATION	STATION 1	0.00
11:45	EXCAVATION	STATION 2	0.00
11:45	EXCAVATION	STATION 3	0.01
12:00	EXCAVATION	STATION 1	0.01
12:00	EXCAVATION	STATION 2	0.00
12:00	EXCAVATION	STATION 3	0.00
12:15	EXCAVATION	STATION 1	0.00
12:15	EXCAVATION	STATION 2	0.01
12:15	EXCAVATION	STATION 3	0.00
12:30	EXCAVATION	STATION 1	0.01
12:30	EXCAVATION	STATION 2	0.00
12:30	EXCAVATION	STATION 3	0.00
12:45	EXCAVATION	STATION 1	0.00
12:45	EXCAVATION	STATION 2	0.00
12:45	EXCAVATIONS	STATION 3	0.01

SIGNATURE: D. Gupko

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CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-04-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
13:00	EXCAVATION	STATION 1	0.00
13:00	EXCAVATION	STATION 2	0.00
13:00	EXCAVATION	STATION 3	0.01
13:15	EXCAVATION	STATION 1	0.00
13:15	EXCAVATION	STATION 2	0.01
13:15	EXCAVATION	STATION 3	0.00
13:30	EXCAVATION	STATION 1	0.00
13:30	EXCAVATION	STATION 2	0.00
13:30	EXCAVATION	STATION 3	0.01
13:45	EXCAVATION	STATION 1	0.00
13:45	EXCAVATION	STATION 2	0.00
13:45	EXCAVATION	STATION 3	0.00

SIGNATURE: David Gupko

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CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-07-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
09:30	BACKGROUND	STATION 1	0.00
09:30	BACKGROUND	STATION 2	0.02
09:30	BACKGROUND	STATION 3	0.04
09:45	EXCAVATION	STATION 1	0.01
09:45	EXCAVATION	STATION 2	0.00
09:45	EXCAVATION	STATION 3	0.02
10:00	EXCAVATION	STATION 1	0.02
10:00	EXCAVATION	STATION 2	0.00
10:00	EXCAVATION	STATION 3	0.02
12:00	EXCAVATION	STATION 1	0.00
12:00	EXCAVATION	STATION 2	0.00
12:00	EXCAVATION	STATION 3	0.01
12:15	EXCAVATION	STATION 1	0.01
12:15	EXCAVATION	STATION 2	0.02
12:15	EXCAVATION	STATION 3	0.00
12:30	EXCAVATION	STATION 1	0.00
12:30	EXCAVATION	STATION 2	0.01
12:30	EXCAVATION	STATION 3	0.01
12:45	EXCAVATION	STATION 1	0.01
12:45	EXCAVATION	STATION 2	0.02
12:45	EXCAVATIONS	STATION 3	0.02

SIGNATURE: Donald J. Gupko

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AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-07-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATION

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
13:00	EXCAVATION	STATION 1	0.00
13:00	EXCAVATION	STATION 2	0.01
13:00	EXCAVATION	STATION 3	0.00
13:15	EXCAVATION	STATION 1	0.02
13:15	EXCAVATION	STATION 2	0.02
13:15	EXCAVATION	STATION 3	0.01
13:30	EXCAVATION	STATION 1	0.01
13:30	EXCAVATION	STATION 2	0.00
13:30	EXCAVATION	STATION 3	0.01
13:45	EXCAVATION	STATION 1	0.00
13:45	EXCAVATION	STATION 2	0.00
13:45	EXCAVATION	STATION 3	0.01
14:00	EXCAVATION	STATION 1	0.01
14:00	EXCAVATION	STATION 2	0.00
14:00	EXCAVATION	STATION 3	0.01
14:15	EXCAVATION	STATION 1	0.02
14:15	EXCAVATION	STATION 2	0.00
14:15	EXCAVATION	STATION 3	0.00

SIGNATURE: D. M. Gupko

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AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-09-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: LOADING DUMPSTER

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
11:00	BACKGROUND	STATION 1	0.00
11:00	BACKGROUND	STATION 2	0.01
11:00	BACKGROUND	STATION 3	0.00
11:15	EXCAVATION	STATION 1	0.00
11:15	EXCAVATION	STATION 2	0.00
11:15	EXCAVATION	STATION 3	0.01
11:30	EXCAVATION	STATION 1	0.00
11:30	EXCAVATION	STATION 2	0.01
11:30	EXCAVATION	STATION 3	0.00
11:45	EXCAVATION	STATION 1	0.00
11:45	EXCAVATION	STATION 2	0.00
11:45	EXCAVATION	STATION 3	0.00
12:00	EXCAVATION	STATION 1	0.01
12:00	EXCAVATION	STATION 2	0.01
12:00	EXCAVATION	STATION 3	0.00
12:15	EXCAVATION	STATION 1	0.00
12:15	EXCAVATION	STATION 2	0.01
12:15	EXCAVATION	STATION 3	0.00
12:30	EXCAVATION	STATION 1	0.00
12:30	EXCAVATION	STATION 2	0.00
12:30	EXCAVATION	STATION 3	0.01

SIGNATURE: Dale J. Light

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CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-09-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATE-STOCK PILE

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
14:15	EXCAVATION	STATION 1	0.02
14:15	EXCAVATION	STATION 2	0.00
14:15	EXCAVATION	STATION 3	0.01
14:30	EXCAVATION	STATION 1	0.01
14:30	EXCAVATION	STATION 2	0.02
14:30	EXCAVATION	STATION 3	0.00
14:45	EXCAVATION	STATION 1	0.01
14:45	EXCAVATION	STATION 2	0.00
14:45	EXCAVATION	STATION 3	0.01
15:00	EXCAVATION	STATION 1	0.00
15:00	EXCAVATION	STATION 2	0.01
15:00	EXCAVATION	STATION 3	0.00
15:10	EXCAVATION	STATION 1	0.00
15:10	EXCAVATION	STATION 2	0.00
15:10	EXCAVATION	STATION 3	0.00

SIGNATURE: D. Gupko

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AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-10-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: LOADING DUMPSTER

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
08:30	BACKGROUND	STATION 1	0.01
08:30	BACKGROUND	STATION 2	0.00
08:30	BACKGROUND	STATION 3	0.00
08:45	EXCAVATION	STATION 1	0.00
08:45	EXCAVATION	STATION 2	0.03
08:45	EXCAVATION	STATION 3	0.04
09:00	EXCAVATION	STATION 1	0.00
09:00	EXCAVATION	STATION 2	0.02
09:00	EXCAVATION	STATION 3	0.00
09:15	EXCAVATION	STATION 1	0.00
09:15	EXCAVATION	STATION 2	0.00
09:15	EXCAVATION	STATION 3	0.01
09:30	EXCAVATION	STATION 1	0.00
09:30	EXCAVATION	STATION 2	0.00
09:30	EXCAVATION	STATION 3	0.00
09:45	EXCAVATION	STATION 1	0.00
09:45	EXCAVATION	STATION 2	0.00
09:45	EXCAVATION	STATION 3	0.01
10:00	EXCAVATION	STATION 1	0.00
10:00	EXCAVATION	STATION 2	0.00
10:00	EXCAVATION	STATION 3	0.00

SIGNATURE: D. Gupko

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CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-10-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: LOADING DUMPSTER

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
10:15	EXCAVATION	STATION 1	0.01
10:15	EXCAVATION	STATION 2	0.00
10:15	EXCAVATION	STATION 3	0.01
10:30	EXCAVATION	STATION 1	0.00
10:30	EXCAVATION	STATION 2	0.00
10:30	EXCAVATION	STATION 3	0.01
10:45	EXCAVATION	STATION 1	0.00
10:45	EXCAVATION	STATION 2	0.00
10:45	EXCAVATION	STATION 3	0.00
11:00	EXCAVATION	STATION 1	0.00
11:00	EXCAVATION	STATION 2	0.00
11:00	EXCAVATION	STATION 3	0.00
11:15	EXCAVATION	STATION 1	0.00
11:15	EXCAVATION	STATION 2	0.00
11:15	EXCAVATION	STATION 3	0.01
14:15	EXCAVATION	STATION 1	0.01
14:15	EXCAVATION	STATION 2	0.00
14:15	EXCAVATION	STATION 3	0.00
14:30	EXCAVATION	STATION 1	0.00
14:30	EXCAVATION	STATION 2	0.03
14:30	EXCAVATION	STATION 3	0.00

SIGNATURE: _____

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CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-10-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: LOADING DUMPSTER

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
15:00	EXCAVATION	STATION 1	0.00
15:00	EXCAVATION	STATION 2	0.00
15:00	EXCAVATION	STATION 3	0.01
15:15	EXCAVATION	STATION 1	0.00
15:15	EXCAVATION	STATION 2	0.00
15:15	EXCAVATION	STATION 3	0.00

SIGNATURE: Dilip Gupko

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AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-14-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: STOCK PILE REMOVAL

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
12:15	BACKGROUND	STATION 1	0.00
12:15	BACKGROUND	STATION 2	0.01
12:15	BACKGROUND	STATION 3	0.00
12:30	EXCAVATION	STATION 1	0.00
12:30	EXCAVATION	STATION 2	0.00
12:30	EXCAVATION	STATION 3	0.01
12:45	EXCAVATION	STATION 1	0.00
12:45	EXCAVATION	STATION 2	0.01
12:45	EXCAVATION	STATION 3	0.00
13:00	EXCAVATION	STATION 1	0.01
13:00	EXCAVATION	STATION 2	0.00
13:00	EXCAVATION	STATION 3	0.00
13:15	EXCAVATION	STATION 1	0.01
13:15	EXCAVATION	STATION 2	0.00
13:15	EXCAVATION	STATION 3	0.00
13:30	EXCAVATION	STATION 1	0.00
13:30	EXCAVATION	STATION 2	0.00
13:30	EXCAVATION	STATION 3	0.00
13:45	EXCAVATION	STATION 1	0.00
13:45	EXCAVATION	STATION 2	0.00
13:45	EXCAVATION	STATION 3	0.01

SIGNATURE: Donald J. Gupko

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AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-14-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: STOCK PILE REMOVAL

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
14:00	EXCAVATION	STATION 1	0.00
14:00	EXCAVATION	STATION 2	0.00
14:00	EXCAVATION	STATION 3	0.00
14:15	EXCAVATION	STATION 1	0.00
14:15	EXCAVATION	STATION 2	0.00
14:15	EXCAVATION	STATION 3	0.00
14:30	EXCAVATION	STATION 1	0.00
14:30	EXCAVATION	STATION 2	0.00
14:30	EXCAVATION	STATION 3	0.00
14:45	EXCAVATION	STATION 1	0.00
14:45	EXCAVATION	STATION 2	0.00
14:45	EXCAVATION	STATION 3	0.00
15:00	EXCAVATION	STATION 1	0.00
15:00	EXCAVATION	STATION 2	0.01
15:00	EXCAVATION	STATION 3	0.01
15:15	EXCAVATION	STATION 1	0.01
15:15	EXCAVATION	STATION 2	0.00
15:15	EXCAVATION	STATION 3	0.00
15:30	EXCAVATION	STATION 1	0.00
15:30	EXCAVATION	STATION 2	0.00
15:30	EXCAVATION	STATION 3	0.00

SIGNATURE: Dwld J Gupko

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AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-14-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: STOCK PILE REMOVAL

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
15:45	EXCAVATION	STATION 1	0.00
15:45	EXCAVATION	STATION 2	0.01
15:45	EXCAVATION	STATION 3	0.00
16:00	EXCAVATION	STATION 1	0.00
16:00	EXCAVATION	STATION 2	0.00
16:00	EXCAVATION	STATION 3	0.00
16:15	EXCAVATION	STATION 1	0.00
16:15	EXCAVATION	STATION 2	0.00
16:15	EXCAVATION	STATION 3	0.00
16:30	EXCAVATION	STATION 1	0.00
16:30	EXCAVATION	STATION 2	0.00
16:30	EXCAVATION	STATION 3	0.00
16:45	EXCAVATION	STATION 1	0.00
16:45	EXCAVATION	STATION 2	0.00
16:45	EXCAVATION	STATION 3	0.00

SIGNATURE: Donald Gupko

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CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-15-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: STOCK PILE REMOVAL

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
13:30	BACKGROUND	STATION 1	0.01
13:30	BACKGROUND	STATION 2	0.02
13:30	BACKGROUND	STATION 3	0.00
13:45	EXCAVATION	STATION 1	0.01
13:45	EXCAVATION	STATION 2	0.03
13:45	EXCAVATION	STATION 3	0.00
14:00	EXCAVATION	STATION 1	0.00
14:00	EXCAVATION	STATION 2	0.00
14:00	EXCAVATION	STATION 3	0.02
14:15	EXCAVATION	STATION 1	0.00
14:15	EXCAVATION	STATION 2	0.00
14:15	EXCAVATION	STATION 3	0.01
14:30	EXCAVATION	STATION 1	0.00
14:30	EXCAVATION	STATION 2	0.02
14:30	EXCAVATION	STATION 3	0.01
14:45	EXCAVATION	STATION 1	0.00
14:45	EXCAVATION	STATION 2	0.00
14:45	EXCAVATION	STATION 3	0.00
15:00	EXCAVATION	STATION 1	0.00
15:00	EXCAVATION	STATION 2	0.00
15:00	EXCAVATION	STATION 3	0.01

SIGNATURE: David J. Gupko

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CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-15-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: STOCK PILE REMOVAL

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
15:15	EXCAVATION	STATION 1	0.00
15:15	EXCAVATION	STATION 2	0.00
15:15	EXCAVATION	STATION 3	0.00
15:30	EXCAVATION	STATION 1	0.00
15:30	EXCAVATION	STATION 2	0.00
15:30	EXCAVATION	STATION 3	0.00
15:45	EXCAVATION	STATION 1	0.00
15:45	EXCAVATION	STATION 2	0.00
15:45	EXCAVATION	STATION 3	0.01
16:00	EXCAVATION	STATION 1	0.00
16:00	EXCAVATION	STATION 2	0.00
16:00	EXCAVATION	STATION 3	0.00

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CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 12-16-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: STOCK PILE REMOVAL

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
09:30	BACKGROUND	STATION 1	0.02
09:30	BACKGROUND	STATION 2	0.00
09:30	BACKGROUND	STATION 3	0.03
09:45	EXCAVATION	STATION 1	0.00
09:45	EXCAVATION	STATION 2	0.01
09:45	EXCAVATION	STATION 3	0.02
10:00	EXCAVATION	STATION 1	0.00
10:00	EXCAVATION	STATION 2	0.00
10:00	EXCAVATION	STATION 3	0.03
10:15	EXCAVATION	STATION 1	0.01
10:15	EXCAVATION	STATION 2	0.00
10:15	EXCAVATION	STATION 3	0.01
10:30	EXCAVATION	STATION 1	0.03
10:30	EXCAVATION	STATION 2	0.01
10:30	EXCAVATION	STATION 3	0.00

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AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 01-14-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATE

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
15:00	BACKGROUND	STATION 1	0.05
15:00	BACKGROUND	STATION 2	0.07
15:00	BACKGROUND	STATION 3	0.08
15:15	EXCAVATION	STATION 1	0.04
15:15	EXCAVATION	STATION 2	0.05
15:15	EXCAVATION	STATION 3	0.08
15:30	EXCAVATION	STATION 1	0.03
15:30	EXCAVATION	STATION 2	0.04
15:30	EXCAVATION	STATION 3	0.04
15:45	EXCAVATION	STATION 1	0.00
15:45	EXCAVATION	STATION 2	0.07
15:45	EXCAVATION	STATION 3	0.05
16:00	EXCAVATION	STATION 1	0.03
16:00	EXCAVATION	STATION 2	0.04
16:00	EXCAVATION	STATION 3	0.05
16:15	FINAL	STATION 1	0.04
16:15	FINAL	STATION 2	0.03
16:15	FINAL	STATION 3	0.06

SIGNATURE: Donald J. Gupko

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CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 01-15-93

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: EXCAVATE-STORM DRAIN

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
15:00	BACKGROUND	STATION 1	0.03
15:00	BACKGROUND	STATION 2	0.06
15:00	BACKGROUND	STATION 3	0.04
15:15	EXCAVATION	STATION 1	0.03
15:15	EXCAVATION	STATION 2	0.05
15:15	EXCAVATION	STATION 3	0.04
15:30	EXCAVATION	STATION 1	0.02
15:30	EXCAVATION	STATION 2	0.03
15:30	EXCAVATION	STATION 3	0.01
15:45	EXCAVATION	STATION 1	0.03
15:45	EXCAVATION	STATION 2	0.04
15:45	EXCAVATION	STATION 3	0.01
16:00	EXCAVATION	STATION 1	0.04
16:00	EXCAVATION	STATION 2	0.05
16:00	EXCAVATION	STATION 3	0.01
16:15	FINAL	STATION 1	0.03
16:15	FINAL	STATION 2	0.02
16:15	FINAL	STATION 3	0.04

SIGNATURE: Dilip Gupko

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AMS 950 - AEROSOL MONITOR

CLIENT: New York State DEC
Frontier Ave/100th Street

DATE: 1/18/93

PROJECT: Love Canal

TYPE OF ACTIVITY: Pipe & Trench Excavati

PROJECT #: 9-32-020

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
12:30 PM	Background	Station 1	0.01
12:30 PM	Background	Station 2	0.01
12:30 PM	Background	Station 3	0.01
12:45 PM	Excavation	Station 1	0.02
12:45 PM	Excavation	Station 2	0.01
12:45 PM	Excavation	Station 3	0.03
1:00 PM	Excavation	Station 1	0.01
1:00 PM	Excavation	Station 2	0.01
1:00 PM	Excavation	Station 3	0.02
1:15 PM	Excavation	Station 1	0.02
1:15 PM	Excavation	Station 2	0.02
1:15 PM	Excavation	Station 3	0.02
1:30 PM	Excavation	Station 1	0.03
1:30 PM	Excavation	Station 2	0.01
1:30 PM	Excavation	Station 3	0.02
1:45 PM	Excavation	Station 1	0.01
1:45 PM	Excavation	Station 2	0.01
1:45 PM	Excavation	Station 3	0.03
2:00 PM	Final	Station 1	0.01
2:00 PM	Final	Station 2	0.03
2:00 PM	Final	Station 3	0.03

SIGNATURE: William B. Galloway, Jr.

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MANAGEMENT SERVICES CORP.

AMS 950 - AEROSOL MONITOR

CLIENT: New York State DEC
Frontier Ave./100th Street
PROJECT: Love Canal

DATE: 1/25/93

TYPE OF ACTIVITY: Pipe & Trench Excavation

PROJECT #: 9-32-020

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
1:40 PM	Background	Station 1	0.01
1:40 PM	Background	Station 2	0.01
1:40 PM	Background	Station 3	0.01
1:55 PM	Excavation	Station 1	0.01
1:55 PM	Excavation	Station 2	0.01
1:55 PM	Excavation	Station 3	0.01
2:15 PM	Final	Station 1	0.01
2:15 PM	Final	Station 2	0.01
2:15 PM	Final	Station 3	0.01

SIGNATURE: William D. Galloway Jr.

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AMS 950 - AEROSOL MONITOR

CLIENT: New York State DEC
Frontier Ave./100th Street
PROJECT: Love Canal

DATE: 1/26/93

TYPE OF ACTIVITY: Pipe, Trench & TEST Pit Excavation

PROJECT #: 9-32-020

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
12:15 PM	Background	Station 1	0.02
12:15 PM	Background	Station 2	0.02
12:15 PM	Background	Station 3	0.02
12:30 PM	Excavation	Station 1	0.02
12:30 PM	Excavation	Station 2	0.03
12:30 PM	Excavation	Station 3	0.02
12:45 PM	Excavation	Station 1	0.02
12:45 PM	Excavation	Station 2	0.02
12:45 PM	Excavation	Station 3	0.02
1:00 PM	Excavation	Station 1	0.02
1:00 PM	Excavation	Station 2	0.02
1:00 PM	Excavation	Station 3	0.03
1:15 PM	Excavation	Station 1	Changed Bucket
1:15 PM	Excavation	Station 2	Changed Bucket
1:15 PM	Excavation	Station 3	Changed Bucket
1:30 PM	Test Pit	Station 1	0.02
1:30 PM	Test Pit	Station 2	0.02
1:30 PM	Test Pit	Station 3	0.02
1:45 PM	Test Pit	Station 1	0.02
1:45 PM	Test Pit	Station 2	0.02
1:45 PM	Test Pit	Station 3	0.02

SIGNATURE: William A. Galloway, Jr.

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AMS 950 - AEROSOL MONITOR

CLIENT: New York State DEC
Frontier Ave/100th Street

PROJECT: Love Canal

DATE: 1/26/93

TYPE OF ACTIVITY: Pipe, Trench & Test Pi
Excavation

PROJECT #: 9-32-020

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
2:00 PM	Final	Station 1	0.02
2:00 PM	Final	Station 2	0.02
2:00 PM	Final	Station 3	0.02

SIGNATURE: William A. Galloway Jr.

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AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 01-27-93

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: TEST PIT ENTRY

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
09:45 (BKG)	TEST PIT ENTRY	FRONTIER ST	0.02
09:55	TEST PIT ENTRY	FRONTIER ST	0.04
10:05	TEST PIT ENTRY	FRONTIER ST	0.01
10:15 (FINAL)	TEST PIT ENTRY	FRONTIER ST	0.03

SIGNATURE: Dill Gupko

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AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 01-27-93

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: STORM DRAIN PIPE REMOVAL

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
12:00	BACKGROUND	STATION 1	0.01
12:00	BACKGROUND	STATION 2	0.03
12:00	BACKGROUND	STATION 3	0.02
12:15	EXCAVATION	STATION 1	0.02
12:15	EXCAVATION	STATION 2	0.01
12:15	EXCAVATION	STATION 3	0.01
12:30	EXCAVATION	STATION 1	0.02
12:30	EXCAVATION	STATION 2	0.02
12:30	EXCAVATION	STATION 3	0.02
12:45	EXCAVATION	STATION 1	0.00
12:45	EXCAVATION	STATION 2	0.01
12:45	EXCAVATION	STATION 3	0.00
13:00	EXCAVATION	STATION 1	0.01
13:00	EXCAVATION	STATION 2	0.01
13:00	EXCAVATION	STATION 3	0.01
13:15	EXCAVATION	STATION 1	0.01
13:15	EXCAVATION	STATION 2	0.03
13:15	EXCAVATION	STATION 3	0.01
13:30	EXCAVATION	STATION 1	0.00
13:30	EXCAVATION	STATION 2	0.03
13:30	EXCAVATION	STATION 3	0.00

SIGNATURE: Dilip Gupko

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AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 01-27-93

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: STORM PIPE DRAIN REMOVAL

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
13:45	BACKGROUND	STATION 1	0.01
13:45	BACKGROUND	STATION 2	0.00
13:45	BACKGROUND	STATION 3	0.03
14:00	EXCAVATION	STATION 1	0.00
14:00	EXCAVATION	STATION 2	0.03
14:00	EXCAVATION	STATION 3	0.00
14:15	EXCAVATION	STATION 1	0.01
14:15	EXCAVATION	STATION 2	0.00
14:15	EXCAVATION	STATION 3	0.01
14:30	EXCAVATION	STATION 1	0.00
14:30	EXCAVATION	STATION 2	0.03
14:30	EXCAVATION	STATION 3	0.03
14:45	EXCAVATION	STATION 1	0.01
14:45	EXCAVATION	STATION 2	0.00
14:45	EXCAVATION	STATION 3	0.03
15:00	EXCAVATION	STATION 1	0.02
15:00	EXCAVATION	STATION 2	0.01
15:00	EXCAVATION	STATION 3	0.00
15:15	EXCAVATION	STATION 1	0.00
15:15	EXCAVATION	STATION 2	0.00
15:15	EXCAVATION	STATION 3	0.02

SIGNATURE: Bill J.N.L

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CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 01-27-93

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: STORM DRAIN EXCAVATION

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
15:30	BACKGROUND	STATION 1	0.01
15:30	BACKGROUND	STATION 2	0.03
15:30	BACKGROUND	STATION 3	0.01
15:45	EXCAVATION	STATION 1	0.02
15:45	EXCAVATION	STATION 2	0.03
15:45	EXCAVATION	STATION 3	0.01
16:00	FINAL	STATION 1	0.03
16:00	FINAL	STATION 2	0.01
16:00	FINAL	STATION 3	0.00

SIGNATURE: D. Gupko

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NVLAP
#1820

AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 01-28-92

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: REMOVING STORM DRAIN PIPE

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
10:00	BACKGROUND	STATION 1	0.05
10:00	BACKGROUND	STATION 2	0.07
10:00	BACKGROUND	STATION 3	0.04
10:15	EXCAVATION	STATION 1	0.00
10:15	EXCAVATION	STATION 2	0.02
10:15	EXCAVATION	STATION 3	0.04
10:30	EXCAVATION	STATION 1	0.04
10:30	EXCAVATION	STATION 2	0.03
10:30	EXCAVATION	STATION 3	0.01
10:45	EXCAVATION	STATION 1	0.05
10:45	EXCAVATION	STATION 2	0.04
10:45	EXCAVATION	STATION 3	0.01
11:00	EXCAVATION	STATION 1	0.07
11:00	EXCAVATION	STATION 2	0.02
11:00	EXCAVATION	STATION 3	0.03
11:15	EXCAVATION	STATION 1	0.01
11:15	EXCAVATION	STATION 2	0.02
11:15	EXCAVATION	STATION 3	0.01
11:30	EXCAVATION	STATION 1	0.03
11:30	EXCAVATION	STATION 2	0.04
11:30	EXCAVATION	STATION 3	0.03

SIGNATURE: _____

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NVLAP #1820

AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 01-28-93

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: STORM DRAIN PIPE REMOVAL

PROJECT #:. PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
11:45	BACKGROUND	STATION 1	0.07
11:45	BACKGROUND	STATION 2	0.01
11:45	BACKGROUND	STATION 3	0.04
12:00	EXCAVATION	STATION 1	0.03
12:00	EXCAVATION	STATION 2	0.04
12:00	EXCAVATION	STATION 3	0.02
12:15	EXCAVATION	STATION 1	0.00
12:15	EXCAVATION	STATION 2	0.00
12:15	EXCAVATION	STATION 3	0.03
12:30	EXCAVATION	STATION 1	0.01
12:30	EXCAVATION	STATION 2	0.00
12:30	EXCAVATION	STATION 3	0.01
12:45	EXCAVATION	STATION 1	0.01
12:45	EXCAVATION	STATION 2	0.00
12:45	EXCAVATION	STATION 3	0.00
13:00	EXCAVATION	STATION 1	0.04
13:00	EXCAVATION	STATION 2	0.02
13:00	EXCAVATION	STATION 3	0.00
13:15	EXCAVATION	STATION 1	0.03
13:15	EXCAVATION	STATION 2	0.01
13:15	EXCAVATION	STATION 3	0.03

SIGNATURE: _____

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NVLAP #1820

AMS 950 - AEROSOL MONITOR

CLIENT: ENTECH MANAGEMENT SERVICES

DATE: 01-28-93

PROJECT: LOVE CANAL

TYPE OF ACTIVITY: STORM DRAIN PIPE REMOVAL

PROJECT #: PH92151

TECHNICIAN: D. GUPKO

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
13:30	FINAL	STATION 1	0.02
13:30	FINAL	STATION 2	0.01
13:30	FINAL	STATION 3	0.01

SIGNATURE: Will Gupko

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MANAGEMENT SERVICES CORP.

AMS 950 - AEROSOL MONITOR

CLIENT: New York State DEC
Frontier Ave./100th Street

PROJECT: Love Canal

DATE: 2/3/93

TYPE OF ACTIVITY: Loading Gray Material at 9909 Black Creek Dr.

PROJECT #: 9-32-020

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
11:35 AM	Background	Station 1	0.02
11:35 AM	Background	Station 2	0.02
11:35 AM	Background	Station 3	0.02
11:50 AM	Excavation/Loading	Station 1	0.02
11:50 AM	Excavation/Loading	Station 2	0.02
11:50 AM	Excavation/Loading	Station 3	0.02
12:05 PM	Final	Station 1	0.02
12:05 PM	Final	Station 2	0.02
12:05 PM	Final	Station 3	0.02

SIGNATURE: William A. Galloway, Jr.

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MANAGEMENT SERVICES CORP.

AMS 950 - AEROSOL MONITOR

CLIENT: New York State DEC
Frontier Ave./100th
PROJECT: Love Canal

DATE: 2/9/93

TYPE OF ACTIVITY: Pipe & Trench Excavation

PROJECT #: 9-32-020

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
9:45 am	Background	Station 1	0.01
9:45 am	Background	Station 2	0.01
9:45 am	Background	Station 3	0.01
10:00 am	Excavation	Station 1	0.03
10:00 am	Excavation	Station 2	0.01
10:00 am	Excavation	Station 3	0.01
10:15 am	Excavation	Station 1	0.01
10:15 am	Excavation	Station 2	0.01
10:15 am	Excavation	Station 3	0.01
10:30 am	Excavation	Station 1	0.01
10:30 am	Excavation	Station 2	0.01
10:30 am	Excavation	Station 3	0.01
10:45 am	Excavation	Station 1	0.01
10:45 am	Excavation	Station 2	0.01
10:45 am	Excavation	Station 3	0.01
11:00 am	Excavation	Station 1	0.01
11:00 am	Excavation	Station 2	0.01
11:00 am	Excavation	Station 3	0.01
11:15 am	Excavation	Station 1	0.01
11:15 am	Excavation	Station 2	0.02
11:15 am	Excavation	Station 3	0.01

SIGNATURE: William A. Galloway

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MANAGEMENT SERVICES CORP.

AMS 950 - AEROSOL MONITOR

CLIENT: New York State DEC
Frontier Ave./100th

PROJECT: Love Canal

DATE: 2/9/93

TYPE OF ACTIVITY: Pipe & Trench Excavation

PROJECT #: 9-32-020

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
11:30 am	Excavation	Station 1	0.01
11:30 am	Excavation	Station 2	0.01
11:30 am	Excavation	Station 3	0.01
*Stopped Excavation until 1:30 pm when Excavator with Hammer arrived for breaking up concrete slab.			
1:30 pm	Breaking Concrete	Station 1	0.01
1:30 pm	Breaking Concrete	Station 2	0.00
1:30 pm	Breaking Concrete	Station 3	0.01
1:45 pm	Breaking Concrete	Station 1	0.01
1:45 pm	Breaking Concrete	Station 2	0.01
1:45 pm	Breaking Concrete	Station 3	0.01
2:00 pm	Breaking Concrete	Station 1	0.01
2:00 pm	Breaking Concrete	Station 2	0.01
2:00 pm	Breaking Concrete	Station 3	0.01
2:15 pm	Breaking Concrete	Station 1	0.01
2:15 pm	Breaking Concrete	Station 2	0.01
2:15 pm	Breaking Concrete	Station 3	0.03
2:30 pm	Excavation	Station 1	0.01
2:30 pm	Excavation	Station 2	0.02
2:30 pm	Excavation	Station 3	0.02

SIGNATURE: William C. Galloway

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AMS 950 - AEROSOL MONITOR

CLIENT: New York State DEC
Frontier Ave./100th

PROJECT: Love Canal

DATE: 2/9/93

TYPE OF ACTIVITY: Pipe & Trench Excavation

PROJECT #: 9-32-020

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
2:45 pm	Excavation	Station 1	0.01
2:45 pm	Excavation	Station 2	0.01
2:45 pm	Excavation	Station 3	0.01
3:00 pm	Excavation	Station 1	0.01
3:00 pm	Excavation	Station 2	0.01
3:00 pm	Excavation	Station 3	0.01
3:15 pm	Excavation	Station 1	0.01
3:15 pm	Excavation	Station 2	0.01
3:15 pm	Excavation	Station 3	0.01
3:30 pm	Excavation	Station 1	0.02
3:30 pm	Excavation	Station 2	0.01
3:30 pm	Excavation	Station 3	0.02
3:45 pm	Final	Station 1	0.01
3:45 pm	Final	Station 2	0.01
3:45 pm	Final	Station 3	0.01

SIGNATURE: William A. Galloway

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MANAGEMENT SERVICES CORP.

AMS 950 - AEROSOL MONITOR

CLIENT: New York State DEC
Frontier Ave./100th Street

DATE: 2/10/93

PROJECT: Love Canal

TYPE OF ACTIVITY: Excavation of non-haz so
stockpile.

PROJECT #: 9-32-020

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
9:30 am	Background	Station 1	0.01
9:30 am	Background	Station 2	0.01
9:30 am	Background	Station 3	0.02
9:45 am	Excavation	Station 1	0.01
9:45 am	Excavation	Station 2	0.01
9:45 am	Excavation	Station 3	0.01
10:00 am	Excavation	Station 1	0.02
10:00 am	Excavation	Station 2	0.01
10:00 am	Excavation	Station 3	0.01
10:15 am	Excavation	Station 1	0.02
10:15 am	Excavation	Station 2	0.01
10:15 am	Excavation	Station 3	0.01
10:30 am	Excavation	Station 1	0.01
10:30 am	Excavation	Station 2	0.01
10:30 am	Excavation	Station 3	0.01
10:45 am	Excavation	Station 1	0.01
10:45 am	Excavation	Station 2	0.01
10:45 am	Excavation	Station 3	0.01
11:00 am	Excavation	Station 1	0.01
11:00 am	Excavation	Station 2	0.01
11:00 am	Excavation	Station 3	0.01

SIGNATURE: William A. Galloway

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MANAGEMENT SERVICES CORP.

AMS 950 - AEROSOL MONITOR

CLIENT: New York State DEC

PROJECT: Frontier Ave./100th Street
Love Canal

DATE: 2/10/93

TYPE OF ACTIVITY: Excavation of non-haz so stockpile.

PROJECT #: 9-32-020

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
11:15 am	Excavation	Station 1	0.01
11:15 am	Excavation	Station 2	0.01
11:15 am	Excavation	Station 3	0.01
*Stopped excavating until 1:00 pm to move trench box and prepare for hand digging cut-off wall form.			
1:00 pm	Excavation	Station 1	0.01
1:00 pm	Excavation	Station 2	0.01
1:00 pm	Excavation	Station 3	0.01
1:15 pm	Excavation	Station 1	0.01
1:15 pm	Excavation	Station 2	0.02
1:15 pm	Excavation	Station 3	0.01
1:30 pm	Excavation	Station 1	0.01
1:30 pm	Excavation	Station 2	0.01
1:30 pm	Excavation	Station 3	0.01
1:45 pm	Excavation	Station 1	0.01
1:45 pm	Excavation	Station 2	0.01
1:45 pm	Excavation	Station 3	0.01
2:00 pm	Excavation	Station 1	0.01
2:00 pm	Excavation	Station 2	0.01
2:00 pm	Excavation	Station 3	0.01

SIGNATURE: William A. Galloway

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MANAGEMENT SERVICES CORP.

AMS 950 - AEROSOL MONITOR

CLIENT: New York State DEC

PROJECT: Frontier Ave./100th Street
Love Canal

DATE: 2/10/93

TYPE OF ACTIVITY: Excavation of non-haz. soil stockpile

PROJECT #: 9-32-020

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
2:15 pm	Excavation	Station 1	0.02
2:15 pm	Excavation	Station 2	0.01
2:15 pm	Excavation	Station 3	0.01
2:30 pm	Excavation	Station 1	0.01
2:30 pm	Excavation	Station 2	0.03
2:30 pm	Excavation	Station 3	0.01
2:45 pm	Excavation	Station 1	0.02
2:45 pm	Excavation	Station 2	0.02
2:45 pm	Excavation	Station 3	0.01
3:00 pm	Final	Station 1	0.01
3:00 pm	Final	Station 2	0.01
3:00 pm	Final	Station 3	0.01

SIGNATURE: William A. Galloway

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MANAGEMENT SERVICES CORP.

AMS 950 - AEROSOL MONITOR

CLIENT: New York State DEC
Frontier Ave./100th Street

PROJECT: Love Canal

DATE: 2/11/93

TYPE OF ACTIVITY: Trench Excavation

PROJECT #: 9-32-020

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
9:45 am	Background	Station 1	0.01
9:45 am	Background	Station 2	0.01
9:45 am	Background	Station 3	0.01
10:00 am	Excavation	Station 1	0.01
10:00 am	Excavation	Station 2	0.01
10:00 am	Excavation	Station 3	0.01
10:15 am	Excavation	Station 1	0.01
10:15 am	Excavation	Station 2	0.01
10:15 am	Excavation	Station 3	0.01
10:30 am	Excavation	Station 1	0.01
10:30 am	Excavation	Station 2	0.01
10:30 am	Excavation	Station 3	0.01
10:45 am	Excavation	Station 1	0.01
10:45 am	Excavation	Station 2	0.01
10:45 am	Excavation	Station 3	0.01
11:00 am	Excavation	Station 1	0.01
11:00 am	Excavation	Station 2	0.01
11:00 am	Excavation	Station 3	0.01
11:15 am	Excavation	Station 1	0.01
11:15 am	Excavation	Station 2	0.01
11:15 am	Excavation	Station 3	0.01

SIGNATURE: William A. Galloway

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MANAGEMENT SERVICES CORP.

AMS 950 - AEROSOL MONITOR

CLIENT: New York State DEC
Frontier Ave./100th Street

DATE: 2/11/93

PROJECT: Love Canal

TYPE OF ACTIVITY: Trench Excavatopm

PROJECT #: 9-32-020

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
11:30 am	Excavation	Station 1	0.00
11:30 am	Excavation	Station 2	0.01
11:30 am	Excavation	Station 3	0.00
11:45 am	Excavation	Station 1	0.01
11:45 am	Excavation	Station 2	0.00
11:45 am	Excavation	Station 3	0.00
12:00 pm	Excavation	Station 1	0.00
12:00 pm	Excavation	Station 2	0.01
12:00 pm	Excavation	Station 3	0.01
12:15 pm	Final	Station 1	0.01
12:15 pm	Final	Station 2	0.01
12:15 pm	Final	Station 3	0.01

SIGNATURE: William C. Galloway

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MANAGEMENT SERVICES CORP.

AMS 950 - AEROSOL MONITOR

CLIENT: New York State DEC
Frontier Ave./100th Street
PROJECT: Love Canal

DATE: 2/12/93

TYPE OF ACTIVITY: Pipe & Trench Excavati

PROJECT #: 9-32-020

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
9:00 AM	Background	Station 1	0.00
9:00 AM	Background	Station 2	0.00
9:00 AM	Background	Station 3	0.02
9:15 AM	Excavation	Station 1	0.00
9:15 AM	Excavation	Station 2	0.00
9:15 AM	Excavation	Station 3	0.01
9:30 AM	Excavation	Station 1	0.01
9:30 AM	Excavation	Station 2	0.02
9:30 AM	Excavation	Station 3	0.01
9:45 AM	Excavation	Station 1	0.01
9:45 AM	Excavation	Station 2	0.01
9:45 AM	Excavation	Station 3	0.01
10:00 AM	Excavation	Station 1	0.01
10:00 AM	Excavation	Station 2	0.01
10:00 AM	Excavation	Station 3	0.01
10:15 AM	Excavation	Station 1	0.01
10:15 AM	Excavation	Station 2	0.02
10:15 AM	Excavation	Station 3	0.01
10:30 AM	Final	Station 1	0.01
10:30 AM	Final	Station 2	0.01
10:30 AM	Final	Station 3	0.02

SIGNATURE: William A. Galloway, Jr.

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MANAGEMENT SERVICES CORP.

AMS 950 - AEROSOL MONITOR

CLIENT: New York State DEC
Frontier Ave./100th Street
PROJECT: Love Canal

DATE: 2/19/93

TYPE OF ACTIVITY: Pipe & Trench Excavatior

PROJECT #: 9-32-020

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
12:00 PM	Background	Station 1	0.01
12:00 PM	Background	Station 2	0.01
12:00 PM	Background	Station 3	0.01
12:15 PM	Excavation	Station 1	0.01
12:15 PM	Excavation	Station 2	0.01
12:15 PM	Excavation	Station 3	0.01
12:30 PM	Excavation	Station 1	0.01
12:30 PM	Excavation	Station 2	0.01
12:30 PM	Excavation	Station 3	0.01
12:45 PM	Excavation	Station 1	0.01
12:45 PM	Excavation	Station 2	0.01
12:45 PM	Excavation	Station 3	0.01
1:00 PM	Excavation	Station 1	0.02
1:00 PM	Excavation	Station 2	0.01
1:00 PM	Excavation	Station 3	0.02
1:15 PM	Excavation	Station 1	0.01
1:15 PM	Excavation	Station 2	0.01
1:15 PM	Excavation	Station 3	0.01
1:30 PM	Final	Station 1	0.01
1:30 PM	Final	Station 2	0.02
1:30 PM	Final	Station 3	0.01

SIGNATURE: William C. Galloway, Jr.

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MANAGEMENT SERVICES CORP.

AMS 950 - AEROSOL MONITOR

CLIENT: New York State DEC
Frontier Ave./100th Street

DATE: 2/25/93

PROJECT: Love Canal

TYPE OF ACTIVITY: Pipe & Trench Excavation

PROJECT #: 9-32-020

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
3:45 PM	Background	Station 1	0.00
3:45 PM	Background	Station 2	0.02
3:45 PM	Background	Station 3	0.01
4:00 PM	Excavation	Station 1	0.00
4:00 PM	Excavation	Station 2	0.01
4:00 PM	Excavation	Station 3	0.01
4:15 PM	Excavation	Station 1	0.01
4:15 PM	Excavation	Station 2	0.01
4:15 PM	Excavation	Station 3	0.01
4:30 PM	Excavation	Station 1	0.01
4:30 PM	Excavation	Station 2	0.00
4:30 PM	Excavation	Station 3	0.01
4:45 PM	Final	Station 1	0.01
4:45 PM	Final	Station 2	0.01
4:45 PM	Final	Station 3	0.00

SIGNATURE: William A. Galloway, Jr.

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MANAGEMENT SERVICES CORP.

AMS 950 - AEROSOL MONITOR

CLIENT: New York State DEC
Frontier Ave./100th Street

DATE: 2/26/93

PROJECT: Love Canal

TYPE OF ACTIVITY: Pipe & Trench Excavatio

PROJECT #: 9-32-020

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
8:00 AM	Background	Station 1	0.00
8:00 AM	Background	Station 2	0.01
8:00 AM	Background	Station 3	0.01
8:15 AM	Excavation	Station 1	0.01
8:15 AM	Excavation	Station 2	0.01
8:15 AM	Excavation	Station 3	0.01
8:30 AM	Excavation	Station 1	0.01
8:30 AM	Excavation	Station 2	0.01
8:30 AM	Excavation	Station 3	0.01
8:45 AM	Excavation	Station 1	0.01
8:45 AM	Excavation	Station 2	0.00
8:45 AM	Excavation	Station 3	0.00
9:00 AM	Excavation	Station 1	0.01
9:00 AM	Excavation	Station 2	0.01
9:00 AM	Excavation	Station 3	0.01
9:15 AM	Stopped Excavation	Station 1	------
9:15 AM	Stopped Excavation	Station 2	------
9:15 AM	Stopped Excavation	Station 3	------
9:30 AM	Pump Water	Station 1	------
9:30 AM	Pump Water	Station 2	------
9:30 AM	Pump Water	Station 3	------

SIGNATURE: William D. Galloway, Jr.

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MANAGEMENT SERVICES CORP.

AMS 950 - AEROSOL MONITOR

CLIENT: New York State DEC
Frontier Ave./100th Street

DATE: 2/26/93

PROJECT: Love Canal

TYPE OF ACTIVITY: Pipe & Trench Excavatic

PROJECT #: 9-32-020

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
9:45 AM	Pump Water	Trench	------
9:45 AM	Pump Water	Trench	------
9:45 AM	Pump Water	Trench	------
10:45 AM	Dispose of Water	Treat Facility	------
10:45 AM	Dispose of Water	Treat Facility	------
10:45 AM	Dispose of Water	Treat Facility	------
1:30 PM	Start Excavating	Station 1	0.01
1:30 PM	Start Excavating	Station 2	0.01
1:30 PM	Start Excavating	Station 3	0.01
1:45 PM	Excavation	Station 1	0.00
1:45 PM	Excavation	Station 2	0.00
1:45 PM	Excavation	Station 3	0.00
2:00 PM	Excavation	Station 1	0.01
2:00 PM	Excavation	Station 2	0.01
2:00 PM	Excavation	Station 3	0.01
2:15 PM	Excavation	Station 1	0.01
2:15 PM	Excavation	Station 2	0.01
2:15 PM	Excavation	Station 3	0.02
2:30 PM	Excavation	Station 1	0.02
2:30 PM	Excavation	Station 2	0.01
2:30 PM	Excavation	Station 3	0.01

SIGNATURE: William A. Galloway, Jr.

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DISTRICT OFFICE: ROBBINSVILLE, NEW JERSEY

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ENTECH

MANAGEMENT SERVICES CORP.

AMS 950 - AEROSOL MONITOR

CLIENT: New York State DEC
Frontier Ave./100th Street

DATE: 2/26/93

PROJECT: Love Canal

TYPE OF ACTIVITY: Pipe & Trench Excavation

PROJECT #: 9-32-020

TECHNICIAN: William Galloway

TIME	JOB DESCRIPTION	LOCATION	READING MG/M^3
2:45 PM	Final	Station 1	0.02
2:45 PM	Final	Station 2	0.03
2:45 PM	Final	Station 3	0.02

SIGNATURE: William A. Galloway, Jr.

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AIR MONITORING SAMPLE DATA
TOTAL NUISANCE DUST
FOR
LOVE CANAL
BUFFALO, NY

AAL PROJECT # PH92151

AIR MONITORING SAMPLE DATA - TOTAL NUISANCE DUST

CLIENT: ENTECH MANAGEMENT SERVICES CORPORATION
1008 MAIN STREET
BUFFALO, NY 14202

DATE: 11-12-92

TYPE OF ACTIVITY: EXCAVATION

PROJECT/REPORT #: PH92151-01

PROJECT: LOVE CANAL
BUFFALO, NY

TECHNICIAN NAME: J. JENKINS

FIELD SAMPLE #	TYPE OF SAMPLE	LOCATION	PUMP #	PUMP FLOW RATE (LPM)	COLLECTION PERIOD		TOTAL SAMPLE TIME (MIN)	TOTAL SAMPLE VOLUME (L)	INITIAL FILTER WEIGHT (MG)	SAMPLE FILTER WEIGHT (MG)	MG/M^3
					TIME ON	TIME OFF					
2019	ENV-IEZ	STATION 3-DOWNWIND EXCAVATION	1130	1.37	15:41	16:25	44	60.28	0.01347	0.01313	-0.04
2030	ENV-IEZ	STATION 1-UPWIND	188	1.25	15:30	16:20	50	62.50	0.01346	0.01363	-0.03
2007	ENV-IEZ	STATION 2-DOWNWIND EXCAVATION	168	1.34	15:40	16:24	44	58.96	0.01423	0.01396	-0.04
2043	BLANK	----------	----	------	-----	-----	----	-------	0.01518	0.01334	------

Analysis by NIOSH 0500 Method
Total Nuisance Dust

Filter Lot #: 2062307

Analyst Name/Date: A. RUTKOWSKI, 12-10-92

Average Filter Weight of Blanks: 0.02 mg

Analytical Balance for Gravimetric Analysis: Fisher Scientific A-160

Comments: NONE

Type of Sample
BKG, Background
ENV - OEZ, Outside Exclusion Zone
ENV - IEZ, Inside Exclusion Zone
ENV - ISZ, Inside Support Zone
ENV - ICZ, Inside Contamination Zone

AIR MONITORING SAMPLE DATA - TOTAL NUISANCE DUST

CLIENT: ENTECH MANAGEMENT SERVICES CORPORATION
1008 MAIN STREET
BUFFALO, NY 14202

DATE: 11-13-92

TYPE OF ACTIVITY: EXCAVATION

PROJECT/REPORT #: PH92151-02

PROJECT: LOVE CANAL
BUFFALO, NY

TECHNICIAN NAME: J. JENKINS

FIELD SAMPLE #	TYPE OF SAMPLE	LOCATION	PUMP #	PUMP FLOW RATE (LPM)	COLLECTION PERIOD		TOTAL SAMPLE TIME (MIN)	TOTAL SAMPLE VOLUME (L)	INITIAL FILTER WEIGHT (MG)	SAMPLE FILTER WEIGHT (MG)	MG/M^3
					TIME ON	TIME OFF					
2029	IEZ	STATION 3-UPWIND	1130	1.37	09:20	15:25	720	986.40	0.01435	0.01423	-0.002
2045	IEZ	STATION 2-DOWNWIND EXCAVATION	188	1.25	09:15	15:25	725	906.25	0.01225	0.01411	0.00
2047	IEZ	STATION 1-DOWNWIND EXCAVATION	168	1.34	09:15	15:25	725	942.50	0.01470	0.01384	-0.003
2043	BLANK	----------	----	------	-----	-----	----	-------	0.01518	0.01334	------

Analysis by NIOSH 0500 Method
Total Nuisance Dust

Filter Lot #: 1040806

Analyst Name/Date: A. RUTKOWSKI, 12-10-92

Average Filter Weight of Blanks: 0.01 mg

Analytical Balance for Gravimetric Analysis: Fisher Scientific A-160

Comments: NONE

Type of Sample
BKG, Background
ENV - OEZ, Outside Exclusion Zone
ENV - IEZ, Inside Exclusion Zone
ENV - ISZ, Inside Support Zone
ENV - ICZ, Inside Contamination Zone

AIR MONITORING SAMPLE DATA - TOTAL NUISANCE DUST

CLIENT: ENTECH MANAGEMENT SERVICES CORPORATION
1008 MAIN STREET
BUFFALO, NY 14202

DATE: 11-16-92

TYPE OF ACTIVITY: EXCAVATION

PROJECT: LOVE CANAL
BUFFALO, NY

PROJECT/REPORT #: PH92151-03

TECHNICIAN NAME: D. GUPKO

FIELD SAMPLE #	TYPE OF SAMPLE	LOCATION	PUMP #	PUMP FLOW RATE (LPM)	COLLECTION PERIOD		TOTAL SAMPLE TIME (MIN)	TOTAL SAMPLE VOLUME (L)	INITIAL FILTER WEIGHT (MG)	SAMPLE FILTER WEIGHT (MG)	MG/M^3
					TIME ON	TIME OFF					
1982-001	ENV	UPWIND CAP REPAIR	1110	1.99	09:00	15:50	360	716.	0.01083	0.01063	-0.003
1993-002	ENV	DOWNWIND CAP REPAIR	1161	1.95	09:02	15:52	360	702.	0.01452	0.01460	0.00
1995-003	ENV	DOWNWIND CAP REPAIR	187	1.93	09:03	15:53	360	695.	0.01424	0.01460	-0.002

Analysis by NIOSH 0500 Method
Total Nuisance Dust

Filter Lot #: 2062307

Analyst Name/Date: A. RUTKOWSKI, 12-10-92

Average Filter Weight of Blanks: 0.01 mg

Analytical Balance for Gravimetric Analysis: Fisher Scientific A-160

Comments: NONE

Type of Sample
BKG, Background
ENV - OEZ, Outside Exclusion Zone
ENV - IEZ, Inside Exclusion Zone
ENV - ISZ, Inside Support Zone
ENV - ICZ, Inside Contamination Zone

AIR MONITORING SAMPLE DATA - TOTAL NUISANCE DUST

CLIENT: ENTECH MANAGEMENT SERVICES CORPORATION
1008 MAIN STREET
BUFFALO, NY 14202

DATE: 11-17-92

TYPE OF ACTIVITY: EXCAVATION

PROJECT: LOVE CANAL
BUFFALO, NY

PROJECT/REPORT #: PH92151-04

TECHNICIAN NAME: D. GUPKO

FIELD SAMPLE #	TYPE OF SAMPLE	LOCATION	PUMP #	PUMP FLOW RATE (LPM)	COLLECTION PERIOD		TOTAL SAMPLE TIME (MIN)	TOTAL SAMPLE VOLUME (L)	INITIAL FILTER WEIGHT (MG)	SAMPLE FILTER WEIGHT (MG)	MG/M^3
					TIME ON	TIME OFF					
2001-001	ENV	UPWIND CAP REPAIR	187	2.00	13:30	16:30	180	360.	0.01326	0.01304	-0.005
2052-002	ENV	DOWNWIND CAP REPAIR	1161	1.98	13:31	16:31	180	351.	0.01423	0.01396	-0.006
2019-003	ENV	DOWNWIND CAP REPAIR	1110	1.94	13:32	16:32	180	349.	0.01223	0.01393	0.00

Analysis by NIOSH 0500 Method
Total Nuisance Dust

Filter Lot #: 2062307

Analyst Name/Date: A. RUTKOWSKI, 12-10-92

Average Filter Weight of Blanks: 0.03 mg

Analytical Balance for Gravimetric Analysis: Fisher Scientific A-160

Comments: NONE

Type of Sample
BKG, Background
ENV - OEZ, Outside Exclusion Zone
ENV - IEZ, Inside Exclusion Zone
ENV - ISZ, Inside Support Zone
ENV - ICZ, Inside Contamination Zone

AIR MONITORING SAMPLE DATA - TOTAL NUISANCE DUST

CLIENT: ENTECH MANAGEMENT SERVICES CORPORATION
1008 MAIN STREET
BUFFALO, NY 14202

PROJECT: LOVE CANAL
BUFFALO, NY

DATE: 11-19-92

TYPE OF ACTIVITY: EXCAVATION

PROJECT/REPORT #: PH92151-05

TECHNICIAN NAME: D. GUPKO

FIELD SAMPLE #	TYPE SAMPLE	LOCATION	PUMP #	PUMP FLOW RATE (LPM)	COLLECTION PERIOD		TOTAL SAMPLE TIME (MIN)	TOTAL SAMPLE VOLUME (L)	INITIAL FILTER WEIGHT (MG)	SAMPLE FILTER WEIGHT (MG)	MG/M^3
					TIME ON	TIME OFF					
2060	[illegible]	UPWIND BACKYARD 1040	187	1.93	08:52	16:32	460	888.	0.01393	0.01388	-0.002
2070	[illegible]	DOWNWIND BACKYARD 1048	1161	1.99	08:51	16:31	460	915.	0.13713	0.01346	-0.002
2075	[illegible]	DOWNWIND FRONT YARD 1047	1110	1.95	08:50	16:30	460	897.	0.01344	0.01296	-0.03

Analysis by NIOSH 0500 Method
Total Nuisance Dust

Filter Lot #: 1040806

Analyst Name/Date: A. RUTKOWSKI, 12-10-92

Average Filter Weight of Blanks: 0.02 mg

Analytical Balance for Gravimetric Analysis: Fisher Scientific A-160

Comments: NONE

Type of Sample
BKG, Background
ENV - OEZ, Outside Exclusion Zone
ENV - IEZ, Inside Exclusion Zone
ENV - ISZ, Inside Support Zone
ENV - ICZ, Inside Contamination Zone

AIR MONITORING SAMPLE DATA - TOTAL NUISANCE DUST

CLIENT: ENTECH MANAGEMENT SERVICES CORPORATION
1008 MAIN STREET
BUFFALO, NY 14202

PROJECT: LOVE CANAL
BUFFALO, NY

DATE: 11-23-92

TYPE OF ACTIVITY: EXCAVATION

PROJECT/REPORT #: PH92151-06

TECHNICIAN NAME: D. GUPKO

FIELD • SAMPLE #	TYPE OF SAMPLE	LOCATION	PUMP #	PUMP FLOW RATE (LPM)	COLLECTION PERIOD		TOTAL SAMPLE TIME (MIN)	TOTAL SAMPLE VOLUME (L)	INITIAL FILTER WEIGHT (MG)	SAMPLE FILTER WEIGHT (MG)	MG/M^3
					TIME ON	TIME OFF					
2091-001	ENV	UPWIND HOUSE 9909 BLACKCREEK	1161	1.74	08:35	15:30	355	618	0.01387	0.01379	-0.0002
2087-002	ENV	DOWNWIND HOUSE 9909 BLACKCREEK	1110	1.79	08:36	15:31	355	635	0.01386	0.01367	-0.0003
2080-003	ENV	DOWNWIND HOUSE 9909 BLACKCREEK	187	1.63	08:38	15:33	355	579	-0.01369	0.01382	0.0003

Analysis by NIOSH 0500 Method
Total Nuisance Dust

Filter Lot #: 1040806

Analyst Name/Date: A. RUTKOWSKI, 12-10-92

Average Filter Weight of Blanks: 0.01 mg

Analytical Balance for Gravimetric Analysis: Fisher Scientific A-160

Comments: NONE

Type of Sample
BKG, Background
ENV - OEZ, Outside Exclusion Zone
ENV - IEZ, Inside Exclusion Zone
ENV - ISZ, Inside Support Zone
ENV - ICZ, Inside Contamination Zone

AIR MONITORING SAMPLE DATA - TOTAL NUISANCE DUST

CLIENT: ENTECH MANAGEMENT SERVICES CORPORATION
1008 MAIN STREET
BUFFALO, NY 14202

PROJECT: LOVE CANAL
BUFFALO, NY

DATE: 11-24-92

TYPE OF ACTIVITY: EXCAVATION

PROJECT/REPORT #: PH92151-07

TECHNICIAN NAME: D. GUPKO

FIELD SAMPLE #	TYPE OF SAMPLE	LOCATION	PUMP #	PUMP FLOW RATE (LPM)	COLLECTION PERIOD		TOTAL SAMPLE TIME (MIN)	TOTAL SAMPLE VOLUME (L)	INITIAL FILTER WEIGHT (MG)	SAMPLE FILTER WEIGHT (MG)	MG/M^3
					TIME ON	TIME OFF					
2067-001	ENV	UPWIND HOUSE 9909 BLACKCREEK	1161	1.73	08:25	15:55	450	779	-0.01405	0.01395	-0.0001
2056-002	ENV	DOWNWIND HOUSE 9909 BLACKCREEK	187	1.63	08:30	15:55	445	742	-0.01409	0.01401	0.0001
2074-003	ENV	DOWNWIND HOUSE 9909 BLACKCREEK	1110	1.79	08:30	15:55	445	797	-0.01398	0.01345	-0.0007

Analysis by NIOSH 0500 Method
Total Nuisance Dust

Filter Lot #: 1040806

Analyst Name/Date: A. RUTKOWSKI, 12-10-92

Average Filter Weight of Blanks: 0.01 mg

Analytical Balance for Gravimetric Analysis: Fisher Scientific A-160

Comments: NONE

Type of Sample
BKG, Background
ENV - OEZ, Outside Exclusion Zone
ENV - IEZ, Inside Exclusion Zone
ENV - ISZ, Inside Support Zone
ENV - ICZ, Inside Contamination Zone

AIR MONITORING SAMPLE DATA - TOTAL NUISANCE DUST

CLIENT: ENTECH MANAGEMENT SERVICES CORPORATION
1008 MAIN STREET
BUFFALO, NY 14202

PROJECT: LOVE CANAL
BUFFALO, NY

DATE: 11-25-92

TYPE OF ACTIVITY: EXCAVATION

PROJECT/REPORT #: PH92151-08

TECHNICIAN NAME: D. GUPKO

FIELD SAMPLE #	TYPE OF SAMPLE	LOCATION	PUMP #	PUMP FLOW RATE (LPM)	COLLECTION PERIOD		TOTAL SAMPLE TIME (MIN)	TOTAL SAMPLE VOLUME (L)	INITIAL FILTER WEIGHT (MG)	SAMPLE FILTER WEIGHT (MG)	MG/M^3
					TIME ON	TIME OFF					
2100-001	ENV	UPWIND HOUSE 9909 BLACKCREEK DR	1161	1.73	08:45	14:00	315	545	0.01399	0.01409	0.00
2044-002	ENV	DOWNWIND HOUSE 9909 BLACKCREEK DR	187	1.64	08:50	14:01	311	510	0.01450	0.01332	0.00
2084-003	ENV	DOWNWIND HOUSE 9909 BLACKCREEK DR	1110	1.79	08:51	14:02	311	557	0.01407	0.01406	0.00

Analysis by NIOSH 0500 Method
Total Nuisance Dust

Filter Lot #: 1040806

Analyst Name/Date: A. RUTKOWSKI, 12-10-92

Average Filter Weight of Blanks: 0.01 mg

Analytical Balance for Gravimetric Analysis: Fisher Scientific A-160

Comments: NONE

Type of Sample
BKG, Background
ENV - OEZ, Outside Exclusion Zone
ENV - IEZ, Inside Exclusion Zone
ENV - ISZ, Inside Support Zone
ENV - ICZ, Inside Contamination Zone

AIR MONITORING SAMPLE DATA - TOTAL NUISANCE DUST

CLIENT: ENTECH MANAGEMENT SERVICES CORPORATION
1008 MAIN STREET
BUFFALO, NY 14202

DATE: 11-30-92

TYPE OF ACTIVITY: EXCAVATION

PROJECT: LOVE CANAL
BUFFALO, NY

PROJECT/REPORT #: PH92151-09

TECHNICIAN NAME: D. GUPKO

FIELD SAMPLE #	TYPE OF SAMPLE	LOCATION	PUMP #	PUMP FLOW RATE (LPM)	COLLECTION PERIOD		TOTAL SAMPLE TIME (MIN)	TOTAL SAMPLE VOLUME (L)	INITIAL FILTER WEIGHT (MG)	SAMPLE FILTER WEIGHT (MG)	MG/M^3
					TIME ON	TIME OFF					
2025-001	ENV	UPWIND HOUSE 9909 BLACKCREEK DR	1161	1.70	08:30	16:15	465	791	0.01345	0.01343	0.00
1994-002	ENV	DOWNWIND HOUSE 9909 BLACKCREEK DR	187	1.76	08:33	16:18	465	818	0.01508	0.01496	0.00
2097-003	ENV	DOWNWIND HOUSE 9909 BLACKCREEK DR	1110	1.79	08:35	16:20	465	832	0.01364	0.01355	0.016

Analysis by NIOSH 0500 Method
Total Nuisance Dust

Filter Lot #: 2062307

Analyst Name/Date: A. RUTKOWSKI, 12-10-92

Average Filter Weight of Blanks: 0.01 mg

Analytical Balance for Gravimetric Analysis: Fisher Scientific A-160

Comments: NONE

Type of Sample
BKG, Background
ENV - OEZ, Outside Exclusion Zone
ENV - IEZ, Inside Exclusion Zone
ENV - ISZ, Inside Support Zone
ENV - ICZ, Inside Contamination Zone

AIR MONITORING SAMPLE DATA - TOTAL NUISANCE DUST

CLIENT: ENTECH MANAGEMENT SERVICES CORPORATION
1008 MAIN STREET
BUFFALO, NY 14202

DATE: 12-03-92

TYPE OF ACTIVITY: EXCAVATION

PROJECT: LOVE CANAL
BUFFALO, NY

PROJECT/REPORT #: PH92151-10

TECHNICIAN NAME: D. GUPKO

FIELD SAMPLE #	TYPE OF SAMPLE	LOCATION	PUMP #	PUMP FLOW RATE (LPM)	COLLECTION PERIOD		TOTAL SAMPLE TIME (MIN)	TOTAL SAMPLE VOLUME (L)	INITIAL FILTER WEIGHT (MG)	SAMPLE FILTER WEIGHT (MG)	MG/M^3
					TIME ON	TIME OFF					
1989-001	ENV	UPWIND HOUSE 9909 BLACKCREEK DR	187	1.76	14:50	16:30	100	176	0.01239	0.01239	0.00
2099-002	ENV	DOWNWIND HOUSE 9909 BLACKCREEK DR	1110	1.79	14:51	16:31	100	179	0.01410	0.01422	0.00
2065-003	ENV	DOWNWIND HOUSE 9909 BLACKCREEK DR	1161	1.70	14:52	16:32	100	170	0.01360	0.01335	0.00

Analysis by NIOSH 0500 Method
Total Nuisance Dust

Filter Lot #: 2062307, 1040806

Analyst Name/Date: A. RUTKOWSKI, 12-10-92

Average Filter Weight of Blanks: 0.01 mg

Analytical Balance for Gravimetric Analysis: Fisher Scientific A-160

Comments: NONE

Type of Sample
BKG, Background
ENV - OEZ, Outside Exclusion Zone
ENV - IEZ, Inside Exclusion Zone
ENV - ISZ, Inside Support Zone
ENV - ICZ, Inside Contamination Zone

AIR MONITORING SAMPLE DATA - TOTAL NUISANCE DUST

CLIENT: ENTECH MANAGEMENT SERVICES CORPORATION
1008 MAIN STREET
BUFFALO, NY 14202

DATE: 12-04-92

TYPE OF ACTIVITY: EXCAVATION

PROJECT: LOVE CANAL
BUFFALO, NY

PROJECT/REPORT #: PH92151-11

TECHNICIAN NAME: D. GUPKO

FIELD SAMPLE #	TYPE OF SAMPLE	LOCATION	PUMP #	PUMP FLOW RATE (LPM)	COLLECTION PERIOD		TOTAL SAMPLE TIME (MIN)	TOTAL SAMPLE VOLUME (L)	INITIAL FILTER WEIGHT (MG)	SAMPLE FILTER WEIGHT (MG)	MG/M^3
					TIME ON	TIME OFF					
2073-001	ENV	UPWIND HOUSE 9909 BLACKCREEK DR	187	1.76	09:30	15:45	315	554	-0.01407	0.01392	0.05
2103-002	ENV	DOWNWIND HOUSE 9909 BLACKCREEK DR	1110	1.80	09:31	15:46	315	567	0.01306	0.01323	0.00
2063-003	ENV	DOWNWIND HOUSE 9909 BLACKCREEK DR	1161	1.71	09:32	15:47	315	539	-0.01392	-0.01392	0.00

Analysis by NIOSH 0500 Method
Total Nuisance Dust

Filter Lot #: 140806

Analyst Name/Date: A. RUTKOWSKI, 12-10-92

Average Filter Weight of Blanks: 0.01 mg

Analytical Balance for Gravimetric Analysis: Fisher Scientific A-160

Comments: NONE

Type of Sample
BKG, Background
ENV - OEZ, Outside Exclusion Zone
ENV - IEZ, Inside Exclusion Zone
ENV - ISZ, Inside Support Zone
ENV - ICZ, Inside Contamination Zone

AIR MONITORING SAMPLE DATA - TOTAL NUISANCE DUST

CLIENT: ENTECH MANAGEMENT SERVICES CORPORATION
1008 MAIN STREET
BUFFALO, NY 14202

DATE: 12-09-92

TYPE OF ACTIVITY: EXCAVATION DIRT PILE

PROJECT: LOVE CANAL
BUFFALO, NY

PROJECT/REPORT #: PH92151-12

TECHNICIAN NAME: D. GUPKO

FIELD SAMPLE #	TYPE OF SAMPLE	LOCATION	PUMP #	PUMP FLOW RATE (LPM)	COLLECTION PERIOD		TOTAL SAMPLE TIME (MIN)	TOTAL SAMPLE VOLUME (L)	INITIAL FILTER WEIGHT (MG)	SAMPLE FILTER WEIGHT (MG)	MG/M^3
					TIME ON	TIME OFF					
2104-001	ENV	UPWIND DIRT PILE	187	1.79	10:55	15:05	250	448	0.01344	0.01339	0.06
1992-002	ENV	DOWNWIND DIRT PILE	1161	1.73	11:00	15:06	246	426	0.01417	0.01421	0.06
2053-003	ENV	DOWNWIND DIRT PILE	1110	1.82	11:02	15:07	245	446	0.01405	0.01403	0.06
2069-004	BLANK	----------	----	-----	-----	------	---	----	-0.01411	0.01415	-----

Analysis by NIOSH 0500 Method
Total Nuisance Dust

Filter Lot #: 140806

Analyst Name/Date: T. BARD, 12-30-92

Average Filter Weight of Blanks: 0.014 mg

Analytical Balance for Gravimetric Analysis: Fisher Scientific A-160

Comments: NONE

Type of Sample
BKG, Background
ENV - OEZ, Outside Exclusion Zone
ENV - IEZ, Inside Exclusion Zone
ENV - ISZ, Inside Support Zone
ENV - ICZ, Inside Contamination Zone

AIR MONITORING SAMPLE DATA - TOTAL NUISANCE DUST

CLIENT: ENTECH MANAGEMENT SERVICES CORPORATION
1008 MAIN STREET
BUFFALO, NY 14202

DATE: 12-10-92

TYPE OF ACTIVITY: EXCAVATION

PROJECT: LOVE CANAL
BUFFALO, NY

PROJECT/REPORT #: PH92151-13

TECHNICIAN NAME: D. GUPKO

FIELD SAMPLE #	TYPE OF SAMPLE	LOCATION	PUMP #	PUMP FLOW RATE (LPM)	COLLECTION PERIOD		TOTAL SAMPLE TIME (MIN)	TOTAL SAMPLE VOLUME (L)	INITIAL FILTER WEIGHT (MG)	SAMPLE FILTER WEIGHT (MG)	MG/M^3
					TIME ON	TIME OFF					
2057-001	ENV	UPWIND DIRT PILE	187	1.75	08:25	15:15	410	718	-0.01403	0.01402	0.04
2051-002	ENV	DOWNWIND DIRT PILE	1161	1.70	08:26	15:16	410	697	0.01326	0.01400	0.01
2000-003	ENV	DOWNWIND DIRT PILE	1110	1.83	08:28	15:18	410	750	0.01173	0.01173	0.00
2145-004	BLANK	----------	----	-----	-----	------	---	----	0.01397	0.01406	-----

Analysis by NIOSH 0500 Method
Total Nuisance Dust

Filter Lot #: 1040806

Analyst Name/Date: T. BARD, 12-30-92

Average Filter Weight of Blanks: 0.014015 mg

Analytical Balance for Gravimetric Analysis: Fisher Scientific A-160

Comments: NONE

Type of Sample
BKG, Background
ENV - OEZ, Outside Exclusion Zone
ENV - IEZ, Inside Exclusion Zone
ENV - ISZ, Inside Support Zone
ENV - ICZ, Inside Contamination Zone

AIR MONITORING SAMPLE DATA - TOTAL NUISANCE DUST

CLIENT: ENTECH MANAGEMENT SERVICES CORPORATION
1008 MAIN STREET
BUFFALO, NY 14202

DATE: 12-14-92

TYPE OF ACTIVITY: EXCAVATION DIRT PILE

PROJECT: LOVE CANAL
BUFFALO, NY

PROJECT/REPORT #: PH92151-14

TECHNICIAN NAME: D. GUPKO

FIELD SAMPLE #	TYPE OF SAMPLE	LOCATION	PUMP #	PUMP FLOW RATE (LPM)	COLLECTION PERIOD		TOTAL SAMPLE TIME (MIN)	TOTAL SAMPLE VOLUME (L)	INITIAL FILTER WEIGHT (MG)	SAMPLE FILTER WEIGHT (MG)	MG/M^3
					TIME ON	TIME OFF					
2122-001	ENV	UPWIND STOCK PILE REMOVAL	1161	1.71	12:15	16:40	265	453	0.01382	0.01384	0.00
2113-002	ENV	DOWNWIND STOCK PILE REMOVAL	1110	1.80	12:20	16:40	260	468	0.01408	0.01414	0.00
2109-003	ENV	DOWNWIND STOCK PILE REMOVAL	187	1.73	12:21	16:41	260	450	0.01328	0.01335	0.00
2116-004	BLANK	----------	----	-----	-----	------	---	----	0.01392	0.01391	-----

Analysis by NIOSH 0500 Method
Total Nuisance Dust

Filter Lot #: 1040806

Analyst Name/Date: T. BARD, 12-30-92

Average Filter Weight of Blanks: 0.0139 mg

Analytical Balance for Gravimetric Analysis: Fisher Scientific A-160

Comments: NONE

Type of Sample
BKG, Background
ENV - OEZ, Outside Exclusion Zone
ENV - IEZ, Inside Exclusion Zone
ENV - ISZ, Inside Support Zone
ENV - ICZ, Inside Contamination Zone

AIR MONITORING SAMPLE DATA - TOTAL NUISANCE DUST

CLIENT: ENTECH MANAGEMENT SERVICES CORPORATION
1008 MAIN STREET
BUFFALO, NY 14202

DATE: 12-15-92

TYPE OF ACTIVITY: EXCAVATION DIRT PILE

PROJECT: LOVE CANAL
BUFFALO, NY

PROJECT/REPORT #: PH92151-15

TECHNICIAN NAME: D. GUPKO

FIELD SAMPLE #	TYPE OF SAMPLE	LOCATION	PUMP #	PUMP FLOW RATE (LPM)	COLLECTION PERIOD		TOTAL SAMPLE TIME (MIN)	TOTAL SAMPLE VOLUME (L)	INITIAL FILTER WEIGHT (MG)	SAMPLE FILTER WEIGHT (MG)	MG/M^3
					TIME ON	TIME OFF					
2081-001	ENV	UPWIND BY DECON PAD	1161	1.72	13:30	15:50	140	241	-0.01396	0.01375	0.115
2034-002	ENV	DOWNWIND BY STOCK PILE	1110	1.82	13:32	15:45	133	242	0.01468	0.01480	0.00
2101-003	ENV	DOWNWIND BY STOCK PILE	187	1.73	13:33	15:46	133	230	0.01399	0.01398	0.00
2042-004	BLANK	----------	----	-----	-----	------	---	----	0.01384	0.01381	-----

Analysis by NIOSH 0500 Method
Total Nuisance Dust

Filter Lot #: 1040806

Analyst Name/Date: T. BARD, 12-30-92

Average Filter Weight of Blanks: 0.01 mg

Analytical Balance for Gravimetric Analysis: Fisher Scientific A-160

Comments: NONE

Type of Sample
BKG, Background
ENV - OEZ, Outside Exclusion Zone
ENV - IEZ, Inside Exclusion Zone
ENV - ISZ, Inside Support Zone
ENV - ICZ, Inside Contamination Zone

AIR MONITORING SAMPLE DATA - TOTAL NUISANCE DUST

CLIENT: ENTECH MANAGEMENT SERVICES CORPORATION
1008 MAIN STREET
BUFFALO, NY 14202

DATE: 01-04-93

TYPE OF ACTIVITY: EXCAVATION

PROJECT: LOVE CANAL
BUFFALO, NY

PROJECT/REPORT #: PH92151

TECHNICIAN NAME: D. GUPKO

FIELD SAMPLE #	TYPE OF SAMPLE	LOCATION	PUMP #	PUMP FLOW RATE (LPM)	COLLECTION PERIOD		TOTAL SAMPLE TIME (MIN)	TOTAL SAMPLE VOLUME (L)	INITIAL FILTER WEIGHT (MG)	SAMPLE FILTER WEIGHT (MG)	MG/M^3
					TIME ON	TIME OFF					
2085	ENV	UPWIND TRENCH AT 100TH STREET	1110	1.80	14:35	16:15	100	180	0.01392	0.01466	0.008
2140	ENV	DOWNWIND TRENCH	187	1.73	14:37	16:15	100	173	0.01139	0.12067	0.008
2137	ENV	DOWNWIND TRENCH	1161	1.71	14:90	16:20	100	171	0.01081	0.01137	0.007
2102	BLANK	----------	------	----------	----------	----------	----------	----------	0.01343	0.01412	----------

Analysis by NIOSH 0500 Method
Total Nuisance Dust

Filter Lot #: 1040806

Analyst Name/Date: T. BARD, 01-20-93

Average Filter Weight of Blanks: 0.01 mg

Analytical Balance for Gravimetric Analysis: Fisher Scientific A-160

Comments: NONE

Type of Sample
BKG, Background
ENV - OEZ, Outside Exclusion Zone
ENV - IEZ, Inside Exclusion Zone
ENV - ISZ, Inside Support Zone
ENV - ICZ, Inside Contamination Zone

AIR MONITORING SAMPLE DATA - TOTAL NUISANCE DUST

CLIENT: ENTECH MANAGEMENT SERVICES CORPORATION
1008 MAIN STREET
BUFFALO, NY 14202

DATE: 01-15-93

TYPE OF ACTIVITY: @ TRENCH ON 100TH ST.

PROJECT: LOVE CANAL
BUFFALO, NY

PROJECT/REPORT #: PH92151

TECHNICIAN NAME: D. GUPKO

FIELD SAMPLE #	TYPE OF SAMPLE	LOCATION	PUMP #	PUMP FLOW RATE (LPM)	COLLECTION PERIOD		TOTAL SAMPLE TIME (MIN)	TOTAL SAMPLE VOLUME (L)	INITIAL FILTER WEIGHT (MG)	SAMPLE FILTER WEIGHT (MG)	MG/M^3
					TIME ON	TIME OFF					
2110	ENV	UPWIND EXCAVATION OF STORM DRAIN	1110	1.80	15:00	16:15	75	135	0.01340	0.01427	0.013
2121	ENV	DOWNWIND EXCAVATION OF STORM DRAIN	1161	1.71	15:01	16:16	75	128	0.01397	0.01462	0.013
2155	ENV	DOWNWIND EXCAVATION OF STORM DRAIN	187	1.73	15:02	16:17	75	130	0.01375	0.01432	0.052
2111	BLANK	----------	------	----------	--------	---------	---------	----------	0.01345	0.01441	--------

Analysis by NIOSH 0500 Method
Total Nuisance Dust

Filter Lot #: 1040806

Analyst Name/Date: T. BARD, 01-20-93

Average Filter Weight of Blanks: 0.01 mg

Analytical Balance for Gravimetric Analysis: Fisher Scientific A-160

Comments: NONE

Type of Sample
BKG, Background
ENV - OEZ, Outside Exclusion Zone
ENV - IEZ, Inside Exclusion Zone
ENV - ISZ, Inside Support Zone
ENV - ICZ, Inside Contamination Zone

AIR MONITORING SAMPLE DATA - TOTAL NUISANCE DUST

CLIENT: New York State DEC
Frontier Ave./100th Street
Niagara Falls, N.Y.

PROJECT: Love Canal

DATE: 1/18/93

TYPE OF ACTIVITY: Pipe & Trench Excavation

PROJECT/REPORT #: 9-32-020

TECHNICIAN NAME: William Galloway

FIELD SAMPLE #	TYPE OF SAMPLE	LOCATION	PUMP #	PUMP FLOW RATE (LPM)	COLLECTION PERIOD		TOTAL SAMPLE TIME (MIN)	TOTAL SAMPLE VOLUME (L)	INITIAL FILTER WEIGHT (MG)	SAMPLE FILTER WEIGHT (MG)	MG/M^3
					TIME ON	TIME OFF					
001	ENV	Upwind-Corner Front.& 100	97	1.72	12:30 PM	2:00 PM	90	155	0.01433	0.01503	0.00
002	ENV	Downwind-Cr. Front. & 100	53	1.70	12:30 PM	2:00 PM	90	153	0.01398	0.01468	0.00
003	ENV	Downwind-Cr. Front. & 100	58	1.71	12:30 PM	2:00 PM	90	154	0.01458	0.01521	0.00

Analysis by NIOSH 0500 Method
Total Nuisance Dust

Filter Lot #: 1040806

Analyst Name/Date: B. Yagalla, 04-23-93

Average Filter Weight of Blanks: 0.01 mg

Analytical Balance for Gravimetric Analysis: Fisher Scientific A-160

Comments: None

Type of Sample
BKG, Background
ENV - OEZ, Outside Exclusion Zone
ENV - IEZ, Inside Exclusion Zone
ENV - ISZ, Inside Support Zone
ENV - ICZ, Inside Contamination Zone

AIR MONITORING SAMPLE DATA - TOTAL NUISANCE DUST

CLIENT: New York State DEC
Frontier Ave./100th Street
Niagara Falls, N.Y.

PROJECT: Love Canal

DATE: 1/25/93

TYPE OF ACTIVITY: Pipe & Trench Excavation

PROJECT/REPORT #: 9-32-020

TECHNICIAN NAME: William Galloway

FIELD SAMPLE #	TYPE OF SAMPLE	LOCATION	PUMP #	PUMP FLOW RATE (LPM)	COLLECTION PERIOD		TOTAL SAMPLE TIME (MIN)	TOTAL SAMPLE VOLUME (L)	INITIAL FILTER WEIGHT (MG)	SAMPLE FILTER WEIGHT (MG)	MG/M^3
					TIME ON	TIME OFF					
001	ENV	Upwind-Corner Front.& 100	53	1.70	1:40 PM	2:15 PM	35	60	0.01286	0.01345	0.00
002	ENV	Downwind-Cr. Front. & 100	58	1.71	1:40 PM	2:15 PM	35	60	0.01228	0.01301	0.00
003	ENV	Downwind-Cr. Front. & 100	97	1.70	1:40 PM	2:15 PM	35	60	0.01312	0.01379	0.00

Analysis by NIOSH 0500 Method
Total Nuisance Dust

Filter Lot #: 1040806

Analyst Name/Date: B. Yagalla, 04-23-93

Average Filter Weight of Blanks: 0.01 mg

Analytical Balance for Gravimetric Analysis: Fisher Scientific A-160

Comments: None

Type of Sample
BKG, Background
ENV - OEZ, Outside Exclusion Zone
ENV - IEZ, Inside Exclusion Zone
ENV - ISZ, Inside Support Zone
ENV - ICZ, Inside Contamination Zone

AIR MONITORING SAMPLE DATA - TOTAL NUISANCE DUST

CLIENT: New York State DEC
Frontier Ave./100th Street
Niagara Falls, N.Y.

PROJECT: Love Canal

DATE: 1/26/93

TYPE OF ACTIVITY: Pipe, Trench & Test Pit Excavation

PROJECT/REPORT #: 9-32-020

TECHNICIAN NAME: William Galloway

FIELD SAMPLE #	TYPE OF SAMPLE	LOCATION	PUMP #	PUMP FLOW RATE (LPM)	COLLECTION PERIOD		TOTAL SAMPLE TIME (MIN)	TOTAL SAMPLE VOLUME (L)	INITIAL FILTER WEIGHT (MG)	SAMPLE FILTER WEIGHT (MG)	MG/M^3
					TIME ON	TIME OFF					
001	ENV	Upwind-Corner Front.& 100	97	1.70	12:15 PM	2:00 PM	105	179	0.01332	0.01379	0.00
002	ENV	Downwind-Cr. Front. & 100	53	1.70	12:15 PM	2:00 PM	105	179	0.01286	0.01345	0.00
003	ENV	Downwind-Cr. Front. & 100	58	1.72	12:15 PM	2:00 PM	105	181	0.01228	0.01301	0.00

Analysis by NIOSH 0500 Method
Total Nuisance Dust

Filter Lot #: 1040806

Analyst Name/Date: B. Yagalla, 04-23-93

Average Filter Weight of Blanks: 0.01 mg

Analytical Balance for Gravimetric Analysis: Fisher Scientific A-160

Comments: None

Type of Sample
BKG, Background
ENV - OEZ, Outside Exclusion Zone
ENV - IEZ, Inside Exclusion Zone
ENV - ISZ, Inside Support Zone
ENV - ICZ, Inside Contamination Zone

AIR MONITORING SAMPLE DATA - TOTAL NUISANCE DUST

CLIENT: ENTECH MANAGEMENT SERVICES CORPORATION
1008 MAIN STREET
BUFFALO, NY 14202

PROJECT: LOVE CANAL
BUFFALO, NY

DATE: 01-27-93

TYPE OF ACTIVITY: PIPE EXCAVATION

PROJECT/REPORT #: PH92151-18

TECHNICIAN NAME: D. GUPKO

FIELD SAMPLE #	TYPE OF SAMPLE	LOCATION	PUMP #	PUMP FLOW RATE (LPM)	COLLECTION PERIOD		TOTAL SAMPLE TIME (MIN)	TOTAL SAMPLE VOLUME (L)	INITIAL FILTER WEIGHT (MG)	SAMPLE FILTER WEIGHT (MG)	MG/M^3
					TIME ON	TIME OFF					
001	ENV	UPWIND BY CORNER FRONTIER & 100TH	1158	1.81	08:50	16:00	430	778	0.01095	0.01156	0.00
002	ENV	DOWNWIND BY CORNER FRONTIER/100TH	187	1.74	08:51	16:01	430	748	0.01497	0.01420	0.00
003	ENV	DOWNWIND BY CORNER FRONTIER/100TH	1161	1.70	08:53	16:03	430	731	0.01381	0.01462	0.00
004	BLANK	----------	------	----------	----------	----------	----------	----------	0.01305	0.01375	----------

Analysis by NIOSH 0500 Method
Total Nuisance Dust

Filter Lot #: 1040806

Analyst Name/Date: T. BARD, 02-09-93

Average Filter Weight of Blanks: 0.01340 mg

Analytical Balance for Gravimetric Analysis: Fisher Scientific A-160

Comments: NONE

Type of Sample
BKG, Background
ENV - OEZ, Outside Exclusion Zone
ENV - IEZ, Inside Exclusion Zone
ENV - ISZ, Inside Support Zone
ENV - ICZ, Inside Contamination Zone

AIR MONITORING SAMPLE DATA - TOTAL NUISANCE DUST

CLIENT: ENTECH MANAGEMENT SERVICES CORPORATION
1008 MAIN STREET
BUFFALO, NY 14202

DATE: 01-28-93

TYPE OF ACTIVITY: STORM DRAIN PIPE REMOVAL

PROJECT: LOVE CANAL
BUFFALO, NY

PROJECT/REPORT #: PH92151-19

TECHNICIAN NAME: D. GUPKO

FIELD SAMPLE #	TYPE OF SAMPLE	LOCATION	PUMP #	PUMP FLOW RATE (LPM)	COLLECTION PERIOD		TOTAL SAMPLE TIME (MIN)	TOTAL SAMPLE VOLUME (L)	INITIAL FILTER WEIGHT (MG)	SAMPLE FILTER WEIGHT (MG)	MG/M^3
					TIME ON	TIME OFF					
001	ENV	UPWIND	1161	1.71	08.45	16:00	435	744	0.01413	0.01484	0.002
002	ENV	DOWNWIND ON FRONTIER STREET	1158	1.81	08:46	16:01	435	787	0.01491	0.01494	0.001
003	ENV	DOWNWIND ON FRONTIER STREET	187	1.74	08:47	16:02	435	757	0.01373	0.01442	0.001
004	BLANK	----------	------	----------	--------	---------	---------	----------	0.01409	0.01479	--------

Analysis by NIOSH 0500 Method
Total Nuisance Dust

Filter Lot #: 1040806

Analyst Name/Date: T. BARD, 02-09-93

Average Filter Weight of Blanks: 0.01444 mg

Analytical Balance for Gravimetric Analysis: Fisher Scientific A-160

Comments: NONE

Type of Sample
BKG, Background
ENV - OEZ, Outside Exclusion Zone
ENV - IEZ, Inside Exclusion Zone
ENV - ISZ, Inside Support Zone
ENV - ICZ, Inside Contamination Zone

AIR MONITORING SAMPLE DATA - TOTAL NUISANCE DUST

CLIENT: New York State DEC
Frontier Ave./100th Street
Niagara Falls, N.Y.

PROJECT: Love Canal

DATE: 2/3/93

TYPE OF ACTIVITY: Excavation & Loading of Gray Material

PROJECT/REPORT #: 9-32-020

TECHNICIAN NAME: William Galloway

FIELD SAMPLE #	TYPE OF SAMPLE	LOCATION	PUMP #	PUMP FLOW RATE (LPM)	COLLECTION PERIOD		TOTAL SAMPLE TIME (MIN)	TOTAL SAMPLE VOLUME (L)	INITIAL FILTER WEIGHT (MG)	SAMPLE FILTER WEIGHT (MG)	MG/M^3
					TIME ON	TIME OFF					
001	ENV	Upwind-9909 Black Creek	97	1.70	11:35 AM	12:05 PM	30	51	0.01091	0.01160	0.00
002	ENV	Downwind-9909 Black Creek	58	1.75	11:35 AM	12:05 PM	30	53	0.01171	0.01233	0.00
003	ENV	Downwind-9909 Black Creek	53	1.71	11:35 AM	12:05 PM	30	51	0.01277	0.01342	0.00

Analysis by NIOSH 0500 Method
Total Nuisance Dust

Filter Lot #: 1040806

Analyst Name/Date: B. Yagalla, 04-23-93

Average Filter Weight of Blanks: 0.01 mg

Analytical Balance for Gravimetric Analysis: Fisher Scientific A-160

Comments: None

Type of Sample
BKG, Background
ENV - OEZ, Outside Exclusion Zone
ENV - IEZ, Inside Exclusion Zone
ENV - ISZ, Inside Support Zone
ENV - ICZ, Inside Contamination Zone

AIR MONITORING SAMPLE DATA - TOTAL NUISANCE DUST

CLIENT: New York State DEC
Frontier Ave./100th Street

PROJECT: Love Canal

DATE: 2/9/93

TYPE OF ACTIVITY: Pipe & Trench Excavation

PROJECT/REPORT #: 9-32-020

TECHNICIAN NAME: William Galloway

FIELD SAMPLE #	TYPE OF SAMPLE	LOCATION	PUMP #	PUMP FLOW RATE (LPM)	COLLECTION PERIOD		TOTAL SAMPLE TIME (MIN)	TOTAL SAMPLE VOLUME (L)	INITIAL FILTER WEIGHT (MG)	SAMPLE FILTER WEIGHT (MG)	MG/M^3
					TIME ON	TIME OFF					
001	ENV	upwind-Corner Front/100th	97	1.70	9:45 am	3:45 pm	360	612	0.01091	0.01160	0.00
002	ENV	downwind-Cr. Front./100th	53	1.70	9:45 am	3:45 pm	360	612	0.01277	0.01342	0.00
003	ENV	downwind-Cr. Front./100th	58	1.71	9:45 am	3:45 pm	360	616	0.01171	0.01233	0.00

Analysis by NIOSH 0500 Method
Total Nuisance Dust

Filter Lot #: 1040806

Analyst Name/Date: B. Yagalla, 04-23-93

Average Filter Weight of Blanks: 0.01 mg

Analytical Balance for Gravimetric Analysis: Fisher Scientific A-160

Comments: None

Type of Sample
BKG, Background
ENV - OEZ, Outside Exclusion Zone
ENV - IEZ, Inside Exclusion Zone
ENV - ISZ, Inside Support Zone
ENV - ICZ, Inside Contamination Zone

AIR MONITORING SAMPLE DATA - TOTAL NUISANCE DUST

CLIENT: NEW YORK STATE DEC
Frontier Ave./100th Street

DATE: 2/10/93

TYPE OF ACTIVITY: Excavation ofnon-haz. soil stockpile

PROJECT: LOVE CANAL

PROJECT/REPORT #: 9-32-020

TECHNICIAN NAME: William Galloway

FIELD SAMPLE #	TYPE OF SAMPLE	LOCATION	PUMP #	PUMP FLOW RATE (LPM)	COLLECTION PERIOD		TOTAL SAMPLE TIME (MIN)	TOTAL SAMPLE VOLUME (L)	INITIAL FILTER WEIGHT (MG)	SAMPLE FILTER WEIGHT (MG)	MG/M^3
					TIME ON	TIME OFF					
001	ENV	upwind-Corner Front./100	53	1.70	9:30 am	3:00 pm	330	561	0.01277	0.01342	0.00
002	ENV	downwind-Corner Front./100	58	1.70	9:30 am	3:00 pm	330	561	0.01171	0.01233	0.00
003	ENV	downwind-Corner Front./100	97	1.71	9:30 am	3:00 pm	330	564	0.01091	0.01160	0.00

Analysis by NIOSH 0500 Method
Total Nuisance Dust

Filter Lot #: 1040806

Analyst Name/Date: B Yagalla, 04-23-93

Average Filter Weight of Blanks: 0.01 mg

Analytical Balance for Gravimetric Analysis: Fisher Scientific A-160

Comments: None

Type of Sample
BKG, Background
ENV - OEZ, Outside Exclusion Zone
ENV - IEZ, Inside Exclusion Zone
ENV - ISZ, Inside Support Zone
ENV - ICZ, Inside Contamination Zone

AIR MONITORING SAMPLE DATA - TOTAL NUISANCE DUST

CLIENT: New York State DEC
Frontier Ave./100th Street

DATE: 2/11/93

PROJECT: Love Canal

TYPE OF ACTIVITY: Trench Excavation

PROJECT/REPORT #: 9-32-020

TECHNICIAN NAME: William Galloway

FIELD SAMPLE #	TYPE OF SAMPLE	LOCATION	PUMP #	PUMP FLOW RATE (LPM)	COLLECTION PERIOD		TOTAL SAMPLE TIME (MIN)	TOTAL SAMPLE VOLUME (L)	INITIAL FILTER WEIGHT (MG)	SAMPLE FILTER WEIGHT (MG)	MG/M^3
					TIME ON	TIME OFF					
001	ENV	upwind-Corner Front./100th	53	1.71	9:45 am	12:15 pm	150	257	0.01277	0.01342	0.00
002	ENV	downwind-Cr.Front./100th	58	1.70	9:45 am	12:15 pm	150	255	0.01171	0.01233	0.00
003	ENV	downwind-Cr. Front./100th	97	1.70	9:45 am	12:15 pm	150	255	0.01091	0.01160	0.00

Analysis by NIOSH 0500 Method
Total Nuisance Dust

Filter Lot #: 1040806

Analyst Name/Date: B. Yagalla, 04-23-93

Average Filter Weight of Blanks: 0.01 mg

Analytical Balance for Gravimetric Analysis: Fisher Scientific A-160

Comments: none

Type of Sample
BKG, Background
ENV - OEZ, Outside Exclusion Zone
ENV - IEZ, Inside Exclusion Zone
ENV - ISZ, Inside Support Zone
ENV - ICZ, Inside Contamination Zone

AIR MONITORING SAMPLE DATA - TOTAL NUISANCE DUST

CLIENT: New York State DEC
Frontier Ave./100th Street
Niagara Falls, N.Y.

PROJECT: Love Canal

DATE: 2/12/93

TYPE OF ACTIVITY: Pipe & Trench Excavation

PROJECT/REPORT #: 9-32-020

TECHNICIAN NAME: William Galloway

FIELD SAMPLE #	TYPE OF SAMPLE	LOCATION	PUMP #	PUMP FLOW RATE (LPM)	COLLECTION PERIOD		TOTAL SAMPLE TIME (MIN)	TOTAL SAMPLE VOLUME (L)	INITIAL FILTER WEIGHT (MG)	SAMPLE FILTER WEIGHT (MG)	MG/M^3
					TIME ON	TIME OFF					
001	ENV	Upwind-Corner Front.& 100	58	1.75	9:00 AM	10:30 AM	90	158	0.01171	0.01233	0.00
002	ENV	Downwind-Cr. Front. & 100	53	1.70	9:00 AM	10:30 AM	90	153	0.01277	0.01342	0.00
003	ENV	Downwind-Cr. Front. & 100	97	1.80	9:00 AM	10:30 AM	90	162	0.01091	0.01160	0.00

Analysis by NIOSH 0500 Method
Total Nuisance Dust

Filter Lot #: 1040806

Analyst Name/Date: B. Yagalla, 04-23-93

Average Filter Weight of Blanks: 0.01 mg

Analytical Balance for Gravimetric Analysis: Fisher Scientific A-160

Comments: None

Type of Sample
BKG, Background
ENV - OEZ, Outside Exclusion Zone
ENV - IEZ, Inside Exclusion Zone
ENV - ISZ, Inside Support Zone
ENV - ICZ, Inside Contamination Zone

AIR MONITORING SAMPLE DATA - TOTAL NUISANCE DUST

CLIENT: New York State DEC
Frontier Ave./100th Street
Niagara Falls, N.Y.

PROJECT: Love Canal

DATE: 2/19/93

TYPE OF ACTIVITY: Pipe & Trench Excavation

PROJECT/REPORT #: 9-32-020

TECHNICIAN NAME: William Galloway

FIELD SAMPLE #	TYPE OF SAMPLE	LOCATION	PUMP #	PUMP FLOW RATE (LPM)	COLLECTION PERIOD		TOTAL SAMPLE TIME (MIN)	TOTAL SAMPLE VOLUME (L)	INITIAL FILTER WEIGHT (MG)	SAMPLE FILTER WEIGHT (MG)	MG/M^3
					TIME ON	TIME OFF					
001	ENV	Upwind-Corner Front.& 100	53	1.70	12:00 PM	1:30 PM	90	153	0.01453	0.01526	0.00
002	ENV	Downwind-Cr. Front. & 100	58	1.75	12:00 PM	1:30 PM	90	158	0.01327	0.01399	0.00
003	ENV	Downwind-Cr. Front. & 100	97	1.71	12:00 PM	1:30 PM	90	154	0.01288	0.01353	0.00

Analysis by NIOSH 0500 Method
Total Nuisance Dust

Filter Lot #: 1040806

Analyst Name/Date: B. Yagalla, 04-23-93

Average Filter Weight of Blanks: 0.01 mg

Analytical Balance for Gravimetric Analysis: Fisher Scientific A-160

Comments: None

Type of Sample
BKG, Background
ENV - OEZ, Outside Exclusion Zone
ENV - IEZ, Inside Exclusion Zone
ENV - ISZ, Inside Support Zone
ENV - ICZ, Inside Contamination Zone

[redacted]

AIR MONITORING SAM[redacted] DATA - TOTAL NUISANCE DUST

CLIENT: New York State DEC
Frontier Ave./100th
Niagara Falls, N.Y.

PROJECT: Love Canal

DATE: 2/25/93

TYPE OF ACTIVITY: Pipe & Trench Excavation

PROJECT/REPORT #: 9-32-020

TECHNICIAN NAME: William Galloway

FIELD SAMPLE #	TYPE OF SAMPLE	LOCATION	PUMP #	PUMP FLOW RATE (LPM)	COLLECTION PERIOD		TOTAL SAMPLE TIME (MIN)	TOTAL SAMPLE VOLUME (L)	INITIAL FILTER WEIGHT (MG)	SAMPLE FILTER WEIGHT (MG)	MG/M^3
					TIME ON	TIME OFF					
001	ENV	Upwind-Corner Front.& 100	97	1.82	3:45 PM	4:45 PM	60	109	0.01288	0.01353	0.00
002	ENV	Downwind-Cr. Front. & 100	53	1.70	3:45 PM	4:45 PM	60	102	0.01453	0.01526	0.00
003	ENV	Downwind-Cr. Front. & 100	58	1.80	3:45 PM	4:45 PM	60	108	0.01327	0.01399	0.00

Analysis by NIOSH 0500 Method
Total Nuisance Dust

Filter Lot #: 1040806

Analyst Name/Date: B. Yagalla, 04-23-93

Average Filter Weight of Blanks: 0.01 mg

Analytical Balance for Gravimetric Analysis: Fisher Scientific A-160

Comments: None

Type of Sample
BKG, Background
ENV - OEZ, Outside Exclusion Zone
ENV - IEZ, Inside Exclusion Zone
ENV - ISZ, Inside Support Zone
ENV - ICZ, Inside Contamination Zone

AIR MONITORING SAMPLE DATA - TOTAL NUISANCE DUST

CLIENT: New York State DEC
Frontier Ave./100th Street
Niagara Falls, N.Y.

PROJECT: Love Canal

DATE: 2/26/93

TYPE OF ACTIVITY: Pipe & Trench Excavation

PROJECT/REPORT #: 9-32-020

TECHNICIAN NAME: William Galloway

FIELD SAMPLE #	TYPE OF SAMPLE	LOCATION	PUMP #	PUMP FLOW RATE (LPM)	COLLECTION PERIOD		TOTAL SAMPLE TIME (MIN)	TOTAL SAMPLE VOLUME (L)	INITIAL FILTER WEIGHT (MG)	SAMPLE FILTER WEIGHT (MG)	MG/M^3
					TIME ON	TIME OFF					
001	ENV	Upwind-Corner Front.& 100	58	1.70	8:00 AM	2:45 PM	405	689	0.01327	0.01399	0.00
002	ENV	Downwind-Cr. Front. & 100	97	1.75	8:00 AM	2:45 PM	405	709	0.01288	0.01353	0.00
003	ENV	Downwind-Cr. Front. & 100	53	1.70	8:00 AM	2:45 PM	405	689	0.01453	0.01526	0.00

Analysis by NIOSH 0500 Method
Total Nuisance Dust

Filter Lot #: 10-40806

Analyst Name/Date: B. Yagalla, 04-23-93

Average Filter Weight of Blanks: 0.01 mg

Analytical Balance for Gravimetric Analysis: Fisher Scientific A-160

Comments: None

Type of Sample
BKG, Background
ENV - OEZ, Outside Exclusion Zone
ENV - IEZ, Inside Exclusion Zone
ENV - ISZ, Inside Support Zone
ENV - ICZ, Inside Contamination Zone

LIMITED INDOOR AIR POLLUTION STUDY
FOR
LOVE CANAL
BUFFALO, NY

AAL PROJECT # PH92151

ADVANCED
ANALYTICAL
LABORATORIES, INC.

Environmental Testing
Air Quality • Asbestos • Lead • Soil
Radon • Site Assessments • Water

NVLAP
1820

LIMITED INDOOR AIR POLLUTION STUDY

CLIENT: ENTECH MANAGEMENT SERVICES
1008 MAIN STREET
BUFFALO, NY 14202

DATE OF SAMPLING: 12-14-92

SAMPLED BY: D. GURKO

PROJECT: LOVE CANAL
BUFFALO, NY

AAL PROJECT #: PH92151

CONTACT PERSON: PAUL PALINO

ANALYTICAL DATA

LOCATION	PARAMETER	START TIME/[]	END TIME/[]	PEAK []
MANHOLE CLOSEST TO CORNER OF 100th & FRONTIER	CARBON MONOXIDE	11:20	11:25	2 ppm
	HYDROGEN SULFIDE	11:20	11:25	2 ppm
	COMBUSTIBLE GAS	11:20	11:25	0%
	OXYGEN	11:20	11:25	21%
2nd MANHOLE FROM CORNER OF 100th & FRONTIER	CARBON MONOXIDE	11:35	11:45	1 ppm
	HYDROGEN SULFIDE	11:35	11:45	1 ppm
	COMBUSTIBLE GAS	11:35	11:45	0%
	OXYGEN	11:35	11:45	21.1%

ppm = parts per million

ANALYTICAL INSTRUMENTATION: BACHARACH SENTINEL 4 GAS MONITOR

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804•473•2254
Facsimile Only 804•473•1115

■ 30th & N. Church Sts.
Hazleton, PA 18201
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LIMITED AIR POLLUTION STUDY

CLIENT: ENTECH MANAGEMENT SERVICES
1008 MAIN STREET
BUFFALO, NY 14202

DATE OF SAMPLING: 01-14-93

SAMPLED BY: D. GUPKO

PROJECT: LOVE CANAL
BUFFALO, NY
PLUGGING STORM SEWER

AAL PROJECT #: PH92151

CONTACT PERSON: BILL GALLOWAY

ANALYTICAL DATA

LOCATION	PARAMETER	START TIME/[]	END TIME/[]	PEAK []
MANHOLE	CARBON MONOXIDE	11:35	11:25	1 ppm
	HYDROGEN SULFIDE	11:35	11:25	1 ppm
	COMBUSTIBLE GAS	11:35	11:25	0%
	OXYGEN	11:35	11:25	20.9%
MANHOLE	CARBON MONOXIDE	11:40	11:45	1 ppm
	HYDROGEN SULFIDE	11:40	11:45	1 ppm
	COMBUSTIBLE GAS	11:40	11:45	0%
	OXYGEN	11:40	11:45	21.0%
MANHOLE	CARBON MONOXIDE	11:45	11:25	1 ppm
	HYDROGEN SULFIDE	11:45	11:25	1 ppm
	COMBUSTIBLE GAS	11:45	11:25	0%
	OXYGEN	11:45	11:25	21%
MANHOLE	CARBON MONOXIDE	11:50	11:45	2 ppm
	HYDROGEN SULFIDE	11:50	11:45	1 ppm
	COMBUSTIBLE GAS	11:50	11:45	0%
	OXYGEN	11:50	11:45	21.0%

ppm = parts per million
ANALYTICAL INSTRUMENTATION: BACHARACH SENTINEL 4 GAS MONITOR

ADVANCED
ANALYTICAL
LABORATORIES, INC.

Environmental Testing
Air Quality • Asbestos • Lead • Soil
Radon • Site Assessments • Water

NVLAP
1820

LIMITED AIR POLLUTION STUDY

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1008 MAIN STREET
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AAL PROJECT #: PH92151

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ANALYTICAL DATA

LOCATION	PARAMETER	START TIME/[]	END TIME/[]	PEAK []
TEST PIT BACKGROUNDS	CARBON MONOXIDE	09:45	(BKG)	0 ppm
	HYDROGEN SULFIDE	09:45	(BKG)	0 ppm
	COMBUSTIBLE GAS	09:45	(BKG)	0%
	OXYGEN	09:45	(BKG)	20.9%
TEST PIT	CARBON MONOXIDE	09:45	09:55	0 ppm
	HYDROGEN SULFIDE	09:45	09:55	0 ppm
	COMBUSTIBLE GAS	09:45	09:55	0%
	OXYGEN	09:45	09:55	20.9%
TEST PIT	CARBON MONOXIDE	09:55	10:05	1 ppm
	HYDROGEN SULFIDE	09:55	10:05	0 ppm
	COMBUSTIBLE GAS	09:55	10:05	0%
	OXYGEN	09:55	10:05	20.9%
TEST PIT FINALS	CARBON MONOXIDE	10:05	10:15	1 ppm
	HYDROGEN SULFIDE	10:05	10:15	0 ppm
	COMBUSTIBLE GAS	10:05	10:15	0%
	OXYGEN	10:05	10:15	20.9%

ppm = parts per million
ANALYTICAL INSTRUMENTATION: BACHARACH SENTINEL 4 GAS MONITOR

30th & N. Church Sts.
Hazleton, PA 18201
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APPENDIX D

HEALTH AND SAFETY

DECONTAMINATION CERTIFICATES

FOR THE LOVE CANAL

CERTIFICATE OF DECONTAMINATION

EQUIPMENT: Back Hoe

EQUIPMENT NUMBER: N/A

DATE DECONTAMINATED: 11/18/92

PROCEDURE USED: After excavating second Test Pit A on Frontier Avenue, the bucket and wheels of the backhoe were deconned by pressure washing it off. All waters were collected and pumped into the Leachate Treatment Plant facility for disposal.

William A. Galloway, Jr.
(Site Safety Officer)

CB/LC7SPECS/15Z

CERTIFICATE OF DECONTAMINATION

EQUIPMENT: PC 120 EXCAVATOR

EQUIPMENT NUMBER: N/A

DATE DECONTAMINATED: 11/18/92

PROCEDURE USED: ~~Ecc~~ DECONNED THE TRACKS & BUCKET OF THE EXCAVATOR BY FIRST, SCRAPING OFF ALL DIRT ADHERING TO THE BUCKET & TRACKS, THEN PRESSURE WASHING. AND COLLECTING THE RINSE WATERS AND DISPOSING OF IT AT THE LEACHATE TREATMENT FACILITY.

EXCAVATOR WAS DECONNED SO THAT WORK COULD BE STARTED ON EXCAVATING THE EDA 4 LOTS.

William A. Galloway Jr.
(Site Safety Officer)

CB/LC7SPECS/15Z

CERTIFICATE OF DECONTAMINATION

EQUIPMENT: TAMPER - VIBRATOR

EQUIPMENT NUMBER: N/A

DATE DECONTAMINATED: 11/18/92

PROCEDURE USED: AFTER THE TAMPER WAS USED IN THE LANDFILL AT THE CAP REPAIR AREA, IT WAS DECONNED. DECONNING WAS DONE BY TURNING THE MACHINE OVER AND PRESSURE WASHING THE VIBRATING PLATE OFF ON THE DECON PAD PRIOR TO TAKING IT UP TO THE EDA 4 LOTS FOR USE.

William A. Galloway Jr.
(Site Safety Officer)

CB/LC7SPECS/15Z

CERTIFICATE OF DECONTAMINATION

EQUIPMENT: PC 120 EXCAVATOR

EQUIPMENT NUMBER: N/A

DATE DECONTAMINATED: 11/19/93

PROCEDURE USED: AFTER EXCAVATING 100TH ST. AND THE FRONT YARD OF 9909 BLACK CREEK DR. THE BUCKET AND THE TRACKS OF THE EXCAVATOR WERE CLEANED AND DECONTAMINATED. ALL DIRT ADHERING TO THE MACHINE WAS SCRAPED OFF AND THE BUCKET WAS RINSED WITH WATER. ALL WATERS WERE COLLECTED AND BROUGHT BACK TO THE MAIN DECON PAD WHERE IT WAS DISPOSED OF WITH THE REST OF THE DECON WATER.

William A. Galloway, Jr.
(Site Safety Officer)

CB/LC7SPECS/15Z

CERTIFICATE OF DECONTAMINATION

EQUIPMENT: BACKHOE

EQUIPMENT NUMBER: N/A

DATE DECONTAMINATED: 11/20/92

PROCEDURE USED: DECONNED BOTH BUCKETS OF THE BACKHOE PRIOR TO USING IT TO BACKFILL THE EDA 4 LOTS (104th-100th ST.). THE BACKHOE WAS DRIVEN ONTO THE DECON PAD AND PRESSURE WASHED OFF WITH WATER

William A. Galloway, Jr. 9/
(Site Safety Officer)

CB/LC7SPECS/15Z

CERTIFICATE OF DECONTAMINATION

EQUIPMENT: M&M Dump Trucks

EQUIPMENT NUMBER: N/A

DATE DECONTAMINATED: 11/23/92

PROCEDURE USED: After transporting contaminated soil from the EDA 4 Lots, both trucks (truck beds) were decontaminated by pressure washing at the decon pad prior to leaving the project site

(Site Safety Officer)

CB/LC7SPECS/15Z

CERTIFICATE OF DECONTAMINATION

EQUIPMENT: BACKHOE

EQUIPMENT NUMBER: N/A

DATE DECONTAMINATED: 11/23/93

PROCEDURE USED: PRIOR TO BEING RETURNED TO RUPP RENTAL, THE BACKHOE WAS DECONTAMINATED BY PRESSURE WASHING AT THE DECON PAD. ALL MUD & DIRT WAS REMOVED FROM THE MACHINE EVEN THOUGH IT WAS CLEAN BACKFILL.

William A. Galloway, Jr.
(Site Safety Officer)

CB/LC7SPECS/15Z

CERTIFICATE OF DECONTAMINATION

EQUIPMENT: M&M TRUCKS

EQUIPMENT NUMBER: N/A

DATE DECONTAMINATED: 11/24/92

PROCEDURE USED: AFTER TRANSPORTING CONTAMINATED SOIL TO THE 103RD ST. LANDFILL, BOTH TRUCKS FROM M&M TRUCKING WERE DECONNED BY PRESSURE WASHING THEM OFF AT THE DECON PAD.

William A. Galloway Jr.
(Site Safety Officer) 9/

CB/LC7SPECS/15Z

CERTIFICATE OF DECONTAMINATION

EQUIPMENT: M & M TRUCKING

EQUIPMENT NUMBER: N/A

DATE DECONTAMINATED: 11/25/92

PROCEDURE USED: AFTER TRANSPORTING CONTAMINATED SOIL TO THE LANDFILL, BOTH TRUCKS WERE DECONTAMINATED AT THE END OF THE DAY.

William A. Galloway, Jr.
(Site Safety Officer)

CB/LC7SPECS/15Z

CERTIFICATE OF DECONTAMINATION

EQUIPMENT: PC 120 EXCAVATOR

EQUIPMENT NUMBER: N/A

DATE DECONTAMINATED: 11/25/92

PROCEDURE USED: AFTER EXCAVATING THE GRAY MATERIAL FOUND IN THE BACK YARD OF 9909 BLACK CR. DR., THE EXCAVATOR BUCKET WAS DECONTAMINATED. DECONTAMINATION WAS DONE BY WASHING THE BUCKET OFF AT THE SITE AND COLLECTING THE WATER AND BRING IT BACK TO THE DECON PAD FOR DISPOSAL.

William A. Galloway, Jr.
(Site Safety Officer)

CB/LC7SPECS/15Z

CERTIFICATE OF DECONTAMINATION

EQUIPMENT: PC 120 EXCAVATOR

EQUIPMENT NUMBER: N/A

DATE DECONTAMINATED: 12/1/92

PROCEDURE USED: DECONNED EXCAVATOR PRIOR TO MOVING IT TO DO ADDITIONAL EXCAVATING AT 9909 BLACK CREEK DR. DECONTAMINATION WAS DONE AFTER REMOVING BURIED DRUMS.

William O. McCleary, Jr.
(Site Safety Officer)

CB/LC7SPECS/15Z

CERTIFICATE OF DECONTAMINATION

EQUIPMENT: M&M TRUCKING

EQUIPMENT NUMBER: N/A

DATE DECONTAMINATED: 12/4/92

PROCEDURE USED: DECONNED BED OF M&M TRUCK AFTER HAULING CONTAMINATED SOIL

William A. Galloway Jr.
(Site Safety Officer)

CB/LC7SPECS/15Z

CERTIFICATE OF DECONTAMINATION

EQUIPMENT: PC 120 EXCAVATOR

EQUIPMENT NUMBER: N/A

DATE DECONTAMINATED: 12/4/92

PROCEDURE USED: DECONNED EXCAVATOR BUCKET AFTER EXCAVATING ADDITIONAL CONTAMINATED SOIL.

William A. Galloway, Jr.
(Site Safety Officer)

CB/LC7SPECS/15Z

CERTIFICATE OF DECONTAMINATION

EQUIPMENT: PC 120 EXCAVATOR & BACKHOE

EQUIPMENT NUMBER: N/A

DATE DECONTAMINATED: 12/8/92

PROCEDURE USED: DECONNED BOTH UNITS (BUCKETS) AFTER REMOVING UNKNOWN DRUMS OF MATERIAL AND CONTAMINATION.

William A. Galloway Jr.
(Site Safety Officer)

CB/LC7SPECS/15Z

CERTIFICATE OF DECONTAMINATION

EQUIPMENT: WA70 LOADER / PC120 EXCAVATOR

EQUIPMENT NUMBER: N/A

DATE DECONTAMINATED: 12/16/92

PROCEDURE USED: AFTER LOADING CONTAMINATED SOIL STOCKPILES, BOTH UNITS WERE DECONTAMINATED. EXCAVATOR WAS DECONTAMINATED AFTER DIGGING THRD-TYPE A TEST PIT.

William A. Galloway, Jr.
(Site Safety Officer)

CB/LC7SPECS/15Z

CERTIFICATE OF DECONTAMINATION

EQUIPMENT: EXCAVATOR → PC 120

EQUIPMENT NUMBER: N/A

DATE DECONTAMINATED: 1/15/93

PROCEDURE USED: PRIOR TO A PC120 EXCAVATOR BEING SENT BACK TO THE RENTAL CO. (RIPP RENTAL), IT WAS DECONTAMINATED. DECONTAMINATION WAS ACHIEVED BY PRESSURE WASHING BOTH THE BUCKET AND THE MAIN BODY OF THE EXCAVATOR AT THE N.E. CORNER DECON PAD.

William A. Galloway, Jr.
(Site Safety Officer) 1/15/93

CB/LC7SPECS/15Z

CERTIFICATE OF DECONTAMINATION

EQUIPMENT: PC 200 EXCAVATOR BUCKET

EQUIPMENT NUMBER: N/A

DATE DECONTAMINATED: 1/18/93

PROCEDURE USED: DECONNED BUCKET OF EXCAVATOR AFTER REMOVING CONTAMINATED PIPING.

William R. Galloway Jr.
(Site Safety Officer)

CB/LC7SPECS/15Z

CERTIFICATE OF DECONTAMINATION

EQUIPMENT: TEN WHEELED DUMP TRUCK

EQUIPMENT NUMBER: WA12 (WALCK BROS.)

DATE DECONTAMINATED: 1/29/93

PROCEDURE USED: DECONNED BED OF TEN WHEELED DUMP TRUCK PRIOR TO LEAVING SITE. NON HAZ/NON CONTAMINATED DIRT WAS SHOVELED OUT OF THE BACK OF THE TRUCK AND ADDED TO THE STOCKPILE LOCATED AT THE N.E. CORNER OF THE TREATMENT FACILITY

William A. Galloway Jr.
(Site Safety Officer) 1/29/93

CB/LC7SPECS/15Z

CERTIFICATE OF DECONTAMINATION

EQUIPMENT: Bucket on PC200 Excavator

EQUIPMENT NUMBER: 450 15927

DATE DECONTAMINATED: 1/29/93

PROCEDURE USED: Deconned Bucket By washing with water and scrubbing with a Decon Brush to remove all residual Chemical (Nappa) and Soil adhering to the Bucket. Water which was used was collected on the Decon Pad for disposal at the Leachate Treatment Facility.

Bucket was deconned so that it could be used to load clean material into a Dump Truck and taken to the N.E. Corner of the Treatment Facility for Storage.

William A. Galloway, Jr.
(Site Safety Officer) 1/29/93

CB/LC7SPECS/15Z

CERTIFICATE OF DECONTAMINATION

EQUIPMENT: EXCAVATOR PC-200 - BUCKET

EQUIPMENT NUMBER: N/A

DATE DECONTAMINATED: 2/3/93

PROCEDURE USED: AFTER REMOVING REMAINDER OF CONTAMINATED GRAY MATERIAL FROM THE BACKYARD OF 9909 BLACK CREEK DRIVE, THE BUCKET OF THE EXCAVATOR WAS DECONTAMINATED. THE PROCEDURE USED WAS: 1) REMOVAL OF ALL SOLID MATERIAL ADHERING TO THE BUCKET BY SCRAPING IT OFF, 2) AFTER ALL HEAVY MATERIAL WAS REMOVED, THE BUCKET WAS THEN RINSED OFF WITH WATER FROM THE PORTABLE EYE WASH/SHOWER. ALL WATERS GENERATED WERE COLLECTED IN CATCH PANS AND TAKEN TO THE MAIN DECON PAD FOR PROPER DISPOSAL.

William A. Talloway, Jr.
(Site Safety Officer) 2/3/93

CB/LC7SPECS/15Z

CERTIFICATE OF DECONTAMINATION

EQUIPMENT: 10-WHEEL DUMP TRUCK #WA10

EQUIPMENT NUMBER: WA10

DATE DECONTAMINATED: 2/3/93

PROCEDURE USED: TO STOP THE 10 WHEEL DUMP TRUCK FROM GETTING CONTAMINATED, ENTECH LINED THE BED WITH 6 MIL RE-INFORCED POLY. AFTER THE TRUCK WAS LOADED, IT WAS TAKEN TO THE 102ND STREET LANDFILL WERE IT DUMPED IT'S LOAD. AFTER UNLOADING, THE BED OF THE TRUCK WAS INSPECTED BY THE ON-SITE SAFETY OFFICER AND DETERMINED CLEAN

William A. Galloway, Jr.
(Site Safety Officer) 2/3/93

CB/LC7SPECS/15Z

CERTIFICATE OF DECONTAMINATION

EQUIPMENT: PC 200 EXCAVATOR BUCKET - 48 INCHER

EQUIPMENT NUMBER: N/A

DATE DECONTAMINATED: 2/4/93

PROCEDURE USED: THE 48 INCH BUCKET WAS DELIVERED TO THE MAIN DECONTAMINATION PAD ON 100TH ST. WHERE ALL SOLID MATERIAL WAS SCRAPED OFF AND THE BUCKET WAS PRESSURE WASHED WITH WATER. ALL WATERS GENERATED, WERE COLLECTED IN THE DECONTAMINATION AREA FOR FUTURE DISPOSAL.

THE 48 INCH BUCKET WAS THEN LOADED ONTO AN ENTECH TRUCK AND SENT BACK TO RIPP RENTAL.

William A. Galloway Jr
(Site Safety Officer) 2/4/93

CB/LC7SPECS/15Z

CERTIFICATE OF DECONTAMINATION

EQUIPMENT: PC120 EXCAVATOR WITH HAMMER

EQUIPMENT NUMBER: N/A

DATE DECONTAMINATED: 2/9/93

PROCEDURE USED: AFTER BREAKING UP THE CONCRETE CUT-OFF WALL, THE HAMMER WAS DECONNED WITH WATER. ALL RINSE WATERS WERE COLLECTED AND DISPOSED OF AT THE LEACHATE TREATMENT FACILITY.

William A. Galloway Jr.
(Site Safety Officer)

CB/LC7SPECS/15Z

CERTIFICATE OF DECONTAMINATION

EQUIPMENT: PC 200 EXCAVATOR BUCKET

EQUIPMENT NUMBER: N/A

DATE DECONTAMINATED: 2/10/93

PROCEDURE USED: PRIOR TO REMOVING NON-HAZ / NON-CONTAMINATED SOIL, THE EXCAVATOR BUCKET WAS DECONNED WITH WATER ON THE MAIN DECON PAD.

William A. Talbert, Jr.
(Site Safety Officer)

CB/LC7SPECS/15Z

CERTIFICATE OF DECONTAMINATION

EQUIPMENT: M&M TRUCKING

EQUIPMENT NUMBER: N/A

DATE DECONTAMINATED: 2/10/93

PROCEDURE USED: AFTER MOVING NON-HAZ./NON-CONTAMINATED SOIL UP TO THE N.E. CORNER OF THE TREATMENT FACILITY, THE BED OF THE TRUCK WAS DECONNED WITH WATER. DECONNING TOOK PLACE AT THE MAIN DECON PAD

William A. Galloway Jr
(Site Safety Officer)

CB/LC7SPECS/15Z

CERTIFICATE OF DECONTAMINATION

EQUIPMENT: EXCAVATOR PC200

EQUIPMENT NUMBER: N/A

DATE DECONTAMINATED: 2/15/93

PROCEDURE USED: DEGREASED BUCKET AND MACHINE AT THE MAIN DECON PAD WITH WATER PRIOR TO THE DAYS OPERATIONS.

William A. Galloway Jr.
(Site Safety Officer)

CB/LC7SPECS/15Z

CERTIFICATE OF DECONTAMINATION

EQUIPMENT: PC 200 EXCAVATOR

EQUIPMENT NUMBER: N/A

DATE DECONTAMINATED: 2/26/93

PROCEDURE USED: EXCAVATOR WAS DECONNED BY FIRST SCRAPING ALL SOILS AND ICE ADHERING TO THE BUCKET AND TRACKS AFTER ALL MATERIAL WAS REMOVED AS REQUESTED BY ABB ENVIRONMENTAL AND NYSDEC, THE MACHINE WAS WASHED OFF WITH WATER. DECONTAMINATION TOOK PLACE AT THE MAIN DECON AREA. (MACHINE WAS WASHED OFF VIA A CITY FIRE HYDRANT AND A HOSE SINCE PRESSURE WASHER WAS UNAVAILABLE)

William A. Galloway Jr.
(Site Safety Officer)

CB/LC7SPECS/15Z

CERTIFICATE OF DECONTAMINATION

EQUIPMENT: PC200 EXCAVATOR

EQUIPMENT NUMBER: N/A

DATE DECONTAMINATED: 2/22/93

PROCEDURE USED: DECONNED EXCAVATOR BUCKET ON MAIN DECON PAD WITH WATER

William A. McMurray Jr. 2/22/93
(Site Safety Officer)

CB/LC7SPECS/15Z

CERTIFICATE OF DECONTAMINATION

EQUIPMENT: PC 300 EXCAVATOR

EQUIPMENT NUMBER: N/A

DATE DECONTAMINATED: 3/11/93

PROCEDURE USED: DECONNED EXCAVATOR BUCKET AND TRACKS WITH PRESSURE WASHER AND WATER PRIOR TO RUPP PICKING EQUIPMENT UP

William A. Gallery Jr.
(Site Safety Officer)

CB/LC7SPECS/15Z

ENTRY PERMITS

FOR

THE LOVE CANAL

THIS PERMIT MUST BE DISPLAYED PROMINENTLY AT OR NEAR THE ACCESS POINT OF THE CONFINED SPACE AND IS VALID ONLY FOR THE PERSONS NAMED AND FOR THE PERIOD OR SHIFT SPECIFIED.

DATE AND TIME OF ISSUE 11-17 PERMIT EXPIRES ___
PERSON(S) ENTERING Dave Beem
PERSON(S) OBSERVING P. Pol
EQUIPMENT TYPE AND LOCATION
WORK TO BE PERFORMED
Sampling

CONFINED SPACE ENTRY CHECKLIST
(THIS SECTION TO BE COMPLETED BY SUPERVISOR FOR SAFETY)

PROTECTIVE MEASURES TAKEN:

ATMOSPHERE TESTED FOR FLAMMABLE VAPORS, OXYGEN AND TOXIC SUBSTANCE LEVELS BY Dell Ashley
0.0 % LEL 21.8 % OXYGEN ___ ppm/mg/m³ ___

	substance
ALL ELECTRIC MOTORS DE-ENERGIZED, LOCKED OUT, AND TAGGED	X
ALL LINES ENTERING SPACE BLANKED OR DISCONNECTED	X
EXPLOSION PROOF ELECTRICAL REQUIRED	
SPARK RESISTANT TOOLS REQUIRED	

PROTECTION LEVEL REQUIRED FOR PERSON(S) ENTERING SPACE:
__A __B X C __D ___OTHER

PROTECTION LEVEL REQUIRED FOR STANDBY OBSERVER(S):
__A __B X C __D ___OTHER

ADDITIONAL EQUIPMENT REQUIRED

___HARNESS WITH LIFELINE	___HEARING PROTECTION
___ADDITIONAL VENTILATION	___SIREN OR HORN
___FIRE EXTINGUISHERS	___AIR TOOLS ONLY
___OTHER (Specify)	

I CERTIFY THAT I HAVE BEEN BRIEFED ON THE CONFINED SPACE TASK AT HAND AND THAT I AM THOUROUGHLY FAMILIAR WITH CONFINED SPACE ENTRY PROCEDURES.

SIGNATURE OF PERSON(S) ENTERING

SIGNATURE OF PERSON(S) OBSERVING

CONFINED SPACE ENTRY APPROVAL
SUPERVISOR FOR SAFETY

DATE AND TIME 11/17/92

THIS PERMIT MUST BE DISPLAYED PROMINENTLY AT OR NEAR THE ACCESS POINT OF THE CONFINED SPACE AND IS VALID ONLY FOR THE PERSONS NAMED AND FOR THE PERIOD OR SHIFT SPECIFIED.

DATE AND TIME OF ISSUE 1/18-98 PERMIT EXPIRES ____
PERSON(S) ENTERING Dave Becan / Laura Canter
PERSON(S) OBSERVING R. Graham
EQUIPMENT TYPE AND LOCATION Back Hoe shovel 100 ct - Frontier
WORK TO BE PERFORMED
Sampling / INSPECTION OF BEDDING MAT'L

CONFINED SPACE ENTRY CHECKLIST
(THIS SECTION TO BE COMPLETED BY SUPERVISOR FOR SAFETY)

PROTECTIVE MEASURES TAKEN:

ATMOSPHERE TESTED FOR FLAMMABLE VAPORS, OXYGEN AND TOXIC SUBSTANCE LEVELS BY Odell Lusk
___% LEL ___% OXYGEN _____ppm/mg/m³ _____ substance

ALL ELECTRIC MOTORS DE-ENERGIZED, LOCKED OUT, AND TAGGED X
ALL LINES ENTERING SPACE BLANKED OR DISCONNECTED X
EXPLOSION PROOF ELECTRICAL REQUIRED ____
SPARK RESISTANT TOOLS REQUIRED ____

PROTECTION LEVEL REQUIRED FOR PERSON(S) ENTERING SPACE:
__A X B X C __D ____OTHER

PROTECTION LEVEL REQUIRED FOR STANDBY OBSERVER(S):
__A __B X C __D ____OTHER

ADDITIONAL EQUIPMENT REQUIRED
X HARNESS WITH LIFELINE ___HEARING PROTECTION
___ADDITIONAL VENTILATION ___SIREN OR HORN
X FIRE EXTINGUISHERS ___AIR TOOLS ONLY
___OTHER (Specify) _____

I CERTIFY THAT I HAVE BEEN BRIEFED ON THE CONFINED SPACE TASK AT HAND AND THAT I AM THOUROUGHLY FAMILIAR WITH CONFINED SPACE ENTRY PROCEDURES.

James E Gate

SIGNATURE OF PERSON(S) ENTERING

SIGNATURE OF PERSON(S) OBSERVING

CONFINED SPACE ENTRY APPROVAL _____
SUPERVISOR FOR SAFETY

DATE AND TIME _____

THIS PERMIT MUST BE DISPLAYED PROMINENTLY AT OR NEAR THE ACCESS POINT OF THE CONFINED SPACE AND IS VALID ONLY FOR THE PERSONS NAMED AND FOR THE PERIOD OR SHIFT SPECIFIED.

DATE AND TIME OF ISSUE 1/14/93 PERMIT EXPIRES 1/14/93
PERSON(S) ENTERING DAVE BELLOW, BOB LIGHT, PAUL POLING, BILL GALLOWAY.
PERSON(S) OBSERVING DAN GUPKO, LAURA CARTER
EQUIPMENT TYPE AND LOCATION EXCAVATOR, TRENCH BOX, 4" DSI - PUMP
WORK TO BE PERFORMED REMOVE 18" STORM SEWER PIPE & PLUG 18" LINE VIA A MANHOLE

CONFINED SPACE ENTRY CHECKLIST
(THIS SECTION TO BE COMPLETED BY SUPERVISOR FOR SAFETY)

PROTECTIVE MEASURES TAKEN:

ATMOSPHERE TESTED FOR FLAMMABLE VAPORS, OXYGEN AND TOXIC SUBSTANCE LEVELS BY DAN GUPKO - ADVANCED ANALYTICAL
___ LEL 20.9 OXYGEN ___ ppm/mg/m³

combustible gases 0.0 ppm
carbon monoxide 1 ppm
Hydrogen Sulfide 1 ppm

	substance
ALL ELECTRIC MOTORS DE-ENERGIZED, LOCKED OUT, AND TAGGED	X
ALL LINES ENTERING SPACE BLANKED OR DISCONNECTED	X - INSTALLING
EXPLOSION PROOF ELECTRICAL REQUIRED	N/A
SPARK RESISTANT TOOLS REQUIRED	N/A

PROTECTION LEVEL REQUIRED FOR PERSON(S) ENTERING SPACE:
__A __B X C __D ___OTHER

PROTECTION LEVEL REQUIRED FOR STANDBY OBSERVER(S):
__A __B X C __D ___OTHER

ADDITIONAL EQUIPMENT REQUIRED

X HARNESS WITH LIFELINE
___ADDITIONAL VENTILATION
___FIRE EXTINGUISHERS
___OTHER (Specify)
___HEARING PROTECTION
___SIREN OR HORN
___AIR TOOLS ONLY

I CERTIFY THAT I HAVE BEEN BRIEFED ON THE CONFINED SPACE TASK AT HAND AND THAT I AM THOUROUGHLY FAMILIAR WITH CONFINED SPACE ENTRY PROCEDURES.

SIGNATURE OF PERSON(S) ENTERING

SIGNATURE OF PERSON(S) OBSERVING

CONFINED SPACE ENTRY APPROVAL ___
SUPERVISOR FOR SAFETY

DATE AND TIME ___

CONFINED SPACE ENTRY PERMIT

THIS PERMIT MUST BE DISPLAYED PROMINENTLY AT OR NEAR THE ACCESS POINT OF THE CONFINED SPACE AND IS VALID ONLY FOR THE PERSONS NAMED AND FOR THE PERIOD OR SHIFT SPECIFIED.

DATE AND TIME OF ISSUE 1/27/93 PERMIT EIPIRES 1/27/93
PERSON(S) ENTERING LAURA CARTER / DAVE BECOUT
PERSON(S) OBSERVING DAN GUPKO
EQUIPMENT TYPE AND LOCATION TRENCH BOX & LADDER - TEST PIT #4, TYPE A
WORK TO BE PERFORMED PULLING SAMPLES FROM TEST PIT

CONFINED SPACE ENTRY CHECKLIST

(THIS SECTION TO BE COMPLETED BY SUPERVISOR FOR SAFETY)

PROTECTIVE MEASURES TAKEN:

ATMOSPHERE TESTED FOR FLAMMABLE VAPORS, OIYGEN AND TOXIC SUBSTANCE LEVELS BY DAN GUPKO - ADVANCED ANALYTICAL
___ I LEL 20.9 I OIYGEN _____ ppm/mg/m³ _____ % substance

0% combustibles
0 carbon monoxide
0 Hydrogen sulfide

ALL ELECTRIC MOTORS DE-ENERGIZED, LOCKED OUT, AND TAGGED	X
ALL LINES ENTERING SPACE BLANKED OR DISCONNECTED	X
EIPLOSION PROOF ELECTRICAL REQUIRED	No
SPARK RESISTANT TOOLS REQUIRED	No

PROTECTION LEVEL REQUIRED FOR PERSON(S) ENTERING SPACE:
__A X B __C __D ___OTHER

PROTECTION LEVEL REQUIRED FOR STANDBY OBSERVER(S):
__A __B X C __D ___OTHER

ADDITIONAL EQUIPMENT REQUIRED

___HARNESS WITH LIFELINE	___HEARING PROTECTION
X ADDITIONAL VENTILATION	___SIREN OR HORN
___FIRE EITINGUISHERS	___AIR TOOLS ONLY
X OTHER (Specify) TRENCH BOX, LADDER	

I CERTIFY THAT I HAVE BEEN BRIEFED ON THE CONFINED SPACE TASK AT HAND AND THAT I AM THOUROUGHLY FAMILIAR WITH CONFINED SPACE ENTRY PROCEDURES.

SIGNATURE OF PERSON(S) ENTERING — SIGNATURE OF PERSON(S) OBSERVING

CONFINED SPACE ENTRY APPROVAL William D. Galloway Jr.
SUPERVISOR FOR SAFETY

DATE AND TIME 1/27/93 10:00 AM

Enter 945 out 1015

SAFETY SIGN-IN

SHEET

FOR THE LOVE CANAL

14.0 Personnel Acknowledgement and Sign-off

I have read, understood, and agree to comply with all policies, procedures, and other information set forth in this Site Specific Health and Safety Plan. I have also attended and participated in a "Pre-Entry Briefing" to discuss the requirements of this plan.

Name (print)	Signature	Date
Bob Licht		11/16/92
Donald J Crupkin		11/16/92
David Becony		11/16/92

"Pre-Entry Briefing" Conducted by:

Name (print)	Signature	Date
[illegible] Paul Polk		11-16-92

14.0 Personnel Acknowledgement and Sign-off

I have read, understood, and agree to comply with all policies, procedures, and other information set forth in this Site Specific Health and Safety Plan. I have also attended and participated in a "Pre-Entry Briefing" to discuss the requirements of this plan.

Name (print)	Signature	Date
Bob Licht		11/17/92
David J Comples		11/17/92
David Beeony		11/17/92

"Pre-Entry Briefing" Conducted by:

Name (print)	Signature	Date
Paul Polin		11-17-92

14.0 Personnel Acknowledgement and Sign-off

I have read, understood, and agree to comply with all policies, procedures, and other information set forth in this Site Specific Health and Safety Plan. I have also attended and participated in a "Pre-Entry Briefing" to discuss the requirements of this plan.

Name (print)	Signature	Date
Bob Licht	Bob Licht	11/18/92
Donald J Guptill	Donald J Guptill	11/18/92
David Becony	David Becony	11/18/92

"Pre-Entry Briefing" Conducted by:

Name (print)	Signature	Date
Paul Pdi	PJ	11-18-92

14.0 Personnel Acknowledgement and Sign-off

I have read, understood, and agree to comply with all policies, procedures, and other information set forth in this Site Specific Health and Safety Plan. I have also attended and participated in a "Pre-Entry Briefing" to discuss the requirements of this plan.

Name (print)	Signature	Date
David Becony	[signature]	11-30-92
Donald J Gupko	[signature]	11/30/92

"Pre-Entry Briefing" Conducted by:

Name (print)	Signature	Date
[illegible]	[signature]	12-30

14.0 Personnel Acknowledgement and Sign-off

I have read, understood, and agree to comply with all policies, procedures, and other information set forth in this Site Specific Health and Safety Plan. I have also attended and participated in a "Pre-Entry Briefing" to discuss the requirements of this plan.

Name (print)	Signature	Date
David Becony		12-1-92
Donald J Gupka		12/1/92

"Pre-Entry Briefing" Conducted by:

Name (print)	Signature	Date
		12-1-92

14.0 Personnel Acknowledgement and Sign-off

I have read, understood, and agree to comply with all policies, procedures, and other information set forth in this Site Specific Health and Safety Plan. I have also attended and participated in a "Pre-Entry Briefing" to discuss the requirements of this plan.

Name (print)	Signature	Date
WILLIAM GALLOWAY	William L. Galloway Jr.	1/29/93
BOB LICHT	Bob Licht	1/29/93
DAVE BEGNY	Dave Begny	1/29/93
PAUL POLINO	Paul Polino	1/29/93

"Pre-Entry Briefing" Conducted by:

Name (print)	Signature	Date
WILLIAM GALLOWAY PAUL POLINO	William L. Galloway Jr. Paul Polino	1/29/93

14.0 Personnel Acknowledgement and Sign-off

I have read, understood, and agree to comply with all policies, procedures, and other information set forth in this Site Specific Health and Safety Plan. I have also attended and participated in a "Pre-Entry Briefing" to discuss the requirements of this plan.

Name (print)	Signature	Date
David Becany	David Becany	2/3/93
Paul Poling	Paul Poling	2-3-93
Bob Licht	Bob Licht	2-3-93

"Pre-Entry Briefing" Conducted by:

Name (print)	Signature	Date
William Galloway	William A. Galloway, Jr.	2/3/93

APPENDIX E

ANALYTICAL REPORT FOR TEST PIT AT MANHOLE NO. 404

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233 - 7010

Thomas C. Jorling
Commissioner

Mr. Stephen Mitchell
ABB Environmental Services
P.O. Box 7050
Portland, ME 04112

JAN 22 1993

Dear Mr. Mitchell:

RE: Love Canal, Site 9-32-020
Work Assignment D002472-7
Remediation of Frontier Avenue and EDA 4
Test Pit - Manhole 404

Enclosed are analytical results on the sample taken from Type A Test Pit No. 2, on the upstream side of Manhole 404.

Please review the data and provide me with ABB Environmental Services' recommendation as to whether the optional construction phase should be conducted. My telephone number is (518) 457-0927.

Sincerely,

John Spellman

John Spellman, P.E.
Project Manager
Operation & Maintenance Section
Bureau of Construction Services
Division of Hazardous Waste Remediation

Enclosure

a:manhole.wp:JSP:et

Matrix: (soil/water) SOIL Lab Sample ID: AS022953

Sample wt/vol: 5.20 (g/mL) G Lab File ID: H1382

Level: (low/med) LOW Date Received: 12/16/92

% Moisture: not dec. 21 Date Analyzed: 12/17/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	12	U
67-64-1	Acetone	12	U
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	trans-1,3-dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Total Xylenes	12	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

L1681

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: L092 SAS No.: _____ SDG No.: 12036

Matrix: (soil/water) SOIL Lab Sample ID: AS022953

Sample wt/vol: 30.90 (g/mL) G Lab File ID: 13113X

Level: (low/med) LOW Date Received: 12/16/92

% Moisture: 23 decanted: (Y/N) N Date Extracted: 12/18/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 12/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	420	U
111-44-4	bis(2-Chloroethyl)Ether	420	U
95-57-8	2-Chlorophenol	420	U
541-73-1	1,3-Dichlorobenzene	420	U
106-46-7	1,4-Dichlorobenzene	420	U
95-50-1	1,2-Dichlorobenzene	420	U
95-48-7	2-Methylphenol	420	U
108-60-1	2,2'-oxybis(1-Chloropropane)	420	U
106-44-5	4-Methylphenol	420	U
621-64-7	N-Nitroso-Di-n-Propylamine	420	U
67-72-1	Hexachloroethane	420	U
98-95-3	Nitrobenzene	420	U
78-59-1	Isophorone	420	U
88-75-5	2-Nitrophenol	420	U
105-67-9	2,4-Dimethylphenol	420	U
111-91-1	bis(2-Chloroethoxy)Methane	420	U
120-83-2	2,4-Dichlorophenol	420	U
120-82-1	1,2,4-Trichlorobenzene	420	U
91-20-3	Naphthalene	420	U
106-47-8	4-Chloroaniline	420	U
87-68-3	Hexachlorobutadiene	420	U
59-50-7	4-Chloro-3-Methylphenol	420	U
91-57-6	2-Methylnaphthalene	420	U
77-47-4	Hexachlorocyclopentadiene	420	U
88-06-2	2,4,6-Trichlorophenol	420	U
95-95-4	2,4,5-Trichlorophenol	1000	U
91-58-7	2-Chloronaphthalene	420	U
88-74-4	2-Nitroaniline	1000	U
131-11-3	Dimethyl Phthalate	420	U
208-96-8	Acenaphthylene	420	U
606-20-2	2,6-Dinitrotoluene	420	U
99-09-2	3-Nitroaniline	1000	U
83-32-9	Acenaphthene	420	U

EPA SAMPLE NO.

L1681

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: L092 SAS No.: _____ SDG No.: 12036

Matrix: (soil/water) SOIL Lab Sample ID: AS022953

Sample wt/vol: 30.90 (g/mL) G Lab File ID: 13113X

Level: (low/med) LOW Date Received: 12/16/92

% Moisture: 23 decanted: (Y/N) N Date Extracted: 12/18/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 12/21/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1000	U
100-02-7	4-Nitrophenol	1000	U
132-64-9	Dibenzofuran	420	U
121-14-2	2,4-Dinitrotoluene	420	U
84-66-2	Diethylphthalate	420	U
7005-72-3	4-Chlorophenyl-phenylether	420	U
86-73-7	Fluorene	420	U
100-01-6	4-Nitroaniline	1000	U
534-52-1	4,6-Dinitro-2-Methylphenol	1000	U
86-30-6	N-Nitrosodiphenylamine (1)	420	U
101-55-3	4-Bromophenyl-phenylether	420	U
118-74-1	Hexachlorobenzene	420	U
87-86-5	Pentachlorophenol	1000	U
85-01-8	Phenanthrene	14	J
120-12-7	Anthracene	420	U
86-74-8	Carbazole	420	U
84-74-2	Di-n-Butylphthalate	420	U
206-44-0	Fluoranthene	15	J
129-00-0	Pyrene	20	J
85-68-7	Butylbenzylphthalate	420	U
91-94-1	3,3'-Dichlorobenzidine	420	U
56-55-3	Benzo(a)Anthracene	420	U
218-01-9	Chrysene	420	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	45	BJ
117-84-0	Di-n-Octyl Phthalate	420	U
205-99-2	Benzo(b)Fluoranthene	420	U
207-08-9	Benzo(k)Fluoranthene	420	U
50-32-8	Benzo(a)Pyrene	420	U
193-39-5	Indeno(1,2,3-cd)Pyrene	420	U
53-70-3	Dibenz(a,h)Anthracene	420	U
191-24-2	Benzo(g,h,i)Perylene	420	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

L1681

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: L092 SAS No.: _____ SDG No.: 12036

Matrix: (soil/water) SOIL Lab Sample ID: AS022953

Sample wt/vol: 30.5 (g/mL) G Lab File ID: _____

% Moisture: 23 decanted: (Y/N) N Date Received: 12/16/92

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 12/18/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 01/06/93

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.8 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.2	U
319-85-7	beta-BHC	2.2	U
319-86-8	delta-BHC	2.2	U
58-89-9	gamma-BHC (Lindane)	2.2	U
76-44-8	Heptachlor	2.2	U
309-00-2	Aldrin	2.2	U
1024-57-3	Heptachlor epoxide	2.2	U
959-98-8	Endosulfan I	2.2	U
60-57-1	Dieldrin	4.2	U
72-55-9	4,4'-DDE	4.2	U
72-20-8	Endrin	4.2	U
33213-65-9	Endosulfan II	4.2	U
72-54-8	4,4'-DDD	4.2	U
1031-07-8	Endosulfan sulfate	4.2	U
50-29-3	4,4'-DDT	4.2	U
72-43-5	Methoxychlor	22	U
53494-70-5	Endrin ketone	4.2	U
7421-93-4	Endrin aldehyde	4.2	U
5103-71-9	alpha-Chlordane	2.2	U
5103-74-2	gamma-Chlordane	2.2	U
8001-35-2	Toxaphene	220	U
12674-11-2	Aroclor-1016	42	U
11104-28-2	Aroclor-1221	86	U
11141-16-5	Aroclor-1232	42	U
53469-21-9	Aroclor-1242	53	
12672-29-6	Aroclor-1248	42	U
11097-69-1	Aroclor-1254	42	U
11096-82-5	Aroclor-1260	94	

NYSDEC ASP

1
INORGANIC ANALYSES DATA SHEET

NYSDEC SAMPLE NO.
L1681

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: C002412___

Lab Code: RECNY_ Case No.: L092_ SAS No.: _____ SDG No.: 12036_

Matrix (soil/water): SOIL_ Lab Sample ID: 2319_____

Level (low/med): LOW__ Date Received: 12/16/92

% Solids: _78.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8210			A
7440-36-0	Antimony	2.5	U		F
7440-38-2	Arsenic	9.1			F
7440-39-3	Barium	44.5	B		P
7440-41-7	Beryllium	1.2	U		P
7440-43-9	Cadmium	1.2	U		P
7440-70-2	Calcium	47400			P
7440-47-3	Chromium	14.7			P
7440-48-4	Cobalt	6.1	B		P
7440-50-8	Copper	14.9			P
7439-89-6	Iron	16800			P
7439-92-1	Lead	24.3		S	F
7439-95-4	Magnesium	7450			P
7439-96-5	Manganese	360			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	23.9			P
7440-09-7	Potassium	1520			P
7782-49-2	Selenium	1.3	U	W	F
7440-22-4	Silver	2.4	U		P
7440-23-5	Sodium	365	B		P
7440-28-0	Thallium	1.3	U		F
7440-62-2	Vanadium	18.5			P
7440-66-6	Zinc	73.7			P
	Cyanide	0.32	U		C

Color Before: BROWN____ Clarity Before: _____ Texture: COARSE

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: ___

Comments:
LAB_SAMPLE_ID: AS022953-SG000022
CLIENT_SAMPLE_ID: L092-12036-L1681

APPENDIX F

COPIES OF MANIFESTS

48-14-1 (3/89)—7f

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

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 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. NYD000176157 — Manifest Document No.

2. Page 1 of 1 — Information in the shaded areas is not required by Federal Law.

3. Generator's Name and Mailing Address
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD/BLL WESTERN REMEDIATION, ALBANY, NY 12233

4. Generator's Phone (518) 457-0927

A. State Manifest Document No. NY B 249108 3

B. Generator's ID FRONTIER AVE & 100TH ST NIAGARA FALLS, N.Y.

5. Transporter 1 (Company Name) BUFFALO FUEL CORP

6. US EPA ID Number NYD065180952

C. State Transporter's ID

D. Transporter's Phone (716) 773-1921

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
LOVE CANAL LEACHATE TREATMENT FACILITY
805 97TH STREET
NIAGARA FALLS, NY 14304

10. US EPA ID Number NYD000176157

G. State Facility's ID

H. Facility's Phone ( )

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. RQ HAZARDOUS WASTE, SOLID, (U129) ORM-E NA9189	001	CM	00017	Y	EPA U129 STATE
b.					EPA STATE
c.					EPA STATE
d.					EPA STATE

J. Additional Descriptions for Materials listed Above
a. CONTAMINATED SOIL
b.
c.
d.

K. Handling Codes for Wastes Listed Above
a. B
b.
c.
d.

15. Special Handling Instructions and Additional Information
EMERGENCY RESPONSE GUIDE 31
EHS # 2897
EMERGENCY CONTACT AND PHONE
JOHN SPELLMAN (518) 457-0927

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: REPRESENTING NEW YORK STATE LAURA CARTER DEPT. OF ENVIRONMENTAL CONSERVATION — Signature: Laura Carter — Mo. Day Year

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)
Printed/Typed Name: [illegible] — Signature: [illegible] — Mo. Day Year

18. Transporter 2 (Acknowledgement of 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: NEW YORK STATE DEPT. ENVIR. CONS. LOVE CANAL FACILITY — Signature: [illegible] — Mo. Day Year 11 19 92

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

COPY 5—Generator—mailed by TSD facility

NT D 047 5

48-14-1 (3/89)—7f

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

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 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. NYD007676757 — Manifest Document No.

2. Page 1 of — Information in the shaded areas is not required by Federal Law.

3. Generator's Name and Mailing Address
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD/BU WESTERN REMEDIATION, ALBANY, NY 12233

A. State Manifest Document No. NY B 249108 3

B. Generator's ID FRONTIER AVE & 100TH ST NIAGARA FALLS, N.Y.

4. Generator's Phone (518) 457-0927

5. Transporter 1 (Company Name) BUFFALO FUEL CORP

6. US EPA ID Number NYD051180952

C. State Transporter's ID

D. Transporter's Phone (716) 773-1721

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
LOVE CANAL LEACHATE TREATMENT FACILITY
805 97TH STREET
NIAGARA FALLS, NY 14304

10. US EPA ID Number NYD000676757

G. State Facility's ID

H. Facility's Phone ( )

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.
GENERATOR a. RQ HAZARDOUS WASTE, SOLID (U129) ORM-E NA9189	001	CM	00017	Y	EPA U129 STATE
b.					EPA STATE
c.					EPA STATE
d.					EPA STATE

J. Additional Descriptions for Materials listed Above
a. CONTAMINATED SOIL
b.
c.
d.

K. Handling Codes for Wastes Listed Above
a. B
b.
c.
d.

15. Special Handling Instructions and Additional Information
EMERGENCY RESPONSE GUIDE 31
EMS # 2897
EMERGENCY CONTACT AND PHONE
JOHN SPELLMAN (518) 457-0927

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: REPRESENTING NEW YORK STATE LAURA CARTER DEPT. OF ENVIRONMENTAL CONSERVATION — Signature: Laura Carter — Mo. Day Year

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)
Printed/Typed Name — Signature — Mo. Day Year

18. Transporter 2 (Acknowledgement of 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.

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.

NY B 249108 3

48-14-1 (3/89)—7f

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

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 9-30-94

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.

3. Generator's Name and Mailing Address

4. Generator's Phone ( )

A. State Manifest Document No. NY B 439117 2

B. Generator's ID

5. Transporter 1 (Company Name) | 6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone ( )

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 | 10. US EPA ID Number

G. State Facility's ID

H. Facility's Phone ( )

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.					EPA STATE
b.					EPA STATE
c.					EPA STATE
d.					EPA STATE

J. Additional Descriptions for Materials listed Above

a. | c.

b. | d.

K. Handling Codes for Wastes Listed Above

a. | c.

b. | d.

15. Special Handling Instructions and Additional Information

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.

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Printed/Typed Name	Signature	Mo.	Day	Year

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)

Printed/Typed Name	Signature	Mo.	Day	Year

18. Transporter 2 (Acknowledgement of 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.

GENERATOR

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

48-14-1 (3/89)—7f

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

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 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. NYD000767657 — Manifest Document No. 00002

2. Page 1 of 1 — Information in the shaded areas is not required by Federal Law.

3. Generator's Name and Mailing Address
NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD / BUL WESTERN REMEDIATION, ALBANY, NY 12233

4. Generator's Phone (518) 457-0927

A. State Manifest Document No. NY B 439117 2

B. Generator's ID FRONTIER INC. 100 TH ST / NIAGARA FALLS, N.Y.

5. Transporter 1 (Company Name) BUFFALO FUEL CORPORATION

6. US EPA ID Number NYD051809952

C. State Transporter's ID 773072 N

D. Transporter's Phone (716) 773-1921

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
LAKE CARBON LANDFILL TREATMENT FACILITY
805 97TH STREET
NIAGARA FALLS, N.Y. 14304

10. US EPA ID Number NYD000767657

G. State Facility's ID

H. Facility's Phone (716 283-0111

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 RQ HAZARDOUS WASTE, LIQUID, (U133) ORM-E NA9187	001	TT	01900	G	EPA U129 STATE
b.					EPA STATE
c.					EPA STATE
d.					EPA STATE

J. Additional Descriptions for Materials listed Above
a Contaminated Water
b
c
d

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

15. Special Handling Instructions and Additional Information
EMERGENCY RESPONSE GUIDE 31
EPIS # 2617
EMERGENCY CONTACT AND PHONE - JOHN SPECKMAN (518) 457-0927

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.

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Printed/Typed Name	Signature	Mo.	Day	Year
X LAURA CARTER FOR DEPT. OF ENVIRONMENTAL CONSERVATION		02	09	93

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)

Printed/Typed Name	Signature	Mo.	Day	Year
DARRYL KROENKE		02	09	93

18. Transporter 2 (Acknowledgement of 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
MAURICE F. MOORE		02	09	93

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

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.

48-14-1 (3/89)—7f

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

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 9-30-94

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.

3. Generator's Name and Mailing Address

4. Generator's Phone ( )

A. State Manifest Document No. NY B 439118 1

B. Generator's ID

5. Transporter 1 (Company Name) / 6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone ( )

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 / 10. US EPA ID Number

G. State Facility's ID

H. Facility's Phone ( )

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.					EPA / STATE
b.					EPA / STATE
c.					EPA / STATE
d.					EPA / STATE

J. Additional Descriptions for Materials listed Above

a. c.

b. d.

K. Handling Codes for Wastes Listed Above

a. c.

b. d.

15. Special Handling Instructions and Additional Information

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Printed/Typed Name / Signature / Mo. Day Year

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)

Printed/Typed Name / Signature / Mo. Day Year

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

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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.

NY D 439118 1

48-14-1 (3/89)—7f

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

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 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. / Manifest Document No.: NYD 987 357 010 / 000614

2. Page 1 of 1 — Information in the shaded areas is not required by Federal Law.

3. Generator's Name and Mailing Address
NEW YORK STATE DEPT OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD/ 1W WESTERN REMEDIATION, ALBANY, NY 12233

4. Generator's Phone ( ) 457-7307

A. State Manifest Document No.: NY B 161422 2

B. Generator's ID: TRENTON TIRE 40 E 1ST NIAGARA FALLS NY

5. Transporter 1 (Company Name): BUFFALO TANK CORPORATION

6. US EPA ID Number: NYD 054 [illegible]

C. State Transporter's ID

D. Transporter's Phone ( )

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~~: FEDERAL LANDFILL TREATMENT FACILITY
BUFFALO AVE NIAGARA FALLS NY 14304

10. US EPA ID Number: NYD 007 671 [illegible]

G. State Facility's ID

H. Facility's Phone: (716) 283-2111

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. RQ HAZARDOUS WASTE SOLID (U127) ORM-E NA1759	001	CM	00018	Y	EPA U127 / STATE
b.					EPA / STATE
c.					EPA / STATE
d.					EPA / STATE

J. Additional Descriptions for Materials listed Above
a. CONTAMINATED SOIL
c.
b.
d.

K. Handling Codes for Wastes Listed Above
a. D1
c.
b.
d.

15. Special Handling Instructions and Additional Information
EMERGENCY RESPONSE CODE-7
EMS F-22
EMERGENCY CONTACT AND PHONE - SAM SPADAFORA (716) 457-8547

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Printed/Typed Name | Signature | Mo. Day Year

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)
Printed/Typed Name | Signature | Mo. Day Year

18. Transporter 2 (Acknowledgement of 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

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.

NY B 161422 2

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

COPY 6 - Generator - retained by generator

48-14-1 (3/89)

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

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 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. / Manifest Document No.

2. Page 1 of

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

3. Generator's Name and Mailing Address

4. Generator's Phone ( )

A. State Manifest Document No. NY B 161423 1

B. Generator's ID

5. Transporter 1 (Company Name)

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone ( )

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

10. US EPA ID Number

G. State Facility's ID

H. Facility's Phone ( )

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	I. Waste No.
a.					EPA / STATE
b.					EPA / STATE
c.					EPA / STATE
d.					EPA / STATE

J. Additional Descriptions for Materials listed Above

a c

b d

K. Handling Codes for Wastes Listed Above

a c

b d

15. Special Handling Instructions and Additional Information

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Printed/Typed Name | Signature | Mo. Day Year

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)

Printed/Typed Name | Signature | Mo. Day Year

18. Transporter 2 (Acknowledgement of 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.

48-14-1 (3/89)—7f

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

HAZARDOUS WASTE MANIFEST

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

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Form Approved. OMB No. 2050-0039. Expires 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No.: NYD982725400 — Manifest Document No.: 0001/1

2. Page 1 of 1 — Information in the shaded areas is not required by Federal Law.

3. Generator's Name and Mailing Address
NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD/BU WESTERN REMEDIATION ALBANY, NY 12233

4. Generator's Phone (518) 457-0927

A. State Manifest Document No.: NY B 439223 4

B. Generator's ID: FRONTIER AVE. & 100TH STREET/NIAGARA FALLS

5. Transporter 1 (Company Name): BUFFALO FUEL CORPORATION

6. US EPA ID Number: NYD051809952

C. State Transporter's ID: 862400 NY

D. Transporter's Phone (716) 773-1921

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
OCCIDENTAL CHEMICAL CORPORATION
4700 BUFFALO AVENUE
NIAGARA FALLS, NEW YORK 14302

10. US EPA ID Number: NYD000824482

G. State Facility's ID

H. Facility's Phone: (716) 278-7545

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.
GENERATOR a. RQ HAZARDOUS WASTE, SOLID, N.O.S. (U129) CERC-2 NA9189	001	CM	00020	T	EPA U129 / STATE
b.					EPA / STATE
c.					EPA / STATE
d.					EPA / STATE

J. Additional Descriptions for Materials listed Above
a. CONTAMINATED SOIL
b.
c.
d.

K. Handling Codes for Wastes Listed Above
a. [B] c. [ ]
b. [ ] d. [ ]

15. Special Handling Instructions and Additional Information
EMERGENCY RESPONSE GUIDE #31 EMERGENCY CONTACT AND PHONE - JOHN SPELLMAN (518) 457-0927
EMS# 2942

Weight Received - 41340 P

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.

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Printed/Typed Name: Remediation NY State Dept of Environmental Conservation — Signature: [signature] — Mo. Day Year: 03 12 93

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)
Printed/Typed Name: Charles Colvin — Signature: [signature] — Mo. Day Year: 03 12 93

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: Joseph A. Destino — Signature: [signature] — Mo. Day Year: 03 12 93

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.

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

COPY 5 – Generator-mailed by TSD facility

48-14-1 (3/89)—7f

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

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 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. NYD982725400 — Manifest Document No. 0012

2. Page 1 of 1 — Information in the shaded areas is not required by Federal Law.

3. Generator's Name and Mailing Address
NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD/80 WESTERN REMEDIATION ALBANY, NY 12233

4. Generator's Phone (518) 457-0927

A. State Manifest Document No. NY B 439223 4

B. Generator's ID FRONTIER AVE. & 100TH STREET/NIAGARA FALLS

5. Transporter 1 (Company Name) BUFFALO FUEL CORPORATION

6. US EPA ID Number NYD051809952

C. State Transporter's ID 4240D NY

D. Transporter's Phone (716) 773-1921

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
OCCIDENTAL CHEMICAL CORPORATION
4700 BUFFALO AVENUE
NIAGARA FALLS, NEW YORK 14302

10. US EPA ID Number NYD000824482

G. State Facility's ID

H. Facility's Phone (716) 278-7563

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. RQ HAZARDOUS WASTE, SOLID, N.O.S. (D129) CERCLA	001	CM	00020	T	EPA D129 / STATE
b.					EPA / STATE
c.					EPA / STATE
d.					EPA / STATE

J. Additional Descriptions for Materials listed Above
a CONTAMINATED SOIL
b
c
d

K. Handling Codes for Wastes Listed Above
a [ ] c [ ]
b [ ] d [ ]

15. Special Handling Instructions and Additional Information
EMERGENCY RESPONSE GUIDE #31 EMERGENCY CONTACT AND PHONE - JOHN SPELLMAN (518) 457-0927
EXEMPT

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Printed/Typed Name	Signature	Mo.	Day	Year
[illegible]	[signature]	03	12	93

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)

Printed/Typed Name	Signature	Mo.	Day	Year
Charles Allen	Charles Allen	03	12	93

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.

GENERATOR

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48-14-1 (3/89)—7f

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

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 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. / Manifest Document No.: NYB9827254500 00009

2. Page 1 of 1 — Information in the shaded areas is not required by Federal Law.

3. Generator's Name and Mailing Address
NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD/BU WESTERN REMEDIATION ALBANY, NY 12233

4. Generator's Phone (518) 457-0927

A. State Manifest Document No.: NY B 439224 3

B. Generator's ID: FRONTIER AVE. & 100TH STREET/NIAGARA FALLS

C. State Transporter's ID: 02900 NY

D. Transporter's Phone (716) 773-1921

5. Transporter 1 (Company Name): BUFFALO FUEL CORPORATION

6. US EPA ID Number: NYD051828952

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
OCCIDENTAL CHEMICAL CORPORATION
4700 BUFFALO AVENUE
NIAGARA FALLS, NEW YORK 14302

10. US EPA ID Number: NYD000824682

G. State Facility's ID

H. Facility's Phone (716) 278-7345

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. RQ HAZARDOUS WASTE, SOLID, N.O.S. (D129) ORM-E NA9189	001	CM	00020	Y	EPA D129 STATE
b.					EPA STATE
c.					EPA STATE
d.					EPA STATE

J. Additional Descriptions for Materials listed Above
a CONTAMINATED SOIL
b.
c
d

K. Handling Codes for Wastes Listed Above
a B
b
c
d

15. Special Handling Instructions and Additional Information
EMERGENCY RESPONSE GUIDE #31 EMERGENCY CONTACT AND PHONE - JOHN SPELLMAN (518) 457-0927
DOS# 2942

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GENERATOR

Printed/Typed Name | Signature | Mo. Day Year: 03 29 93

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)
Printed/Typed Name: Charles Colvin | Signature: Charles Colvin | Mo. Day Year: 03 29 93

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.

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.

COPY 6 - Generator retained by generator

48-14-1 (3/89)—7f

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

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 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. | Manifest Document No.: NYD982725400 | 00009

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

3. Generator's Name and Mailing Address
NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD/BU WESTERN REMEDIATION ALBANY, NY 12233

4. Generator's Phone (518) 457-0927

A. State Manifest Document No.: NY B 439224 3

B. Generator's ID: FRONTIER AVE. & 100TH STREET/NIAGARA FALLS

5. Transporter 1 (Company Name): BUFFALO FUEL CORPORATION

6. US EPA ID Number: NYD051809952

C. State Transporter's ID: 82400 NY

D. Transporter's Phone (716) 773-1921

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
OCCIDENTAL CHEMICAL CORPORATION
4700 BUFFALO AVENUE
NIAGARA FALLS, NEW YORK 14302

10. US EPA ID Number: NYD000824482

G. State Facility's ID

H. Facility's Phone (716) 278-7545

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. RQ HAZARDOUS WASTE, SOLID, N.O.S. (U129) ORM-E NA9189	001	CM	00020	Y	EPA U129 STATE
b.					EPA STATE
c.					EPA STATE
d.					EPA STATE

J. Additional Descriptions for Materials listed Above
a CONTAMINATED SOIL
c
b
d

K. Handling Codes for Wastes Listed Above
a: B
c:
b:
d:

15. Special Handling Instructions and Additional Information
EMERGENCY RESPONSE GUIDE #31 EMERGENCY CONTACT AND PHONE - JOHN SPELLMAN (518) 457-0927
EMS# 2942

Actual wgt. 40,880 lbs.

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
Representative of Commissioner John Spellman		03	29	93

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)

Printed/Typed Name	Signature	Mo.	Day	Year
Charles Colvin	Charles Colvin	03	29	93

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
JOSEPH A. DESTINO	Joseph A. Destino	03	29	93

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

COPY 5 – Generator-mailed by TSD facility

48-14-1 (3/89)—7f

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

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 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. / Manifest Document No.: NYD982725400 / 00010

2. Page 1 of 1

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

3. Generator's Name and Mailing Address
NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD/80 WESTERN REMEDIATION ALBANY, NY 12233

4. Generator's Phone (518) 457-0927

A. State Manifest Document No. NY B 439225 2

B. Generator's ID FRONTIER AVE. & 100TH STREET/NIAGARA FALLS

5. Transporter 1 (Company Name): BUFFALO FUEL CORPORATION

6. US EPA ID Number: NYD051809952

C. State Transporter's ID 8-2527

D. Transporter's Phone (716) 773-1921

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
OCCIDENTAL CHEMICAL CORPORATION
4700 BUFFALO AVENUE
NIAGARA FALLS, NEW YORK 14302

10. US EPA ID Number: NYD000824482

G. State Facility's ID

H. Facility's Phone (716) 278-7545

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. RQ HAZARDOUS WASTE, SOLID, N.O.S. (U129) ORM-E NA9189	001	CK	00020	T	EPA U129 STATE
b.					EPA STATE
c.					EPA STATE
d.					EPA STATE

J. Additional Descriptions for Materials listed Above
a CONTAMINATED SOIL
b
c
d

K. Handling Codes for Wastes Listed Above
a: B
b:
c:
d:

15. Special Handling Instructions and Additional Information
EMERGENCY RESPONSE GUIDE #31 EMERGENCY CONTACT AND PHONE - JOHN SPELLMAN (518) 457-0927
EMS# 2942
WEIGHT RECEIVED 46,400 lbs.

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.

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GENERATOR

Printed/Typed Name: REPRESENTATIVE OF STATE DEPT OF ENVIRONMENTAL CONSERVATION - John Spellman
Signature:
Mo. Day Year: 03 12 93

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)
Printed/Typed Name: FRED VAN DUSEN
Signature:
Mo. Day Year: 03 12 93

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: JOSEPH A. DESTINO
Signature:
Mo. Day Year: 03 12 93

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.

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

COPY 5 - Generator-mailed by TSD facility

48-14-1 (3/89)—7f

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

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 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. / Manifest Document No.: NYD982725400 / 000071

2. Page 1 of 1

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

3. Generator's Name and Mailing Address
NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD/SU WESTERN REMEDIATION ALBANY, NY 12233

4. Generator's Phone (518) 457-0927

A. State Manifest Document No. NY B 439225 2

B. Generator's ID FRONTIER AVE. & 100TH STREET/NIAGARA FALLS

C. State Transporter's ID

D. Transporter's Phone (716 773-1921

5. Transporter 1 (Company Name): BUFFALO FUEL CORPORATION

6. US EPA ID Number: NYD051809952

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
OCCIDENTAL CHEMICAL CORPORATION
4700 BUFFALO AVENUE
NIAGARA FALLS, NEW YORK 14302

10. US EPA ID Number: NYD000824682

G. State Facility's ID

H. Facility's Phone (716) 278-7545

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	I. Waste No.
a. RQ HAZARDOUS WASTE, SOLID, N.O.S. (D129) ORM-E NA9189	001	CM	00020	T	EPA D129 STATE
b.					EPA STATE
c.					EPA STATE
d.					EPA STATE

J. Additional Descriptions for Materials listed Above
a CONTAMINATED SOIL
b
c
d

K. Handling Codes for Wastes Listed Above
a B
b
c
d

15. Special Handling Instructions and Additional Information
EMERGENCY RESPONSE GUIDE #31 EMERGENCY CONTACT AND PHONE - JOHN SPELLMAN (518) 457-0927
RMS#

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.

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Printed/Typed Name [illegible] Signature [signature] Mo. 03 Day 13 Year

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)
Printed/Typed Name FRED VAN DUSEN Signature [signature] Mo. 03 Day 13 Year

18. Transporter 2 (Acknowledgement of 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 5 - Generator - retained by generator

48-14-1 (3/89)—7f

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

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 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. NYD982725400 — Manifest Document No. 00007
2. Page 1 of 1 — Information in the shaded areas is not required by Federal Law.

3. Generator's Name and Mailing Address
NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD/BUREAU REMEDIATION ALBANY, NY 12233

4. Generator's Phone (518 457-0927

A. State Manifest Document No. NY B 439228 8

B. Generator's ID FRONTIER AVE. & 100TH STREET/NIAGARA FALLS

5. Transporter 1 (Company Name) BUFFALO FUEL CORPORATION
6. US EPA ID Number NYD051809952
C. State Transporter's ID 362200 NY
D. Transporter's Phone (716) 773-1521

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
OCCIDENTAL CHEMICAL CORPORATION
4700 BUFFALO AVENUE
NIAGARA FALLS, NEW YORK 14302

10. US EPA ID Number NYD000824662
G. State Facility's ID
H. Facility's Phone (716) 278-7545

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. RQ HAZARDOUS WASTE, SOLID, N.O.S. (9189) ORM-E NA9189	001	CM	00020	T	EPA 9189 / STATE
b.					EPA / STATE
c.					EPA / STATE
d.					EPA / STATE

J. Additional Descriptions for Materials listed Above
a. CONTAMINATED SOIL
c.
b.
d.

K. Handling Codes for Wastes Listed Above
a. [X] c. [ ]
b. [ ] d. [ ]

15. Special Handling Instructions and Additional Information
EMERGENCY RESPONSE GUIDE 131 EMERGENCY CONTACT AND PHONE — JOHN SPELLMAN (518) 457-0927
RQ#

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.

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Printed/Typed Name	Signature	Mo.	Day	Year
[illegible]	[signature]	03	11	93

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)

Printed/Typed Name	Signature	Mo.	Day	Year
Charles Glen	[signature]	03	11	93

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.

GENERATOR

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.

NYB 439228 8

COPY 5 - Generator - retained by generator

48-14-1 (3/89)—7f

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

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 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. NYD982725400 Manifest Document No. 00007

2. Page 1 of 1

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

3. Generator's Name and Mailing Address
NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD/80 WESTERN REMEDIATION ALBANY, NY 12233

A. State Manifest Document No. NY B 439228 8

4. Generator's Phone (518 457-0927

B. Generator's ID FRONTIER AVE. & 100TH STREET/NIAGARA FALLS

5. Transporter 1 (Company Name) BUFFALO FUEL CORPORATION

6. US EPA ID Number NYD051809952

C. State Transporter's ID 362400 NY

D. Transporter's Phone (716) 773-1921

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
OCCIDENTAL CHEMICAL CORPORATION
4700 BUFFALO AVENUE
NIAGARA FALLS, NEW YORK 14302

10. US EPA ID Number NYD000824482

G. State Facility's ID

H. Facility's Phone (716) 278-7545

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. RQ HAZARDOUS WASTE, SOLID, N.O.S. (U129) CRM-E NA9189	001	CK	00020	T	EPA U129 / STATE
b.					EPA / STATE
c.					EPA / STATE
d.					EPA / STATE

J. Additional Descriptions for Materials listed Above
a CONTAMINATED SOIL
c
b
d

K. Handling Codes for Wastes Listed Above
a S
c
b
d

15. Special Handling Instructions and Additional Information
EMERGENCY RESPONSE GUIDE #31 EMERGENCY CONTACT AND PHONE - JOHN SPELLMAN (518) 457-0927
EMS# 2942

Actual wgt 41080lbs

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.

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Printed/Typed Name Representing Hazardous Waste Section, Department of Environmental Conservation, State of New York

Signature

Mo. 03 Day 11 Year 93

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)

Printed/Typed Name Charles Colvin

Signature

Mo. 03 Day 11 Year 93

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 JOSEPH A. DESTINO

Signature Joseph A. Destino

Mo. 09 Day 12 Year 93

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

48-14-1 (3/89)—7f

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

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 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. NYD982725406 — Manifest Document No.

2. Page 1 of 1 — Information in the shaded areas is not required by Federal Law.

3. Generator's Name and Mailing Address
NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD/BY WESTERN REMEDIATION ALBANY, NY 12233

A. State Manifest Document No. NY B 439229 7

4. Generator's Phone (518 457-0927

B. Generator's ID FRONTIER AVE. & 100TH STREET/NIAGARA FALLS

5. Transporter 1 (Company Name)
BUFFALO FUEL CORPORATION

6. US EPA ID Number NYD051809952

C. State Transporter's ID 912521

D. Transporter's Phone (716) 773-1921

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
OCCIDENTAL CHEMICAL CORPORATION
4700 BUFFALO AVENUE
NIAGARA FALLS, NEW YORK 14302

10. US EPA ID Number NYD000824482

G. State Facility's ID

H. Facility's Phone (716) 278-7545

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. RQ HAZARDOUS WASTE, SOLID, N.O.S. (D129) ORM-E NA9189	001	CM	00020	Y	EPA D129 STATE
b.					EPA STATE
c.					EPA STATE
d.					EPA STATE

J. Additional Descriptions for Materials listed Above
a CONTAMINATED SOIL
b.
c
d

K. Handling Codes for Wastes Listed Above
a [X] c [ ]
b [ ] d [ ]

15. Special Handling Instructions and Additional Information
EMERGENCY RESPONSE GUIDE #31 EMERGENCY CONTACT AND PHONE - JOHN SPELLMAN (518) 457-0927
EHS#

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.

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GENERATOR

Printed/Typed Name — Signature — Mo. Day Year

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)

Printed/Typed Name FRED VAN DUSEN — Signature — Mo. Day Year 03 15

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

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.

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

COPY 6 - Generator - retained by generator

48-14-1 (3/89)—7f

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

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 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. / Manifest Document No.: NYD982725400 00008

2. Page 1 of 1 — Information in the shaded areas is not required by Federal Law.

3. Generator's Name and Mailing Address
NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD/BU WESTERN REMEDIATION ALBANY, NY 12233
4. Generator's Phone (518 457-0927

A. State Manifest Document No.: NY B 439229 7

B. Generator's ID: FRONTIER AVE. & 100TH STREET/NIAGARA FALLS

5. Transporter 1 (Company Name): BUFFALO FUEL CORPORATION
6. US EPA ID Number: NYD051809952
C. State Transporter's ID: 812521 NJ
D. Transporter's Phone (716) 773-1921

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
OCCIDENTAL CHEMICAL CORPORATION
4700 BUFFALO AVENUE
NIAGARA FALLS, NEW YORK 14302
10. US EPA ID Number: NYD000824482
G. State Facility's ID
H. Facility's Phone (716) 278-7545

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.
GENERATOR a. RQ HAZARDOUS WASTE, SOLID, N.O.S. (U129) CRM-E NA9189	001	CM	00020	Y	EPA U129 / STATE
b.					EPA / STATE
c.					EPA / STATE
d.					EPA / STATE

J. Additional Descriptions for Materials listed Above
a CONTAMINATED SOIL
b
c
d

K. Handling Codes for Wastes Listed Above
a B
b
c
d

15. Special Handling Instructions and Additional Information
EMERGENCY RESPONSE GUIDE #31 EMERGENCY CONTACT AND PHONE - JOHN SPELLMAN (518) 457-0927
EMS# 2942

Actual wgt → 48420 lbs.

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.

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Printed/Typed Name: Representing New York State Department of Environmental Conservation — The Nation
Signature:
Mo. Day Year: 03 11 93

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)
Printed/Typed Name: FRED VAN DUSEN
Signature:
Mo. Day Year: 03 11 93

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: JOSEPH A DESTINO
Signature: Joseph A. Destino
Mo. Day Year: 03 12 93

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

48-14-1 (3/89)—7f

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

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 9-30-94

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.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No.: NYD882725400 — Manifest Document No.: 00003
2. Page 1 of 1 — Information in the shaded areas is not required by Federal Law.

3. Generator's Name and Mailing Address
NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD/SU WESTERN REMEDIATION ALBANY, NY 12233
4. Generator's Phone (518 457-0927

A. State Manifest Document No.: NY B 439230 6
B. Generator's ID: FRONTIER AVE. & 100TH ST./NIAGARA FALLS

5. Transporter 1 (Company Name): BUFFALO FUEL CORPORATION
6. US EPA ID Number: NYD051809952
C. State Transporter's ID: 82400 NY
D. Transporter's Phone (716) 773-1921

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
OCCIDENTAL CHEMICAL CORPORATION
4700 BUFFALO AVENUE
NIAGARA FALLS, NEW YORK 14302
10. US EPA ID Number: NYD000824482
G. State Facility's ID
H. Facility's Phone (716) 278-7345

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. RQ HAZARDOUS WASTE, SOLID, N.O.S. (U129) ORM-E NA9189	001	CM	00020	T	EPA U129 / STATE
b.					EPA / STATE
c.					EPA / STATE
d.					EPA / STATE

J. Additional Descriptions for Materials listed Above
a CONTAMINATED SOIL
c
b.
d

K. Handling Codes for Wastes Listed Above
a: B
c:
b:
d:

15. Special Handling Instructions and Additional Information
EMERGENCY RESPONSE GUIDE #31 EMERGENCY CONTACT AND PHONE - JOHN SPELLMAN (518) 457-0927
RMS# 2172

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.

GENERATOR — Printed/Typed Name: [illegible] — Signature: [signature] — Mo. Day Year:

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)
Printed/Typed Name: Charles Colvin — Signature: [signature] — Mo. Day Year: 03 11 93

18. Transporter 2 (Acknowledgement of 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

NY B 439230 6

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

COPY 6 - Generator retains copy

46-14-1 (3/89)—7f

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

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 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. NYD882725409 — Manifest Document No. 00003
2. Page 1 of 1 — Information in the shaded areas is not required by Federal Law.

3. Generator's Name and Mailing Address
NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD/BU WESTERN REMEDIATION ALBANY, NY 12233
4. Generator's Phone (518 457-0927

A. State Manifest Document No. NY B 439230 6
B. Generator's ID FRONTIER AVE. & 100TH ST./NIAGARA FALLS

5. Transporter 1 (Company Name) BUFFALO FUEL CORPORATION
6. US EPA ID Number NYD051809952
C. State Transporter's ID 862400 NY
D. Transporter's Phone (716) 773-1921

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
OCCIDENTAL CHEMICAL CORPORATION
4700 BUFFALO AVENUE
NIAGARA FALLS, NEW YORK 14302
10. US EPA ID Number NYD000824482
G. State Facility's ID
H. Facility's Phone (716) 278-7545

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.
GENERATOR a. RQ HAZARDOUS WASTE, SOLID, N.O.S. (U129) ORM-E NA9189	001	CM	00020	Y	EPA U129 / STATE
b.					EPA / STATE
c.					EPA / STATE
d.					EPA / STATE

J. Additional Descriptions for Materials listed Above
a CONTAMINATED SOIL
c
b
d

K. Handling Codes for Wastes Listed Above
a B
c
b
d

15. Special Handling Instructions and Additional Information
EMERGENCY RESPONSE GUIDE #31 EMERGENCY CONTACT AND PHONE - JOHN SPELLMAN (518) 457-0927
EMS# 2042
Actual wgt. 39760 lbs.

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.

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Printed/Typed Name	Signature	Mo.	Day	Year
Supervising the Sale of Ag Products for Occidental Chemical - John Spellman		03	11	93

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)

Printed/Typed Name	Signature	Mo.	Day	Year
Charles Colvin		03	11	93

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
Robert Simmington		03	11	93

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

COPY 2—Generator's Initial Copy

48-14-1 (3/89)—7f

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

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 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. NYD982725400 Manifest Document No. 00004

2. Page 1 of 1 — Information in the shaded areas is not required by Federal Law.

3. Generator's Name and Mailing Address
NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD/SU WESTERN REMEDIATION ALBANY, NY 12233

4. Generator's Phone (518 457-0927

A. State Manifest Document No. NY B 439231 5

B. Generator's ID FRONTIER AVE. & 100TH ST./NIAGARA FALLS

5. Transporter 1 (Company Name) BUFFALO FUEL CORPORATION

6. US EPA ID Number NYD051809952

C. State Transporter's ID 01-SV

D. Transporter's Phone (716) 773-1921

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
OCCIDENTAL CHEMICAL CORPORATION
4700 BUFFALO AVENUE
NIAGARA FALLS, NEW YORK 14302

10. US EPA ID Number NYD000824482

G. State Facility's ID

H. Facility's Phone (716) 278-7545

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. RQ HAZARDOUS WASTE, SOLID, N.O.S. (D129) ORM-E NA9189	001	CM	00020	Y	EPA D129 STATE
b.					EPA STATE
c.					EPA STATE
d.					EPA STATE

J. Additional Descriptions for Materials listed Above
a CONTAMINATED SOIL
c
b.
d

K. Handling Codes for Wastes Listed Above
a B
c
b
d

15. Special Handling Instructions and Additional Information
EMERGENCY RESPONSE GUIDE #31 EMERGENCY CONTACT AND PHONE - JOHN SPELLMAN (518) 457-0927
RMS# 2941

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

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)

Printed/Typed Name | Signature | Mo. Day Year

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.

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.

OCEV 5 - Generator - retained by generator

48-14-1 (3/89)—71

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

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 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. NYD982725409 — Manifest Document No. 00004

2. Page 1 of 1

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

3. Generator's Name and Mailing Address
NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD/BU WESTERN REMEDIATION ALBANY, NY 12233

4. Generator's Phone (518 457-0927

A. State Manifest Document No. NY B 439231 5

B. Generator's ID FRONTIER AVE. & 100TH ST./NIAGARA FALLS

5. Transporter 1 (Company Name) BUFFALO FUEL CORPORATION

6. US EPA ID Number NYD051809952

C. State Transporter's ID 31-52 VM

D. Transporter's Phone (716) 773-1921

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
OCCIDENTAL CHEMICAL CORPORATION
4700 BUFFALO AVENUE
NIAGARA FALLS, NEW YORK 14302

10. US EPA ID Number NYD000824482

G. State Facility's ID

H. Facility's Phone (716) 278-7545

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. RQ HAZARDOUS WASTE, SOLID, N.O.S. (U129) ORM-E NA9189	001	CM	00020	Y	EPA U129 STATE
b.					EPA STATE
c.					EPA STATE
d.					EPA STATE

J. Additional Descriptions for Materials listed Above
a CONTAMINATED SOIL
b
c
d

K. Handling Codes for Wastes Listed Above
a B
b
c
d

15. Special Handling Instructions and Additional Information
EMERGENCY RESPONSE GUIDE #31 EMERGENCY CONTACT AND PHONE - JOHN EPELLMAN
ERG# 2923 (518) 457-0927
Actual wgt. 57600 lbs.

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.

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GENERATOR

Printed/Typed Name Representative of the Assistant Director of Environmental Conservation John Andrea — Signature — Mo. Day Year 03 11 93

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)
Printed/Typed Name Jim Johnson — Signature — Mo. Day Year 03 11 93

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 Robert Simmington — Signature — Mo. Day Year 03 11 93

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

COPY 2 - Generator 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

NIDEC0000

4R-14-1 (3/89)—71

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

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 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. | Manifest Document No.: NYB9827254 | 000001

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

3. Generator's Name and Mailing Address
NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD/BU WESTERN REMEDIATION ALBANY, NY 12233

A. State Manifest Document No.: NY B 439232 4

4. Generator's Phone (518 457-0927

B. Generator's ID: FRONTIER AVE. & 100TH ST./NIAGARA FALLS

5. Transporter 1 (Company Name): BUFFALO FUEL CORPORATION

6. US EPA ID Number: NYD051609952

C. State Transporter's ID: 26240D NY

D. Transporter's Phone (716) 773-1921

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
OCCIDENTAL CHEMICAL CORPORATION
4700 BUFFALO AVENUE
NIAGARA FALLS, NEW YORK 14302

10. US EPA ID Number: NYD008244822

G. State Facility's ID

H. Facility's Phone: (716) 278-7545

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. RQ HAZARDOUS WASTE, SOLID, N.O.S. (U129) ORM-E NA9189	001	CM	00020	T	EPA U129 / STATE
b.					EPA / STATE
c.					EPA / STATE
d.					EPA / STATE

J. Additional Descriptions for Materials listed Above
a CONTAMINATED SOIL
c
b.
d

K. Handling Codes for Wastes Listed Above
a: B
c:
b:
d:

15. Special Handling Instructions and Additional Information
EMERGENCY RESPONSE GUIDE #31 EMERGENCY CONTACT AND PHONE - JOHN SPELLMAN
ERG# 2942 (518) 457-0927

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.

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Printed/Typed Name | Signature | Mo. Day Year

17. Transporter 1 (Acknowledgement of Receipt of Materials)
Printed/Typed Name: Charles Colvin | Signature: Charles Colvin | Mo. Day Year: 03 11 93

18. Transporter 2 (Acknowledgement or 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 | Signature | Mo. Day Year

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

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.

NY B 439232 4

GENERATOR

TRANSPORTER

FACILITY

48-14-1 (3/89)—7f

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

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 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. / Manifest Document No.: NYD982725480 000001

2. Page 1 of 1

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

3. Generator's Name and Mailing Address
NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD/SW WESTERN REMEDIATION ALBANY, NY 12233

4. Generator's Phone (518 457-0927

A. State Manifest Document No. NY B 439232 4

B. Generator's ID FRONTIER AVE. & 100TH ST./NIAGARA FALLS

5. Transporter 1 (Company Name): BUFFALO FUEL CORPORATION

6. US EPA ID Number: NYD051809952

C. State Transporter's ID 26240D NY

D. Transporter's Phone (716) 773-1921

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
OCCIDENTAL CHEMICAL CORPORATION
4700 BUFFALO AVENUE
NIAGARA FALLS, NEW YORK 14302

10. US EPA ID Number: NYD000824482

G. State Facility's ID

H. Facility's Phone (716 278-7545

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. RQ HAZARDOUS WASTE, SOLID, N.O.S. (U129) CRM-Z NA9189	001	CM	00020	Y	EPA U129 STATE
b.					EPA STATE
c.					EPA STATE
d.					EPA STATE

J. Additional Descriptions for Materials listed Above
a CONTAMINATED SOIL
c
b
d

K. Handling Codes for Wastes Listed Above
a B
c
b
d

15. Special Handling Instructions and Additional Information
EMERGENCY RESPONSE GUIDE #31 EMERGENCY CONTACT AND PHONE - JOHN SPELLMAN (518) 457-0927
ERG# 2942
WEIGHT REVISED → 44260 lbs

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.

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Printed/Typed Name: Representing the State of New York Department of Environmental Conservation Signature: [signature] Mo. 03 Day 11 Year 93

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)
Printed/Typed Name: Charles Colvin Signature: Charles Colvin Mo. 03 Day 11 Year 93

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: Robert Simmington Signature: [signature] Mo. 03 Day 11 Year 93

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

COPY 5—Generator-mailed by TSD facility

48-14-1 (3/89)—7f

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

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 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. NYB9827254068 Manifest Document No. 00002
2. Page 1 of 1
Information in the shaded areas is not required by Federal Law.

3. Generator's Name and Mailing Address
NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD/BU WESTERN REMEDIATION ALBANY, NY 12233
4. Generator's Phone (518 457-0927

A. State Manifest Document No. NY B 439233 3
B. Generator's ID FRONTIER AVE. & 100TH ST./NIAGARA FALLS
C. State Transporter's ID 912577 N
D. Transporter's Phone (716) 773-1921

5. Transporter 1 (Company Name) BUFFALO FUEL CORPORATION
6. US EPA ID Number NYD051809952
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
OCCIDENTAL CHEMICAL CORPORATION
4700 BUFFALO AVENUE
NIAGARA FALLS, NEW YORK 14302
10. US EPA ID Number NYD980524482
G. State Facility's ID
H. Facility's Phone (716) 278-7545

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. RQ HAZARDOUS WASTE, SOLID, N.O.S. (D129) CHM-E NA9189	001	CM	00020	Y	EPA D129 STATE
b.					EPA STATE
c.					EPA STATE
d.					EPA STATE

J. Additional Descriptions for Materials listed Above
a CONTAMINATED SOIL
b.
c
d

K. Handling Codes for Wastes Listed Above
a. D
b.
c.
d.

15. Special Handling Instructions and Additional Information
EMERGENCY RESPONSE GUIDE #31 EMERGENCY CONTACT AND PHONE - JOHN SPELLMAN (518) 457-0927
ERG# 29/2

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.

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Printed/Typed Name [illegible] Signature [illegible] Mo. Day Year [illegible]

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)
Printed/Typed Name [illegible] Signature [illegible] Mo. Day Year 03 11 9

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.

GENERATOR

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.

COPY 6 - Generator - retained by generator

48-14-1 (3/89)—7f

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

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 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. / Manifest Document No.: NYD982725400 00002
2. Page 1 of 1
Information in the shaded areas is not required by Federal Law.

3. Generator's Name and Mailing Address
NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD/BU WESTERN REMEDIATION ALBANY, NY 12233
4. Generator's Phone (518 457-0927

A. State Manifest Document No. NY B 439233 3
B. Generator's ID FRONTIER AVE. & 100TH ST./NIAGARA FALLS
C. State Transporter's ID 81252V NY
D. Transporter's Phone (716) 773-1921
E. State Transporter's ID
F. Transporter's Phone ( )

5. Transporter 1 (Company Name): BUFFALO FUEL CORPORATION
6. US EPA ID Number: NYD051809952
7. Transporter 2 (Company Name)
8. US EPA ID Number

9. Designated Facility Name and Site Address
OCCIDENTAL CHEMICAL CORPORATION
4700 BUFFALO AVENUE
NIAGARA FALLS, NEW YORK 14302
10. US EPA ID Number: NYD000824482
G. State Facility's ID
H. Facility's Phone (716) 278-7545

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	I. Waste No.
a. RQ HAZARDOUS WASTE, SOLID, N.O.S. (U129) ORM-E NA9189	001	CM	00020	Y	EPA U129 STATE
b.					EPA STATE
c.					EPA STATE
d.					EPA STATE

J. Additional Descriptions for Materials listed Above
a CONTAMINATED SOIL
c
b
d

K. Handling Codes for Wastes Listed Above
a B
c
b
d

15. Special Handling Instructions and Additional Information
EMERGENCY RESPONSE GUIDE #31 EMERGENCY CONTACT AND PHONE - JOHN SPELLMAN (518) 457-0927
EMS# 2942
Weight Received → 50280 lbs

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.

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Printed/Typed Name: [illegible] Signature: [signature] Mo. 03 Day 11 Year 93

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)
Printed/Typed Name: Jim Tubbins Signature: [signature] Mo. 03 Day 11 Year 93

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: Robert Summerton Signature: [signature] Mo. 03 Day 11 Year 93

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

COPY 5—Generator-mailed by TSD facility

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

NY B 439233 3

48-14-1 (3/89)—7f

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

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 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. / Manifest Document No.: NYD982725400 / 00006

2. Page 1 of 1

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

3. Generator's Name and Mailing Address
NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD/BU WESTERN REMEDIATION ALBANY, NY 12233

4. Generator's Phone (518) 457-0927

A. State Manifest Document No.: NY B 439234 2

B. Generator's ID: FRONTIER AVE. & 100TH ST./NIAGARA FALLS

5. Transporter 1 (Company Name): BUFFALO FUEL CORPORATION

6. US EPA ID Number: NYD051809952

C. State Transporter's ID: 862400 NY

D. Transporter's Phone: (716) 773-1921

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
OCCIDENTAL CHEMICAL CORPORATION
4700 BUFFALO AVENUE
NIAGARA FALLS, NEW YORK 14302

10. US EPA ID Number: NYD000824482

G. State Facility's ID

H. Facility's Phone: (716) 278-7545

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.
GENERATOR a. RQ HAZARDOUS WASTE, SOLID, N.O.S. (U129) ORM-E NA9189	001	CK	0020	T	EPA U129 STATE
b.					EPA STATE
c.					EPA STATE
d.					EPA STATE

J. Additional Descriptions for Materials listed Above
a. CONTAMINATED SOIL
b.
c.
d.

K. Handling Codes for Wastes Listed Above
a. [X]
b. [ ]
c. [ ]
d. [ ]

15. Special Handling Instructions and Additional Information
EMERGENCY RESPONSE GUIDE #31 EMERGENCY CONTACT AND PHONE – JOHN SPELLMAN (518) 457-0927
EMS# 2942

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Printed/Typed Name | Signature | Mo. Day Year

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)
Printed/Typed Name: Charles Colvin | Signature | Mo. Day Year: 03 11 93

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

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.

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

COPY 6 – Generator—retained by generator

48-14-1 (3/89)—7f

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

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 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. NYD982725400 Manifest Document No. 00006
2. Page 1 of 1
Information in the shaded areas is not required by Federal Law.

3. Generator's Name and Mailing Address
NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD/BU WESTERN REMEDIATION ALBANY, NY 12233

4. Generator's Phone (518) 457-0927

A. State Manifest Document No. NY B 439234 2

B. Generator's ID FRONTIER AVE. & 100TH ST./NIAGARA FALLS

5. Transporter 1 (Company Name)
BUFFALO FUEL CORPORATION

6. US EPA ID Number NYD051809952

C. State Transporter's ID 262400 NY

D. Transporter's Phone (716) 773-1921

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
OCCIDENTAL CHEMICAL CORPORATION
4700 BUFFALO AVENUE
NIAGARA FALLS, NEW YORK 14302

10. US EPA ID Number NYD000824682

G. State Facility's ID

H. Facility's Phone (716) 278-7545

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. RQ HAZARDOUS WASTE, SOLID, N.O.S. (D129) ORM-E NA9189	001	CM	00020	T	EPA D129 STATE
b.					EPA STATE
c.					EPA STATE
d.					EPA STATE

J. Additional Descriptions for Materials listed Above
a CONTAMINATED SOIL
b
c
d

K. Handling Codes for Wastes Listed Above
a H
b
c
d

15. Special Handling Instructions and Additional Information
EMERGENCY RESPONSE GUIDE #31 EMERGENCY CONTACT AND PHONE - JOHN SPELLMAN (518) 457-0927
ERG# 2942
Weight Received 45600 lbs

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Printed/Typed Name Representing the State of New York Signature Alan E Nadeau Mo. 03 Day 11 Year 93
Supervising Engineer, Remedial Construction

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)
Printed/Typed Name Charles Colvin Signature Charles Colvin Mo. 03 Day 11 Year 93

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 Joseph A. Destino Signature Joseph A. Destino Mo. 03 Day 11 Year 93

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

COPY 5—Generator-mailed by TSD facility

48-14-1 (3/89)—7f

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

HAZARDOUS WASTE MANIFEST

Please print or type. Do not Staple.

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

Form Approved. OMB No. 2050-0039. Expires 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. NYD982725400 — Manifest Document No. 00005

2. Page 1 of 1 — Information in the shaded areas is not required by Federal Law.

3. Generator's Name and Mailing Address
NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD/RD WESTERN REMEDIATION ALBANY, NY 12233

4. Generator's Phone (518) 457-0927

A. State Manifest Document No. NY B 439235 1

B. Generator's ID FRONTIER AVE. & 100TH STREET/NIAGARA FALLS

5. Transporter 1 (Company Name) BUFFALO FUEL CORPORATION

6. US EPA ID Number NYD051809952

C. State Transporter's ID 01444

D. Transporter's Phone (716) 773-1921

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
OCCIDENTAL CHEMICAL CORPORATION
4700 BUFFALO AVENUE
NIAGARA FALLS, NEW YORK 14302

10. US EPA ID Number NYD000824482

G. State Facility's ID

H. Facility's Phone (716) 278-7545

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	I. Waste No.
a. RQ HAZARDOUS WASTE, SOLID, N.O.S. (D029) ORM-E NA9189	001	CM	00020	Y	EPA D029 / STATE
b.					EPA / STATE
c.					EPA / STATE
d.					EPA / STATE

J. Additional Descriptions for Materials listed Above
a CONTAMINATED SOIL
c
b
d

K. Handling Codes for Wastes Listed Above
a [X] c [ ]
b [ ] d [ ]

15. Special Handling Instructions and Additional Information
EMERGENCY RESPONSE GUIDE #31 EMERGENCY CONTACT AND PHONE - JOHN SPELLMAN (518) 457-0927
EMS# 2-442

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.

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Printed/Typed Name — Signature — Mo. Day Year

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)

Printed/Typed Name — Signature — Mo. Day Year

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.

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.

NY B 439235 1

COPY 6—Generator—retained by generator

48-14-1 (3/89)—7f

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

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 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. NYD982725408 — Manifest Document No. 00005

2. Page 1 of 1

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

3. Generator's Name and Mailing Address
NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD/BU WESTERN REMEDIATION ALBANY, NY 12233

4. Generator's Phone (518 457-0927

A. State Manifest Document No. NY B 439235 1

B. Generator's ID FRONTIER AVE. & 100TH STREET/NIAGARA FALLS

5. Transporter 1 (Company Name) BUFFALO FUEL CORPORATION

6. US EPA ID Number NYD051809952

C. State Transporter's ID 81252 VH

D. Transporter's Phone (716) 773-1921

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
OCCIDENTAL CHEMICAL CORPORATION
4700 BUFFALO AVENUE
NIAGARA FALLS, NEW YORK 14302

10. US EPA ID Number NYD000824482

G. State Facility's ID

H. Facility's Phone (716) 278-7545

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.
GENERATOR a. RQ HAZARDOUS WASTE, SOLID, N.O.S. (D129) ORM-E NA9189	001	CK	00020	T	EPA D129 / STATE
b.					EPA / STATE
c.					EPA / STATE
d.					EPA / STATE

J. Additional Descriptions for Materials listed Above
a CONTAMINATED SOIL
b
c
d

K. Handling Codes for Wastes Listed Above
a B
b
c
d

15. Special Handling Instructions and Additional Information
EMERGENCY RESPONSE GUIDE #31 EMERGENCY CONTACT AND PHONE - JOHN SPELLMAN (518) 457-0927
EMS# 2592

49920 lbs — WEIGHT REVISED

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.

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Printed/Typed Name Representing the State of New York Department of Environmental Conservation — John Spellman — Signature — Mo. 03 Day 11 Year 93

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)
Printed/Typed Name John Johnson — Signature — Mo. 03 Day 11 Year 93

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 JOSEPH A. DESTINO — Signature — Mo. 03 Day 11 Year 93

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

COPY 5 – Generator-mailed by TSD facility

48-14-1 (3/89)—7f

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

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 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. / Manifest Document No.: NYD982725400 / 000010 7

2. Page 1 of 1 — Information in the shaded areas is not required by Federal Law.

3. Generator's Name and Mailing Address
NEW YORK STATE DEPT OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD/FUL WESTERN REGIONAL, ALBANY, NY

A. State Manifest Document No.: NY B 439237 8

4. Generator's Phone ( ) 457-0532

B. Generator's ID: [illegible] 50 WOLF ROAD, ALBANY, NY

5. Transporter 1 (Company Name)
RECTOR ENV. CONTRACTING

6. US EPA ID Number: NYD 0 5 1 8 0 2 2 5 2

C. State Transporter's ID: 771-22

D. Transporter's Phone (716) 773-[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
LAKE CHEM. LEWISTON TREATMENT FACILITY
805 9TH STREET
NIAGARA FALLS, NY 14304

10. US EPA ID Number: NYU 0 0 0 7 6 1 6 7

G. State Facility's ID

H. Facility's Phone: (716) 282-0111

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. RQ HAZARDOUS WASTE, LIQUID, (U129) ORM-E NA9187	001	TT	01500	G	EPA U129 STATE
b.					EPA STATE
c.					EPA STATE
d.					EPA STATE

J. Additional Descriptions for Materials listed Above
a. CONTAINED LIQUID
b.
c.
d.

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

15. Special Handling Instructions and Additional Information
EMERGENCY RESPONSE GUIDE 31
EMERGENCY CONTACT: MR. JIMMY JOHN SHERMAN (716) 457-0547
EPC #2222

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Printed/Typed Name: [illegible] NEW YORK STATE DEC [illegible] Signature: [signature] Mo. 3 Day 01 Year 1[illegible]

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)
Printed/Typed Name: [illegible] Signature: [signature] Mo. [illegible] Day [illegible] Year [illegible]

18. Transporter 2 (Acknowledgement of 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.

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.

NY B 439237 8

COPY 6 – Generator – retained by generator

4-1 (3/89)—7f

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

HAZARDOUS WASTE MANIFEST

Please print or type. Do not Staple.

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

Form Approved. OMB No. 2050-0039. Expires 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. / Manifest Document No.: NYD 986 272 540 / 000016

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

3. Generator's Name and Mailing Address

A. State Manifest Document No.: NY B 439240 5

B. Generator's ID

4. Generator's Phone ( )

5. Transporter 1 (Company Name) | 6. US EPA ID Number: NYD 981 809 952

C. State Transporter's ID

D. Transporter's Phone ( )

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: Lone Star Landfill, Texas

10. US EPA ID Number: NYD 000 767 457

G. State Facility's ID

H. Facility's Phone: (716) 285-0111

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. RQ Hazardous Waste Solid, (NOS) CAS # N/A89	001	CM	00016	Y	EPA U129 / STATE
b.					EPA / STATE
c.					EPA / STATE
d.					EPA / STATE

J. Additional Descriptions for Materials listed Above

a. Contaminated Soil | c. | b. | d.

K. Handling Codes for Wastes Listed Above

a. K | c. | b. | d.

15. Special Handling Instructions and Additional Information

Emergency Contact: Mark Gardner
EPA ID# NYD 986 272 540

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Printed/Typed Name	Signature	Mo.	Day	Year

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)

Printed/Typed Name	Signature	Mo.	Day	Year

18. Transporter 2 (Acknowledgement of 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 6 - Generator - retained by generator

APPENDIX G

REPORTS OF IN-PLACE FIELD UNIT WEIGHT DENSITY TESTS

Professional Service Industries, Inc.

MAR 2 REC'D

REPORT OF FIELD COMPACTION TESTS

TESTED FOR: Entech Management
1008 Main Street
Buffalo, New York 14202

PROJECT: Love Canal Remediation

DATE: February 24, 1993

OUR REPORT NO.: 806-30016-2

TEST DATA:

TEST NO	DATE	ELEV / DEPTH	SOIL ID NUMBER	MAXIMUM LAB DRY DENSITY	WATER CONTENT	IN PLACE DRY DENSITY	PER CENT COMPACTION	COMMENT *
1	2-24-93	10"	1	133.3	4.2	124.5	93.4	A
2	2-24-93	6"	1	133.3	4.2	125.0	93.7	A
3	2-24-93	10"	1	133.3	4.2	133.2	99.9	A
4	2-24-93	6"	1	133.3	4.3	134.4	100+	A
5	2-24-93	6"	1	133.3	4.4	132.4	99.3	A
6	2-24-93	10"	1	133.3	4.4	125.7	94.3	A

TEST LOCATION:

1	5' from North end of trench
2	5' from North end of trench
3	30' from North end of trench
4	30' from North end of trench
5	60' from North end of trench
6	75' from North end of trench

NOTES: DENSITIES SHOWN: Lbs. per cubic foot
WATER CONTENT: Per Cent of dry weight
PERCENT COMPACTION: Based on maximum dry density obtained on sample indicated by soil ID number.

* 1. FILL MATERIAL
2. BACKFILL
3. BASE COURSE
4. SUBBASE
5. SOIL CEMENT
6. OTHER

A. TEST RESULTS COMPLY WITH SPECIFICATIONS
B. RECOMPACTION REQUIRED
C. TEST IS AFTER RECOMPACTION

REMARKS: 2" R.O.C. Stone

2/CLient
tp

Respectfully submitted,
Professional Service Industries, Inc.

Professional Service Industries, Inc.

February 26, 1993

Entech Management Services Corporation
1008 Main Street
Buffalo, New York 14202

Attn: William A. Galloway Jr.

Dear Mr. Galloway:

Attached please find PSI's Moisture Density Relationship of Soil (Proctor) Report that was performed for the Love Canal remediation project located in Niagara Falls, New York.

The materials sample was obtained and delivered to our PSI Tonawanda, (Buffalo) Laboratory by Entech Management representative Mr. Bill Galloway. The material was sampled from an on-site production pile at Niagara Stones, Quarry Road Pit located in Niagara Falls, New York. The material was identified as Grey Yard Scrapings. The material was tested in accordance with ASTM D-698 (Laboratory Compaction Characteristics of Soil using Standard Effort).

If you should have any questions regarding the Moisture Density Report or our laboratory procedures, please contact this office.

Respectfully submitted;

Eric A. Wilson

Eric A. Wilson
Project Manager
Professional Service Industries, Inc.

605 Young Street • Tonawanda, NY 14150 • Phone: 716/694-8657 • Fax: 716/694-8638

Professional Service Industries, Inc.

REPORT OF MOISTURE DENSITY RELATIONSHIP OF SOIL

TESTED FOR: Entech Management Services Corp.
1008 Main Street
Buffalo, NY 14202

PROJECT: Lova Canal Remediation

DATE: February 23, 1993

OUR REPORT NO.: 806-30016

TEST DATA

Visual Classification: Grey yard scrapings

Sample Source: Niagara Stone, Quarry Road Pit, Niagara Falls, NY

Method of Test: ASTM D698 Method A

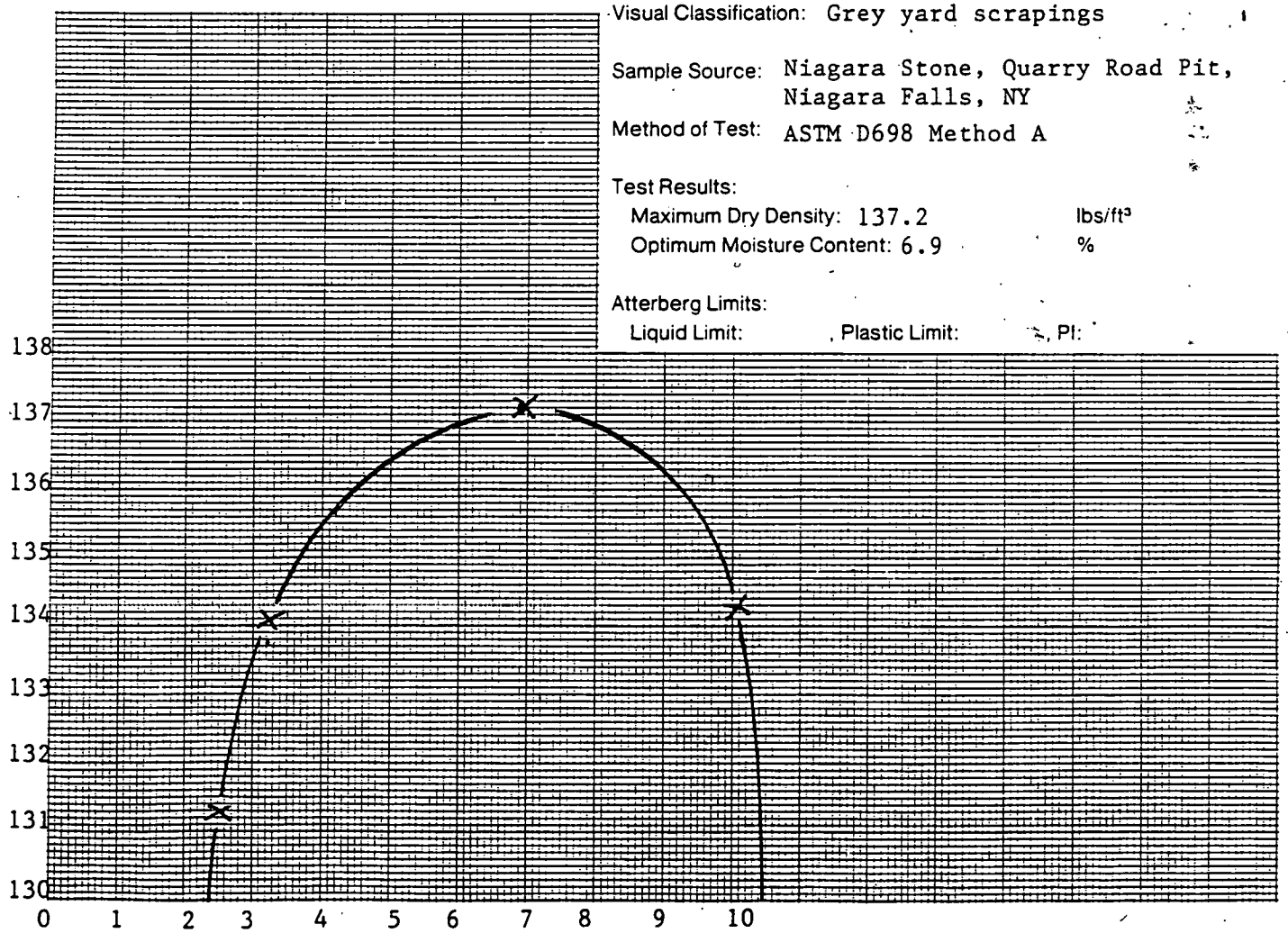
Test Results:

Maximum Dry Density: 137.2 lbs/ft³

Optimum Moisture Content: 6.9 %

Atterberg Limits:

Liquid Limit: , Plastic Limit: , PI:



Respectfully submitted,
Professional Service Industries, Inc.

2/CLient

605 Young Street • Tonawanda, NY 14150 • Phone: 716/694-8657 • Fax: 716/694-8638

Professional Service Industries, Inc.

February 26, 1993

Entech Management Services Corporation
1008 Main Street
Buffalo, New York 14202

Attn: William A. Galloway Jr.

Dear Mr. Galloway:

Attached please find PSI's Moisture Density Relationship of Soil (Proctor) Report that was performed for the Love Canal remediation project located in Niagara Falls, New York.

The materials sample was obtained and delivered to our PSI Tonawanda, (Buffalo) Laboratory by Entech Management representative Mr. Bill Galloway. The material was sampled from an on-site production pile at Niagara Stones, Quarry Road Pit located in Niagara Falls, New York. The material was identified as Grey 2" R.O.C. Stone. The material was tested in accordance with ASTM D-698 (Laboratory Compaction Characteristics of Soil using Standard Effort).

If you should have any questions regarding the Moisture Density Report or our laboratory procedures, please contact this office.

Respectfully submitted;

Eric A. Wilson

Eric A. Wilson
Project Manager
Professional Service Industries, Inc.

605 Young Street • Tonawanda, NY 14150 • Phone: 716/694-8657 • Fax: 716/694-8638

Professional Service Industries, Inc.

REPORT OF MOISTURE DENSITY RELATIONSHIP OF SOIL

TESTED FOR: Entech Management
1008 Main Street
Buffalo, NY 14202

PROJECT: Love Canal Remediation

DATE: February 25, 1993

OUR REPORT NO.: 806-30016-3

TEST DATA

Visual Classification: 2" R.O.C Stone

Sample Source: Niagara Stone, Quarry Road Pit, Niagara Falls, New York

Method of Test: ASTM D698 Method D

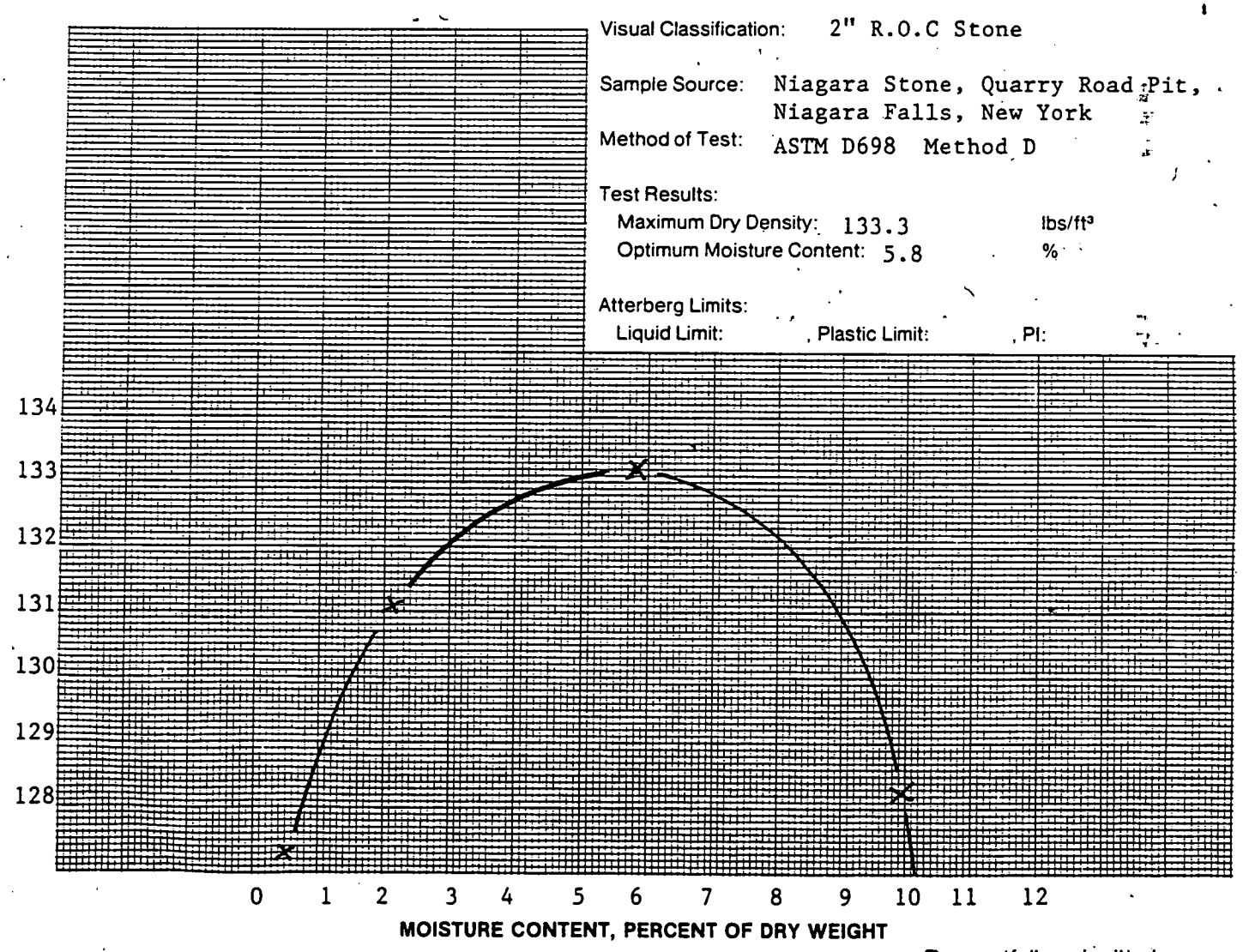
Test Results:

Maximum Dry Density: 133.3 lbs/ft³

Optimum Moisture Content: 5.8 %

Atterberg Limits:

Liquid Limit: , Plastic Limit: , PI:



Respectfully submitted,
Professional Service Industries, Inc.

2/CLient
tp

MAR 9 REC'D

Professional Service Industries, Inc.

REPORT OF FIELD COMPACTION TESTS

TESTED FOR: Entech Management Services Corp.
1008 Main Street
Buffalo, New York 14202

PROJECT: Love Canal Site Remediation

DATE: March 4, 1993

OUR REPORT NO.: 806-30016-4a

TEST DATA:

TEST NO	DATE	ELEV / DEPTH	SOIL ID NUMBER	MAXIMUM LAB DRY DENSITY	WATER CONTENT	IN PLACE DRY DENSITY	PER CENT COMPACTION	COMMENT *
1	3-4-93	8"	2	133.3	4.9	130.5	97.9	A
2	3-4-93	8"	2	133.3	3.8	128.4	96.4	A
3	3-4-93	8"	2	133.3	4.7	127.4	95.6	A
4	3-4-93	8"	2	133.3	4.9	127.2	95.5	A
5	3-4-93	8"	2	133.3	5.1	128.5	96.4	A
6	3-4-93	8"	2	133.3	4.6	129.6	97.3	A

TEST LOCATION:

1	West of house number 10016 18" Below Street Grade
2	East of 100 Street
3	East of 100 Street
4	East of 100 Street
5	East of 100 Street 2nd Lift
6	East of 100 Street

NOTES: DENSITIES SHOWN: Lbs. per cubic foot
WATER CONTENT: Per Cent of dry weight
PERCENT COMPACTION: Based on maximum dry density obtained on sample indicated by soil ID number.

* 1. FILL MATERIAL
2. BACKFILL
3. BASE COURSE
4. SUBBASE
5. SOIL CEMENT
6. OTHER

A. TEST RESULTS COMPLY WITH SPECIFICATIO
B. RECOMPACTION REQUIRED
C. TEST IS AFTER RECOMPACTION

REMARKS:

Respectfully submitted,
Professional Service Industrie[illegible]

Professional Service Industries, Inc.

REPORT OF FIELD COMPACTION TESTS

TESTED FOR: Entech Management Services Corp.
1008 Main Street
Buffalo, New York 14202

PROJECT: Love Canal Site Remdiation

DATE: March 4, 1993

OUR REPORT NO.: 806-30016-4B

TEST DATA:

TEST NO	DATE	ELEV / DEPTH	SOIL ID NUMBER	MAXIMUM LAB DRY DENSITY	WATER CONTENT	IN PLACE DRY DENSITY	PER CENT COMPACTION	COMMENT *
7	3-4-93	8"	2	133.3	4.0	127.4	95.6	A
8	3-4-93	6"	2	133.3	3.8	125.4	94.1	A
9	3-4-93	8"	2	133.3	4.6	135.8	100+	A
10	3-4-93	8"	2	133.3	5.6	126.4	94.9	A
11	3-4-93	8"	2	133.3	4.5	131.2	98.5	A

TEST LOCATION:

7	3rd Lift
8	3rd Lift
9	3rd Lift
10	3rd Lift
11	3rd Lift

NOTES: DENSITIES SHOWN: Lbs. per cubic foot
WATER CONTENT: Per Cent of dry weight
PERCENT COMPACTION: Based on maximum dry density obtained on sample indicated by soil ID number.

* 1. FILL MATERIAL
2. BACKFILL
3. BASE COURSE
4. SUBBASE
5. SOIL CEMENT
6. OTHER

A. TEST RESULTS COMPLY WITH SPECIFICATION
B. RECOMPACTION REQUIRED
C. TEST IS AFTER RECOMPACTION

REMARKS:

Respectfully submitted,
Professional Service Industries, Inc.

Professional Service Industries, Inc.

REPORT OF FIELD COMPACTION TESTS

TESTED FOR: Entech Management
1008 Main Street
Buffalo, New York 14202

PROJECT: Love Canal Remediation

DATE: March 5, 1993

OUR REPORT NO.: 806-30016-5

TEST DATA:

TEST NO	DATE	ELEV / DEPTH	SOIL ID NUMBER	MAXIMUM LAB DRY DENSITY	WATER CONTENT	IN PLACE DRY DENSITY	PER CENT COMPACTION	COMMENT *
1	3-5-93	8"/4' BG		133.3	5.5	135.2	100+	2 - A
2	3-5-93	6"/4' BG		133.3	7.3	137.7	100+	2 - A
3	3-5-93	8"/2' BG		133.3	7.1	130.5	97.9	2 - A
4	3-5-93	6"/2' BG		133.3	5.8	132.3	99.2	2 - A

TEST LOCATION:

1	7' West of manhole 412
2	7' East of manhole 412
3	7' West of manhole 412
4	10' East of manhole 412

NOTES: DENSITIES SHOWN: Lbs. per cubic foot
WATER CONTENT: Per Cent of dry weight
PERCENT COMPACTION: Based on maximum dry density obtained on sample indicated by soil ID number.

* 1. FILL MATERIAL
2. BACKFILL
3. BASE COURSE
4. SUBBASE
5. SOIL CEMENT
6. OTHER

A. TEST RESULTS COMPLY WITH SPECIFICATIONS
B. RECOMPACTION REQUIRED
C. TEST IS AFTER RECOMPACTION

REMARKS:

Respectfully submitted,
Professional Service Industries, Inc.

605 Young Street • Tonawanda, NY 14150 • Phone: 716/694-8657 • Fax: 716/694-8638

Professional Service Industries, Inc.

MAR 15 REC'D

REPORT OF FIELD COMPACTION TESTS

TESTED FOR: Entech Management
1008 Main Street
Buffalo, New York 14202

PROJECT: Love Canal Remediation

DATE: March 9, 1993

OUR REPORT NO: 806-30016-6

TEST DATA:

TEST NO.	DATE	ELEV / DEPTH	SOIL ID NUMBER	MAXIMUM LAB DRY DENSITY	WATER CONTENT	IN PLACE DRY DENSITY	PER CENT COMPACTION	COMMENT *
1	3-9-93	8	2	133.3	9.2	127.0	95.3	A
2	3-9-93	8	2	133.3	8.8	126.0	94.5	A
3	3-9-93	8	2	133.3	7.1	132.1	99.1	A
4	3-9-93	8	2	133.3	7.2	133.1	99.9	A
5	3-9-93	8	2	133.3	7.0	133.5	100.2	A
6	3-9-93	8	2	133.3	6.9	130.8	97.6	A

TEST LOCATION:

1	25' East of manhole at end of 100 St. on Frontier St.
2	35' East of manhole at end of 100 St. on Frontier St.
3	45' East of manhole at end of 100 St. on Frontier St.
4	60' East of manhole at end of 100 St. on Frontier St.
5	20' West of manhole near 10016 Frontier St.
6	15' West of manhole near 10016 Frontier St. North edge of trench

NOTES: DENSITIES SHOWN: Lbs. per cubic foot
WATER CONTENT: Per Cent of dry weight
PERCENT COMPACTION: Based on maximum dry density obtained on sample indicated by soil ID number.

* 1. FILL MATERIAL
2. BACKFILL
3. BASE COURSE
4. SUBBASE
5. SOIL CEMENT
6. OTHER

A. TEST RESULTS COMPLY WITH SPECIFICATIONS
B. RECOMPACTION REQUIRED
C. TEST IS AFTER RECOMPACTION

REMARKS:

Respectfully submitted,
Professional Service Industries, Inc.

Professional Service Industries, Inc.

REPORT OF FIELD COMPACTION TESTS

TESTED FOR: Entech Management
1008 Main Street
Buffalo, New York 14202

PROJECT: Love Canal Remediation

DATE: March 9, 1993

OUR REPORT NO.: 806-30016-6

TEST DATA:

TEST NO	DATE	ELEV / DEPTH	SOIL ID NUMBER	MAXIMUM LAB DRY DENSITY	WATER CONTENT	IN PLACE DRY DENSITY	PER CENT COMPACTION	COMMENT *
1	3-9-93	8	2	133.3	9.2	127.0	95.3	A
2	3-9-93	8	2	133.3	8.8	126.0	94.5	A
3	3-9-93	8	2	133.3	7.1	132.1	99.1	A
4	3-9-93	8	2	133.3	7.2	133.1	99.9	A
5	3-9-93	8	2	133.3	7.0	133.5	100.2	A
6	3-9-93	8	2	133.3	6.9	130.8	97.6	A

TEST LOCATION:

1	25' East of manhole at end of 100 St. on Frontier St.
2	35' East of manhole at end of 100 St. on Frontier St.
3	45' East of manhole at end of 100 St. on Frontier St.
4	60' East of manhole at end of 100 St. on Frontier St.
5	20' West of manhole near 10016 Frontier St.
6	15' West of manhole near 10016 Frontier St. North edge of trench

NOTES: DENSITIES SHOWN: Lbs. per cubic foot
WATER CONTENT: Per Cent of dry weight
PERCENT COMPACTION: Based on maximum dry density obtained on sample indicated by soil ID number.

* 1. FILL MATERIAL
2. BACKFILL
3. BASE COURSE
4. SUBBASE
5. SOIL CEMENT
6. OTHER

A. TEST RESULTS COMPLY WITH SPECIFICATIONS
B. RECOMPACTION REQUIRED
C. TEST IS AFTER RECOMPACTION

REMARKS:

Respectfully submitted,
Professional Service Industries, Inc

Professional Service Industries, Inc.

REPORT OF FIELD COMPACTION TESTS

TESTED FOR: Entech Management
1008 Main Street
Buffalo, New York 14202

PROJECT: Love Canal Remediation

DATE: March 9, 1993

OUR REPORT NO.: 806-30016-6 Page 2 of 2

TEST DATA:

TEST NO	DATE	ELEV / DEPTH	SOIL ID NUMBER	MAXIMUM LAB DRY DENSITY	WATER CONTENT	IN PLACE DRY DENSITY	PER CENT COMPACTION	COMMENT *
7	3-9-93	8	2	133.3	6.6	131.8	98.9	A
8	3-9-93	8	2	133.3	9.0	140.1	105.1	A
9	3-9-93	8	2	133.3	8.4	128.6	96.5	A
10	3-9-93	8	2	133.3	5.4	128.4	96.3	A

TEST LOCATION:

7	2nd Lift 50' East of manhole at end of 100th Street
8	2nd Lift 8' South of Manhole at end of 100th Street
9	2nd Lift 18' South of manhole at end of 100th Street
10	2nd Lift 25' West of manhole, near house #10016

NOTES: DENSITIES SHOWN: Lbs. per cubic foot
WATER CONTENT: Per Cent of dry weight
PERCENT COMPACTION: Based on maximum dry density obtained on sample indicated by soil ID number.

* 1. FILL MATERIAL
2. BACKFILL
3. BASE COURSE
4. SUBBASE
5. SOIL CEMENT
6. OTHER

A. TEST RESULTS COMPLY WITH SPECIFICATIONS
B. RECOMPACTION REQUIRED
C. TEST IS AFTER RECOMPACTION

REMARKS:

Respectfully submitted,
Professional Service Industries, Inc.

Professional Service Industries, Inc.

REPORT OF FIELD COMPACTION TESTS

TESTED FOR: Entech Management
1008 Main Street
Buffalo, New York 14202

PROJECT: Love Canal Remediation

DATE: March 9, 1993

OUR REPORT NO.: 806-30016-6

TEST DATA:

TEST NO	DATE	ELEV / DEPTH	SOIL ID NUMBER	MAXIMUM LAB DRY DENSITY	WATER CONTENT	IN PLACE DRY DENSITY	PER CENT COMPACTION	COMMENT *
7	3-9-93	8	2	133.3	6.6	131.8	98.9	A
8	3-9-93	8	2	133.3	9.0	140.1	105.1	A
9	3-9-93	8	2	133.3	8.4	128.6	96.5	A
10	3-9-93	8	2	133.3	5.4	128.4	96.3	A

TEST LOCATION:

7	2nd Lift 50' East of manhole at end of 100th Street
8	2nd Lift 8' South of Manhole at end of 100th Street
9	2nd Lift 18' South of manhole at end of 100th Street
10	2nd Lift 25' West of manhole, near house #10016

NOTES: DENSITIES SHOWN: Lbs. per cubic foot
WATER CONTENT: Per Cent of dry weight
PERCENT COMPACTION: Based on maximum dry density obtained on sample indicated by soil ID number.

* 1. FILL MATERIAL
2. BACKFILL
3. BASE COURSE
4. SUBBASE
5. SOIL CEMENT
6. OTHER

A. TEST RESULTS COMPLY WITH SPECIFICATIONS
B. RECOMPACTION REQUIRED
C. TEST IS AFTER RECOMPACTION

REMARKS:

Respectfully submitted,
Professional Service Industries, Inc.

JUN 3 REC'D

Professional Service Industries, Inc.

REPORT OF FIELD COMPACTION TESTS

TESTED FOR: Entech Management
1008 Main Street
Buffalo, NY 14202

PROJECT: Love Canal Remediation

DATE: May 28, 1993

OUR REPORT NO.: 806-30016-7

TEST DATA:

TEST NO.	DATE	ELEV / DEPTH	SOIL ID NUMBER	MAXIMUM LAB DRY DENSITY	WATER CONTENT	IN PLACE DRY DENSITY	PER CENT COMPACTION	COMMENT *
1	5-28-93	8"/TBC	3	133.3	4.0	130.6	98.0	A
2	5-28-93	8"/TBC	3	133.3	4.9	127.3	95.5	A
3	5-28-93	8"/TBC	3	133.3	2.9	129.2	96.9	A
4	5-28-93	8"/TBC	3	133.3	4.4	126.8	95.2	A

TEST LOCATION:

1	100th street north end of work area
2	Opposite fire plug
3	100th Street at center of Frontier
4	100th Street opposite power pole

NOTES: DENSITIES SHOWN: Lbs. per cubic foot
WATER CONTENT: Per Cent of dry weight
PERCENT COMPACTION: Based on maximum dry density obtained on sample indicated by soil ID number.

* 1. FILL MATERIAL
2. BACKFILL
3. BASE COURSE
4. SUBBASE
5. SOIL CEMENT
6. OTHER

A. TEST RESULTS COMPLY WITH SPECIFICATION
B. RECOMPACTION REQUIRED
C. TEST IS AFTER RECOMPACTION

REMARKS: TBC = Top of Base Course

Respectfully submitted,
Professional Service Industries, Inc.

2/Client
tp

605 Young Street • Tonawanda, NY 14150 • Phone: 716/694-8657 • Fax: 716/694-8638

Professional Service Industries, Inc.

REPORT OF FIELD COMPACTION TESTS

TESTED FOR: Entech Management
1008 Main Street
Buffalo, NY 14202

PROJECT: Love Canal Remediation

DATE: June 1, 1993

OUR REPORT NO.: 806-30016-8 Page 1 of 2

TEST DATA:

TEST NO.	DATE	ELEV / DEPTH	SOIL ID NUMBER	MAXIMUM LAB DRY DENSITY	WATER CONTENT	IN PLACE DRY DENSITY	PER CENT COMPACTION	COMMENT *
1	6-1-93	6"/AG	3	133.3	5.1	127.4	95.6	A
2	6-1-93	6"/AG	3	133.3	4.1	130.5	97.9	A
3	6-1-93	6"/AG	3	133.3	4.3	133.7	100+	A
4	6-1-93	12"/AG	3	133.3	5.5	133.7	100+	A
5	6-1-93	6"/AG	3	133.3	5.8	138.3	100+	A
6	6-1-93	12"/AG	3	133.3	5.2	133.0	99.8	A

TEST LOCATION:

1	Frontier Avenue
2	Frontier Avenue
3	Frontier Avenue
4	Frontier Avenue
5	Frontier Avenue
6	Frontier Avenue

NOTES: DENSITIES SHOWN: Lbs. per cubic foot
WATER CONTENT: Per Cent of dry weight
PERCENT COMPACTION: Based on maximum dry density obtained on sample indicated by soil ID number.

* 1. FILL MATERIAL
2. BACKFILL
3. BASE COURSE
4. SUBBASE
5. SOIL CEMENT
6. OTHER

A. TEST RESULTS COMPLY WITH SPECIFICATIO
B. RECOMPACTION REQUIRED
C. TEST IS AFTER RECOMPACTION

REMARKS: Locations as per client

Respectfully submitted,
Professional Service Industri, In

2/Client
tp
jeb

605 Young Street • Tonawanda, NY 14150 • Phone: 716/694-8657 • Fax: 716/694-8638

Professional Service Industries, Inc.

REPORT OF FIELD COMPACTION TESTS

TESTED FOR: Entech Management
1008 Main Street
Buffalo, NY 14202

PROJECT: Love Canal Remediation

DATE: June 1, 1993

OUR REPORT NO.: 806-30016-8

TEST DATA:

TEST NO.	DATE	ELEV / DEPTH	SOIL ID NUMBER	MAXIMUM LAB DRY DENSITY	WATER CONTENT	IN PLACE DRY DENSITY	PER CENT COMPACTION	COMMENT *
7	6-1-93	6"/AG	3	133.3	6.1	129.2	97.0	A
8	6-1-93	6"/AG	3	133.3	6.5	127.0	95.3	A
9	6-1-93	12"/AG	3	133.3	4.5	130.8	98.1	A
10	6-1-93	12"/AG	3	133.3	7.0	130.2	97.7	A

TEST LOCATION:

7	Frontier Avenue
8	Frontier Avenue
9	Frontier Avenue
10	Frontier Avenue

NOTES: DENSITIES SHOWN: Lbs. per cubic foot
WATER CONTENT: Per Cent of dry weight
PERCENT COMPACTION: Based on maximum dry density obtained on sample indicated by soil ID number.

* 1. FILL MATERIAL
2. BACKFILL
3. BASE COURSE
4. SUBBASE
5. SOIL CEMENT
6. OTHER

A. TEST RESULTS COMPLY WITH SPECIFICATION
B. RECOMPACTION REQUIRED
C. TEST IS AFTER RECOMPACTION

REMARKS: Locations as per client

Respectfully submitted,
Professional Service Industries, In

2/Client
tp
jeb

605 Young Street • Tonawanda, NY 14150 • Phone: 716/694-8657 • Fax: 716/694-8638

APPENDIX H

HDPE LINER INSTALLATION QUALITY CONTROL

N.Y State
Love Canal
Buffalo, N.Y
Ref. no: SU 92172

REPORT ON QUALITY CONTROL PROCEDURES CONDUCTED ON SITE BY SOLMAX GEOSYNTHETICS INC.

Prepared for:

ENTECH
1008 Maine street
Buffalo, N.Y
14202

By:

SOLMAX GEOSYNTHETICS
P.O. Box 556
Newtonville, N.Y
12128

June 1993

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Figure 1 - Double fusion weld
Figure 2 - Extrusion weld
Figure 3 - Peel test
Figure 4 - Shear test
Figure 5 - Air pressure test
Figure 6 - Vacuum box test
Figure 7 - Patch repair

1. INTRODUCTION

The following report was prepared by SOLMAX GEOSYNTHETICS INC., for ENTECH.

This report contains a description as well as a certification of all work conducted by SOLMAX GEOSYNTHETICS, installer of all geomembranes . It also contains the "as-built" drawing of the patch repair. All installation work conducted on the geomembrane took place between June 9 and June 11 1993.

2. REFERENCED DOCUMENTS

- Construction drawings as prepared by ABB Environmental.
- Supply and installation specs, as prepared by ABB Environmental.
- Reports on all quality control procedures conducted by the manufacturer of the geomembrane, National Seal Company, Galesburg, Illinois.
- Reports on all quality control procedures conducted and documented on-site by SOLMAX GEOSYNTHETICS.

3. PERSONNEL

The following list identifies the human resources implicated in the physical realization of this project:

SOLMAX GEOSYNTHETICS INC. (Installer)

- Jacques Côté, Eng., Construction Manager
- Pierre Potvin, Jr. Eng., Quality Control Manager
- Paul Payeur, Project manager
- Denis Goyette, Foreman
- Denis Goyette, Welder
- Christian Nadeau, Welder

4. GEOMEMBRANE INSTALLATION

In this section, the following items will be detailed:

- Description of the work;
- Installation methods employed;
- Quality control procedures conducted by the manufacturers of the geomembrane;
- Quality control procedures conducted on-site during the installation

4.1 Description of the Work

The object of this installation was to completely cover the patch repair with a geomembrane lining. SOLMAX GEOSYNTHETICS supplied and installed approximately 3628 sq.ft. of 40 mils-thick HDPE geomembrane. The installation procedures were conducted according to the plans and specs emitted to this effect.

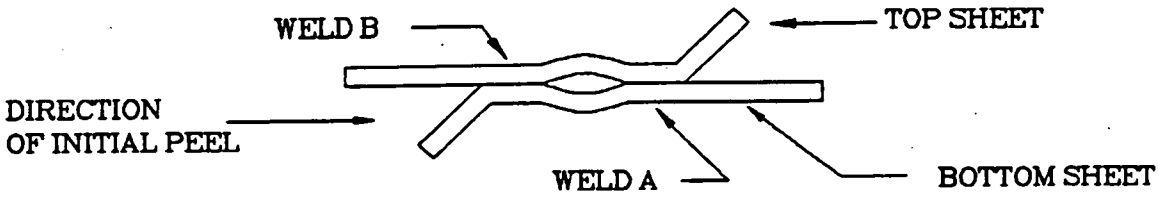
4.2 Installation Methods Employed

One roll of geomembrane, 15 feet wide and 1670 feet long, was manufactured by National Seal Company for SOLMAX GEOSYNTHETICS, delivered to the job site and stored adequately. This roll was identified by the manufacturer with a tag.

The geomembrane roll was later deployed and installed by SOLMAX as prescribed in the specifications. The manufacturer's quality controls are included in appendix.

All seams between panels were made using an automated polymer fusion process, the fusion being obtained either through a double hot wedge or a double hot air jet. Whenever possible, hot wedge fusion was prefered over hot air fusion because the equipment employed allowed for greater welding speeds (typically, 6.25' per minute versus 1.6' per minute).

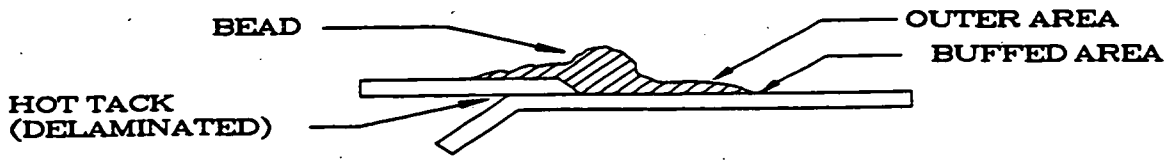
The fusioned welds included a central air channel allowing air-pressure testing of the continuity of the seam (see fig. 1).



DOUBLE–TRACK GEOMEMBRANE WELD

Figure 1

In restricted areas, corners and to close patches, where this process could not be adequately applied, a manual extrusion fillet welding process was employed (see fig. 2).



FILLET—EXTRUDED GEOMEMBRANE WELD

Figure 2

4.3 Geomembrane Quality Controls

4.3.1 Geomembrane Manufacturing Process

The geomembrane manufactured by National Seal Company were submitted to rigorous quality controls. The average test frequency for the HDPE resin was of 1/lot; the properties tested at this stage were the specific weight, melt flow index and carbon black content. All other properties were tested on the geomembrane rolls; the average test frequency at this stage was of 1/50000 sq.ft..

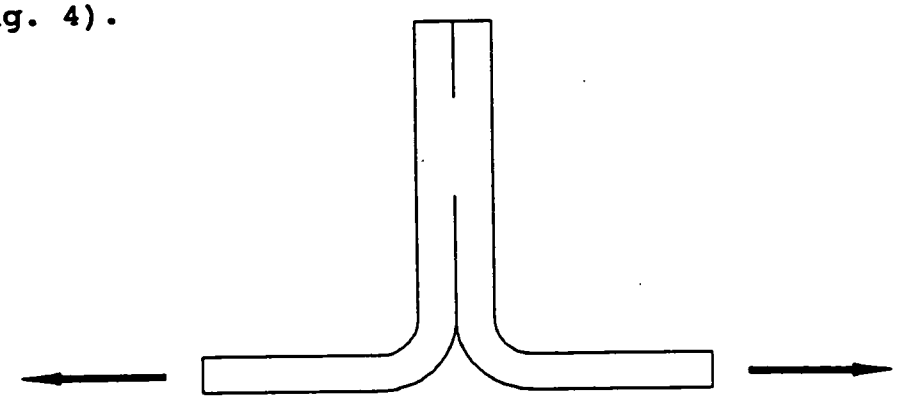
4.3.2 On-site Geomembrane Installation

All materials were visually inspected for blemishes, bubbles, pock-marks, punctures and other defects or damages having occured during transport or panel placement. All such defects or damages were marked with white indelible ink markers to be repaired later following the procedures described in this report (see section 4.4).

Panels were placed and cut to minimize longitudinal (structural) seams and T-seams. They were overlapped about five (5) to six (6) inches, allowing adequate double fusion seaming and leaving enough material to perform peel tests on seam samples taken in place (see 4.3.2.1 and 4.3.2.3 for a description of peel testing).

4.3.2.1 Welding Trial Tests

Destructive tests were performed on trial seams prior to any on-site seaming in order to quantify the calibration of the welding equipment. On each sample, two peel tests and two shear tests were performed. A peel test is performed by submitting a one inch-wide strip of weld to a tensile effort on a calibrated portable tensiometer, trying to "peel" or open the seam (See fig. 3). A shear test is similar, but the tension is applied in the plane of the seam (See fig. 4).



PEEL TEST

Figure 3



SHEAR TEST

Figure 4

The stress and the type of break were noted for each strip of seam tested. The only types of break acceptable were designated as "SE" and BRK, as per US-EPA classification (available in Appendix III). The seams were made only after a satisfactory destructive trial test had been obtained. All the results of these tests are given in this report, in Appendix II.

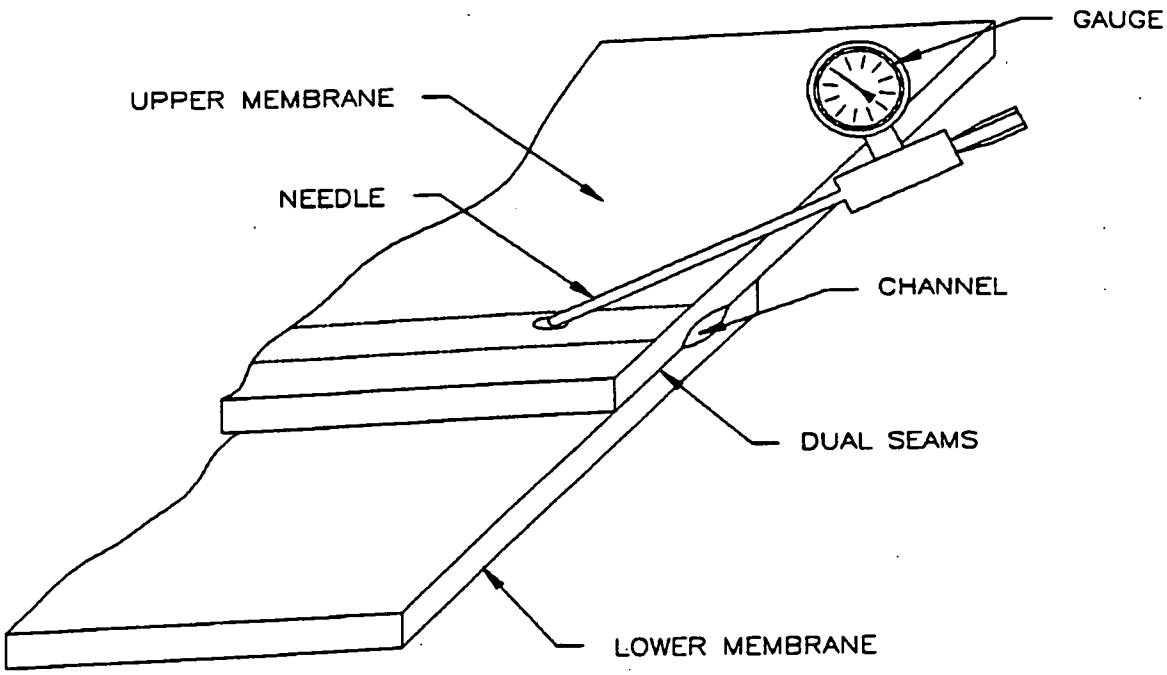
Over the eight such destructive trial tests performed on-site, an average peel resistance of 86.4 lb/in. of width and an average shear resistance of 98 lb/in. were obtained. The peel test of 4 of the 5 specimens obtained from each sample shall exibit a film tear bond (FTB) and have a peel seam seperation of 10% or less. The shear strength of 4 of the 5 specimens obtained from each sample shall be equal to or exceed 80% of the mean tensile stress at yield of the parent material. And an FTB-type break (Film Tear Bond) was specified (see EPA classification, in Appendix III). All samples respected these specifications.

4.3.2.2 On-Site Non-Destructive Tests

All seams were verified on their total length by non-destructive methods to verify their continuity. The non-destructive testing methods employed were the air-pressure test (minimum pressure of 30 psi), and the vacuum-box test (minimum negative pressure of 5 psi). Any seam that failed these tests was rebuilt or repaired until a satisfactory result was obtained. All the results of those tests are included in this report, in appendix.

a) Air-pressure test

Air pressure testing was employed everywhere it was possible. This test, of the non-destructive type, consists of injecting air in the center air channel of fusioned seams, at a predetermined pressure (see fig. 5). If the seam is continuous, no leak will occur and the pressure will maintain itself almost indefinitely. If leaks are present, they will be located and repaired. This type of non-destructive test is faster than the vacuum-box test, less observer-dependent and constitute a supplementary mechanical resistance test, since the geomembrane sheets are pulled away from each other by the air pressure (average pressure of 30 psi).

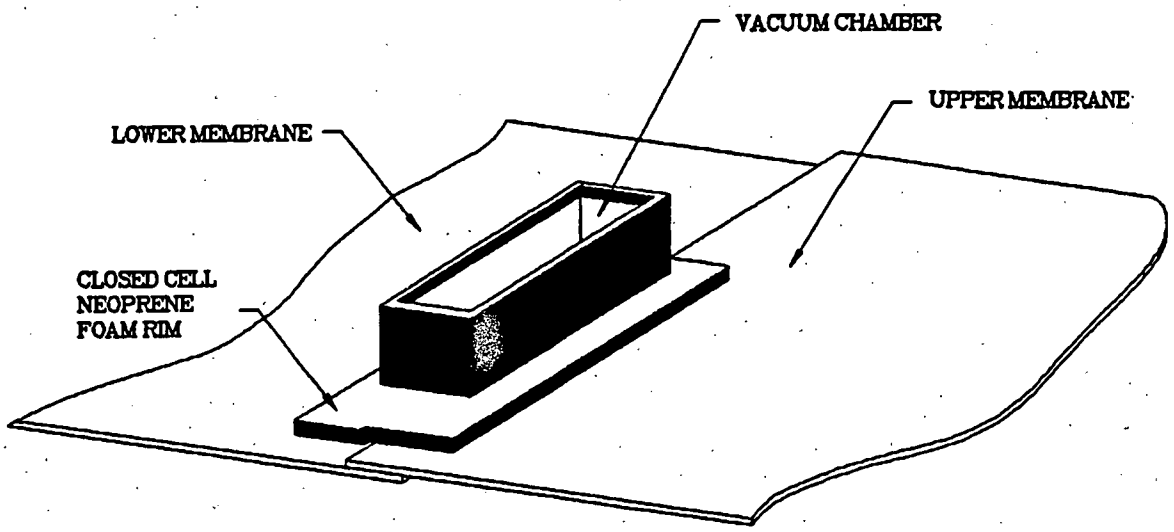


AIR PRESSURE TEST

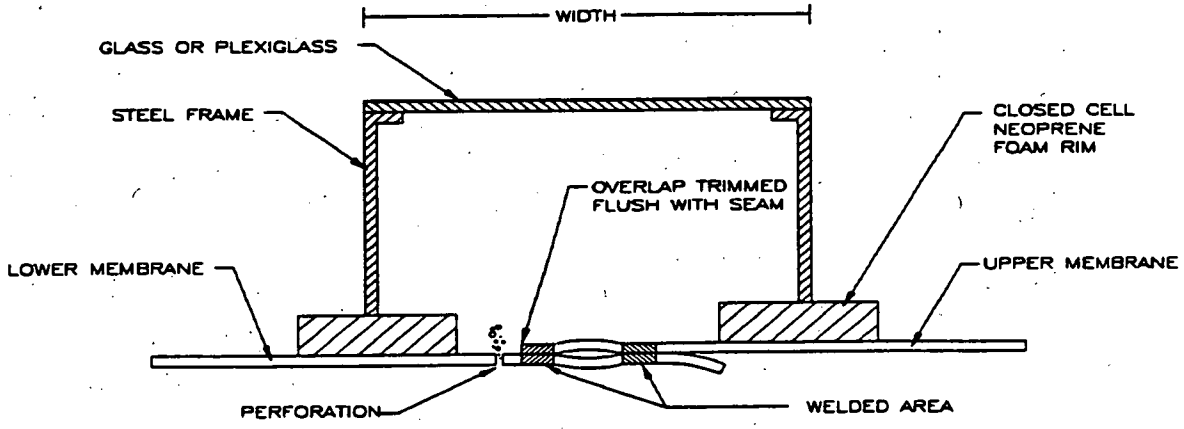
Figure 5

b) Vacuum-box test

Wherever the air-pressure test could not be used, the vacuum-box test was employed. In this test, a film of soapy water is sprinkled over the area to be tested. A box fitted with a transparent upper cover and a neoprene lower rim is placed over that same area and connected to a vacuum pump; a negative pressure (vacuum) of at least 5 psi is then applied (see fig. 5). If there is a puncture or discontinuity within this area, bubbles will appear and will be detected by the observer.



TYPICAL POSITIONING



TYPICAL CROSS SECTION

Figure 6 - Vacuum box test

4.4 On-Site Repair Procedures

Backfilling was not authorized before a last visual inspection of the installation work was completed by SOLMAX. Any defect revealed by any step of the Quality Control Program was repaired and verified according to the prescribed procedures:

- All pockmarks, pinholes, etc., revealed by the application of the Quality Control Program and smaller than the tip of the extruder, and all T-seams, were covered with an extrusion.

- All punctures, holes, tears, etc., revealed by the application of the Quality Control Program and wider than the tip of the extruder, were repaired with fusion- and/or extrusion-welded patches (see fig. 7).

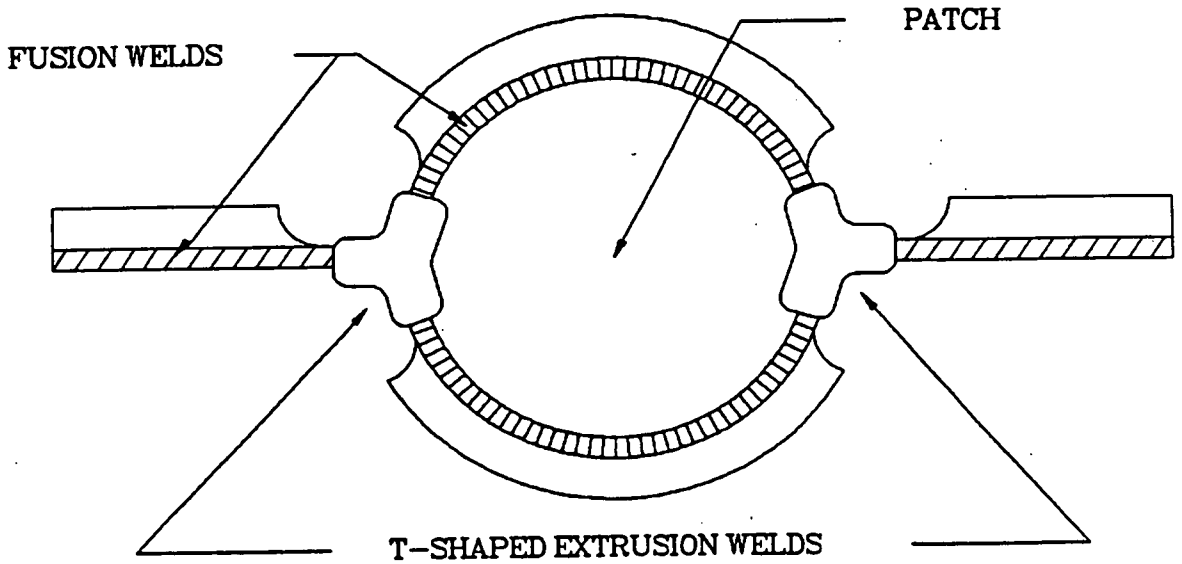


Figure 7 - Patch

- All seams revealed as defective by the application of the Quality Control Program were entirely rebuilt through a fusion seaming process.

Prior to any fillet extrusion welding, the geomembranes were buffed to insure better adhesion of the extruded material.

4.5 "As-Built" Drawing

The "as-built" drawing of all geomembrane, showing all panels, pipes, repairs and destructive test locations, is available in Appendix IV.

5. CERTIFICATION

SOLMAX GEOSYNTHETICS INC., certifies having installed all geomembranes according to the plans and specifications emitted by ABB Environmental, for Entech.

Paul Payeur
Project manager
SOLMAX GEOSYNTHETICS Inc.

6-18-93
Date

Pierre Potvin, Jr. Eng.
Quality Control Manager
SOLMAX GEOSYNTHETICS Inc.

6-18-93
Date

APPENDIX I - QUALITY CONTROL PROCEDURES CONDUCTED BY THE MANUFACTURER OF THE GEOMEMBRANE

ROLL NO: C4L7709-2A27-111

NSC

February 25, 1992

POLYETHYLENE RESIN CERTIFICATE OF ANALYSIS

Customer: Cote

Resin Type: UC 1527

Project: School Site Landfill

Order Number: 172-28

The polyethylene resin referenced above was tested for melt flow index, density and carbon black content. Melt flow index was determined according to ASTM D 1238. Density was determined according to ASTM D 1505. Carbon black content was determined according to ASTM D 1603. The average test results are reported below.

Resin Blend Number	7709
Melt Flow Index (g/10 min)	0.20
Density (g/cm^3)	0.949
Carbon Black Content (percent)	2.46

Jane Allen

Jane Allen
Quality Control Manager

NSC

GEOMEMBRANE CERTIFICATION

Customer: Cote

Project: School Site Landfill

Order Number: 172-28

Ship Date: February 19, 1992

Number of Rolls Shipped: 8

Nominal Thickness: 40 mil

We hereby certify that the resin and polyethylene geomembrane for the above identified shipment, meets or exceeds National Seal Company's specifications, attached, and NSF Standard 54 specifications for HDPE geomembrane. The tests listed below in the resin specifications have been performed on each batch of resin. The tests listed below in the geomembrane specifications have been performed at least every 50,000 square feet of geomembrane.

RESIN SPECIFICATIONS

Melt Flow Index	1.0 Maximum
Density	0.94 Minimum
Carbon Black Content	2.0 to 3.0

GEOMEMBRANE SPECIFICATIONS

Thickness	40.0 mil Minimum
Stress at Yield	2200 psi Minimum
Stress at Break	3800 psi Minimum
Strain at Yield	13% Minimum
Strain at Break	700% Minimum
Carbon Black Dispersion	A1 or A2

Jane Allen

Jane Allen
Quality Control Manager

2-26-92

Date

NSC

February 25, 1992

GEOMEMBRANE CERTIFICATE OF ANALYSIS

Customer: Cote
Project: School Site Landfill
Order Number: 172-28

Number of Rolls Shipped: 8
Number of Rolls Tested: 4
Nominal Thickness: 40 mil

The geomembrane referenced above was tested for thickness, tensile properties, carbon black dispersion and dimensional stability. The raw polymeric material is first quality polyethylene resin containing no more than two percent clean recycled polymer by weight. Thickness was tested according to ASTM D 751. Tensile properties were tested according to ASTM D 638 using a type IV dumbbell specimen, a strain rate of two inches per minute and grip movement for strain determinations. Carbon black dispersion slides were prepared according to ASTM D 3015 and rated according to the ASTM D 2663 classification chart when viewed under 100X magnification. Dimensional stability was determined according to ASTM D 1204 at 100°C for one hour. The average test results are reported below.

Roll Number		C4L-7709-2A2708-1	C4L-7709-2A2710-1
Thickness (mils)		41.2	41.3
Stress at Yield (psi)	MD	2500	2510
	TD	2600	2510
Stress at Break (psi)	MD	4940	5040
	TD	4750	4960
Strain at Yield (percent)	MD	16	16
	TD	14	14
Strain at Break (percent)	MD	840	850
	TD	920	960
Carbon Black Dispersion		A1	A1
Dimensional Stability	MD	-0.6	-0.8
	TD	0.2	0.2

Jane Allen
Quality Control Manager

NSC

February 25, 1992

GEOMEMBRANE CERTIFICATE OF ANALYSIS

(Page 2)

Roll Number		C4L-7709-2A2714-1	C4L-7709-2A2801-1
Thickness (mils)		40.9	41.2
Stress at Yield (psi)	MD	2520	2620
	TD	2720	2680
Stress at Break (psi)	MD	4900	4890
	TD	4860	4740
Strain at Yield (percent)	MD	16	16
	TD	15	15
Strain at Break (percent)	MD	820	830
	TD	940	910
Carbon Black Dispersion		A1	A1
Dimensional Stability	MD	-0.6	-0.6
	TD	0.2	0.2

STRAIGHT BILL OF LADING

ORIGINAL—NOT NEGOTIABLE

BH NO. 4852

007627

172-28

ORDER NO.

SEAL NO.

JRC/ ROYAL

3/19/92

NAME OF CARRIER

DATE

CONSIGNEE	SCHUYL SITE LANDFILL SOUTH HENDERSON ROAD	FROM: SHIPPER	NATIONAL SEAL CORPORATION
STREET	KING OF PRUSSIA, PA 19406	STREET	1255 MONMOUTH BLVD.
DESTINATION	ATTN: MARK RAMSDEN 215-992-4995	ORIGIN	GALESBURG, ILLINOIS 61402-1448
NOTE	24 HR NOTICE REQUIRED FOR DELIVERY		

NO. SHIPPING UNITS	HM	KIND OF PACKAGING, DESCRIPTION OF ARTICLES, SPECIAL MARKS AND EXCEPTIONS	WEIGHT (SUBJECT TO CORRECTION)	SQ. FEET
4 ROLLS		40 MIL 1527	40,760.	200,400.

ID NO.	SIZE LENGTH	SIZE WIDTH	SF	WT
40 MIL				
	1670'	15'	25,050.	
	1670'	15'	25,050.	
	1670'	15'	25,050.	
	1670'	15'	25,050.	
	1670'	15'	25,050.	
6	1670'	15'	25,050.	
	1670'	15'	25,050.	
	1670'	15'	25,050.	

ID NO.	SIZE LENGTH	SIZE WIDTH	SF	WT
C4L7709-2A27-091				
C4L7709-2A27-101				
C4L7709-2A27-111				
C4L7709-2A27-081				
C4L7709-2A28-011				
C4L7709-2A27-141				
C4L7709-2A28-041				
C4L7709-2A27-081				

ADDITIONAL ITEMS

PERMIT

C.O.D. TO: 1182.60

ADDRESS

COD Amt: $

C.O.D. FEE:
PREPAID ☐ $
COLLECT ☐

TOTAL CHARGES $

FREIGHT CHARGES
FREIGHT PREPAID (Check box except when box at right is checked) ☐ If charges are to be collected

NOTE - Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property. The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding.

$ _____ per _____

This is to certify that the above-named articles 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.

_____ Signature

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

_____ (Signature of Consignor.)

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property over all or any portion of said route to destination and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.

Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

PER	NATIONAL SEAL CORPORATION	CARRIER	NO TARP NEEDED
PER		PER	
		DATE	

ACCOUNTING

APPENDIX II - QUALITY CONTROL PROCEDURES CONDUCTED ON-SITE BY SOLMAX GEOSYNTHETICS INC.

Trial tests results

Seaming procedures

Non-destructive test results

SOLMAX GEOSYNTHETICS

FIELD QUALITY CONTROLS

FUSION TRIAL TEST

PROJECT: Love Canal

TRIAL No.	DATE	TIME	AMBIENT TEMP	EQUIPMENT No.	EQUIPMENT TEMP	EQUIPMENT SPEED	PEEL STRENGTH	TYPE OF PEEL BREAK	SHEAR STRENGTH	TYPE OF SHEAR BREAK	TECHNICIAN-WELDER	QC INSPECTOR
T-1	9/06/93	9:35	16°c	1229	750°	5.5	75	FTB	95	FTB	D.G	
		"	"	"	"	"	70	"	90	"	"	
T-2	9/06/93	14:00	20°c	X-84	350°	0.9	100	FTB	110	FTB	DG	
		"	"	"	"	"	90	"	100	"	"	
T-3	10/06/93	8:10	18°c	1229	750	5.5	75	FTB	100	FTB	D.G	
		"	"	"	"	"	83	"	93	"	"	
T-4	10/06/93	10:15	20°c	X-84	350°	0.9	100	FTB	102	FTB	D.G	
		"	"	"	"	"	95	"	104	"	"	
T-5	10/06/93	1:20	20°c	X-84	350	0.9	85	FTB	89	FTB	D.G	
		"	"	"	"	"	91	"	97	"	"	

SOLMAX GEOSYNTHETICS

FIELD QUALITY CONTROLS

EXTRUSION TRIAL TEST

PROJECT: LOVE CANAL

TRIAL No.	DATE	TIME	AMBIENT TEMP	EQUIPMENT No.	EQUIPMENT TEMP	PRE-HEAT TEMP	PEEL STRENGTH	TYPE OF PEEL BREAK	SHEAR STRENGTH	TYPE OF SHEAR BREAK	TECHNICIAN-WELDER	QC INSPECTOR
E-1	09/06/93	5:45	22°C	#1	265°	200°	90	FTB	110	FTB	C.N.	
		"	"		"	"	85	"	105	"	"	
E-2	10/06/93	3:30	20°C	#1	265°	200°	83	FTB	100	FTB	CN	
		"	"		"	"	89	"	88	"	"	
E-3	11/06/93	8:30	19°C	#1	265°	200°	75	FTB	102	FTB	CN	
		"	"		"	"	81	"	93	"	"	

SOLMAX GEOSYNTHETICS

PAGE 1 OF 1

FIELD QUALITY CONTROLS

PROJECT: LOVE CANAL

SEAMING PROCEDURES

SEAM No.	DATE	TIME	LENGTH	TRIAL No.	TECHNICIAN-WELDER
1/2	9/06/93	AM	4/4'	T-1	D.G
2/3	"	AM	51'3"	T-1	"
3/4	"	PM	53'	T-1	"
4/5	10/06/93	AM	55'6"	T-3	"
5/6	"	AM	12'	T-3	"
5/7	"	AM	14'	T-3	"
6/7	"	AM	5'6"	T-3	"

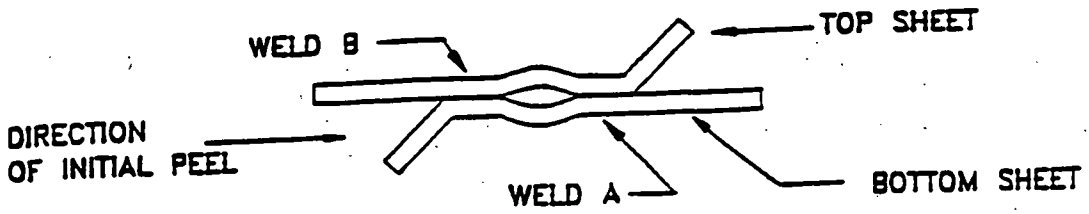
NON-DESTRUCTIVE TESTING

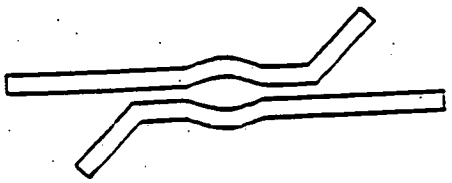
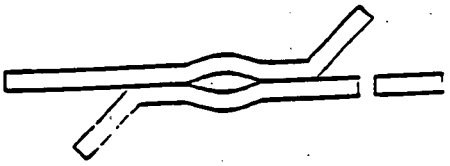
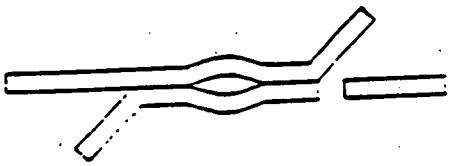
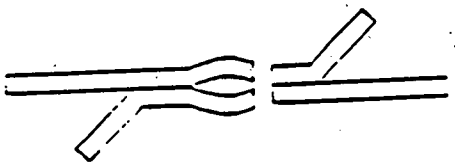
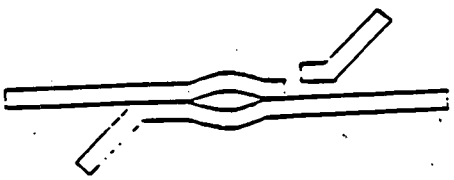
DATE	TIME	METHOD	PRESSURE	DETAILS	QC INSPECTOR	COMMENTS
09/06/93	PM	AIR	30		D.G	
"	PM	"	30		"	
"	PM	"	30		"	
10/06/93	PM	"	30		"	
"	PM	"	30		"	
"	PM	"	30		"	
"	PM	"	30		"	

APPENDIX III - US-EPA CLASSIFICATION FOR TYPES OF BREAK

Double fusion weld

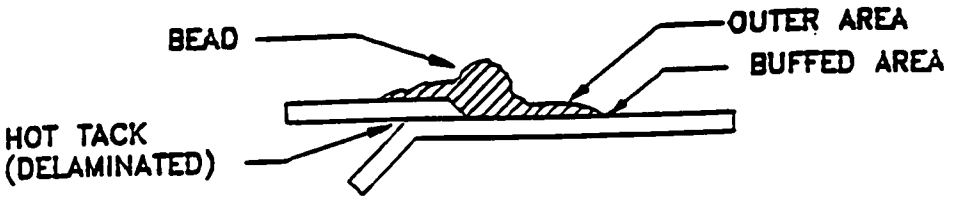
Fillet extrusion weld

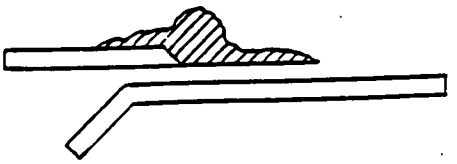
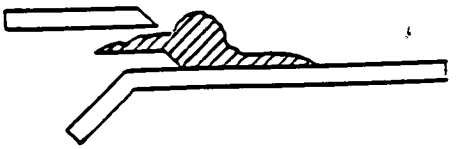
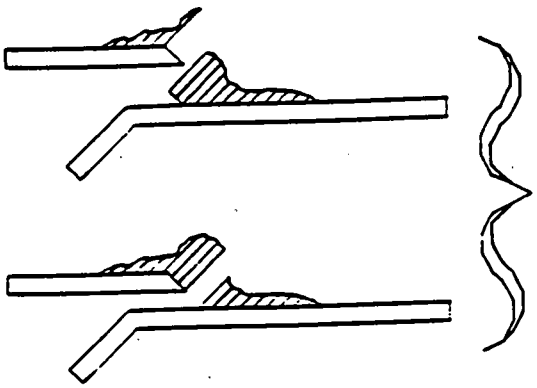
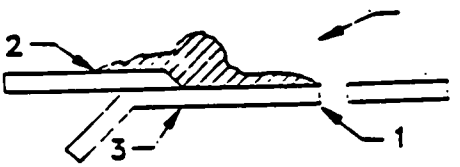
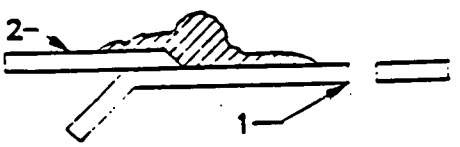
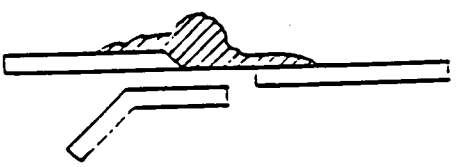
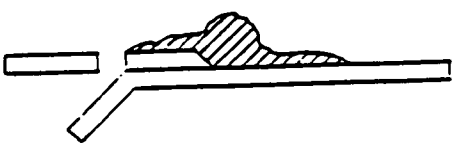


TYPES OF BREAK	CODE	BREAK DESCRIPTION	CLASSIFICATION [a]
	AD	ADHESION FAILURE	NON-FTB
	BRK	BREAK IN SHEETING. BREAK CAN BE IN EITHER TOP OR BOTTOM SHEET.	FTB
	SE1	BREAK AT OUTHER EDGE OF SEAM. BREAK CAN BE IN EITHER TOP OR BOTTOM SHEET.	FTB
	SE2	BREAK AT INNER EDGE OF SEAM THROUGH BOTH SHEETS	FTB
	AD-BRK	BREAK IN FIRST SEAM AFTER SOME ADHESION FAILURE. BREAK CAN BE IN EITHER THE TOP OR BOTTOM SHEET.	FTB

[a] FTB="FILM-TEAR BOND."

FILLET—EXTRUDED GEOMEMBRANE T...

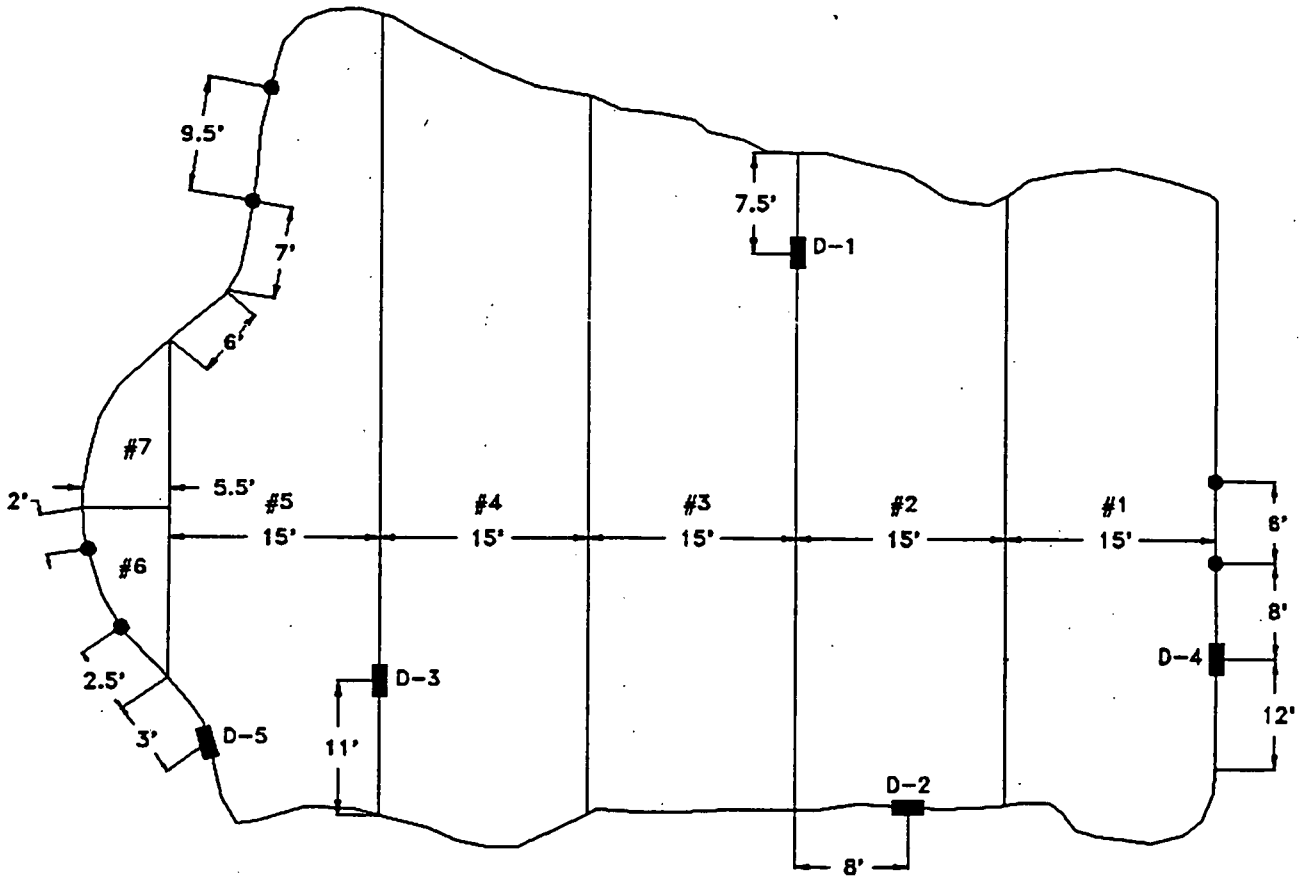


TYPES OF BREAKS	CODE	BREAK DESCRIPTION	CLASSIFICATION [a]
	AD1	FAILURE IN ADHESION. SPECIMENS MAY ALSO DELAMINATE UNDER THE BEAD AND BREAK THROUGH THE THIN EXTRUDED MATERIAL IN THE OUTER AREA.	NON—FTB
	AD2	FAILURE IN ADHESION.	NON—FTB
	AD—WLD	BREAK THROUGH THE FILLET. BREAKS THROUGH THE FILLET RANGE FROM BREAKS STARTING AT THE EDGE OF THE TOP SHEET TO BREAKS THROUGH THE FILLET AFTER SOME ADHESION FAILURE BETWEEN THE FILLET AND THE BOTTOM SHEET.	NON—FTB [b]
	SE	BREAK AT SEAM EDGE. INDICATE LOCATION BY 1,2 OR 3	FTB
	BRK	BREAK IN THE SHEET. USE 1 TO INDICATE BOTTOM SHEET AND 2 TO INDICATE TOP SHEET. IF BREAK IS IN BUFFED AREA, INDICATE WITH "(B)".	FTB
	AD—BRK	BREAK IN THE BOTTOM SHEETING AFTER SOME ADHESION FAILURE BETWEEN THE FILLET AND THE BOTTOM SHEET. (APPLICABLE TO PEEL ONLY).	FTB
	HT	BREAK AT THE EDGE OF THE HOT TACK FOR SPECIMENS WHICH COULD NOT BE DELAMINATED IN THE HOT TACK.	NO TEST

[a] FTB="FILM—TEAR BOND."

[b] ACCEPTANCE OF AD—WLD BREAKS MAY DEPEND ON WHETHER TEST VALUES MEET A MINIMUM SPECIFICATION VALUE AND NOT ON CLASSIFICATION AS A FTB OR NON—FTB BREAK.

APPENDIX IV - "AS BUILT" DRAWING



NOTE: See attachment for length measurements

LEGEND

- PATCH
- DESTRUCTIVE TEST

SOLMAX GEOSYNTHETICS

LOVE CANAL

DRAWN BY: M.M.	APPROVED BY: P.P.	PROJECT NO.: SU 92172	SCALE: N.T.S.
VERIFIED BY: P.C.	DATE: 15-06-93	AUTOCAD FILE: CANAL.DWG	DRAWING NO.: 1/1

DESCRIPTION:

COVER REPAIR

SOLMAX
GEOSYNTHETICS

JUL 30 [illegible]

P.O. Box 556
Newtonville. NY
12128
Tel.:(518) 783-7926
Fax: (518) 783-7928

Solmax Geosynthetics Inc.
Newtonville NY

Revised Installed Quantities
Project: Love Canal
Solmax Project No.: SU 92172

Itemized Panels (see attachment)

Panel #1	44′ x 15′	= 660	ft2
Panel #2	(44′ x 51′ 3")/2 x 15′	= 714.4	ft2
Panel #3	(51′ 3" x 53′)/2 x 15′	= 781.9	ft2
Panel #4	(53′ x 55.5′)/2 x 15′	= 813.8	ft2
Panel #5	(55.5′ x 26′)/2 x 15′	= 611.3	ft2
Panel #6	(12′ x 5.5′)/2	= 33	ft2
Panel #7	(14′ x 5.5′)/2	= 38.5	ft2
	TOTAL	3653	ft2

July 26 1993
Paul Payeur
Sales Manager

APPENDIX V - LAB DESTRUCTIVE TEST RESULTS

PEEL AND SHEAR TEST RESULTS

Client: Solmax
Project: Love Canal
Material: 40 mil HDPE
Weld Type: D-Fusion

Job No.: 93G1444-01
Date Tested: 8-11-93
Technician: C.M.
Machine: ATS-1105

SAMPLE NO. D-1

Peel Adhesion Test Data

Replicate No.	Width (in)	Peak Load (lbs)	Comments
1	1.0	72.1	FTB
2	1.0	78.1	FTB
3	1.0	71.5	FTB
4	1.0	82.9	FTB
5	1.0	73.0	FTB
Average		75.5	

Bonded Seam (Shear) Test Data	Width (in)	Peak Load (lbs)	Comments
1	1.0	111.8	FTB
2	1.0	115.2	FTB
3	1.0	115.0	FTB
4	1.0	114.2	FTB
5	1.0	111.8	FTB
Average		113.6	

FTB-Film Tear Bond
Peel Adhesion-ASTM D-413.
Bonded Seam (Shear)-ASTM D-3083.

PEEL AND SHEAR TEST RESULTS

Client: Solmax
Project: Love Canal
Material: 40 mil HDPE
Weld Type: S-Fusion

Job No.: 93G1444-01
Date Tested: 6-11-93
Technician: C.M.
Machine: ATS-1105

SAMPLE NO. D-2

Peel Adhesion Test Data

Replicate No.	Width (in)	Peak Load (lbs)	Comments
1	1.0	45.5	NONFTB
2	1.0	66.9	NONFTB
3	1.0	46.4	NONFTB
4	1.0	38.2	NONFTB
5	1.0	98.7	FTB
Average		59.1	

Bonded Seam (Shear) Test Data	Width (in)	Peak Load (lbs)	Comments
1	1.0	108.5	FTB
2	1.0	109.2	FTB
3	1.0	109.3	FTB
4	1.0	113.7	FTB
5	1.0	113.2	FTB
Average		110.7	

FTB-Film Tear Bond
Peel Adhesion-ASTM D-413.
Bonded Seam (Shear)-ASTM D-3083.

PEEL AND SHEAR TEST RESULTS

Client: Solmax
Project: Love Canal
Material: 40 mil HDPE
Weld Type: D-Fusion

Job No.: 93G1444-01
Date Tested: 6-11-93
Technician: C.M.
Machine: ATS-1105

SAMPLE NO. D-3

Peel Adhesion Test Data

Replicate No.	Width (In)	Peak Load (lbs)	Comments
1	1.0	78.2	FTB
2	1.0	76.8	FTB
3	1.0	78.7	FTB
4	1.0	73.6	FTB
5	1.0	77.6	FTB
Average		77.0	

Bonded Seam (Shear) Test Data	Width (in)	Peak Load (lbs)	Comments
1	1.0	107.7	FTB
2	1.0	109.7	FTB
3	1.0	109.5	FTB
4	1.0	108.9	FTB
5	1.0	109.1	FTB
Average		109.0	

FTB-Film Tear Bond
Peel Adhesion-ASTM D-413.
Bonded Seam (Shear)-ASTM D-3083.

EL AND SHEAR TEST RESULTS

Client: Solmax
Project: Love Canal
Material: 40 mil HDPE
Weld Type: D-Fusion

Job No.: 93G1444-01
Date Tested: 6-14-93
Technician: R.P.
Machine: ATS-1105

SAMPLE NO. D-4

Peel Adhesion Test Data

Replicate No.	Width (in)	Peak Load (lbs)	Comments
1	1.0	102.4	FTB
2	1.0	84.0	FTB
3	1.0	91.0	FTB
4	1.0	78.9	FTB
5	1.0	99.9	FTB
Average		91.2	

Bonded Seam (Shear) Test Data	Width (in)	Peak Load (lbs)	Comments
1	1.0	109.8	FTB
2	1.0	107.3	FTB
3	1.0	110.0	FTB
4	1.0	107.8	FTB
5	1.0	108.3	FTB
Average		108.6	

FTB-Film Tear Bond
Peel Adhesion-ASTM D-413.
Bonded Seam (Shear)-ASTM D-3083.

TEL:1-412-746-4441 ENGINEERING/TESTI

EL AND SHEAR TEST RESULTS

Client: Solmax
Project: Love Canal
Material: 40 mil HDPE
Weld Type: D-Fusion

Job No.: 93G1444-01
Date Tested: 6-14-93
Technician: R.P.
Machine: ATS-1105

SAMPLE NO. D-5

Peel Adhesion Test Data

Replicate No.	Width (in)	Peak Load (lbs)	Comments
1	1.0	89.7	FTB
2	1.0	78.8	FTB
3	1.0	54.8	FTB
4	1.0	74.3	FTB
5	1.0	49.4	NONFTB
Average		69.4	

Bonded Seam (Shear) Test Data	Width (in)	Peak Load (lbs)	Comments
1	1.0	110.7	FTB
2	1.0	109.7	FTB
3	1.0	111.0	FTB
4	1.0	110.6	FTB
5	1.0	111.6	FTB
Average		110.7	

FTB-Film Tear Bond
Peel Adhesion-ASTM D-413.
Bonded Seam (Shear)-ASTM D-3083.

JUL ENGINEERING/TEST TEL:1-412-746-4441 Jun 14,93 15:17 No.012 P.02

APPENDIX I

NYSDOH MARCH 25, 1991 LETTER TO NYSDEC

STATE OF NEW YORK
DEPARTMENT OF HEALTH
Corning Tower The Governor Nelson A. Rockefeller Empire State Plaza Albany, New York 12237

David Axelrod, M.D.
Commissioner

OFFICE OF PUBLIC HEALTH
Linda A. Randolph, M.D., M.P.H.
Director
William F. Leavy
Executive Deputy Director

March 25, 1991

MAR 2 8 1991
OPERATIONS & MAINTENANCE SECTION

Gerald J. Rider
Chief, Operation and Maintenance Section
Division of Hazardous Waste Remediation
NYS Department Of Environmental Conservation
50 Wolf Road
Albany, New York 12233

RE: Love Canal EDA 4 Remediation

Dear Jerry:

This letter is a summary of Department of Health comments and recommendations regarding the draft report, Soil Sampling at Love Canal Emergency Declaration Area 4, which you sent to me on December 19, 1990 and the boring logs A. K. Gupta sent to me on January 14, 1991. We discussed these comments and recommendations at a meeting on January 24.

Although I previously indicated that β-BHC levels at this site do not constitute a significant public health threat, the most recent sampling has identified β-BHC as high as 190 ppm at 9909 Black Creek Drive. As noted before, β-BHC is a potential carcinogen. The most significant potential route of exposure to this chemical would be through eating vegetables grown in the soil, as might occur from a home garden. Direct ingestion of soil, particularly by children, is the next most significant potential health risk, but the exposure is 100-fold less than from ingestion of vegetables. The levels of β-BHC found on two lots, 1044 100th Street and 9909 Black Creek Drive, substantially exceed the highest results from samples collected in the EDA during the Habitability Study. The levels and pattern of contamination suggest that contaminated soil was placed on these two lots and, as such, should be remediated.

At 1044 100th Street, elevated levels of β-BHC are confined to the surface in the front yard and side yard to the north of the house. Removal or appropriate treatment of 12 inches of soil from the entire front yard and the side yard to the back property line would be an acceptable remediation for that contamination (stippled area on attached figure).

At 9909 Black Creek Drive, the elevated β-BHC levels extend to between 2 and 6 feet. Although no other contaminants (e.g. chlorobenzenes) appear to be elevated, we understand that you are having these analyses repeated because the methodology that was used on the samples taken in September 1990 were not fully adequate for identifying a PRP at the site. However, even without these additional results, β-BHC levels in the soil warrant remediation. The geology logs identified a sandy fill material wherever β-BHC levels were quite elevated. This material is clearly suspect wherever it is found on this lot, but remediation should at least encompass the western half of the front yard, including the driveway, the western side yard, and the backyard to a distance from the house halfway between sample BH6E and BH7. In the front and side yards, approximately 2 feet of soil should be treated or removed. In the back yard soil contamination extends deeper, and soil remediation should extend at least to the depth of footings specified in the local building code for that portion of the remediation area

that could be built upon which also contains deeper contamination (shaded area in attached figure). Contaminated soil from below 2 feet could be brought to the surface if an addition were added to the house. For the remaining area of remediation, soil should be removed or treated to a depth of at least 2 feet (stippled area on attached figure). Should the sandy fill material be identified to extend beyond the excavation area, then efforts should be made to remove as much of it as practically possible.

I believe that you have received our comments on the report itself. Of greatest concern is the use of the term "action level" and the absence of the geology logs. We would recommend that the term "action level" not be used or be replaced with the term such as "analytical action level" so that 1 ppm is not construed to be a *remedial* action level for β-BHC. We understand that you have already requested that the consultant include the geology logs as an appendix to the report.

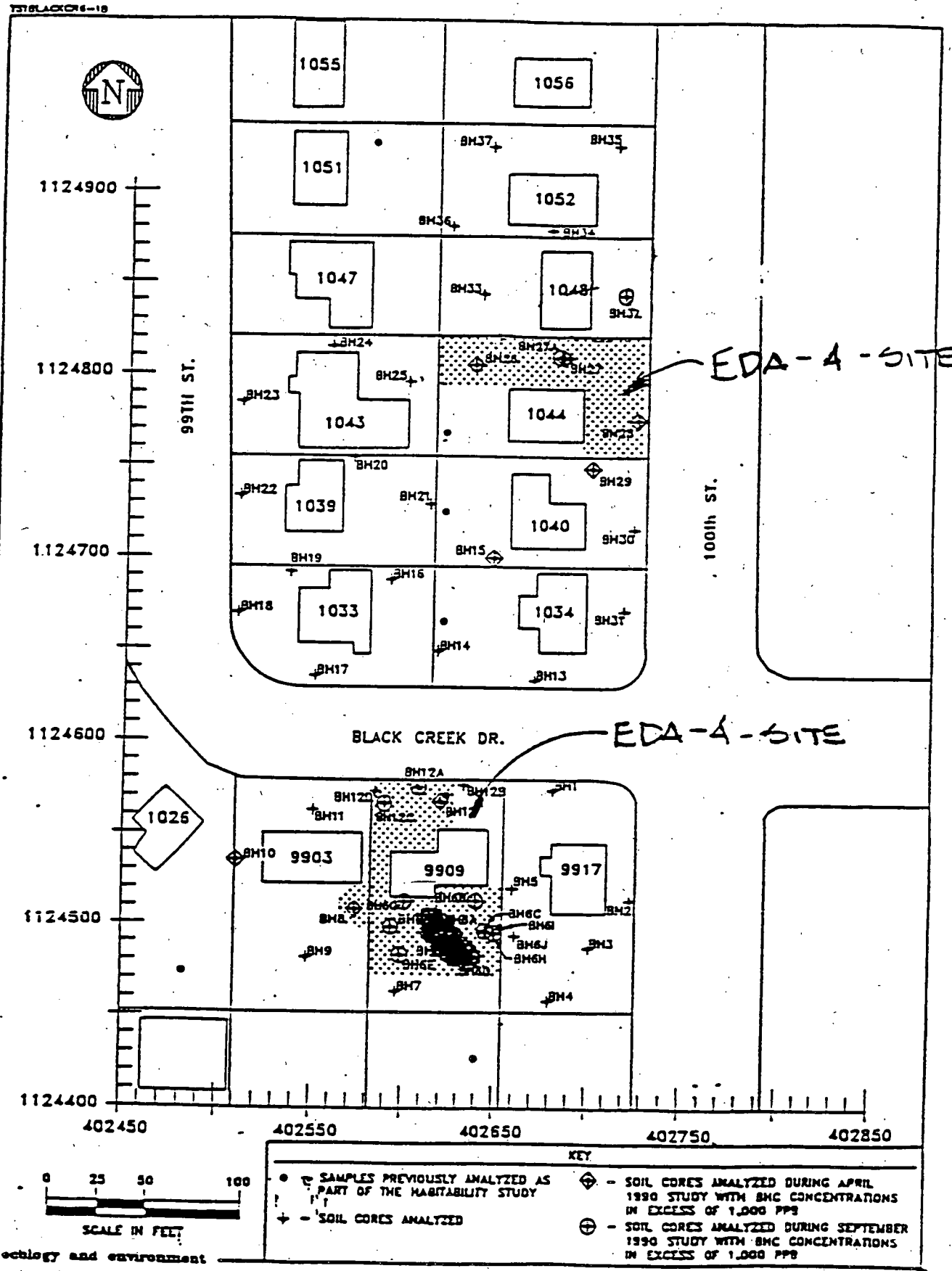
If this does not appear to reflect what we discussed or you wish to discuss these recommendations further, please do not hesitate to call me at 458-6438.

Sincerely,

Edward G. Horn, Ph.D.
Division of Environmental Health
Assessment

91058PRO0571

cc: W. Stasiuk
M. VanValkenburg
C. Thiemann



ecology and environment

Figure 6UH LOVE CANAL EDA4 SAMPLING LOCATIONS COMBINED APRIL AND SEPTEMBER 1990

FIGURE B6
TDM-D
OM FOR E

recycled paper

URGENT

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233

Thomas C. Jorling
Commissioner

TO: Bill Weber

COMPANY: ABB Env. Serv.

FROM: Ben Loredo, DEC, Albany

DATE: 9/29/93

NUMBER OF PAGES: 3 + Cover

FOR VERIFICATION OR PROBLEMS CALL _____
AT _____

THIS MESSAGE IS SENT FROM PANAFAX UF-260

OUR RECEIVING TELECOPIER PANAFAX UF-260.
NO. (518)457-7743

Bill,

Here are the Department's comments on the Frontier Ave. report. Please call me if you want to discuss.

You may START WORKING ON DEC comments, but finalize the report after comments are received from EPA (I'm waiting for them. They told me they would fax them sometime this afternoon).

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233

Thomas C. Jorling
Commissioner

Ben Lorado
9/29/93

SEP 29 1993

Mr. William Weber
ABB Environmental Services, Inc.
P.O. Box 7050
110 Free Street
Portland, ME 04112

Dear Mr. Weber:

The Department of Environmental Conservation has reviewed the text submitted on September 28, 1993, for the report on the remediation of Frontier Ave/100th St. and EDA 4 lots, and we offer the following comments:

1) ABB should mention and elaborate on the additional remediation conducted at 9903 Black Creek Drive in the SUMMARY OF WORK and WORK PERFORMED sections of the report.(There is only a brief reference to it in the end).

2) There should be mention of the fact that grass did not grow properly at certain areas and that reseeding is still an outstanding issue to be resolved by ENTECH .

3) There should be mention that remediation has removed all areas of significant contamination and that, therefore, no continued monitoring or maintenance is needed.

4) The QUANTITY OF MATERIALS table on page 2-13 has some incorrect figures (see attachment).

5) Page numbers shown in the Table of Contents do not match tha actual page numbers of the report.

6)Page 1-1, third paragraph, sixth line, change "...Love Canal Neighborhood No. 4..." to "...Love Canal EDA 4..."

7) Page 1-2, second paragraph, sixth line, type the complete address for lot 9903.

8) Page 1-2, second paragraph, second line, change "...Investigations of the neighborhood determined that..." to "...As a result of the Habitability Study of the neighborhood, a determination was made that..."

- Due to seasonal restrictions resulting from the late start date of the project, the contract duration was extended until July 1, 1993.

2.13 QUANTITY OF MATERIALS

The final quantity of materials associated with this project are itemized on the following table:

- Per change order No. 1

Type of Work	Actual Quantity
Test Pit Type A	~~2~~ 3
Test Pit Type B	2
Frontier Overburden Removal	294 cu. yd.
Frontier Contam. Removal	120 cu. yd.
Frontier Sewer Pipe	165 lin. ft.
Frontier Trench Backfill	216 cu. yd.
100th St. Overburden Removal	113 cu. yd.
100th St. Removal	23 cu. yd.
100th St. Pipe Replace	90 lin. ft.
100th St. Trench Backfill	94 cu. yd.
Manhole Replace	2
Trench Replace	275 cu. yd.
EDA Contamination Removal	~~700~~ cu. yd. 1005
EDA Backfill	~~750~~ cu. yd. 1005
EDA Restoration	1
Cap Repair	1
Roll-Off	35

SECTION 2

Type of Work	Actual Quantity
Contaminated Stock Pile	120 cu. yd. est.
9903 Black Creek Drive Cont. Soil Removal	238 ~~220~~ cu. yd.
9903 Black Creek Drive Backfill	238 cu. yd.

S. Mitchell 6609-40
Rec'd 9/30/93 File

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233

Thomas C. Jorling
Commissioner

TO: Steve Mitchell

COMPANY: ABB

FROM: Ben Loredo

DATE: 9/29/93

NUMBER OF PAGES: 3 + Cover

FOR VERIFICATION OR PROBLEMS CALL _____
AT _____

THIS MESSAGE IS SENT FROM PANAFAX UF-260

OUR RECEIVING TELECOPIER PANAFAX UF-260.
NO. (518)457-7743

USEPA's comments.

EPA'S COMMENTS ON THE DRAFT FINAL REMEDIAL ACTION REPORT LOVE CANAL FRONTIER AVNEUE/100 STREET SEWER EDA 4 AND THE LOVE CANAL CAPR REPAIR

9/29/93

Ben, the information discussed below should be added to the report. We need to identify the rationale for these remediation. If you feel any further information is needed, please amend.

1. Under Section 1, a brief discussion of the history of Love Canal should be included. The following has been taken from the narrative that is contained in the NPL Notebook Summary.

Beginning in 1942, the Love Canal site (Site) landfill was used by Hooker Chemicals and Plastics (now Occidental Chemical Corporation ~~(OXY)~~) for the disposal of over 21,000 tons of various chemical wastes, including dioxins. The fenced 70-acre Site, encompassing the original 16-acre hazardous waste landfill, is currently covered with a 40-acre clay/synthetic liner cap. A leachate collection and treatment system is in place and operating. The area near the Site was extensively developed, which included the construction of an elementary school and numerous homes. Problems with odors and residues began occurring during the 1960's and 1970's, with migration of contaminants to the surface. Runoff drained into the Niagara River, approximately 3 miles upstream of the intake tunnels for the Niagara Falls water treatment plant. Dioxin and other contaminants migrated from Love Canal to the sewers, which had outfalls into nearby creeks. Approximately 950 families were evacuated from a 10-square-block area surrounding the canal. Approximately 10,000 people are located within a mile of Love Canal; 70,000 live within 3 miles. The Niagara Falls water treatment plant serves 77,000 people. The Site is 1/4 mile north of the Niagara River.

mile

The Site is addressed in seven stages: 1) initial actions and six long-term remedial phases: 2) landfill containment with leachate collection, treatment, and disposal **(continuing)**; 3) cleanup of the sewers and creeks sediments **(completed)**; 4) thermal treatment of the sewers and creeks

sediments **(to be completed)**; 5) cleanup of the 93rd Street School soils **(completed)**; 6) home maintenance of properties in the Emergency Declaration Area (EDA) **(continuing)**; and, 7) buyout of homes and other properties in the EDA **(continuing)**.

The three short-term remedial actions that are the subject of this remedial action report have been completed: 1) the Frontier Avenue Sewer remediation, 2) the EDA 4 soil removal, and 3) the repair of a portion of the Love Canal cap.

2. In Section 2, we need to identify why the remedial actions were taken, i.e., Frontier: the continuation of the sewers and creeks 1985 Record of Decision (ROD), EDA 4: the Habitability Study, etc.

Proposed language is as follows:

a. For Frontier/100th Street: The remediation of the Frontier Avenue and 100th Street Sewers is a remedial action that stemmed from the 1985 ROD, which concerned the remediation of the sanitary and storm Sewers surrounding the Love Canal site. Also include a brief discussion of why the Frontier Avenue project was revisited after the initial remedial work back in 1987, which should identify the test-pitting that occurred and the contamination which was identified thus prompting this action.

b. For EDA 4: The remediation of Area 4 of the EDA resulted in concern expressed by the Expert Panel at a May 10-11, 1989 meeting of the Love Canal Technical Review Committee of areas of higher concentrations of BHCs were identified in the Habitability Study. After subsequent investigations, EPA, NYSDEC and NYSDOH determined that the lots at 1044 100th Street and 9903 and 9909 Black Creek Drive required remediation, including excavation and ultimate disposal.

c. For the cap: NYSDEC has historically been directed to pursue any remediation necessary in order to maintain and ensure the integrity of the Love Canal cap. This integrity was undermined as a result of

settling. The remediation required was appropriate to the existing capping procedures that were followed during the installation of the original cap.

3. A specific section on performance standards and construction quality control, including a reference indicating that all QA/QC procedures were implemented.

Specifically, for each part of the project, identify the various performance standards that were used during the remedial activities. These could include NYSDOH's assessments, including letters, of the cleanup levels for EDA 4; the same for Frontier Avenue and the technical requirements identified for the cap repair.

4. All sampling must be included in Appendices, including all the supplemental sampling conducted in EDA 4, regarding the black ash, etc.

5. The specifics of the final inspection must included, including a list of attendees.

6. A concluding discussion must be included that states that the remedy is operational and functional.

7. A summary of the most recent estimate of project costs must be included, either in the text or as an Appendix.

Simply put:

Cost of contract + additional sampling at 9903 by URS

$13,000

APPENDIX J

EDA 4 DATA

N.Y.S. DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DIVISION OF HAZARDOUS WASTE REMEDIATION

BUREAU OF HAZARDOUS SITE CONTROL

****
* ANALYTICAL REPORT *
****

SITE NAME: LOVE CANAL EDA

SITE CODE: 932020

SUBMITTED BY: BEN LOREDO

DATE OF REPORT: 7/30/93 DATA RELEASED BY: F.WOODWARD

REPORT QUALIFIERS: MERCURY ONLY

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

MOBILE LABORATORY SAMPLE SUBMISSION

SITE NAME: LOVE CANAL

REGISTRY NUMBER: SAMPLE SUBMISSION DATE:

SAMPLES SUBMITTED BY: JIM TUCK/BEN LOREDO T&A code:6203

TOTAL NUMBER OF SAMPLES SUBMITTED 50 *

********* ORGANIC SAMPLES BY MATRIX *********

WATER: VOA: BNA: PEST: PCB:

SOIL: VOA: BNA: PEST: PCB:

OTHER: VOA: BNA: PEST: PCB:

OTHER:

********* METALS SAMPLES BY MATRIX *********

WATER: SOIL: 50 * OTHER:

METALS SELECTED: Hg

==========

COMMENTS:

* SAMPLES WILL BE DIVIDED INTO THREE GROUPS OF 8, 10 AND 32. THE RESULTS OF GROUP ONE AND TWO WILL DETERMINE THE SAMPLES TO BE RUN IN GROUP THREE.

==========

********** REPORT INFORMATION **********

VOLATILE DATA REPORTED ___/___/___ BY_____

BNA DATA REPORTED ___/___/___ BY_____

PEST/PCB DATA REPORTED ___/___/___ BY_____

METALS DATA REPORTED _7_/_22/_93 BY_P.B.MALONE_____

REPORT COMPLETED AND FILED _7_/_30/_93 BY_F.WOODWARD_____

N.Y.S. DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION
BUREAU OF HAZARDOUS SITE CONTROL

METALS REPORT

SITE NAME: LOVE CANAL
FIELD ID: B-1-1 1.2-4'

SAMPLE NUMBER: 993-166-13
DATE COLLECTED: 6/14/93
DATE ANALYZED: 6/21/93
DATE REPORTED: 7/9/93

SITE CODE: 932020
MATRIX: SOIL
PERCENT SOLIDS: 92
ARCHIVE NO.: 116613

METAL	CONC	METAL	CONC mg/Kg
ALUMINIUM	NR	MAGNESIUM	NR
ANTIMONY	NR	MANGANESE	NR
ARSENIC	NR	MERCURY	12.2
BARIUM	NR	NICKEL	NR
BERYLLIUM	NR	POTASSIUM	NR
CADMIUM	NR	SELENIUM	NR
CALCIUM	NR	SILVER	NR
CHROMIUM	NR	SODIUM	NR
COBALT	NR	THALLIUM	NR
COPPER	NR	TIN	NR
IRON	NR	VANADIUM	NR
LEAD	NR	ZINC	NR

COMMENTS:

NR = NOT REQUESTED
J = ESTIMATED
U = LESS THAN DETECTION LIMIT (ND)

N.Y.S. DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION
BUREAU OF HAZARDOUS SITE CONTROL

METALS REPORT

SITE NAME: LOVE CANAL
FIELD ID: B-1-2 2-4"

SAMPLE NUMBER: 993-166-15
DATE COLLECTED: 6/14/93
DATE ANALYZED: 6/21/93
DATE REPORTED: 7/9/93

SITE CODE: 932020
MATRIX: SOIL
PERCENT SOLIDS: 88
ARCHIVE NO.: M16615

METAL	CONC	METAL	CONC mg/Kg
ALUMINIUM	NR	MAGNESIUM	NR
ANTIMONY	NR	MANGANESE	NR
ARSENIC	NR	MERCURY	5
BARIUM	NR	NICKEL	NR
BERYLLIUM	NR	POTASSIUM	NR
CADMIUM	NR	SELENIUM	NR
CALCIUM	NR	SILVER	NR
CHROMIUM	NR	SODIUM	NR
COBALT	NR	THALLIUM	NR
COPPER	NR	TIN	NR
IRON	NR	VANADIUM	NR
LEAD	NR	ZINC	NR

COMMENTS:

NR = NOT REQUESTED
J = ESTIMATED
U = LESS THAN DETECTION LIMIT (ND)

N.Y.S. DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION
BUREAU OF HAZARDOUS SITE CONTROL

METALS REPORT

SITE NAME: LOVE CANAL
FIELD ID: B-1-4 1.5-2.75" DUP

SAMPLE NUMBER: 993-166-17
DATE COLLECTED: 6/14/93
DATE ANALYZED: 6/21/93
DATE REPORTED: 7/9/93

SITE CODE: 932020
MATRIX: SOIL
PERCENT SOLIDS: 84
ARCHIVE NO.: M16617

METAL	CONC		METAL	CONC mg/Kg
ALUMINIUM	NR		MAGNESIUM	NR
ANTIMONY	NR		MANGANESE	NR
ARSENIC	NR		MERCURY	5.1
BARIUM	NR		NICKEL	NR
BERYLLIUM	NR		POTASSIUM	NR
CADMIUM	NR		SELENIUM	NR
CALCIUM	NR		SILVER	NR
CHROMIUM	NR		SODIUM	NR
COBALT	NR		THALLIUM	NR
COPPER	NR		TIN	NR
IRON	NR		VANADIUM	NR
LEAD	NR		ZINC	NR

COMMENTS:

NR = NOT REQUESTED
J = ESTIMATED
U = LESS THAN DETECTION LIMIT (ND)

N.Y.S. DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION
BUREAU OF HAZARDOUS SITE CONTROL

METALS REPORT

SITE NAME: LOVE CANAL
FIELD ID: B-1-5 1,² 2" SPAB

SAMPLE NUMBER: [illegible]
DATE COLLECTED: [illegible]
DATE ANALYZED: [illegible]
DATE REPORTED: [illegible]

SITE CODE: [illegible]
MATRIX: SOIL
PERCENT SOLIDS: [illegible]
ARI-IVE NO.: [illegible]

METAL	CONC	METAL	CONC mg/Kg
ALUMINIUM	NR	MAGNESIUM	NR
ANTIMONY	NR	MANGANESE	NR
ARSENIC	NR	MERCURY	7.4
BARIUM	NR	NICKEL	NR
BERYLLIUM	NR	POTASSIUM	NR
CADMIUM	NR	SELENIUM	NR
CALCIUM	NR	SILVER	NR
CHROMIUM	NR	SODIUM	NR
COBALT	NR	THALLIUM	NR
COPPER	NR	TIN	NR
IRON	NR	VANADIUM	NR
LEAD	NR	ZINC	NR

COMMENTS:

NR = NOT REQUESTED
J = ESTIMATED
U = LESS THAN DETECTION LIMIT (ND)

N.Y.S. DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION
BUREAU OF HAZARDOUS SITE CONTROL

METALS REPORT

SITE NAME: LOVE CANAL
FIELD ID: S-1-4 -.5" GRAB

SAMPLE NUMBER: 993-166-19
DATE COLLECTED: 6/14/93
DATE ANALYZED: 6/21/93
DATE REPORTED: 7/9/93

SITE CODE: 932100
MATRIX: SOIL
PERCENT SOLIDS: 84
ARCHIVE NO.: M16619

METAL	CONC		METAL	CONC mg/Kg
ALUMINIUM	NR		MAGNESIUM	NR
ANTIMONY	NR		MANGANESE	NR
ARSENIC	NR		MERCURY	3.5
BARIUM	NR		NICKEL	NR
BERYLLIUM	NR		POTASSIUM	NR
CADMIUM	NR		SELENIUM	NR
CALCIUM	NR		SILVER	NR
CHROMIUM	NR		SODIUM	NR
COBALT	NR		THALLIUM	NR
COPPER	NR		TIN	NR
IRON	NR		VANADIUM	NR
LEAD	NR		ZINC	NR

COMMENTS:

NR = NOT REQUESTED
J = ESTIMATED
U = LESS THAN DETECTION LIMIT (ND)

N.Y.S. DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION
BUREAU OF HAZARDOUS SITE CONTROL

METALS REPORT

SITE NAME: LOVE CANAL
FIELD ID: B-2-1 1-2"

SAMPLE NUMBER: 993-167-04
DATE COLLECTED: 6/15/93
DATE ANALYZED: 6/23/93
DATE REPORTED: 7/9/93

SITE CODE: 932020
MATRIX: SOIL
PERCENT SOLIDS: 83
ARCHIVE NO.: M16704

METAL	CONC		METAL	CONC mg/Kg
ALUMINIUM	NR		MAGNESIUM	NR
ANTIMONY	NR		MANGANESE	NR
ARSENIC	NR		MERCURY	0.3
BARIUM	NR		NICKEL	NR
BERYLLIUM	NR		POTASSIUM	NR
CADMIUM	NR		SELENIUM	NR
CALCIUM	NR		SILVER	NR
CHROMIUM	NR		SODIUM	NR
COBALT	NR		THALLIUM	NR
COPPER	NR		TIN	NR
IRON	NR		VANADIUM	NR
LEAD	NR		ZINC	NR

COMMENTS:

NR = NOT REQUESTED
J = ESTIMATED
U = LESS THAN DETECTION LIMIT 'ND'

N.Y.S. DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION
BUREAU OF HAZARDOUS SITE CONTROL

METALS REPORT

SITE NAME: LOVE CANAL
FIELD ID: B-2-1 3-4.5'

SAMPLE NUMBER: 993-167-05
DATE COLLECTED: 6/15/93
DATE ANALYZED: 6/23/93
DATE REPORTED: 7/9/93

SITE CODE: 932038
MATRIX: SOIL
PERCENT SOLIDS: 91
APCP FILE NO.: M16705

METAL	CONC	METAL	CONC mg/Kg
ALUMINIUM	NR	MAGNESIUM	NR
ANTIMONY	NR	MANGANESE	NR
ARSENIC	NR	MERCURY	0.3
BARIUM	NR	NICKEL	NR
BERYLLIUM	NR	POTASSIUM	NR
CADMIUM	NR	SELENIUM	NR
CALCIUM	NR	SILVER	NR
CHROMIUM	NR	SODIUM	NR
COBALT	NR	THALLIUM	NR
COPPER	NR	TIN	NR
IRON	NR	VANADIUM	NR
LEAD	NR	ZINC	NR

COMMENTS:

NR = NOT REQUESTED
J = ESTIMATED
U = LESS THAN DETECTION LIMIT (ND)

N.Y.S. DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION
BUREAU OF HAZARDOUS SITE CONTROL

METALS REPORT

SITE NAME: LOVE CANAL
FIELD ID: B-2-3 1.8-2.5'

SAMPLE NUMBER: 993-167-06
DATE COLLECTED: 6/15/93
DATE ANALYZED: 6/23/93
DATE REPORTED: 7/9/93

SITE CODE: 932020
MATRIX: SOIL
PERCENT SOLIDS: 74
ARCHIVE NO.: M16706

METAL	CONC		METAL	CONC mg/Kg
ALUMINIUM	NR		MAGNESIUM	NR
ANTIMONY	NR		MANGANESE	NR
ARSENIC	NR		MERCURY	0.5
BARIUM	NR		NICKEL	NR
BERYLLIUM	NR		POTASSIUM	NR
CADMIUM	NR		SELENIUM	NR
CALCIUM	NR		SILVER	NR
CHROMIUM	NR		SODIUM	NR
COBALT	NR		THALLIUM	NR
COPPER	NR		TIN	NR
IRON	NR		VANADIUM	NR
LEAD	NR		ZINC	NR

COMMENTS:

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N.Y.S. DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION
BUREAU OF HAZARDOUS SITE CONTROL

METALS REPORT

SITE NAME: LOVE CANAL
FIELD ID: B-2-8 (1.5-1)

SAMPLE NUMBER: 993-167-07
DATE COLLECTED: 6/19/93
DATE ANALYZED: 6 23 93
DATE REPORTED: 7 6 93

SITE CODE: 932000
MATRIX: SOIL
PERCENT SOLIDS: 71
ARCHIVE NO.: M-6787

METAL	CONC mg/kg	METAL	CONC mg/kg
ALUMINUM	NR	MAGNESIUM	NR
ANTIMONY	NR	MANGANESE	NR
ARSENIC	NR	MERCURY	6.0
BARIUM	NR	NICKEL	NR
BERYLLIUM	NR	POTASSIUM	NR
CADMIUM	NR	SELENIUM	NR
CALCIUM	NR	SILVER	NR
CHROMIUM	NR	SODIUM	NR
COBALT	NR	THALLIUM	NR
COPPER	NR	TIN	NR
IRON	NR	VANADIUM	NR
LEAD	NR	ZINC	NR

COMMENTS:

NR = NOT REQUESTED
J = ESTIMATED
U = LESS THAN DETECTION LIMIT (ND)

N.Y.S. DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION
BUREAU OF HAZARDOUS SITE CONTROL

METALS REPORT

SITE NAME: LOVE CANAL
FIELD ID: B-2-10 8-12"

SAMPLE NUMBER: 993-168-01
DATE COLLECTED: 6/16/93
DATE ANALYZED: 6/23/93
DATE REPORTED: 7/9/93

SITE CODE: 932020
MATRIX: SOIL
PERCENT SOLIDS: 77
ARCHIVE NO.: M16801

METAL	CONC		METAL	CONC mg/Kg
ALUMINIUM	NR		MAGNESIUM	NR
ANTIMONY	NR		MANGANESE	NR
ARSENIC	NR		MERCURY	0.2
BARIUM	NR		NICKEL	NR
BERYLLIUM	NR		POTASSIUM	NR
CADMIUM	NR		SELENIUM	NR
CALCIUM	NR		SILVER	NR
CHROMIUM	NR		SODIUM	NR
COBALT	NR		THALLIUM	NR
COPPER	NR		TIN	NR
IRON	NR		VANADIUM	NR
LEAD	NR		ZINC	NR

COMMENTS:

NR = NOT REQUESTED
J = ESTIMATED
U = LESS THAN DETECTION LIMIT (ND)

N.Y.S. DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION
BUREAU OF HAZARDOUS SITE CONTROL

METALS REPORT

SITE NAME: LOVE CANAL
FIELD ID: B-2-10 MS

SAMPLE NUMBER: 993-168-02
DATE COLLECTED: 6/16/93
DATE ANALYZED: 6/27/93
DATE REPORTED: 7/9/93

SITE CODE: 932020
MATRIX: SOIL
PERCENT SOLIDS: 77
ARCHIVE NO.: M16802

METAL	CONC	METAL	CONC mg/Kg
ALUMINIUM	NR	MAGNESIUM	NR
ANTIMONY	NR	MANGANESE	NR
ARSENIC	NR	MERCURY	0.1
BARIUM	NR	NICKEL	NR
BERYLLIUM	NR	POTASSIUM	NR
CADMIUM	NR	SELENIUM	NR
CALCIUM	NR	SILVER	NR
CHROMIUM	NR	SODIUM	NR
COBALT	NR	THALLIUM	NR
COPPER	NR	TIN	NR
IRON	NR	VANADIUM	NR
LEAD	NR	ZINC	NR

COMMENTS:

NR = NOT REQUESTED
J = ESTIMATED
U = LESS THAN DETECTION LIMIT (ND)

N.Y.S. DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION
BUREAU OF HAZARDOUS SITE CONTROL

METALS REPORT

SITE NAME: LOVE CANAL
FIELD ID: B-2-10 MSD

SAMPLE NUMBER: 993-168-03
DATE COLLECTED: 6/16/93
DATE ANALYZED: 6/23/93
DATE REPORTED: 7/9/93

SITE CODE: 932020
MATRIX: SOIL
PERCENT SOLIDS: 76
ARCHIVE NO.: M16803

METAL	CONC		METAL	CONC mg/Kg
ALUMINIUM	NR		MAGNESIUM	NR
ANTIMONY	NR		MANGANESE	NR
ARSENIC	NR		MERCURY	0.2
BARIUM	NR		NICKEL	NR
BERYLLIUM	NR		POTASSIUM	NR
CADMIUM	NR		SELENIUM	NR
CALCIUM	NR		SILVER	NR
CHROMIUM	NR		SODIUM	NR
COBALT	NR		THALLIUM	NR
COPPER	NR		TIN	NR
IRON	NR		VANADIUM	NR
LEAD	NR		ZINC	NR

COMMENTS:

NR = NOT REQUESTED
J = ESTIMATED
U = LESS THAN DETECTION LIMIT (ND)

N.Y.S. DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION
BUREAU OF HAZARDOUS SITE CONTROL

METALS REPORT

SITE NAME: LOVE CANAL
FIELD ID: SB-2-9 1.5-3'

SAMPLE NUMBER: 93-16?-1?
DATE COLLECTED: 6/16/93
DATE ANALYZED: 6/23/93
DATE REPORTED: 7/9/93

SITE CODE: 932122
MATRIX: SOIL
PERCENT SOLIDS: 49.
ARCHIVE NO.: M16804

METAL	CONC	METAL	CONC mg/Kg
ALUMINUM	NR	MAGNESIUM	NR
ANTIMONY	NR	MANGANESE	NR
ARSENIC	NR	MERCURY	0.2
BARIUM	NR	NICKEL	NR
BERYLLIUM	NR	POTASSIUM	NR
CADMIUM	NR	SELENIUM	NR
CALCIUM	NR	SILVER	NR
CHROMIUM	NR	SODIUM	NR
COBALT	NR	THALLIUM	NR
COPPER	NR	TIN	NR
IRON	NR	VANADIUM	NR
LEAD	NR	ZINC	NR

COMMENTS:

NR = NOT REQUESTED
J = ESTIMATED
U = LESS THAN DETECTION LIMIT (ND)

N.Y.S. DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION
BUREAU OF HAZARDOUS SITE CONTROL

METALS REPORT

SITE NAME: LOVE CANAL
FIELD ID: B-2-7 1.8-2.5'

SAMPLE NUMBER: 993-168-05
DATE COLLECTED: 6/16/93
DATE ANALYZED: 6/23/93
DATE REPORTED: 7/9/93

SITE CODE: 932020
MATRIX: SOIL
PERCENT SOLIDS: 76
ARCHIVE NO.: M16805

METAL	CONC	METAL	CONC mg/Kg
ALUMINIUM	NR	MAGNESIUM	NR
ANTIMONY	NR	MANGANESE	NR
ARSENIC	NR	MERCURY	0.6
BARIUM	NR	NICKEL	NR
BERYLLIUM	NR	POTASSIUM	NR
CADMIUM	NR	SELENIUM	NR
CALCIUM	NR	SILVER	NR
CHROMIUM	NR	SODIUM	NR
COBALT	NR	THALLIUM	NR
COPPER	NR	TIN	NR
IRON	NR	VANADIUM	NR
LEAD	NR	ZINC	NR

COMMENTS:

NR = NOT REQUESTED
J = ESTIMATED
U = LESS THAN DETECTION LIMIT (ND)

N.Y.S. DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION
BUREAU OF HAZARDOUS SITE CONTROL

METALS REPORT

SITE NAME: LOVE CANAL
FIELD ID: B-2-4 1-3'

SAMPLE NUMBER: 993-168-0e
DATE COLLECTED: 6/16/93
DATE ANALYZED: 6/23/93
DATE REPORTED: 7/9/93

SITE CODE: 932020
MATRIX: SOIL
PERCENT SOLIDS: 87
ARCHIVE NO.: M16806

METAL	CONC	METAL	CONC mg/Kg
ALUMINIUM	NR	MAGNESIUM	NR
ANTIMONY	NR	MANGANESE	NR
ARSENIC	NR	MERCURY	0.1
BARIUM	NR	NICKEL	NR
BERYLLIUM	NR	POTASSIUM	NR
CADMIUM	NR	SELENIUM	NR
CALCIUM	NR	SILVER	NR
CHROMIUM	NR	SODIUM	NR
COBALT	NR	THALLIUM	NR
COPPER	NR	TIN	NR
IRON	NR	VANADIUM	NR
LEAD	NR	ZINC	NR

COMMENTS:

NR = NOT REQUESTED
J = ESTIMATED
U = LESS THAN DETECTION LIMIT (ND)

N.Y.S. DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION
BUREAU OF HAZARDOUS SITE CONTROL

METALS REPORT

SITE NAME: LOVE CANAL
FIELD ID: B-2-2 1-3'

SAMPLE NUMBER: 993-168-07
DATE COLLECTED: 6/16/93
DATE ANALYZED: 6/23/93
DATE REPORTED: 7/9/93

SITE CODE: 932020
MATRIX: SOIL
PERCENT SOLIDS: 82
ARCHIVE NO.: M16807

METAL	CONC	METAL	CONC
ALUMINIUM	NR	MAGNESIUM	NR
ANTIMONY	NR	MANGANESE	NR
ARSENIC	NR	MERCURY	0.1
BARIUM	NR	NICKEL	NR
BERYLLIUM	NR	POTASSIUM	NR
CADMIUM	NR	SELENIUM	NR
CALCIUM	NR	SILVER	NR
CHROMIUM	NR	SODIUM	NR
COBALT	NR	THALLIUM	NR
COPPER	NR	TIN	NR
IRON	NR	VANADIUM	NR
LEAD	NR	ZINC	NR

COMMENTS:

NR = NOT REQUESTED
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UPS CONSULTANTS, INC.

PAGE 1 OF
SHEET NO. 1 OF
JOB NO. 35243.03
MADE BY MG DATE 6/22/93
CHKD. BY DATE

PROJECT LOVE CANAL EDA 4 LOTS
SUBJECT ENVIRONMENTAL SAMPLING SUMMARY

BORING NO.	SAMPLE DEPTH (FT)	GRID LOCATION	ASH THICKNESS (FT)	REF. PAGE
B-1-1	1.8 - 4	x = 20 y = 30	4.2	
B-1-1	4 - 6	x = 20 y = 30	4.2	
B-1-2	2 - 4	x = 40 y = 30	2.0	
B-1-4	1.5 - 2.75	x = 20 y = 50	3.0	
B-1-4	4.5	x = 20 y = 50	3.0	
B-1-5	1.9 - 2.0	x = 40 y = 50	0.1	
B-2-1	1 - 2	x = 60 y = 30	3.5	
B-2-1	2 - 4.5	x = 60 y = 30	3.5	
B-2-2	1 - 3	x = 80 y = 30	2.0	
B-2-3	1.8 - 2.5	x = 60 y = 50	0.7	
B-2-4	1 - 3	x = 80 y = 50	2.0	
B-2-7	1.8 - 2.5	x = 0 y = 90	0.7	
B-2-8	0.5 - 1	x = 20 y = 90	0.5	
B-2-9	1.5 - 2.0	x = 40 y = 90	0.5	
B-2-10	0.6 - 1.0	x = 60 y = 90	0.4	
B-3-2	1.8 - 4	x = 100 y = 50	4.1	
B-3-2	4 - 5.9	x = 100 y = 50	4.1	
B-3-3	1.7 - 1.9	x = 120 y = 50	0.2	
B-3-5	2 - 4	x = 120 y = 70	3.8	
B-3-5	4 - 5.8	x = 120 y = 70	3.8	

Boring No.	Hg Level (ppm)	Sample Depth (ft)	Ash Layer (ft)
1	12.2	1.8 - 4.0	4.2
	100.0	4.0 - 6.0	
2	5.0	2.0 - 4.0	2.0
3	< 1.0	1.0 - 2.0	3.5
	< 1.0	2.0 - 4.5	
4	< 1.0	1.0 - 3.0	2.0
5	3.6	1.5 - 2.75	3.0
	3.5	2.75- 4.5	
6	7.4	1.9 - 2.0	0.1
7	< 1.0	1.8 - 2.5	0.7
8	< 1.0	1.0 - 3.0	2.0
9	N	-	-
10	N	-	-
11	N	-	-
12	N	-	-
13	N	-	-
14	N	-	-
15	< 1.0	1.8 - 2.5	0.7
16	6.0	0.5 - 1.0	0.5
17	< 1.0	1.5 - 2.0	0.5
18	< 1.0	0.6 - 1.0	0.4
19	N	-	-
20	N	-	-
21	N	-	-
22	N	-	-

N: No black ash encountered

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233

Thomas C. Jorling
Commissioner

JUL 23 1993

Mr. Paul Polino
ENTECH Management Services Corp.
1008 Main Street
Buffalo, NY 14202

Dear Mr. Polino:

Re: Frontier Ave/100th. St Contract and
9903 Black Creek Drive Change Order

This letter is to inform you to be prepared to begin work on 9903 Black Creek Drive on August 2, 1993. If no agreement on the cost of the change order is reached between ENTECH and the New York State Department of Environmental Conservation by Friday close of business, July 30, 1993, payment for the work to be performed as per Field Order No.14 will be paid for as described in article 04 of the Form-of- Bid section of the contract. Unfortunately, you have not returned our phone calls and every attempt to contact you has been unsuccessful. We request that you give this matter your immediate attention and contact the Department immediately to resolve the following:

1) Your submittal of July 15, 1993, regarding cost estimates for the removal of contaminated soil at lot #9903 Black Creek Drive is unacceptable. Your statement therein that your proposal was based on time and materials as per our conversation of Friday, July 9, 1993 is incorrect. We agreed that ENTECH was to submit estimates for clearing/grubbing and mob/demob only, unit prices per square foot of sidewalk and street pavement repair, and unit price per linear foot of street curb repair. Payment for excavation, transport, disposal, backfilling and compaction of material is to be the same as in the current contract D002898 (as per Field Order No.14).

The building's garage was demolished on July 23, 1993. Access is to be through lot 9903 only (garage slab can be used for access). Your mob/demob estimate is to include the work necessary to push the demolition debris back towards the rear of the yard and removal of the tree located in the west side of the property,

if necessary. If the tree is removed, the stump must be chipped 6 inches below grade. Clearing of the bushes and old fence on the 1026 property line will not be necessary since access is to be through lot 9903 only.

2) It was agreed that the following documentation was to be submitted within one or two weeks from July 13, 1993, the date of our final inspection meeting:

a) Lien releases and affidavits.
b) Backup documentation for items to be included in Change Order No.2.
c) Backup documentation for items #1 and 2p of the roll-off breakdown.

To date, we have not received any of the above items.

3) Bill Galloway expressed some concern over the material to be excavated. The material did not fail the TCLP test and did not meet any of the definitions of a listed or characteristic hazardous waste. The soils, therefore, are not RCRA hazardous waste.

4) Occidental Chemical Corp. must be advised at least three business days in advance of any shipment of excavated soil to the 102nd. St. Landfill. The person to contact is Mr. Lee Nigro, site construction supervisor, at (716) 278-7575.

Please contact me or Ben Loredo, of my staff, immediately at (518) 457-0927 to resolve these matters.

Sincerely,

A. K. Gupta 7/23/93

Gerald J. Rider, Jr.
Chief, Operation and Maintenence Section
Bureau of Construction Services
Division of Hazardous Waste Remediation

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233

Thomas C. Jorling
Commissioner

Dear Steve:

Attached is a sketch of the area to be excavated at 9903 Black Creek Drive (the numbers 1 thru 22 on the sketch are just the locations of the soil borings made for the sampling and analysis). The excavation, backfill and compaction are to be conducted in accordance with the existing contract D002898 with ENTECH. Method of payment: same as in the contract.

No landscaping or restorative work on the property will be done. However, any damage to sidewalks or street curbs must be repaired

* Horizontal boundaries: Approx. 60' x 45' (as shown in map)
* Depth: Excavate black ash only (up to 6 feet in depth).
* Estimated quantity ≈ 250 yd^3.

Please contact me or Jerry if you need further clarification, ~~Please~~ then contact ENTECH to go over the scope of work and schedule (ASAP), then prepare Field Order.

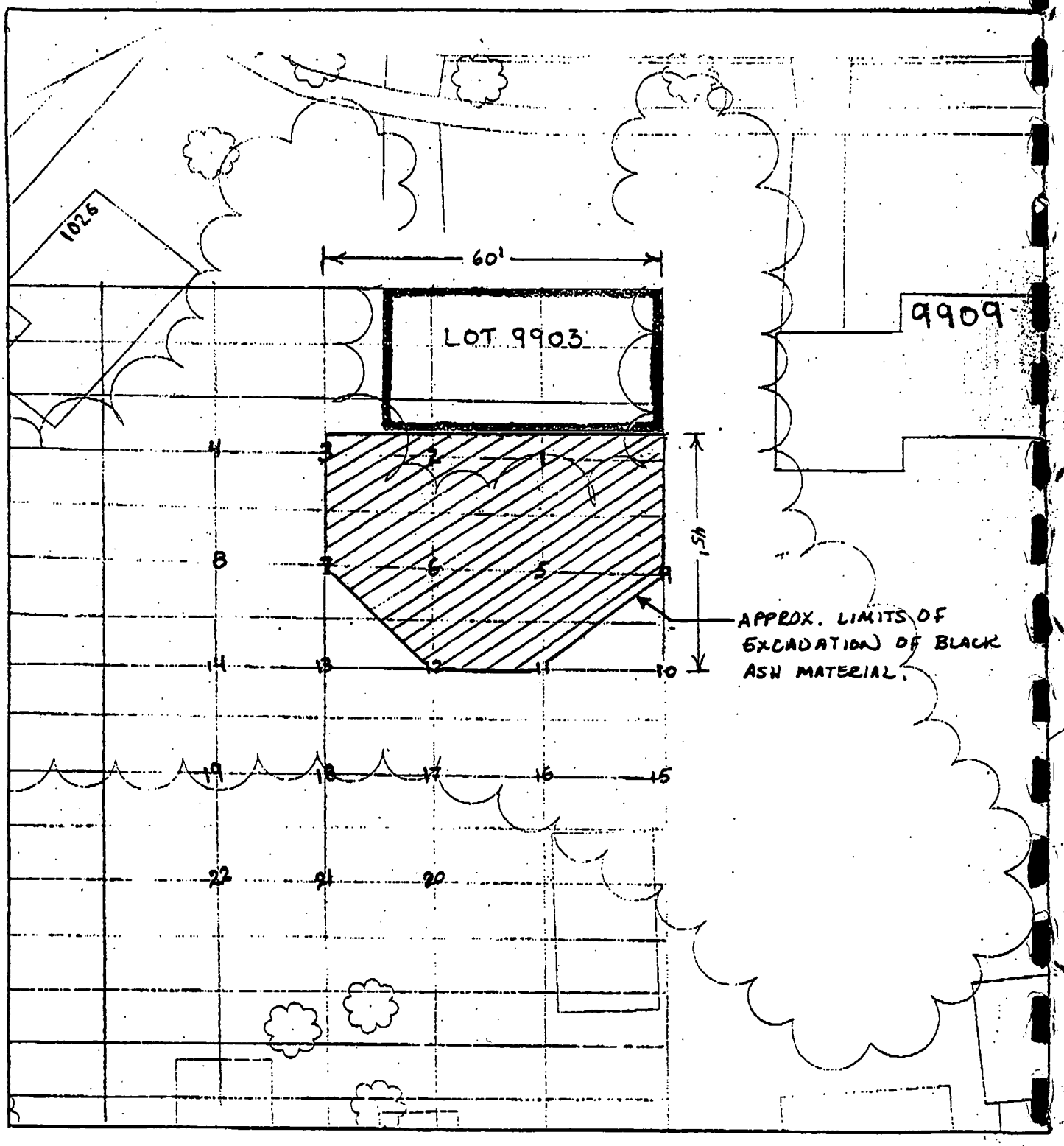

1026
60'
LOT 9903
9909
1-5ft
APPROX. LIMITS OF EXCAVATION OF BLACK ASH MATERIAL.

FIGURE 1

Rec'd Comment 66-7-6.1
4/1/93 F/L 5.2.3

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233

Thomas C. Jorling
Commissioner

MAR 29 1993

Mr. Stephen Mitchell
ABB Environmental Services
P.O. Box 7050
Portland, ME 04112

Dear Mr. Mitchell:

RE: Work Assignment D002472-7
Love Canal Site #9-32-020
Emergency Declaration Area 4 Sampling and Results

Enclosed as you requested are analytical results of samples taken during remedial construction in the vicinity of 9909 Black Creek Drive.

Please call me at (518) 457-9285 if you have any questions.

Sincerely,

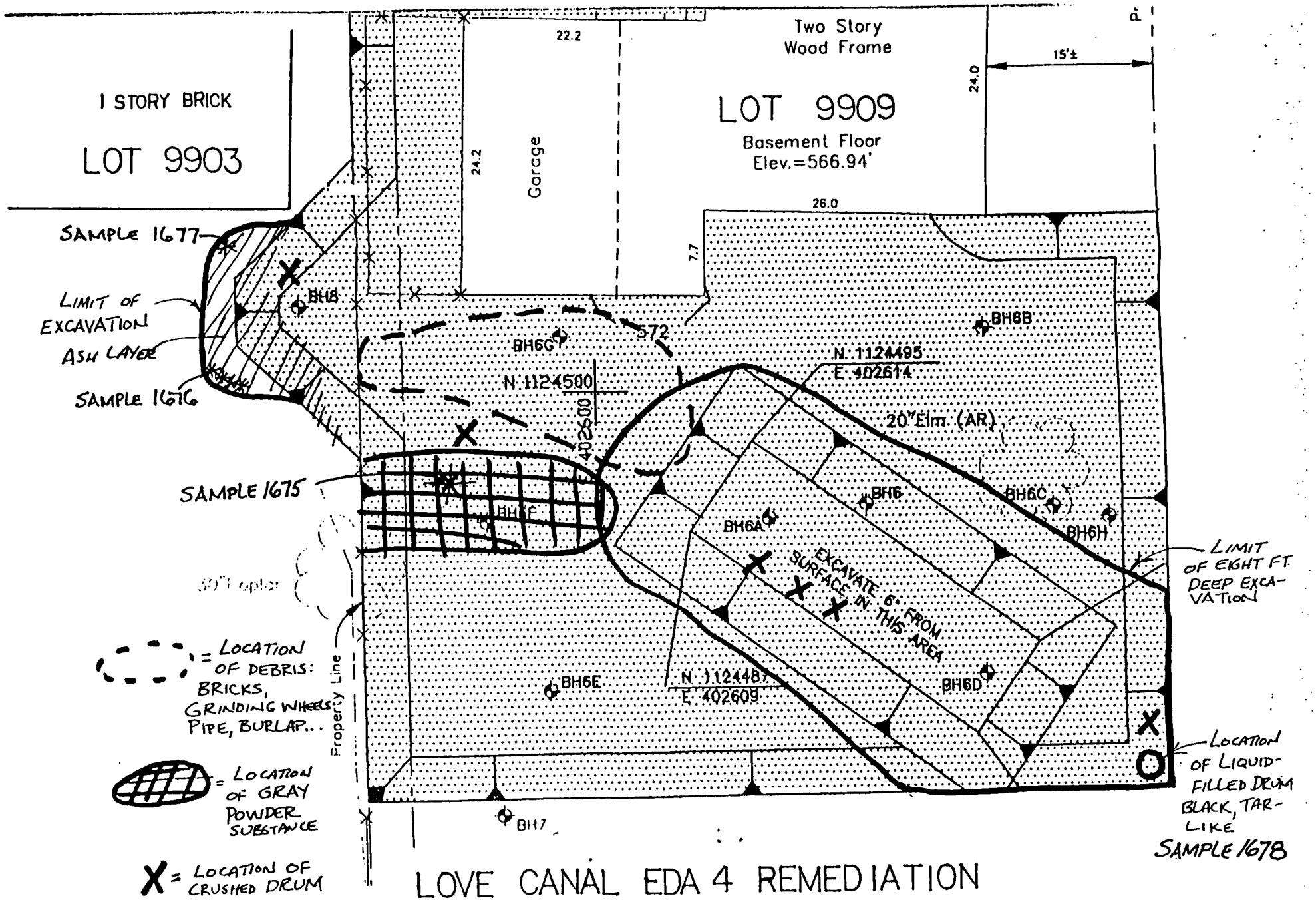
John Spellman

John Spellman, P.E.
Bureau of Construction Services
Division of Hazardous Waste Remediation

Enclosure

cc: w/o enc. G. Rider

a:analresu.wp:JSP:et



LOVE CANAL EDA 4 REMEDIATION

DECEMBER 1992

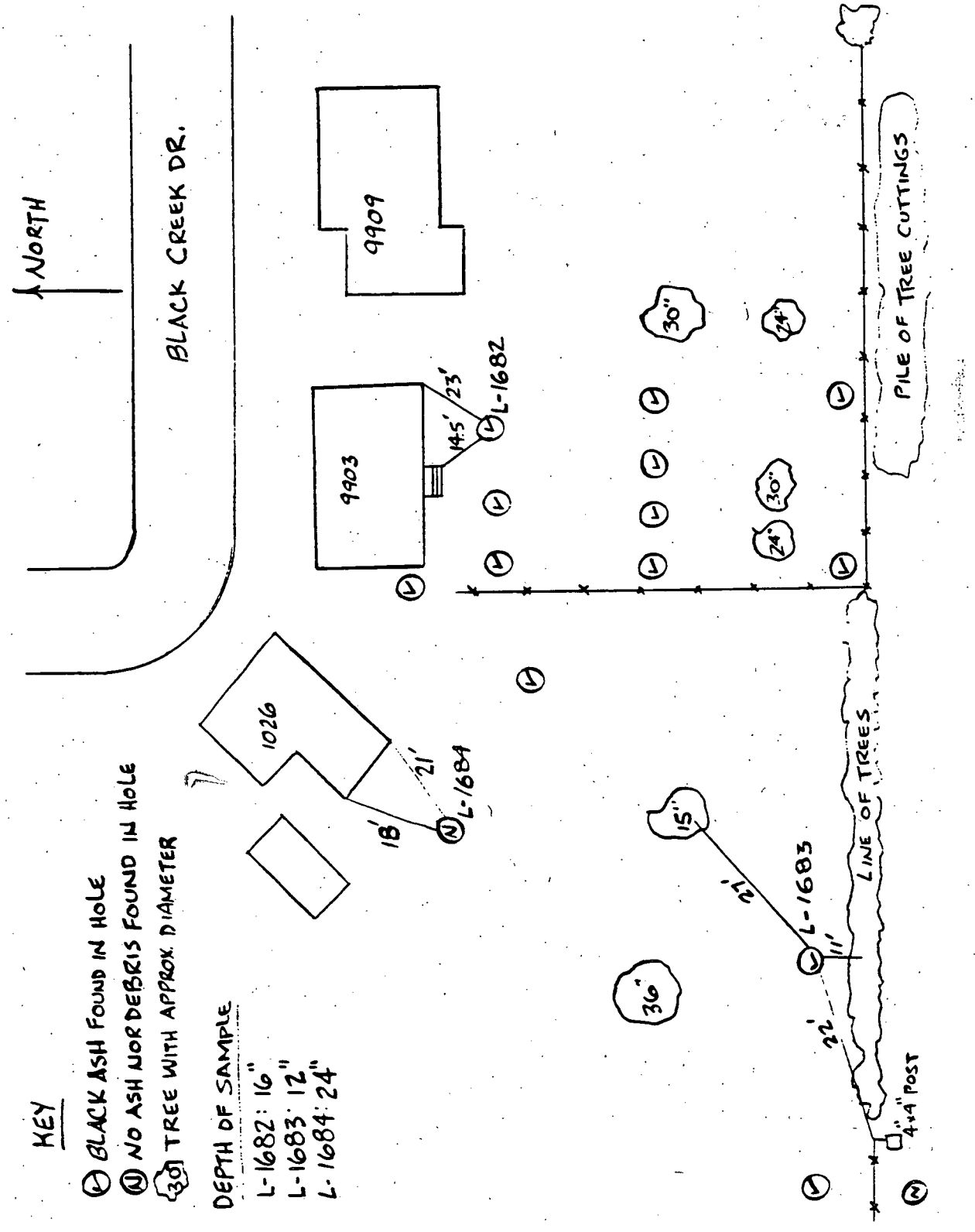
37-00-1 (6/85)

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

PROJECT GRID

JOB NUMBER	FILE NUMBER	SHEET NUMBER	CHECKED BY	DATE
LOVE CANAL EDA 4				
TEST HOLES, 9903 BLACK CREEK DR.			COMPUTED BY J SPELLMAN	DATE JAN 7, 1993

NOT-TO-SCALE



1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
L1675

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: L092 SAS No.: _____ SDG No.: 11036

Matrix: (soil/water) SOIL Lab Sample ID: AS021643

Sample wt/vol: 5.20 (g/mL) G Lab File ID: H1339

Level: (low/med) LOW Date Received: 11/24/92

% Moisture: not dec. 40 Date Analyzed: 11/25/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	16	U
74-83-9	Bromomethane	16	U
75-01-4	Vinyl Chloride	16	U
75-00-3	Chloroethane	16	U
75-09-2	Methylene Chloride	16	U
67-64-1	Acetone	16	U
75-15-0	Carbon Disulfide	16	U
75-35-4	1,1-Dichloroethene	16	U
75-34-3	1,1-Dichloroethane	16	U
540-59-0	1,2-Dichloroethene (total)	16	U
67-66-3	Chloroform	16	U
107-06-2	1,2-Dichloroethane	16	U
78-93-3	2-Butanone	16	U
71-55-6	1,1,1-Trichloroethane	16	U
56-23-5	Carbon Tetrachloride	16	U
75-27-4	Bromodichloromethane	16	U
78-87-5	1,2-Dichloropropane	16	U
10061-01-5	cis-1,3-dichloropropene	16	U
79-01-6	Trichloroethene	16	U
124-48-1	Dibromochloromethane	16	U
79-00-5	1,1,2-Trichloroethane	16	U
71-43-2	Benzene	16	U
10061-02-6	trans-1,3-dichloropropene	16	U
75-25-2	Bromoform	16	U
108-10-1	4-Methyl-2-Pentanone	16	U
591-78-6	2-Hexanone	16	U
127-18-4	Tetrachloroethene	2	J
79-34-5	1,1,2,2-Tetrachloroethane	16	U
108-88-3	Toluene	16	U
108-90-7	Chlorobenzene	16	U
100-41-4	Ethylbenzene	16	U
100-42-5	Styrene	16	U
1330-20-7	Total Xylenes	16	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

L1675

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: L092 SAS No.: _____ SDG No.: 11036

Matrix: (soil/water) SOIL Lab Sample ID: AS021643

Sample wt/vol: 30.40 (g/mL) G Lab File ID: 12803Y

Level: (low/med) LOW Date Received: 11/24/92

% Moisture: 39 decanted: (Y/N) N Date Extracted: 11/27/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 12/03/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.9

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
108-95-2	Phenol	530	U
111-44-4	bis(2-Chloroethyl)Ether	530	U
95-57-8	2-Chlorophenol	530	U
541-73-1	1,3-Dichlorobenzene	530	U
106-46-7	1,4-Dichlorobenzene	530	U
95-50-1	1,2-Dichlorobenzene	530	U
95-48-7	2-Methylphenol	530	U
108-60-1	2,2'-oxybis(1-Chloropropane)	530	U
106-44-5	4-Methylphenol	530	U
621-64-7	N-Nitroso-Di-n-Propylamine	530	U
67-72-1	Hexachloroethane	530	U
98-95-3	Nitrobenzene	530	U
78-59-1	Isophorone	530	U
88-75-5	2-Nitrophenol	530	U
105-67-9	2,4-Dimethylphenol	530	U
111-91-1	bis(2-Chloroethoxy)Methane	530	U
120-83-2	2,4-Dichlorophenol	530	U
120-82-1	1,2,4-Trichlorobenzene	530	U
91-20-3	Naphthalene	530	U
106-47-8	4-Chloroaniline	530	U
87-68-3	Hexachlorobutadiene	530	U
59-50-7	4-Chloro-3-Methylphenol	530	U
91-57-6	2-Methylnaphthalene	530	U
77-47-4	Hexachlorocyclopentadiene	530	U
88-06-2	2,4,6-Trichlorophenol	530	U
95-95-4	2,4,5-Trichlorophenol	1300	U
91-58-7	2-Chloronaphthalene	530	U
88-74-4	2-Nitroaniline	1300	U
131-11-3	Dimethyl Phthalate	530	U
208-96-8	Acenaphthylene	530	U
606-20-2	2,6-Dinitrotoluene	530	U
99-09-2	3-Nitroaniline	1300	U
83-32-9	Acenaphthene	530	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

L1675

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: L092 SAS No.: _____ SDG No.: 11036

Matrix: (soil/water) SOIL Lab Sample ID: AS021643

Sample wt/vol: 30.40 (g/mL) G Lab File ID: 12803Y

Level: (low/med) LOW Date Received: 11/24/92

% Moisture: 39 decanted: (Y/N) N Date Extracted: 11/27/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 12/03/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1300	U
100-02-7	4-Nitrophenol	1300	U
132-64-9	Dibenzofuran	530	U
121-14-2	2,4-Dinitrotoluene	530	U
84-66-2	Diethylphthalate	530	U
7005-72-3	4-Chlorophenyl-phenylether	530	U
86-73-7	Fluorene	530	U
100-01-6	4-Nitroaniline	1300	U
534-52-1	4,6-Dinitro-2-Methylphenol	1300	U
86-30-6	N-Nitrosodiphenylamine (1)	530	U
101-55-3	4-Bromophenyl-phenylether	530	U
118-74-1	Hexachlorobenzene	530	U
87-86-5	Pentachlorophenol	1300	U
85-01-8	Phenanthrene	530	U
120-12-7	Anthracene	530	U
86-74-8	Carbazole	530	U
84-74-2	Di-n-Butylphthalate	530	U
206-44-0	Fluoranthene	530	U
129-00-0	Pyrene	530	U
85-68-7	Butylbenzylphthalate	530	U
91-94-1	3,3'-Dichlorobenzidine	530	U
56-55-3	Benzo(a)Anthracene	530	U
218-01-9	Chrysene	530	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	1700	
117-84-0	Di-n-Octyl Phthalate	530	U
205-99-2	Benzo(b)Fluoranthene	530	U
207-08-9	Benzo(k)Fluoranthene	530	U
50-32-8	Benzo(a)Pyrene	530	U
193-39-5	Indeno(1,2,3-cd)Pyrene	530	U
53-70-3	Dibenz(a,h)Anthracene	530	U
191-24-2	Benzo(g,h,i)Perylene	530	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

L1675

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: L092 SAS No.: _____ SDG No.: 11036

Matrix: (soil/water) SOIL Lab Sample ID: AS021643

Sample wt/vol: 30.2 (g/mL) G Lab File ID: _____

% Moisture: 39 decanted: (Y/N) N Date Received: 11/24/92

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 11/27/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 12/08/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.9 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	23	P
319-85-7	beta-BHC	270	P
319-86-8	delta-BHC	2.0	J
58-89-9	gamma-BHC (Lindane)	23	P
76-44-8	Heptachlor	2.8	U
309-00-2	Aldrin	2.8	U
1024-57-3	Heptachlor epoxide	2.8	U
959-98-8	Endosulfan I	2.8	U
60-57-1	Dieldrin	5.4	U
72-55-9	4,4'-DDE	5.4	U
72-20-8	Endrin	5.4	U
33213-65-9	Endosulfan II	5.4	U
72-54-8	4,4'-DDD	5.4	U
1031-07-8	Endosulfan sulfate	5.4	U
50-29-3	4,4'-DDT	5.4	U
72-43-5	Methoxychlor	28	U
53494-70-5	Endrin ketone	5.4	U
7421-93-4	Endrin aldehyde	5.4	U
5103-71-9	alpha-Chlordane	2.8	U
5103-74-2	gamma-Chlordane	2.8	U
8001-35-2	Toxaphene	280	U
12674-11-2	Aroclor-1016	54	U
11104-28-2	Aroclor-1221	110	U
11141-16-5	Aroclor-1232	54	U
53469-21-9	Aroclor-1242	54	U
12672-29-6	Aroclor-1248	54	U
11097-69-1	Aroclor-1254	54	U
11096-82-5	Aroclor-1260	54	U

NYSDEC ASP

1

INORGANIC ANALYSES DATA SHEET

NYSDEC SAMPLE NO.

L1675

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: C002412___

Lab Code: RECNY_ Case No.: L092_ SAS No.: _____ SDG No.: 11036_

Matrix (soil/water): SOIL_ Lab Sample ID: 1991_____

Level (low/med): LOW__ Date Received: 11/24/92

% Solids: _60.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10400			P
7440-36-0	Antimony	5.7	B		P
7440-38-2	Arsenic	59.7			P
7440-39-3	Barium	2970			P
7440-41-7	Beryllium	1.7	U		P
7440-43-9	Cadmium	1.7	U		P
7440-70-2	Calcium	12000			P
7440-47-3	Chromium	13.5			A
7440-48-4	Cobalt	9.9	B		P
7440-50-8	Copper	45.3			P
7439-89-6	Iron	9700			P
7439-92-1	Lead	14.5			P
7439-95-4	Magnesium	1510	B		P
7439-96-5	Manganese	71.7			P
7439-97-6	Mercury	0.14	U		CV
7440-02-0	Nickel	15.2			P
7440-09-7	Potassium	1120	B		P
7782-49-2	Selenium	1.6	U	W	P
7440-22-4	Silver	0.09	U		P
7440-23-5	Sodium	761	B		P
7440-28-0	Thallium	1.6	U		P
7440-62-2	Vanadium	95.1			P
7440-66-6	Zinc	36.7			P
	Cyanide	2.1	U		C

Color Before: GRAY_____ Clarity Before: _____ Texture: COARSE

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: ___

Comments:

LAB_SAMPLE_ID: AS021643-SG000022

CLIENT_SAMPLE_ID: L092-11036-L-1675

RE-DIGESTION_ID_#: 2095

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1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

L1676

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: L092 SAS No.: _____ SDG No.: 12016

Matrix: (soil/water) SOIL Lab Sample ID: AS021892

Sample wt/vol: 5.20 (g/mL) G Lab File ID: G4945

Level: (low/med) LOW Date Received: 12/02/92

% Moisture: not dec. 18 Date Analyzed: 12/02/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	12	U
67-64-1	Acetone	12	U
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	trans-1,3-dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	0.2	J
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Total Xylenes	12	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

L1676

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: L092 SAS No.: _____ SDG No.: 12016

Matrix: (soil/water) SOIL Lab Sample ID: AS021892

Sample wt/vol: 30.60 (g/mL) G Lab File ID: 10973W

Level: (low/med) LOW Date Received: 12/02/92

% Moisture: 11 decanted: (Y/N) N Date Extracted: 12/03/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 12/09/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.7

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
108-95-2	Phenol	1900	
111-44-4	bis(2-Chloroethyl)Ether	360	U
95-57-8	2-Chlorophenol	360	U
541-73-1	1,3-Dichlorobenzene	360	U
106-46-7	1,4-Dichlorobenzene	360	U
95-50-1	1,2-Dichlorobenzene	360	U
95-48-7	2-Methylphenol	55	J
108-60-1	2,2'-oxybis(1-Chloropropane)	360	U
106-44-5	4-Methylphenol	260	J
621-64-7	N-Nitroso-Di-n-Propylamine	360	U
67-72-1	Hexachloroethane	360	U
98-95-3	Nitrobenzene	360	U
78-59-1	Isophorone	360	U
88-75-5	2-Nitrophenol	360	U
105-67-9	2,4-Dimethylphenol	360	U
111-91-1	bis(2-Chloroethoxy)Methane	360	U
120-83-2	2,4-Dichlorophenol	360	U
120-82-1	1,2,4-Trichlorobenzene	360	U
91-20-3	Naphthalene	240	J
106-47-8	4-Chloroaniline	360	U
87-68-3	Hexachlorobutadiene	360	U
59-50-7	4-Chloro-3-Methylphenol	360	U
91-57-6	2-Methylnaphthalene	170	J
77-47-4	Hexachlorocyclopentadiene	360	U
88-06-2	2,4,6-Trichlorophenol	360	U
95-95-4	2,4,5-Trichlorophenol	880	U
91-58-7	2-Chloronaphthalene	360	U
88-74-4	2-Nitroaniline	880	U
131-11-3	Dimethyl Phthalate	360	U
208-96-8	Acenaphthylene	360	U
606-20-2	2,6-Dinitrotoluene	360	U
99-09-2	3-Nitroaniline	880	U
83-32-9	Acenaphthene	340	J

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

L1676

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: L092 SAS No.: _____ SDG No.: 12016

Matrix: (soil/water) SOIL Lab Sample ID: AS021892

Sample wt/vol: 30.60 (g/mL) G Lab File ID: 10973W

Level: (low/med) LOW Date Received: 12/02/92

% Moisture: 11 decanted: (Y/N) N Date Extracted: 12/03/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 12/09/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	880	U
100-02-7	4-Nitrophenol	880	U
132-64-9	Dibenzofuran	290	J
121-14-2	2,4-Dinitrotoluene	360	U
84-66-2	Diethylphthalate	280	BJ
7005-72-3	4-Chlorophenyl-phenylether	360	U
86-73-7	Fluorene	470	
100-01-6	4-Nitroaniline	880	U
534-52-1	4,6-Dinitro-2-Methylphenol	880	U
86-30-6	N-Nitrosodiphenylamine (1)	110	J
101-55-3	4-Bromophenyl-phenylether	360	U
118-74-1	Hexachlorobenzene	360	U
87-86-5	Pentachlorophenol	880	U
85-01-8	Phenanthrene	1700	
120-12-7	Anthracene	270	J
86-74-8	Carbazole	170	J
84-74-2	Di-n-Butylphthalate	1100	
206-44-0	Fluoranthene	1200	
129-00-0	Pyrene	1600	
85-68-7	Butylbenzylphthalate	360	U
91-94-1	3,3'-Dichlorobenzidine	360	U
56-55-3	Benzo(a)Anthracene	560	
218-01-9	Chrysene	450	
117-81-7	Bis(2-Ethylhexyl)Phthalate	14000	BE
117-84-0	Di-n-Octyl Phthalate	360	U
205-99-2	Benzo(b)Fluoranthene	570	
207-08-9	Benzo(k)Fluoranthene	260	J
50-32-8	Benzo(a)Pyrene	380	
193-39-5	Indeno(1,2,3-cd)Pyrene	160	J
53-70-3	Dibenz(a,h)Anthracene	360	U
191-24-2	Benzo(g,h,i)Perylene	160	J

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

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EPA SAMPLE NO.

L1676

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: L092 SAS No.: _____ SDG No.: 12016

Matrix: (soil/water) SOIL Lab Sample ID: AS021892

Sample wt/vol: 30.8 (g/mL) G Lab File ID: _____

% Moisture: 11 decanted: (Y/N) N Date Received: 12/02/92

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 12/03/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 12/07/92

Injection Volume: 1.00 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: 7.7 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	94	
319-85-7	beta-BHC	93	P
319-86-8	delta-BHC	19	U
58-89-9	gamma-BHC (Lindane)	34	P
76-44-8	Heptachlor	19	U
309-00-2	Aldrin	19	U
1024-57-3	Heptachlor epoxide	19	U
959-98-8	Endosulfan I	19	U
60-57-1	Dieldrin	36	U
72-55-9	4,4'-DDE	36	U
72-20-8	Endrin	36	U
33213-65-9	Endosulfan II	36	U
72-54-8	4,4'-DDD	36	U
1031-07-8	Endosulfan sulfate	36	U
50-29-3	4,4'-DDT	36	U
72-43-5	Methoxychlor	190	U
53494-70-5	Endrin ketone	36	U
7421-93-4	Endrin aldehyde	36	U
5103-71-9	alpha-Chlordane	19	U
5103-74-2	gamma-Chlordane	19	U
8001-35-2	Toxaphene	1900	U
12674-11-2	Aroclor-1016	360	U
11104-28-2	Aroclor-1221	730	U
11141-16-5	Aroclor-1232	360	U
53469-21-9	Aroclor-1242	360	U
12672-29-6	Aroclor-1248	360	U
11097-69-1	Aroclor-1254	360	U
11096-82-5	Aroclor-1260	360	U

NYSDEC ASP

1
INORGANIC ANALYSES DATA SHEET

NYSDEC SAMPLE NO.
L1676

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: C002412___

Lab Code: RECNY_ Case No.: L092_ SAS No.: _____ SDG No.: 12016_

Matrix (soil/water): SOIL_ Lab Sample ID: 1994_____

Level (low/med): LOW__ Date Received: 12/02/92

% Solids: _82.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5370			P
7440-36-0	Antimony	15.9	B		F
7440-38-2	Arsenic	10.0		S	F
7440-39-3	Barium	86.3			P
7440-41-7	Beryllium	1.2	U		P
7440-43-9	Cadmium	1.2	U		P
7440-70-2	Calcium	3490			P
7440-47-3	Chromium	84.4			A
7440-48-4	Cobalt	6.4	B		P
7440-50-8	Copper	69.9			P
7439-89-6	Iron	16200			P
7439-92-1	Lead	211			P
7439-95-4	Magnesium	635	B		P
7439-96-5	Manganese	141			P
7439-97-6	Mercury	39.6			CV
7440-02-0	Nickel	14.8			P
7440-09-7	Potassium	396	B		P
7782-49-2	Selenium	2.4		S	F
7440-22-4	Silver	1.6	B		F
7440-23-5	Sodium	599	B		P
7440-28-0	Thallium	1.2	U		F
7440-62-2	Vanadium	25.0			P
7440-66-6	Zinc	407			P
	Cyanide	1.2	U		C

Color Before: BROWN____ Clarity Before: _____ Texture: COARSE

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: ___

Comments:
LAB SAMPLE ID: AS021892
RE-DIGESTION SAMPLE ID: 2098
CLIENT SAMPLE ID: L092-12016-L1676

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

L1677

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: L092 SAS No.: _____ SDG No.: 12016

Matrix: (soil/water) SOIL Lab Sample ID: AS021893

Sample wt/vol: 5.00 (g/mL) G Lab File ID: G4946

Level: (low/med) LOW Date Received: 12/02/92

% Moisture: not dec. 12 Date Analyzed: 12/02/92

GC Column: DB-624 ID: 0.530 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	11	U
67-64-1	Acetone	11	U
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-3	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-dichloropropene	11	U
79-01-6	Trichloroethene	11	U
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	11	U
10061-02-6	trans-1,3-dichloropropene	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	0.4	J
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
100-42-5	Styrene	11	U
1330-20-7	Total Xylenes	11	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

L1677

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: L092 SAS No.: _____ SDG No.: 12016

Matrix: (soil/water) SOIL Lab Sample ID: AS021893

Sample wt/vol: 30.40 (g/mL) G Lab File ID: 10971W

Level: (low/med) LOW Date Received: 12/02/92

% Moisture: 11 decanted: (Y/N) N Date Extracted: 12/03/92

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 12/09/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	1200	
111-44-4	bis(2-Chloroethyl)Ether	370	U
95-57-8	2-Chlorophenol	370	U
541-73-1	1,3-Dichlorobenzene	370	U
106-46-7	1,4-Dichlorobenzene	370	U
95-50-1	1,2-Dichlorobenzene	370	U
95-48-7	2-Methylphenol	39	J
108-60-1	2,2'-oxybis(1-Chloropropane)	370	U
106-44-5	4-Methylphenol	240	J
621-64-7	N-Nitroso-Di-n-Propylamine	370	U
67-72-1	Hexachloroethane	370	U
98-95-3	Nitrobenzene	370	U
78-59-1	Isophorone	370	U
88-75-5	2-Nitrophenol	370	U
105-67-9	2,4-Dimethylphenol	370	U
111-91-1	bis(2-Chloroethoxy)Methane	370	U
120-83-2	2,4-Dichlorophenol	370	U
120-82-1	1,2,4-Trichlorobenzene	370	U
91-20-3	Naphthalene	320	J
106-47-8	4-Chloroaniline	370	U
87-68-3	Hexachlorobutadiene	370	U
59-50-7	4-Chloro-3-Methylphenol	370	U
91-57-6	2-Methylnaphthalene	210	J
77-47-4	Hexachlorocyclopentadiene	370	U
88-06-2	2,4,6-Trichlorophenol	370	U
95-95-4	2,4,5-Trichlorophenol	890	U
91-58-7	2-Chloronaphthalene	370	U
88-74-4	2-Nitroaniline	890	U
131-11-3	Dimethyl Phthalate	370	U
208-96-8	Acenaphthylene	370	U
606-20-2	2,6-Dinitrotoluene	370	U
99-09-2	3-Nitroaniline	890	U
83-32-9	Acenaphthene	220	J

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

L1677

ab Name: RECRA ENVIRON Contract: C002412

ab Code: RECNY Case No.: L092 SAS No.: _____ SDG No.: 12016

atrix: (soil/water) SOIL Lab Sample ID: AS021893

ample wt/vol: 30.40 (g/mL) G Lab File ID: 10971W

evel: (low/med) LOW Date Received: 12/02/92

Moisture: 11 decanted: (Y/N) N Date Extracted: 12/03/92

oncentrated Extract Volume: 500.0 (uL) Date Analyzed: 12/09/92

njection Volume: 2.0 (uL) Dilution Factor: 1.0

PC Cleanup: (Y/N) Y pH: 7.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	890	U
100-02-7	4-Nitrophenol	890	U
132-64-9	Dibenzofuran	280	J
121-14-2	2,4-Dinitrotoluene	370	U
84-66-2	Diethylphthalate	100	BJ
7005-72-3	4-Chlorophenyl-phenylether	370	U
86-73-7	Fluorene	360	J
100-01-6	4-Nitroaniline	890	U
534-52-1	4,6-Dinitro-2-Methylphenol	890	U
86-30-6	N-Nitrosodiphenylamine (1)	100	J
101-55-3	4-Bromophenyl-phenylether	370	U
118-74-1	Hexachlorobenzene	370	U
87-86-5	Pentachlorophenol	890	U
85-01-8	Phenanthrene	1100	
120-12-7	Anthracene	370	U
86-74-8	Carbazole	45	J
84-74-2	Di-n-Butylphthalate	610	
206-44-0	Fluoranthene	680	
129-00-0	Pyrene	720	
85-68-7	Butylbenzylphthalate	370	U
91-94-1	3,3'-Dichlorobenzidine	370	U
56-55-3	Benzo(a)Anthracene	370	U
218-01-9	Chrysene	320	J
117-81-7	Bis(2-Ethylhexyl)Phthalate	18000	BE
117-84-0	Di-n-Octyl Phthalate	370	U
205-99-2	Benzo(b)Fluoranthene	400	
207-08-9	Benzo(k)Fluoranthene	160	J
50-32-8	Benzo(a)Pyrene	230	J
193-39-5	Indeno(1,2,3-cd)Pyrene	120	J
53-70-3	Dibenz(a,h)Anthracene	370	U
191-24-2	Benzo(g,h,i)Perylene	110	J

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

L1677

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: L092 SAS No.: _____ SDG No.: 12016

Matrix: (soil/water) SOIL Lab Sample ID: AS021893

Sample wt/vol: 30.2 (g/mL) G Lab File ID: _____

% Moisture: 11 decanted: (Y/N) N Date Received: 12/02/92

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 12/03/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 12/07/92

Injection Volume: 1.00 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: 7.7 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	97	P
319-85-7	beta-BHC	220	
319-86-8	delta-BHC	19	U
58-89-9	gamma-BHC (Lindane)	40	P
76-44-8	Heptachlor	19	U
309-00-2	Aldrin	19	U
1024-57-3	Heptachlor epoxide	19	U
959-98-8	Endosulfan I	19	U
60-57-1	Dieldrin	37	U
72-55-9	4,4'-DDE	37	U
72-20-8	Endrin	37	U
33213-65-9	Endosulfan II	37	U
72-54-8	4,4'-DDD	37	U
1031-07-8	Endosulfan sulfate	37	U
50-29-3	4,4'-DDT	37	U
72-43-5	Methoxychlor	190	U
53494-70-5	Endrin ketone	37	U
7421-93-4	Endrin aldehyde	37	U
5103-71-9	alpha-Chlordane	19	U
5103-74-2	gamma-Chlordane	19	U
8001-35-2	Toxaphene	1900	U
12674-11-2	Aroclor-1016	370	U
11104-28-2	Aroclor-1221	750	U
11141-16-5	Aroclor-1232	370	U
53469-21-9	Aroclor-1242	370	U
12672-29-6	Aroclor-1248	370	U
11097-69-1	Aroclor-1254	370	U
11096-82-5	Aroclor-1260	370	U

NYSDEC ASP

1
INORGANIC ANALYSES DATA SHEET

NYSDEC SAMPLE NO.
L1677

Name: RECRA_ENVIRONMENTAL_INC._ Contract: C002412___

Code: RECNY_ Case No.: L092_ SAS No.: _____ SDG No.: 12016_

Matrix (soil/water): SOIL_ Lab Sample ID: 1995_____

Level (low/med): LOW__ Date Received: 12/02/92

% Solids: _87.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6290			P
7440-36-0	Antimony	5.5	B		P
7440-38-2	Arsenic	6.6		S	P
7440-39-3	Barium	127			P
7440-41-7	Beryllium	1.1	U		P
7440-43-9	Cadmium	1.1	U		P
7440-70-2	Calcium	4610			P
7440-47-3	Chromium	75.5			A
7440-48-4	Cobalt	5.5	B		P
7440-50-8	Copper	112			P
7439-89-6	Iron	19400			P
7439-92-1	Lead	123			P
7439-95-4	Magnesium	1130	B		P
7439-96-5	Manganese	177			P
7439-97-6	Mercury	90.9			CV
7440-02-0	Nickel	14.9			P
7440-09-7	Potassium	507	B		P
7782-49-2	Selenium	1.1	U	W	F
7440-22-4	Silver	0.67	B		F
7440-23-5	Sodium	385	B		P
7440-28-0	Thallium	1.1	U		F
7440-62-2	Vanadium	20.5			P
7440-66-6	Zinc	264			P
_____	Cyanide	1.1	U		C
_____	_____	_____			

Color Before: BROWN____ Clarity Before: _____ Texture: COARSE

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: ___

Comments:
LAB SAMPLE ID: AS021893_____
LAB-DIGESTION_SAMPLE_ID: 2099_____
CLIENT SAMPLE ID: L092-12016-L1677_____
_____

TCLP ON DRUM CONTENTS 19

1X

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

L1678T

Lab Name: RECRA ENVIRON Contract: C002412

Lab Code: RECNY Case No.: L092 SAS No.: _____ SDG No.: 12019

Matrix: (soil/water) WATER Lab Sample ID: AS022074

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L2599

Level: (low/med) LOW Date Received: 12/04/92

% Moisture: not dec. ____ Heated Purge: N Date Analyzed: 12/08/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 10.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	100	U
75-35-4	1,1-Dichloroethene	100	U
67-66-3	Chloroform	100	U
107-06-2	1,2-Dichloroethane	100	U
78-93-3	2-Butanone	100	U
56-23-5	Carbon Tetrachloride	100	U
79-01-6	Trichloroethene	100	U
71-43-2	Benzene	18	J
127-18-4	Tetrachloroethene	100	U
108-90-7	Chlorobenzene	100	U

FLASHPOINT > 200 °F

1X

SAMPLE NO. 23

ORGANICS ANALYSIS DATA SHEET

L1678T

ab Name: RECRA ENVIRON Contract: C002412

ab Code: RECNY Case No.: L092 SAS No.: _____ SDG No.: 12019

atrix: (soil/water) WATER Lab Sample ID: AS022074

ample wt/vol: 1000 (g/mL) ML Lab File ID: 11016W

evel: (low/med) LOW Date Received: 12/04/92

Moisture: _____ decanted: (Y/N) N Date Extracted: 12/15/92

oncentrated Extract Volume: 1000 (uL) Date Analyzed: 12/16/92

njection Volume: 2.0 (uL) Dilution Factor: 1.0

PC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
106-46-7	1,4-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	53	
106-44-5	4-Methylphenol	63	
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
121-14-2	2,4-Dinitrotoluene	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
110-86-1	Pyridine	0.5	J
108-39-4	3-Methylphenol	10	U

N Y S DEC
METHOD 8080 - TCLP PESTICIDES

Client No.: L1678

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: L092 SAS No.: _____ SDG No.: 12019

Matrix: (soil/water) SOIL Lab Sample ID: AS022074

Sample wt/vol: 200 (g/mL) ML Lab File ID: _____

% Moisture: 100.0 decanted: (Y/N) N Date Samp/Recv: 12/03/92 12/04/92

Extraction: (SepF/Cont/Sonc) Date Extracted: 12/09/92

Concentrated Extract Volume: 0 (uL) Date Analyzed: 12/10/92

Injection Volume: 0.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 0.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
57-74-9	Chlordane	0.050	U
72-20-8	Endrin	0.0020	U
76-44-8	Heptachlor	0.0020	U
1024-57-3	Heptachlor epoxide	0.0020	U
[illegible]-43-5	Methoxychlor	0.50	U
[illegible]-35-2	Toxaphene	0.050	U

N Y S DEC
METHOD 8150 - TCLP HERBICIDES

Client No.

L1678

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: L092 SAS No.: _____ SDG No.: 12019

Matrix: (soil/water) SOIL Lab Sample ID: AS022074

Sample wt/vol: 110 (g/mL) ML Lab File ID: _____

% Moisture: 100.0 decanted: (Y/N) N Date Samp/Recv: 12/03/92 12/04/92

Extraction: (SepF/Cont/Sonc) Date Extracted: 12/09/92

Concentrated Extract Volume: 0 (uL) Date Analyzed: 12/11/92

Injection Volume: 0.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 0.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/L	Q
94-75-7	2,4-D	0.10	U
93-72-1	2,4,5-TP (Silvex)	0.010	U

NYSDEC ASP

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INORGANIC ANALYSES DATA SHEET

NYSDEC SAMPLE NO.

L1678

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: C002412___

Lab Code: RECNY_ Case No.: L092_ SAS No.: _____ SDG No.: 12019_

Matrix (soil/water): WATER Lab Sample ID: 2109_____

Level (low/med): LOW__ Date Received: 12/04/92

% Solids: ____0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_				NR
7440-38-2	Arsenic__	5.0_	U		F_
7440-39-3	Barium___	2870_			P_
7440-41-7	Beryllium				NR
7440-43-9	Cadmium__	5.0_	U		P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	10.0_	U		A_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___				NR
7439-89-6	Iron_____				NR
7439-92-1	Lead_____	15.0_			F_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.20_	U		CV
7440-02-0	Nickel___				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium_	5.0_	U		F_
7440-22-4	Silver___	0.30_	U	W	F_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_				NR
7440-62-2	Vanadium_				NR
7440-66-6	Zinc_____				NR
_____	Cyanide__				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: ___

Comments:

LAB_SAMPLE_ID:__AS022074-SG000038_____

CLIENT_SAMPLE_ID:__L092-12019-L1678_____

TCLP EXTRACT_____

_____

TCLP

NYSDEC ASP

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INORGANIC ANALYSES DATA SHEET

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NYSDEC SAMPLE NO.

L1682

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: C002412___

Lab Code: RECNY_ Case No.: L092_ SAS No.: _____ SDG No.: 01016_

Matrix (soil/water): WATER Lab Sample ID: 2825_____

Level (low/med): LOW__ Date Received: 01/07/93

% Solids: ____0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_		_		NR
7440-38-2	Arsenic__	4.0_	U		F_
7440-39-3	Barium___	763_	_		P_
7440-41-7	Beryllium		_		NR
7440-43-9	Cadmium__	5.0_	U		P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	10.0_	U		P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___		_		NR
7439-89-6	Iron_____		_		NR
7439-92-1	Lead_____	9.0_	_		F_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	1.9_	_		CV
7440-02-0	Nickel___		_		NR
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	4.0_	U	W	F_
7440-22-4	Silver___	1.0_	U	W	F_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_		_		NR
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc_____		_		NR
_____	Cyanide__		_		NR
_____	_____		_		__

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: ___

Comments:

LAB_SAMPLE_ID:__AS024157-SG000038_____

CLIENT_SAMPLE_ID:__L092-01016-L1682_____

TCLP_EXTRACT_____

NYSDEC ASP

TCLP

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INORGANIC ANALYSES DATA SHEET

NYSDEC SAMPLE NO.

L1683

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: C002412___

Lab Code: RECNY_ Case No.: L092_ SAS No.: _____ SDG No.: 01016_

Matrix (soil/water): WATER Lab Sample ID: 2826_____

Level (low/med): LOW__ Date Received: 01/07/93

% Solids: ____0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		-		NR
7440-36-0	Antimony_		-		NR
7440-38-2	Arsenic__	4.0_	U	W	F_
7440-39-3	Barium___	413_	-		P_
7440-41-7	Beryllium		-		NR
7440-43-9	Cadmium__	5.0_	U		P_
7440-70-2	Calcium__		-		NR
7440-47-3	Chromium_	10.0_	U		P_
7440-48-4	Cobalt___		-		NR
7440-50-8	Copper___		-		NR
7439-89-6	Iron_____		-		NR
7439-92-1	Lead_____	4.0_	-		F_
7439-95-4	Magnesium		-		NR
7439-96-5	Manganese		-		NR
7439-97-6	Mercury__	0.21_	-		CV
7440-02-0	Nickel___		-		NR
7440-09-7	Potassium		-		NR
7782-49-2	Selenium_	4.0_	U	W	F_
7440-22-4	Silver___	1.0_	U	W	F_
7440-23-5	Sodium___		-		NR
7440-28-0	Thallium_		-		NR
7440-62-2	Vanadium_		-		NR
7440-66-6	Zinc_____		-		NR
	Cyanide__		-		NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: ___

Comments:

LAB_SAMPLE_ID:__AS024158-SG000038_____

CLIENT_SAMPLE_ID:__L092-01016-L1683_____

TCLP_EXTRACT_____

NYSDEC ASP

1

INORGANIC ANALYSES DATA SHEET

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NYSDEC SAMPLE NO.

L1684

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: C002412___

Lab Code: RECNY_ Case No.: L092_ SAS No.: _____ SDG No.: 01016_

Matrix (soil/water): WATER Lab Sample ID: 2827_____

Level (low/med): LOW__ Date Received: 01/07/93

% Solids: ____0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		-		NR
7440-36-0	Antimony_		-		NR
7440-38-2	Arsenic__	4.0_	U		F_
7440-39-3	Barium___	526_	-		P_
7440-41-7	Beryllium		-		NR
7440-43-9	Cadmium__	5.0_	U		P_
7440-70-2	Calcium__		-		NR
7440-47-3	Chromium_	10.0_	U		P_
7440-48-4	Cobalt___		-		NR
7440-50-8	Copper___		-		NR
7439-89-6	Iron_____		-		NR
7439-92-1	Lead_____	8.0_	-		F_
7439-95-4	Magnesium		-		NR
7439-96-5	Manganese		-		NR
7439-97-6	Mercury__	0.20_	U		CV
7440-02-0	Nickel___		-		NR
7440-09-7	Potassium		-		NR
7782-49-2	Selenium_	4.0_	U	W	F_
7440-22-4	Silver___	1.0_	U	W	F_
7440-23-5	Sodium___		-		NR
7440-28-0	Thallium_		-		NR
7440-62-2	Vanadium_		-		NR
7440-66-6	Zinc_____		-		NR
_____	Cyanide__		-		NR
_____	_____		_		_

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: ___

Comments:

LAB_SAMPLE_ID:__AS024159-SG000038_____

CLIENT_SAMPLE_ID:__L092-01016-L1684_____

TCLP_EXTRACT_____

NYSDEC ASP

SOIL

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INORGANIC ANALYSES DATA SHEET

NYSDEC SAMPLE NO.

L1682

Name: RECRA_ENVIRONMENTAL_INC._ Contract: C002412___

Lab Code: RECNY_ Case No.: L092_ SAS No.: _____ SDG No.: 01016_

Matrix (soil/water): SOIL_ Lab Sample ID: 2835_____

Level (low/med): LOW__ Date Received: 01/07/93

% Solids: _84.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	35700			P
7440-36-0	Antimony	9.4	U		P
7440-38-2	Arsenic	3.4			F
7440-39-3	Barium	137			P
7440-41-7	Beryllium	1.2	U		P
7440-43-9	Cadmium	1.2	U		P
7440-70-2	Calcium	15900			P
7440-47-3	Chromium	35.4			P
7440-48-4	Cobalt	7.8	B		P
7440-50-8	Copper	51.2			P
7439-89-6	Iron	21500			P
7439-92-1	Lead	134			P
7439-95-4	Magnesium	4950			P
7439-96-5	Manganese	307			P
7439-97-6	Mercury	163			CV
7440-02-0	Nickel	31.9			P
7440-09-7	Potassium	1440			P
7782-49-2	Selenium	0.97	U	W	F
7440-22-4	Silver	0.41	B	S	F
7440-23-5	Sodium	309	B		P
7440-28-0	Thallium	1.2	U		F
7440-62-2	Vanadium	18.1			P
7440-66-6	Zinc	564			P
	Cyanide				NR

Color Before: BROWN____ Clarity Before: _____ Texture: COARSE

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: ___

Comments:

LAB_SAMPLE_ID:__AS024157-SG000010

CLIENT_SAMPLE_ID:__L092-01016-L1682

NYSDEC ASP

SOLID 12

1

INORGANIC ANALYSES DATA SHEET

NYSDEC SAMPLE NO.

L1683

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: C002412___

Lab Code: RECNY_ Case No.: L092_ SAS No.: _____ SDG No.: 01016_

Matrix (soil/water): SOIL_ Lab Sample ID: 2836_____

Level (low/med): LOW__ Date Received: 01/07/93

% Solids: _77.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	15900			P
7440-36-0	Antimony	10.4	U		P
7440-38-2	Arsenic	4.4			F
7440-39-3	Barium	111			P
7440-41-7	Beryllium	1.3	U		P
7440-43-9	Cadmium	1.3	U		P
7440-70-2	Calcium	39800			P
7440-47-3	Chromium	38.9			P
7440-48-4	Cobalt	11.7	B		P
7440-50-8	Copper	6.2	B		P
7439-89-6	Iron	24600			P
7439-92-1	Lead	78.4			F
7439-95-4	Magnesium	11500			P
7439-96-5	Manganese	535			P
7439-97-6	Mercury	0.44			CV
7440-02-0	Nickel	29.0			P
7440-09-7	Potassium	2220			P
7782-49-2	Selenium	1.0	U		F
7440-22-4	Silver	0.26	U		F
7440-23-5	Sodium	247	B		P
7440-28-0	Thallium	1.3	U		F
7440-62-2	Vanadium	33.2			P
7440-66-6	Zinc	137			P
	Cyanide				NR

Color Before: BROWN____ Clarity Before: _____ Texture: COARSE

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: ___

Comments:

LAB_SAMPLE_ID:__AS024158-SG000010

CLIENT_SAMPLE_ID:__L092-01016-L1683

Solid 14

NYSDEC ASP

1

INORGANIC ANALYSES DATA SHEET

NYSDEC SAMPLE NO.

L1684

me: RECRA_ENVIRONMENTAL_INC._ Contract: C002412___

Code: RECNY_ Case No.: L092_ SAS No.: _____ SDG No.: 01016_

(soil/water): SOIL_ Lab Sample ID: 2837_____

(low/med): LOW__ Date Received: 01/07/93

ids: _81.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10300			P
7440-36-0	Antimony	9.5	U		P
7440-38-2	Arsenic	2.2	B		F
7440-39-3	Barium	73.2			P
7440-41-7	Beryllium	1.2	U		P
7440-43-9	Cadmium	1.2	U		P
7440-70-2	Calcium	10100			P
7440-47-3	Chromium	19.4			P
7440-48-4	Cobalt	8.0	B		P
7440-50-8	Copper	316			P
7439-89-6	Iron	18000			P
7439-92-1	Lead	18.9			F
7439-95-4	Magnesium	4330			P
7439-96-5	Manganese	289			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	24.1			P
7440-09-7	Potassium	1360			P
7782-49-2	Selenium	1.00	U		F
7440-22-4	Silver	0.25	U		F
7440-23-5	Sodium	204	B		P
7440-28-0	Thallium	1.2	U		F
7440-62-2	Vanadium	22.9			P
7440-66-6	Zinc	69.7			P
	Cyanide				NR

or Before: BROWN____ Clarity Before: _____ Texture: COARSE

r After: COLORLESS Clarity After: CLEAR_ Artifacts: ___

ments:

AB_SAMPLE_ID:__AS024159-SG000010_____

LIENT_SAMPLE_ID:__L092-01016-L1684_____

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. B-1-1

PROJECT: LOVE CANAL EDA 4 LOTS
SHEET NO. 1 OF 1
CLIENT: NYSDEC
JOB NO. : 35243.03
BORING CONTRACTOR: BUFFALO DRILLING CO.
BORING LOCATION: GRID X = 20 Y = 30
GROUND WATER: NOT ENCOUNTERED
GROUND ELEVATION: —

	CAS.	SAMP	CORE	TUBE
TYPE		SS (SPLIT-SPOON)		
DIA.		2 IN.		
WT.		140 lb		
FALL		30 IN		

DATE	TIME	LEV	TYPE

DATE STARTED: 6/14/93
DATE FINISHED: 6/14/93
DRILLER: JOE GARDNER
GEOLOGIST: MICHAEL GUTMANN
REVIEWED BY: DUANE LENHARDT

* POCKET PENETROMETER READING

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	HNU ppm	REMARKS
1.8		1	SS	2 6 / 6 6	40	BROWN	STIFF	CLAYEY SILT — REGRADED	ML	0	THIN SILT TOPSOIL COVER 0-2"; FEW ROOTS
4		2	SS	3 2 / 3 6	30	BLACK	LOOSE	FILL - ASH, BRICKS, SOME SILT MATRIX	SM	0	SLIGHTLY MOIST
5		3	SS	3 2 / 4 46	40					0	1" CLAYEY SILT SEAM
6								BOREHOLE COMPLETED AT 6 FT			
10											
15											
20											
25											
30											
35											

COMMENTS BOREHOLE ADVANCED WITH TRUCK MOUNT DRILL RIG USING 4¼" HSAS. ENVIRONMENTAL SAMPLES COLLECTED FROM 1.8 - 4 FT AND 4 - 6 FT.

PROJECT NO. 35243.03
BORING NO. B-1-1 X = 20
Y = 30

A-3205

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. B-1-2

PROJECT: LOVE CANAL EDA 4 LOTS
CLIENT: NYSDEC
BORING CONTRACTOR: BUFFALO DRILLING CO.
GROUND WATER: NOT ENCOUNTERED

	CAS.	SAMP	CORE	TUBE
TYPE		SS (Split-Spoon)		
DIA.		2 IN		
WT.		140 lb		
FALL		30 IN		

• POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO. : 35243.03
BORING LOCATION: GRID X = 40 Y = 30
GROUND ELEVATION: —
DATE STARTED: 6/14/93
DATE FINISHED: 6/14/93
DRILLER: JOE GARDNER
GEOLOGIST: MICHAEL GUTMANN
REVIEWED BY: DUANE LENHARDT

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	HNU (ppm)	REMARKS
2		1	SS	1 2 / 3 2	15	BROWN	MEDIUM STIFF	CLAYEY SILT - REGRADED	ML	0	THIN SILT TOPSOIL COVER (2"); ROOTS
4		2	SS	3 6 / 5 5	33	BROWN/ GRAY	MEDIUM DENSE	FILL - SANDY SILT AND ASH	SM	0	SLIGHTLY MOIST
6		3	SS	1 1 / 1 3	13	GRAY	VERY LOOSE	SILTY SAND - REGRADED	SM	0	VERY MOIST SOME ROOT
								BOREHOLE COMPLETED AT 6 FT			

COMMENTS BOREHOLE ADVANCED WITH TRUCK MOUNT DRILL RIG USING 4 1/4" HSAs. ENVIRONMENTAL SAMPLE COLLECTED FROM 2-4 FT.

PROJECT NO. 35243.03
BORING NO. B-1-2 X = 40
Y = 30

A-3205

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. B-1-3

PROJECT: LOVE CANAL EDA 4 LOTS
CLIENT: NYSDEC
BORING CONTRACTOR: BUFFALO DRILLING CO.
GROUND WATER: NOT ENCOUNTERED

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS (Split-Spoon)		
DIA.		2 IN		
WT.		140 lb		
FALL		30 IN		

• POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO. : 35243.03
BORING LOCATION: GRID X = 0 Y = 50
GROUND ELEVATION: —
DATE STARTED: 6/14/93
DATE FINISHED: 6/14/93
DRILLER: JOE GARDNER
GEOLOGIST: MICHAEL GUTMANN
REVIEWED BY: DUANE LENHARDT

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"		RECOVERY ROD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	H N U (ppm)	REMARKS
	S S S	1	SS	2 4	3 6	35	BROWN	MEDIUM STIFF	CLAYEY SILT - REGRADED	ML	0	THIN ASPHALT TOPS COVER (3"); ROOTS
	S S S	2	SS	2 4	4 6	40	MOTTLED OLIVE BROWN				0	SLIGHTLY MOIST
4 5	S S S	3	SS	5 9	7 12	60	GRAY/BROWN	VERY STIFF	CLAY AND SILT	ML/CL	0	SOME PEAT
6									BOREHOLE COMPLETED AT 6 FT			
10												
15												
20												
25												
30												
35												

4-3205

COMMENTS BOREHOLE ADVANCED WITH TRUCK MOUNT DRILL RIG USING 4 1/4" HSAs. NO ENVIRONMENTAL SAMPLES COLLECTED.

PROJECT NO. 35243.03
BORING NO. B-1-3 X = 0
Y = 50

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. B-1-4

PROJECT: LOVE CANAL EDA 4 LOTS
CLIENT: NYSDEC
BORING CONTRACTOR: BUFFALO DRILLING CO.
GROUND WATER: NOT ENCOUNTERED

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS (Split-Spoon)		
DIA.		2 IN		
WT.		140 lb		
FALL		30 IN		

* POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO. : 35243.03
BORING LOCATION: GRID x = 20 y = 50
GROUND ELEVATION: —
DATE STARTED: 6/14/93
DATE FINISHED: 6/14/93
DRILLER: JOE GARDNER
GEOLOGIST: MICHAEL GUTMANN
REVIEWED BY: DUANE LENHARDT

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY RQD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	HNU (ppm)	REMARKS
1.5		1	SS	1 4 / 4 5	25	BROWN	MEDIUM STIFF	CLAYEY SILT - REGRADED	ML	0	THIN SILT, MASIL COVER (2"), ROOTY
4.5		2	SS	3 4 / 5 5	60	BROWN, LIGHT BROWN, BLACK	LOOSE	FILL - ASH WITH SILT, SAND AND GRAVEL. ASH IS INTERLAYERED WITH CLAYEY SILT	SM	0	ASH SEAM (1") AT 4.5 FT.
6		3	SS	2 3 / 4 5	90	BROWN/ GRAY	MEDIUM STIFF	CLAYEY SILT, TRACE COBBLES	ML	0	
								BOREHOLE COMPLETED AT 6 FT			

A-3205

COMMENTS BOREHOLE ADVANCED WITH TRUCK MOUNT DRILL RIG USING 4¼" HSAs. ENVIRONMENTAL SAMPLE COLLECTED FROM 1.5 - 2.75 FT AND 4.5 FT.

PROJECT NO. 35243.03
BORING NO. B-1-4 x=20 y=50

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. B-1-5

PROJECT: LOVE CANAL EDA 4 LOTS
CLIENT: NYSDEC
BORING CONTRACTOR: BUFFALO DRILLING CO.
GROUND WATER: NOT ENCOUNTERED

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		GS (split-spoon)		
DIA.		2 IN.		
WT.		140 lb		
FALL		30 IN		

* POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO.: 35243.03
BORING LOCATION: GRID X = 40 Y = 50
GROUND ELEVATION: —
DATE STARTED: 6/14/93
DATE FINISHED: 6/14/93
DRILLER: JOE GARDNER
GEOLOGIST: MICHAEL GUTMANN
REVIEWED BY: DUANE LENHARDT

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY RQD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	HNU (ppm)	REMARKS
1.9		1	SS	2 4 / 5 6	30	BROWN	STIFF	CLAYEY SILT - REGRADED	ML	0	THIN SILT TOPSOIL COVER (2"); ROOTS
2						black	loose	FILL - ASH	SM		
		2	SS	2 5 / 4 4	35	BROWN MOTTLED ASH	STIFF	CLAYEY SILT (REGRADED)	ML	0	MOIST SOME ASH
5		3	SS	2 3 / 4 6	80	BROWN	MEDIUM STIFF	CLAYEY SILT	ML	0	LOW PLASTICITY PLANT STEMS 5-6 FT
6								BOREHOLE COMPLETED AT 6 FT			

A-3205

COMMENTS BOREHOLE ADVANCED WITH TRUCK MOUNT DRILL RIG USING 4"/4" HSAs. ENVIRONMENTAL SAMPLE COLLECTED FROM 1.9 - 2 FT.

PROJECT NO. 35243.03
BORING NO. B-1-5 X = 40
Y = 50

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. B-1-6

PROJECT: LOVE CANAL EDA 4 LOTS
CLIENT: NYSDEC
BORING CONTRACTOR: BUFFALO DRILLING CO.
GROUND WATER: NOT ENCOUNTERED

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS (SPLIT-SPOON)		
DIA.		2 IN		
WT.		140 lb		
FALL		30 IN		

• POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO.: 35243.03
BORING LOCATION: GRID X=0 Y=70
GROUND ELEVATION: —
DATE STARTED: 6/15/93
DATE FINISHED: 6/15/93
DRILLER: DON RIMBACH
GEOLOGIST: Michael GUTMANN
REVIEWED BY: DUANE LENHARDT

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	HNU (PPM)	REMARKS
		1	SS	3 5 / 7 7	70	BROWN MOTTLED LIGHT BROWN	STIFF	CLAYEY SILT (REGRADED)	ML	0	THIN SILT TOPSOIL 2" ROOTY
		2	SS	4 6 / 7 8	20					0	LOW PLASTICITY
4 5		3	SS	5 10 / 12 14	80	BROWN	VERY STIFF	CLAYEY SILT - FEW VARVES	ML	0	FEW ROOT MOLDS
6								BOREHOLE COMPLETE AT 6 FT			
10											
15											
20											
25											
30											
35											

A-3205

COMMENTS BOREHOLE ADVANCED WITH TRUCK MOUNT DRILL RIG USING 4 1/4" HSAs. NO ENVIRONMENTAL SAMPLES COLLECTED.

PROJECT NO. 35243.03
BORING NO. B-1-6 x = 0
y = 70

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. B-1-7

PROJECT: LOVE CANAL EDA 4 LOTS
CLIENT: NYSDEC
BORING CONTRACTOR: BUFFALO DRILLING CO
GROUND WATER: NOT ENCOUNTERED

	CAS.	SAMP	CORE	TUBE
TYPE		SS (split-spoon)		
DIA.		2 IN		
WT.		140 lb		
FALL		30 IN		

* POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO. : 35243.03
BORING LOCATION: GRID x = 20 y = 70
GROUND ELEVATION: —
DATE STARTED: 6/15/93
DATE FINISHED: 6/15/93
DRILLER: Don Rimbach
GEOLOGIST: Michael Gutmann
REVIEWED BY: DUANE LENHARDT

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	DESCRIPTION COLOR	DESCRIPTION CONSISTENCY HARDNESS	DESCRIPTION MATERIAL DESCRIPTION	DESCRIPTION CLASS USCS	HNU (ppm)	REMARKS
2		1	SS	3 4 / 4 6	50	BROWN MOTTLED	MEDIUM STIFF	CLAYEY SILT (REGRADED)	ML	0	THIN SILT TOPSOIL COVER (3"); ROOTS
		2	SS	3 8 / 10 11	60	RED-BROWN AND LIGHT BROWN	VERY STIFF	CLAYEY SILT - FEW VARVES	ML	0	MOIST LOW-MEDIUM PLASTICITY
5		3	SS	4 10 / 14 14	80					0	FEW ROOT HOLES
6								BOREHOLE COMPLETED AT 6 FT			

COMMENTS BOREHOLE ADVANCED WITH TRUCK MOUNT DRILL RIG USING 4 1/4" HSAs. NO ENVIRONMENTAL SAMPLES COLLECTED.

PROJECT NO. 35243.03
BORING NO. B-1-7 x = 20
y = 70

A-3205

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. B-1-8

PROJECT: LOVE CANAL EDA 4 LOTS
CLIENT: NYSDEC
BORING CONTRACTOR: BUFFALO DRILLING CO
GROUND WATER: NOT ENCOUNTERED

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS (Split-Spoon)		
DIA.		2 IN.		
WT.		140 lb		
FALL		30 IN.		

* POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO. : 35243.03
BORING LOCATION: GRID x = 40 y = 70
GROUND ELEVATION: —
DATE STARTED: 6/15/93
DATE FINISHED: 6/15/93
DRILLER: DON REMBECH
GEOLOGIST: MICHAEL GUTMANN
REVIEWED BY: DUANE LENHARDT

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY RQD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	HNU (ppm)	REMARKS
0		1	SS	3 3 / 5 8	60	BROWN MOTTLED LIGHT BROWN AND	STIFF	CLAYEY SILT (REGRADED)	ML	0	THIN SILT TOPSOIL (3"), ROOTS
2		2	SS	4 6 / 7 8	70					0	LOW PLASTICITY
4											
5	S S S S S	3	SS	4 6 / 10 9	80	GRAY	STIFF	CLAYEY SILT	ML	0	FEW ROOT HOLES
6								BOREHOLE COMPLETED AT 6 FT			
10											
15											
20											
25											
30											
35											

A-3205

COMMENTS Borehole advanced with truck mount drill rig using 4¼" HSAs. No environmental samples collected.

PROJECT NO. 35243.03
BORING NO. B-1-8 x = 40 y = 70

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. B-2-1

PROJECT: LOVE CANAL EDA 4 LOTS
CLIENT: NYSDEC
BORING CONTRACTOR: BUFFALO DRILLING CO.
GROUND WATER: NOT ENCOUNTERED

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS (split-spoon)		
DIA.		2 IN.		
WT.		140 lb		
FALL		30 IN		

• POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO. : 35243.03
BORING LOCATION: GRID X = 60 Y = 30
GROUND ELEVATION: —
DATE STARTED: 6/15/93
DATE FINISHED: 6/15/93
DRILLER: DON PENBERTH
GEOLOGIST: MICHAEL GUTMANN
REVIEWED BY: DUANE LENHARDT

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	HNU (PPM)	REMARKS
1		1	SS	3 3 / 5 8	40	BROWN	MEDIUM STIFF	CLAYEY SILT	ML	0	THIN SILT TO cover (3"); FEW ROOTS
		2	SS	4 1 / 1 2	15	BLACK	VERY LOOSE	FILL - ASH MIXED WITH A SILTY SAND MATRIX	SM	0	yellow dis - coloring on ASH
4.5		3	SS	2 2 / 2 4	40	BROWN/ GRAY	MEDIUM STIFF	CLAYEY SILT (REGRADED)	ML	0	
6								BOREHOLE COMPLETED AT 6 FT			
10											
15											
20											
25											
30											
35											

A-3205

COMMENTS BOREHOLE ADVANCED WITH TRUCK MOUNT DRILL RIG USING 4 1/4" HSAs. ENVIRONMENTAL SAMPLES COLLECTED FROM 1-2 FT AND 2-4.5 FT.

PROJECT NO. 35243.03
BORING NO. B-2-1 X = 60
Y = 30

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. B-2-2

PROJECT: LOVE CANAL EDA 4 LOTS
CLIENT: NYSDEC
BORING CONTRACTOR: BUFFALO DRILLING CO.
GROUND WATER: NOT ENCOUNTERED

	CAS.	SAMP	CORE	TUBE
TYPE		SS (Split-spoon)		
DIA.		2 IN.		
WT.		140 lb		
FALL		30 IN.		

DATE	TIME	LEV	TYPE

• POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO.: 35243.03
BORING LOCATION: GRID X = 80 Y = 30
GROUND ELEVATION: —
DATE STARTED: 6/16/93
DATE FINISHED: 6/16/93
DRILLER: DON RIMBECH
GEOLOGIST: MICHAEL GUTMANN
REVIEWED BY: DUANE LENHARDT

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY / RQD %	COLOR	CONSISTENCY / HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	HNU (ppm)	REMARKS
1	SS S S	1	SS	3 4 / 7 5	33	BROWN	STIFF	SILT	ML	0	THIN SILT TOPSOIL COVER (2")
3	S S	2	SS	3 4 / 5 4	50	BLACK	LOOSE	FILL - ASH, METALLIC DEBRIS	SM	0	
5	S S	3	SS	2 3 / 5 3	60	BROWN	MEDIUM STIFF	SILT AND CLAY - TRACE ASH IN MATRIX	ML	0	
6								BOREHOLE COMPLETED AT 6 FT			
10											
15											
20											
25											
30											
35											

A-3205

COMMENTS BOREHOLE ADVANCED WITH TRUCK MOUNT DRILL RIG USING 4¼" HSAs. ENVIRONMENTAL SAMPLE COLLECTED FROM 1 - 3 FT.

PROJECT NO. 35243.03
BORING NO. B-2-2 X = 80
Y = 30

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. B-2-3

PROJECT: LOVE CANAL EDA 4 LOTS
CLIENT: NYSDEC
BORING CONTRACTOR: BUFFALO DRILLING CO.
GROUND WATER: NOT ENCOUNTERED

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS (split-spoon)		
DIA.		2 IN		
WT.		140 lb		
FALL		30 IN		

• POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO. : 35243.03
BORING LOCATION: GRID X = 60 Y = 5
GROUND ELEVATION: —
DATE STARTED: 6/15/93
DATE FINISHED: 6/15/93
DRILLER: DON RIMBACH
GEOLOGIST: MICHAEL GUTMANN
REVIEWED BY: DIANE LEINHARDT

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY RQD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	HNV (ppm)	REMARKS
1.8		1	SS	3 5 / 3 3	30	BROWN	MEDIUM STIFF	CLAYEY SILT (REGRADED)	ML	0	THIN SILT TOPSOIL COVER (3"); ROOTY
2.5						BLACK	LOOSE	FILL - ASH, SILT MATRIX	SM		
		2	SS	3 4 / 4 12	30	BROWN/GRAY	MEDIUM STIFF	CLAYEY SILT (REGRADED) - TRACE ASH IN MATRIX	ML	0	MOIST
5		3	SS	1 3 / 5 8	40					0	
6								BOREHOLE COMPLETED AT 6 FT			
10											
15											
20											
25											
30											
35											

COMMENTS BOREHOLE ADVANCED WITH TRUCK MOUNT DRILL RIG USING 4¼" HSAs. Environmental sample collected from 1.8 - 2.5 FT.

PROJECT NO. 35243.03
BORING NO. B-2-3 X = 60
Y = 5

4-3205

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. B-2-4

PROJECT: LOVE CANAL EDA 4 LOTS
CLIENT: NYSDEC
BORING CONTRACTOR: BUFFALO DRILLING CO.
GROUND WATER: NOT ENCOUNTERED

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS (split-spoon)		
DIA.		2 IN		
WT.		140 lb		
FALL		30 IN		

• POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO.: 35243.03
BORING LOCATION: GRID x = 80 y = 50
GROUND ELEVATION: —
DATE STARTED: 6/16/93
DATE FINISHED: 6/16/93
DRILLER: DON RIMBACH
GEOLOGIST: MICHAEL GUTMANN
REVIEWED BY: DUANE LENHART

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"		RECOVERY RQD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	HNU (ppm)	REMARKS
1		1	SS	5	6	25	BROWN	STIFF	CLAYEY SILT (REGRADED)	ML	0	THIN SILT TOPSOIL COVER (2"), ROOTS
				7	6		BLACK	LOOSE	FILL - ASH	SM		
3		2	SS	2	3	40					0	
				3	4		BROWN - OLIVE	MEDIUM STIFF	SILT AND CLAY (REGRADED)	ML / CL		MOIST
5		3	SS	1	2	60					0	
				4	5							
6									BOREHOLE COMPLETED AT 6 FT			
10												
15												
20												
25												
30												
35												

A-3205

COMMENTS BOREHOLE ADVANCED WITH TRUCK MOUNT DRILL RIG USING 4 1/4" HSAs. ENVIRON. SAMPLE COLLECTED FROM 1-3 FT.

PROJECT NO. 35243.03
BORING NO. B-2-4 X = 80
Y = 50

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. B-2-5

PROJECT: LOVE CANAL EDA 4 LOTS
CLIENT: NYSDEC
BORING CONTRACTOR: BUFFALO DRILLING CO.
GROUND WATER: NOT ENCOUNTERED

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS (Split-Spoon)		
DIA.		2 IN		
WT.		140 lb		
FALL		30 IN		

* POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO.: 35243.03
BORING LOCATION: GRID X = 60 Y = 70
GROUND ELEVATION: —
DATE STARTED: 6/16/93
DATE FINISHED: 6/16/93
DRILLER: DON RIMBECH
GEOLOGIST: MICHAEL GUTMANN
REVIEWED BY: DUANE LENHARDT

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY RQD %	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	HNU (ppm)	REMARKS
		1	SS	6 8 / 7 7	20	RED/BRN	STIFF	CLAYEY SILT (REGRADED)	ML	0	THIN SILT TOPSOIL COVER (2") FEW ROOTS
		2	SS	4 7 / 7 7	40	BROWN MOTTLED LT BRN				0	
5		3	SS	4 6 / 10 10	70	OLIVE BROWN/ GRAY	VERY STIFF	CLAYEY SILT	ML	0	LOW PLASTICITY
6								BOREHOLE COMPLETED AT 6 FT			

COMMENTS BOREHOLE ADVANCED WITH TRUCK MOUNT DRILL RIG USING 4 1/4" HSAs. NO ENVIRONMENTAL SAMPLES COLLECTED.

PROJECT NO. 35243.03
BORING NO. B-2-5 X = 60
Y = 70

4-3205

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. B - 2-6

PROJECT: LOVE CANAL EDA 4 LOTS
CLIENT: NYSDEC
BORING CONTRACTOR: BUFFALO DRILLING CO.
GROUND WATER: NOT ENCOUNTERED

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS (split-spoon)		
DIA.		2 IN		
WT.		140 lb		
FALL		30 IN.		

• POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO. : 35243.03
BORING LOCATION: GRID X = 80 Y = 70
GROUND ELEVATION: —
DATE STARTED: 6/16/93
DATE FINISHED: 6/16/93
DRILLER: DON RIMBECH
GEOLOGIST: MICHAEL GUTMANN
REVIEWED BY: DUANE LENHARDT

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY RQD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	HNU (PPM)	REMARKS
		1	SS	4 4 / 5 7	80	BROWN MOTTLED GRAY	STIFF	CLAYEY SILT (REGRADED)	ML	0	THIN SILT TOPSOIL COVER (3"); FEW ROOTS
		2	SS	2 2 / 4 4	40		MEDIUM STIFF			0	FEW PLANT STEMS
5		3	SS	3 5 / 7 10	50		STIFF			0	
6								BOREHOLE COMPLETED AT 6 FT			
10											
15											
20											
25											
30											
35											

A-3205

COMMENTS: BOREHOLE ADVANCED WITH TRUCK MOUNT DRILL RIG USING 4¼" HSAs. NO ENVIRONMENTAL SAMPLES COLLECTED.

PROJECT NO. 35243.03
BORING NO. B-2-6 X = 80
Y = 70

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. B-2-7

PROJECT: LOVE CANAL EB2 4 LOTS
CLIENT: NYSDEC
BORING CONTRACTOR: BUFFALO DRILLING CO.
GROUND WATER: NOT ENCOUNTERED

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS (split-spoon)		
DIA.		2 IN		
WT.		140 lb		
FALL		30 IN		

• POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO. : 35243.03
BORING LOCATION: GRID x = 0 y = 90
GROUND ELEVATION: —
DATE STARTED: 6/16/93
DATE FINISHED: 6/16/93
DRILLER: DON RIMBERT
GEOLOGIST: MICHAEL GUTMANN
REVIEWED BY: DUANE LENHARDT

DEPTH FT	STRATA	SAMPLE NO.	TYPE	BLOWS PER 6"	RECOVERY ROD %	COLOR	CONSISTENCY HARDNESS	DESCRIPTION MATERIAL DESCRIPTION	CLASS USCS	HNU (PPM)	REMARKS
1.8		1	SS	5 10 / 11 15	33	BROWN	VERY STIFF	CLAYEY SILT (REGRADED)	ML	0	THIN SILT TOPSOIL COVER (2") AT ADJTS
2.5		2	SS	7 8 / 8 7	30	BLACK	MEDIUM DENSE	FILL - ASH	SM	0	
5		3	SS	4 4 / 4 4	25	RED-BROWN	MEDIUM STIFF	CLAYEY SILT - TRACE ASH IN MATRIX	ML	0	
6								BOREHOLE COMPLETED AT 6 FT			

A-3205

COMMENTS BOREHOLE ADVANCED WITH TRUCK MOUNT DRILL RIG USING 4¼" HSAs. ENVIRONMENTAL SAMPLE COLLECTED FROM 1.8 - 2.5 FT.

PROJECT NO. 35243.03
BORING NO. B-2-7 x = 0 y = 90

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. B-2-8

PROJECT: LOVE CANAL EDA 4 LOTS
CLIENT: NYSDEC
BORING CONTRACTOR: BUFFALO DRILLING CO.
GROUND WATER: NOT ENCOUNTERED

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS (split-spoon)		
DIA.		2 IN		
WT.		140 lb		
FALL		30 IN		

* POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO.: 35243.03
BORING LOCATION: GRID X=20 Y=90
GROUND ELEVATION: —
DATE STARTED: 6/15/93
DATE FINISHED: 6/15/93
DRILLER: AON RIMBECH
GEOLOGIST: MICHAEL GUTMANN
REVIEWED BY: DUANE LENHARDT

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY RQD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	HNU (PPM)	REMARKS
0.5		1	SS	3 6	80	BROWN	VERY STIFF	CLAYEY SILT	ML	5	THIN TOPSOIL COVER (2") ROOTY
1				10 9		BLACK	MED. DENSE	SILT - ASH	SM		
		2	SS	6 6	60	RED - BROWN	STIFF	CLAYEY SILT (REGRADED) TRACE OF ASH IN MATRIX	ML	0	
5				8 6							
		3	SS	4 8	60					1	
6				4 4				BOREHOLE COMPLETED AT 6 FT.			
10											
15											
20											
25											
30											
35											

A-3205

COMMENTS BOREHOLE ADVANCED WITH TRUCK MOUNT DRILL RIG USING 4¼" HSAs. ENVIRONMENTAL SAMPLE COLLECTED FROM 0.5 - 1 FT.

PROJECT NO. 35243.03
BORING NO. B-2-8 X = 20
Y = 90

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. B-2-9

PROJECT: LOVE CANAL EDA 4 LOTS
CLIENT: NYSDEC
BORING CONTRACTOR: BUFFALO DRILLING CO.
GROUND WATER: NOT ENCOUNTERED

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS (Split-Spoon)		
DIA.		2 IN.		
WT.		140 lb.		
FALL		30 IN.		

• POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO.: 35243.03
BORING LOCATION: GRID X=40 Y=9
GROUND ELEVATION: —
DATE STARTED: 6/16/93
DATE FINISHED: 6/16/93
DRILLER: DON RIMBECH
GEOLOGIST: MICHAEL GUTMANN
REVIEWED BY: DUANE LENHARDT

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"		RECOVERY RQD %	COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	H ~ U (ppm)	REMARKS
1.5		1	SS	3	8	40	BROWN	VERY STIFF	SILT SOME CLAY	ML	1	NO TOPSOIL
2				12	13		BLACK	MED. DENSE	FILL - ASH	SM		MOIST
3		2	SS	6	32	38	RED/BRN	HARD	CLAYEY SILT (REGRADED)	ML	1	
				REFUSAL					AUGER REFUSAL AT 3 FT => BOREHOLE TERMINATED AT 3 FT			
5												
10												
15												
20												
25												
30												
35												

A-3205

COMMENTS BOREHOLE ADVANCED WITH TRUCK MOUNT DRILL RIG USING 4¼" HSAs. ENVIRON SAMPLE COLLECTED FROM 1.5 - 2 FT.

PROJECT NO. 35243.03
BORING NO. B-2-9 X=40 Y=9

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. B-2-10

PROJECT: LOVE CANAL EDA 4 LOTS
CLIENT: NYSDEC
BORING CONTRACTOR: BUFFALO DRILLING CO.
GROUND WATER: NOT ENCOUNTERED

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS (SPLIT-SPOON)		
DIA.		2 IN.		
WT.		140 lb.		
FALL		30 IN.		

• POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO.: 35243.03
BORING LOCATION: GRID X=60 Y=90
GROUND ELEVATION: —
DATE STARTED: 6/16/93
DATE FINISHED: 6/16/93
DRILLER: DON RIMBECH
GEOLOGIST: MICHAEL GUTMANN
REVIEWED BY: DUANE LENHARDT

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY RQD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	HNU (PPM)	REMARKS
0											
1		1	SS	3 5 / 11 11	80	BROWN / BLACK	VERY STIFF / MED. DENSE	CLAYEY SILT / SILT - ASH	ML / SM	.5	THIN SILT TOPSOIL COVER (2") FEW ROOTS
2		2	SS	4 6 / 6 8	63	DIS-colored BLACK BROWN LT. BAN RED/BAN	STIFF	CLAYEY SILT (REGRADED) - BRICK FRAGMENTS	ML	1	
5		3	SS	2 5 / 4 4	54					1	TRACE OF ASH IN MATRIX
6								BOREHOLE COMPLETED AT 6 FT			
10											
15											
20											
25											
30											
35											

A-3205

COMMENTS BOREHOLE ADVANCED WITH TRUCK MOUNT DRILL RIG USING 4¼" HSAs. ENVIRONMENTAL SAMPLE COLLECTED FROM 8" - 1 FT.

PROJECT NO. 35243.03
BORING NO. B-2-10 X = 60 Y = 90

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. B-2-11

PROJECT: LOVE CANAL EDA 4 LOTS
CLIENT: NYSDEC
BORING CONTRACTOR: BUFFALO DRILLING CO.
GROUND WATER: NOT ENCOUNTERED

DATE	TIME	LEV	TYPE		CAS.	SAMP	CORE	TUBE
				TYPE		SS (split-spoon)		
				DIA.		2 IN		
				WT.		140 lb		
				FALL		30 IN		
				* POCKET PENETROMETER READING				

SHEET NO. 1 OF 1
JOB NO. : 35243.03
BORING LOCATION: GRID x = 80 y = 90
GROUND ELEVATION: —
DATE STARTED: 6/16/93
DATE FINISHED: 6/16/93
DRILLER: DON RIMBECH
GEOLOGIST: MICHAEL GUTMANN
REVIEWED BY: DUANE LENHARDT

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	DESCRIPTION: COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	HNU (ppm)	REMARKS
		1	SS	3 5 / 6 11	75	RED-BROWN discolored YELLOW	STIFF	CLAYEY SILT (REGRADED) - SOME ASH (14-16 INCHES)	ML	0	THIN SILT TOPSOIL COVER (2");
		2	SS	6 8 / 13 11	15	RED-BROWN	VERY STIFF	- GRAVEL AND BRICK FRAGMENTS		0	
5		3	SS	2 21 / 24 12	65	BROWN	HARD	- TRACE ASH IN MATRIX		0	
6								BOREHOLE COMPLETED AT 6 FT			

COMMENTS BOREHOLE ADVANCED WITH TRUCK MOUNT DRILL RIG USING 4¼" HSAs. NO ENVIRONMENTAL SAMPLES COLLECTED.

PROJECT NO. 35243.03
BORING NO. B-2-11 x = 80 y = 90

A-3205

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. B-2-12

PROJECT: LOVE CANAL EDA 4 LOTS
SHEET NO. 1 OF 1
CLIENT: NYSDEC
JOB NO. : 35243.03
BORING CONTRACTOR: BUFFALO DRILLING CO.
BORING LOCATION: GRID X=60 Y=110
GROUND WATER: NOT ENCOUNTERED
GROUND ELEVATION: —
DATE STARTED: 6/16/93
DATE FINISHED: 6/16/93
DRILLER: DON RIMBACH
GEOLOGIST: MICHAEL GUTMANN
REVIEWED BY: DUANE LENHARDT

DATE	TIME	LEV	TYPE		TYPE	CAS.	SAMP	CORE	TUBE
							SS (split-spoon)		
					DIA.		2 IN		
					WT.		140 lb		
					FALL		30 IN		
					* POCKET PENETROMETER READING				

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"		RECOVERY ROD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	H N V (ppm)	REMARKS
		1	SS	2	4	50	BROWN	MEDIUM STIFF	CLAYEY SILT (REGRADED)	ML	0	NO TOPSOIL
				4	6							
		2	SS	4	4	30	BROWN/ GRAY		- SOME WOOD DEBRIS		30	
				4	6			STIFF	- RED BRICK FRAGMENT			
5		3	SS	5	8	75					0	
6				12	14		BROWN/ GRAY	VERY STIFF	CLAYEY SILT	ML		SOME PEAT
									BOREHOLE COMPLETED AT 6 FT			
10												
15												
20												
25												
30												
35												

A-3205

COMMENTS BOREHOLE ADVANCED WITH TRUCK MOUNT DRILL RIG USING 4¼" HSAs. NO ENVIRONMENTAL SAMPLES COLLECTED.

PROJECT NO. 35243.03
BORING NO. B-2-12 X=60
Y=110

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. B-2-13

PROJECT: LOVE CANAL EDA 4 LOTS
CLIENT: NYSDEC
BORING CONTRACTOR: BUFFALO DRILLING CO.
GROUND WATER: NOT ENCOUNTERED

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS (split-spoon)		
DIA.		2 IN		
WT.		140 lb		
FALL		30 IN		

* POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO. : 35243.03
BORING LOCATION: GRID X = 80 Y = 110
GROUND ELEVATION: —
DATE STARTED: 6/16/93
DATE FINISHED: 6/16/93
DRILLER: DON REMBECH
GEOLOGIST: MICHAEL GUTMANN
REVIEWED BY: DUANE LENHARDT

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"		RECOVERY ROD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	HNU (PPM)	REMARKS
2		1	SS	3	48	15	BROWN	VERY DENSE	FILL - CONSTRUCTION LUMBER MIXED IN SILTY MATRIX SOME GRAVEL	FILL SM	0	NO TOPSOIL COVER
				8	7							
		2	SS	1	3	50	BROWN	MEDIUM STIFF	CLAYEY SILT (REGRADED)	ML	0	NO WASTE MATERIAL
				3	4							
5		3	SS	1	3	70	BROWN MOTTLED GRAY	STIFF			0	MOIST
6				6	10							
									BOREHOLE COMPLETED AT 6 FT			
10												
15												
20												
25												
30												
35												

A-3205

COMMENTS BOREHOLE ADVANCED WITH TRUCK MOUNT DRILL RIG USING 4¼" HSAs. NO ENVIRONMENTAL SAMPLES COLLECTED.

PROJECT NO. 35243.03
BORING NO. B-2-13 X = 80
Y = 110

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. B-2-14

PROJECT: LOVE CANAL EDA 4 LOTS
CLIENT: NYSDEC
BORING CONTRACTOR: BUFFALO DRILLING CO.
GROUND WATER: NOT ENCOUNTERED

	CAS.	SAMP	CORE	TUBE
TYPE		SS (split-spoon)		
DIA.		2 IN		
WT.		140 lb		
FALL		30 IN		

* POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO. : 35243.03
BORING LOCATION: GRID X = 100 Y = 110
GROUND ELEVATION: —
DATE STARTED: 6/16/93
DATE FINISHED: 6/16/93
DRILLER: DON REMBECH
GEOLOGIST: MICHAEL GUTMANN
REVIEWED BY: DUANE LENHARDT

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	HNU (PPM)	REMARKS
2	S/S	1	SS	4 5 / 8 9	10	BROWN	STIFF	SILT AND C/D DEBRIS - SOME SIDING (WOOD)	ML	4	NO TOPSOIL; FEW ROOTS
5	S S S	2	SS	1 1 / 2 3	50	BROWN/GRAY	SOFT	CLAY AND SILT (REGRADED)	ML / CL	0	VERY MOIST
6	S S	3	SS	3 4 / 8 11	60	BROWN/LT BRN	STIFF			0	SOME PEAT MOIST
								BOREHOLE COMPLETED AT 6 FT			

A-3205

COMMENTS BOREHOLE ADVANCED WITH TRUCK MOUNT DRILL USING 4 1/4" HSAs. NO ENVIRONMENTAL SAMPLES COLLECTED.

PROJECT NO. 35243.03
BORING NO. B-2-14 X = 100
Y = 110

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. B-3-1

PROJECT: LOVE CANAL EDA 4 LOTS
CLIENT: NYSDEC
BORING CONTRACTOR: BUFFALO DRILLING CO.
GROUND WATER: NOT ENCOUNTERED

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS (split-spoon)		
DIA.		2 IN		
WT.		140 lb		
FALL		30 IN		

* POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO. : 35243.03
BORING LOCATION: GRID X=100 Y=30
GROUND ELEVATION: —
DATE STARTED: 6/17/93
DATE FINISHED: 6/17/93
DRILLER: DON RIMBECH
GEOLOGIST: MICHAEL GUTMANN
REVIEWED BY: DUANE LENHARDT

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY RQD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	HNU (ppm)	REMARKS
2	S/S/S/S/S/S	1	SS	3 3 / 5 8	60	BROWN	MEDIUM STIFF	SILT some CLAY	ML	0	THIN TOPSOIL COVER (2"); FEW ROOTS MOIST
5	S/S/S/S/S/S	2	SS	3 4 / 6 7	25	LIGHT BROWN	STIFF	CLAYEY SILT (REGRADED)	ML	0	
6	S/S/S/S/S/S	3	SS	3 4 / 6 8	40					0	
								BOREHOLE COMPLETED AT 6 FT			

A-3205

COMMENTS BOREHOLE ADVANCED WITH TRUCK MOUNT DRILL RIG USING 4 1/4" HSAs. No ENVIRONMENTAL SAMPLES COLLECTED.

PROJECT NO. 35243.03
BORING NO. B-3-1 X=100
Y=30

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. B-3-2

PROJECT: LOVE CANAL EDA 4 LOTS
CLIENT: NYSDEC
BORING CONTRACTOR: BUFFALO DRILLING CO.
GROUND WATER: NOT ENCOUNTERED

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS (split-spoon)		
DIA.		2 IN		
WT.		140 lb		
FALL		30 IN		

• POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO.: 35243.03
BORING LOCATION: GRID X = 100 Y = 50
GROUND ELEVATION: —
DATE STARTED: 6/17/93
DATE FINISHED: 6/17/93
DRILLER: DON RIMBACH
GEOLOGIST: MICHAEL GUTMANN
REVIEWED BY: DUANE LENHARDT

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	HNU (ppm)	REMARKS
0											
1.8		1	SS	4 5 / 6 6	50	BROWN	STIFF	CLAYEY SILT - REGRADED	ML	1	THIN SILT TOPSOIL COVER (2"); ROOTY
		2	SS	2 2 / 1 1	10	BLACK	VERY LOOSE	FILL - ASH, METALLIC DEBRIS	SM	0	
5		3	SS	1 1 / 2 2	10	BROWN	MED. STIFF	SILT AND CLAY	ML/CL	0	MOIST
5.9 6								BOREHOLE COMPLETED AT 6 FT			
10											
15											
20											
25											
30											
35											

A-3205

COMMENTS BOREHOLE ADVANCED WITH TRUCK MOUNT DRILL RIG USING 4¼" HSAs. ENVIRONMENTAL SAMPLES COLLECTED FROM 1.8 - 4 FT AND 4 - 5.9 FT.

PROJECT NO. 35243.03
BORING NO. B-3-2 X = 100
Y = 50

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. B-3-3

PROJECT: LOVE CANAL EDA 4 LOTS
SHEET NO. 1 OF 1
CLIENT: NYSDEC
JOB NO. : 35243.03
BORING CONTRACTOR: BUFFALO DRILLING CO.
BORING LOCATION: GRID X=120 Y=50
GROUND WATER: NOT ENCOUNTERED
GROUND ELEVATION: —
DATE STARTED: 6/17/93
DATE FINISHED: 6/17/93
DRILLER: DON RIMBACH
GEOLOGIST: MICHAEL GUTMANN
REVIEWED BY: DUANE LENHARDT

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS (split-spoon)		
DIA.		2 IN		
WT.		140 lb		
FALL		30 IN		

* POCKET PENETROMETER READING

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	DESCRIPTION COLOR	DESCRIPTION CONSISTENCY HARDNESS	DESCRIPTION MATERIAL DESCRIPTION	DESCRIPTION CLASS USCS	HNU (PPM)	REMARKS
1.7		1	SS	3 4 / 4 5	70	BROWN	MEDIUM STIFF	SILT AND CLAY	ML	0	THIN SILT TASS cover (3") Roots
1.9		2	SS	5 6 / 6 5	50	BROWN TO BLACK	STIFF	SILT AND CLAY (REGRADED)	ML/CL	0	
5		3	SS	2 2 / 2 4	33	BROWN	MEDIUM STIFF	- TRACE - SOME SAND	CL	0	MOIST
6								BOREHOLE COMPLETED AT 6 FT			

COMMENTS BOREHOLE ADVANCED WITH TRUCK MOUNT DRILL RIG USING 4¼" HSAs, ENVIRONMENTAL SAMPLE COLLECTED FROM 1.7 - 1.9 FT.

PROJECT NO. 35243.03
BORING NO. B-3-3 X = 120 Y = 50

A-3205

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. B-3-4

PROJECT: LOVE CANAL EDA 4 LOTS
CLIENT: NYSDEC
BORING CONTRACTOR: BUFFALO DRILLING CO.
GROUND WATER: NOT ENCOUNTERED

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS (SPLIT-SPOON)		
DIA.		2 IN		
WT.		140 lb		
FALL		30 IN		

• POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO. : 35243.03
BORING LOCATION: GRID X = 100 Y = 70
GROUND ELEVATION: —
DATE STARTED: 6/17/93
DATE FINISHED: 6/17/93
DRILLER: DON ZIMBECH
GEOLOGIST: MICHAEL GUTMANN
REVIEWED BY: DUANE LENHARTST

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY RQD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	HNU (PPM)	REMARKS
2		1	SS	5 6 / 6 7	15	BROWN	STIFF	CLAYEY SILT (REGRADED)	ML	0	THIN SILT TOPSOIL COVER (3") ABOVE
5		2	SS	4 5 / 5 7	75	BROWN	STIFF	SILT AND CLAY (REGRADED)	ML / CL	0	LOW PLASTICITY
6		3	SS	3 5 / 7 9	90	BROWN-LIGHT BROWN				0	SOME DEBRIS
								BOREHOLE COMPLETED AT 6 FT			

A-3205

COMMENTS BOREHOLE ADVANCED WITH TRUCK MOUNT DRILL RIG USING 4¼" HSA. NO ENVIRONMENTAL SAMPLES COLLECTED.

PROJECT NO. 35243.03
BORING NO. B-3-4 X = 100
Y = 70

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. B-3-5

PROJECT: LOVE CANAL EDA 4 LOTS
CLIENT: NYSDEC
BORING CONTRACTOR: BUFFALO DRILLING CO.
SHEET NO. 1 OF 1
JOB NO. : 35243.03
BORING LOCATION: GRID X=120 Y=70
GROUND ELEVATION: —
DATE STARTED: 6/17/93
DATE FINISHED: 6/17/93
DRILLER: DON PIMBECH
GEOLOGIST: MICHAEL GUTMANN
REVIEWED BY: DUANE LENHARDT

GROUND WATER:

DATE	TIME	LEV	TYPE
6/17/93	1210	±5 FT	AUGERS

	CAS.	SAMP	CORE	TUBE
TYPE		SS (split-spoon)		
DIA.		2 IN		
WT.		140 lb		
FALL		30 IN		

• POCKET PENETROMETER READING

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY RQD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	HNU (ppm)	REMARKS
0		1	SS	4 5 / 7 9	50	BROWN	STIFF	SILT AND CLAY (REGRADED)	ML	0	THIN SILT TO (cover (2") ROOT
2		2	SS	5 5 / 3 3	20	BLACK/ SILVER	LOOSE	FILL - ASH, METALLIC FRAGMENTS	SM	0	
5		3	SS	1 1 / 1 1	45	BROWN	SOFT	SILT AND CLAY	ML	0	WET AT ~ 5 FT
5.8 6								BOREHOLE COMPLETED AT 6 FT			
10											
15											
20											
25											
30											
35											

COMMENTS BOREHOLE ADVANCED WITH TRUCK MOUNT DRILL RIG USING 4¼" HSAs. ENVIRONMENTAL SAMP
COLLECTED FROM 2-4 FT AND 4-5.8 FT.

PROJECT NO. 35243.03
BORING NO. B-3-5 X=120
Y=70

4-3205

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. B-3-6

PROJECT: LOVE CANAL EDA 4 LOTS
CLIENT: NYSDEC
BORING CONTRACTOR: BUFFALO DRILLING CO.
GROUND WATER: NOT ENCOUNTERED

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS (split-spoon)		
DIA.		2 IN		
WT.		140 lb		
FALL		30 IN		

* POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO. : 35243.03
BORING LOCATION: GRID X = 100 Y = 90
GROUND ELEVATION: —
DATE STARTED: 6/17/93
DATE FINISHED: 6/17/93
DRILLER: DON RIMBECH
GEOLOGIST: MICHAEL GUTMANN
REVIEWED BY: DUANE LENHARDT

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	HNU (PPM)	REMARKS
		1	SS	4 7 / 13 10	60	RED-BROWN	VERY STIFF	SILT AND CLAY (REGRADED) - TRACE OF ASH AND C & D IN MATRIX	ML	9	THIN SILT TOPSOIL COVER (2"); MOIST
		2	SS	5 11 / 12 10	60	OLIVE-BROWN AND GRAY				3	
5		3	SS	5 11 / 11 13	60					0	MOIST MED. PLASTIC
6								BOREHOLE COMPLETED AT 6 FT			
10											
15											
20											
25											
30											
35											

A-3205

COMMENTS BOREHOLE ADVANCED WITH TRUCK MOUNT DRILL RIG USING 4¼" HSAs. NO ENVIRONMENTAL SAMPLES COLLECTED.

PROJECT NO. 35243.03
BORING NO. B-3-6 X = 100
Y = 90

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. B-3-7

PROJECT: LOVE CANAL EDA 4 LOTS
SHEET NO. 1 OF 1
CLIENT: NYSDEC
JOB NO. : 35243.03
BORING CONTRACTOR: BUFFALO DRILLING CO.
BORING LOCATION: GRID X = 120 Y = 9
GROUND ELEVATION: —
DATE STARTED: 6/17/93
DATE FINISHED: 6/17/93
DRILLER: DON RIMBACH
GEOLOGIST: MICHAEL GUTMANN
REVIEWED BY: DUANE LENHARDT

GROUND WATER:					CAS.	SAMP	CORE	TUBE
DATE	TIME	LEV	TYPE	TYPE		SS (split-spoon)		
6/17/93	1415	5.5 FT	Augers	DIA.		2 IN		
				WT.		140 lb		
				FALL		30 IN		
				* POCKET PENETROMETER READING				

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"		RECOVERY ROD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	HNU (PPM)	REMARKS
2	SS	1	SS	5	6	50	BROWN TO	STIFF	CLAYEY SILT (REGRADED)	ML	0	THIN SILT TOPSOIL COVER (2") AT TOP
4	SS	2	SS	5	10	75	LIGHT RED/ BROWN	VERY STIFF	SILT AND CLAY (REGRADED) - SOME C & B DEBRIS	ML/CL	0	
5	VOID SPACE	—	—	—	—	—	—	—	VOID SPACE (NO SAMPLE)	—	0	WET @ 5.5 FT
6									BOREHOLE COMPLETED AT 6 FT			
10												
15												
20												
25												
30												
35												

A-3205

COMMENTS BOREHOLE ADVANCED WITH TRUCK MOUNT DRILL RIG USING 4 1/4" HSAs. NO ENVIRONMENTAL SAMPLES COLLECTED.

PROJECT NO. 35243.03
BORING NO. B-3-7 X = 120
Y = 9

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. B-3-8

PROJECT: LOVE CANAL EDA 4 LOTS
SHEET NO. 1 OF 1
CLIENT: NYSDEC
JOB NO. : 35243.03
BORING CONTRACTOR: BUFFALO DRILLING CO.
BORING LOCATION: EAST x = 100 y = 110
GROUND ELEVATION: —
DATE STARTED: 6/17/93
DATE FINISHED: 6/17/93
DRILLER: DON RIMBACH
GEOLOGIST: MICHAEL GUTMANN
REVIEWED BY: DUANE LENHARDT

GROUND WATER:					CAS.	SAMP	CORE	TUBE
DATE	TIME	LEV	TYPE	TYPE		SS (split-spoon)		
6/17/93	1500	4 FT	AUGERS	DIA.		2 IN		
				WT.		140 lb		
				FALL		30 IN		

• POCKET PENETROMETER READING

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"	RECOVERY ROD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	HNU (PPM)	REMARKS
		1	SS	5 2 / 2 50/4"	5	BROWN	LOOSE TO MEDIUM STIFF	FILL - CONSTRUCTION/DEMOLITION DEBRIS MIXED W/ SILT MATRIX	ML	0	NO TOPSOIL COVER
		2	SS	1 2 / 4 2	5			- SILT & CLAY MATRIX		0	WET AT 4 FT
5		3	SS	1 1 / 5 7	80					0	
6								BOREHOLE COMPLETED AT 6 FT			
10											
15											
20											
25											
30											
35											

A-3205

COMMENTS BOREHOLE ADVANCED WITH TRUCK MOUNT DRILL RIG USING 4¼" HSAs. NO ENVIRONMENTAL SAMPLES COLLECTED.

PROJECT NO. 35243.03
BORING NO. B-3-8 x = 100
y = 110

URS CONSULTANTS, Inc.

TEST BORING LOG
BORING NO. B-3-9

PROJECT: LOVE CANAL EDA 4 LOTS
CLIENT: NYSDEC
BORING CONTRACTOR: BUFFALO DRILLING CO.
GROUND WATER: NOT ENCOUNTERED

DATE	TIME	LEV	TYPE

	CAS.	SAMP	CORE	TUBE
TYPE		SS (split-spoon)		
DIA.		2 IN		
WT.		140 lb		
FALL		30 IN		

• POCKET PENETROMETER READING

SHEET NO. 1 OF 1
JOB NO. : 35243.03
BORING LOCATION: GRID X = 120 Y = 1
GROUND ELEVATION: —
DATE STARTED: 6/17/93
DATE FINISHED: 6/17/93
DRILLER: DON RIMBACH
GEOLOGIST: MICHAEL GUTMANN
REVIEWED BY: DUANE LENHARDT

DEPTH FT	STRATA	SAMPLE NO.	SAMPLE TYPE	BLOWS PER 6"		RECOVERY ROD %	DESCRIPTION COLOR	CONSISTENCY HARDNESS	MATERIAL DESCRIPTION	CLASS USCS	HNU (ppm)	REMARKS
0		1	SS	12	6	5	BROWN	MEDIUM DENSE	FILL - CONSTRUCTION / DEMOLITION DEBRIS, GRAVEL	ML	0	THIN SILT TOPSOIL COVER (2")
2				6	7							
		2	SS	2	3	15	LIGHT BROWN	MEDIUM STIFF	SILT AND CLAY (REGRADED)	ML	0	
				3	5							
5		3	SS	3	6	40	GRAY MOTTLES	VERY STIFF		CL	0	
6				11	14							
									BOREHOLE COMPLETED AT 6 FT			
10												
15												
20												
25												
30												
35												

A-3205

COMMENTS BOREHOLE ADVANCED WITH TRUCK MOUNT DRILL RIG USING 4 1/4" HSAs. NO ENVIRONMENTAL SAMPLES COLLECTED.

PROJECT NO. 35243.03
BORING NO. B-3-9 X = 120
Y = 1

URS CONSULTANTS, INC.

PAGE 1 OF
SHEET NO. 1 OF
JOB NO. 35243.03
MADE BY MG DATE 6/22/93
CHKD. BY DATE

PROJECT LOVE CANAL EDA 4 LOTS
SUBJECT ENVIRONMENTAL SAMPLING SUMMARY

BORING NO.	SAMPLE DEPTH (FT)	GRID LOCATION	ASH THICKNESS (FT)	REF. PAGE
B-1-1	1.8 - 4	x = 20 y = 30	4.2	
B-1-1	4 - 6	x = 20 y = 30	4.2	
B-1-2	2 - 4	x = 40 y = 30	2.0	
B-1-4	1.5 - 2.75	x = 20 y = 50	3.0	
B-1-4	4.5	x = 20 y = 50	3.0	
B-1-5	1.9 - 2.0	x = 40 y = 50	0.1	
B-2-1	1 - 2	x = 60 y = 30	3.5	
B-2-1	2 - 4.5	x = 60 y = 30	3.5	
B-2-2	1 - 3	x = 80 y = 30	2.0	
B-2-3	1.8 - 2.5	x = 60 y = 50	0.7	
B-2-4	1 - 3	x = 80 y = 50	2.0	
B-2-7	1.8 - 2.5	x = 0 y = 90	0.7	
B-2-8	0.5 - 1	x = 20 y = 90	0.5	
B-2-9	1.5 - 2.0	x = 40 y = 90	0.5	
B-2-10	0.6 - 1.0	x = 60 y = 90	0.4	
B-3-2	1.8 - 4	x = 100 y = 50	4.1	
B-3-2	4 - 5.9	x = 100 y = 50	4.1	
B-3-3	1.7 - 1.9	x = 120 y = 50	0.2	
B-3-5	2 - 4	x = 120 y = 70	3.8	
B-3-5	4 - 5.8	x = 120 y = 70	3.8	

APPENDIX K

ENTECH'S QA/QC PLAN

Remediation of Frontier Avenue/100th
Street and EDA 4 Lots
QA/QC Plan
July 1, 1992

Based on the requirements of the contract specifications, a QA/QC plan will be based on ENTECH Management's sub-contractors and ENTECH Management's Health and Safety Plan since no sampling is required for this project.

Health and Safety QA/QC

Prior to each days initiation of work, all health and safety monitoring equipment will be calibrated as per the instrument specifications. All calibration checks will be logged in a daily calibration logbook. If inconsistent readings or suspected failure of a particular price of monitoring equipment is encountered, that particular instrument will be recalibrated regardless of when it was first calibrated.

Installation of Cap Liner

ENTECH Management Services Corp. will be subcontracting the installation of the cap liner to Solmax Geosynthetics, Inc. Solmax is a geosynthetics company already approved on other projects for the New York State DEC. All liner seams will be pressure tested as per the original specs. If a seam fails the pressure test, the seam will be rewelded and then retested.

Installation of Insituform Liner (if required)

ENTECH Management Services Corp. will be sub-contracting the installation of the insituform to Insituform-Metropolitan of New York, New York or another qualified installer. Once the liner is installed, it will be tested by the installer and certified accordingly.

Certificates on backfill, concrete and asphalt

All backfill will be certified clean as to its origin from the Buffalo area. All concrete and asphalt will also be certified as per their contents and mixture prior to installation.

Any comments or questions concerning this QA/QC Plan should be directed to William A. Galloway, Jr., Project Manager, ENTECH Management Services Corp.

ENTECH MANAGEMENT SERVICES CORP.

William A. Galloway, Jr.
Project Manager

APPENDIX L

PROJECT RECORD DRAWINGS

APPENDIX L

PROJECT RECORD DRAWINGS

DRAWING TITLE	DRAWING NO.	POCKET NO.
Cover Sheet	-	1
EDA-4	C-101	1
CAP Repair	C-102	2
Frontier Ave./100th St.	C-201	2
42-Inch Storm Sewer	C-202	3
Details	C-301	3

LOVE CANAL

NIAGARA FALLS, NIAGARA COUNTY, NEW YORK

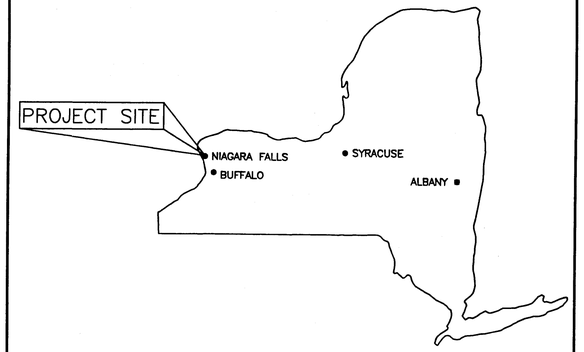
REMEDIATION OF FRONTIER AVENUE/100th STREET AND EDA 4 LOTS

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

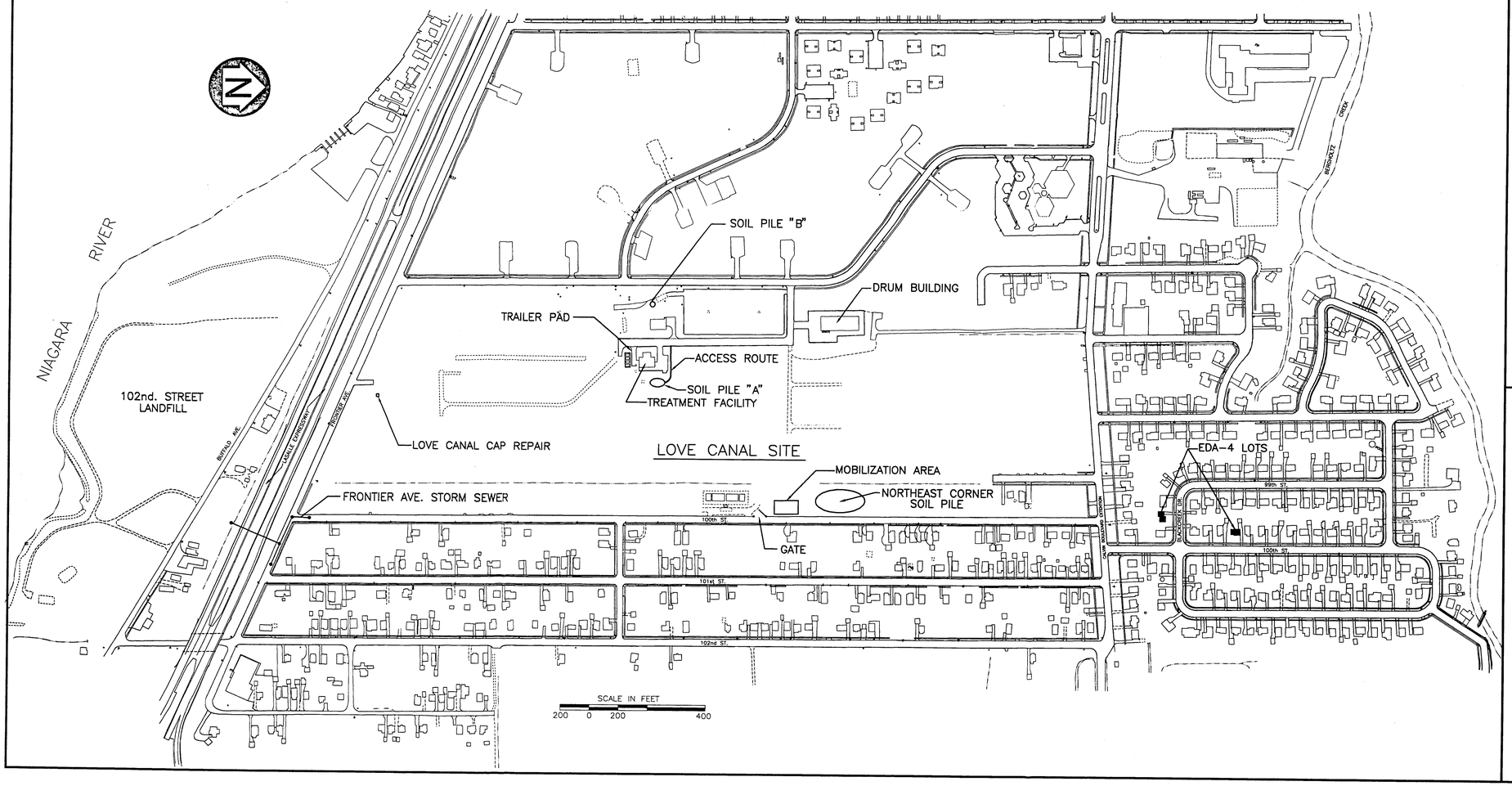
E.C. JORDAN CO.

CONSULTING ENGINEERS

PORTLAND, MAINE



LOCATION MAP



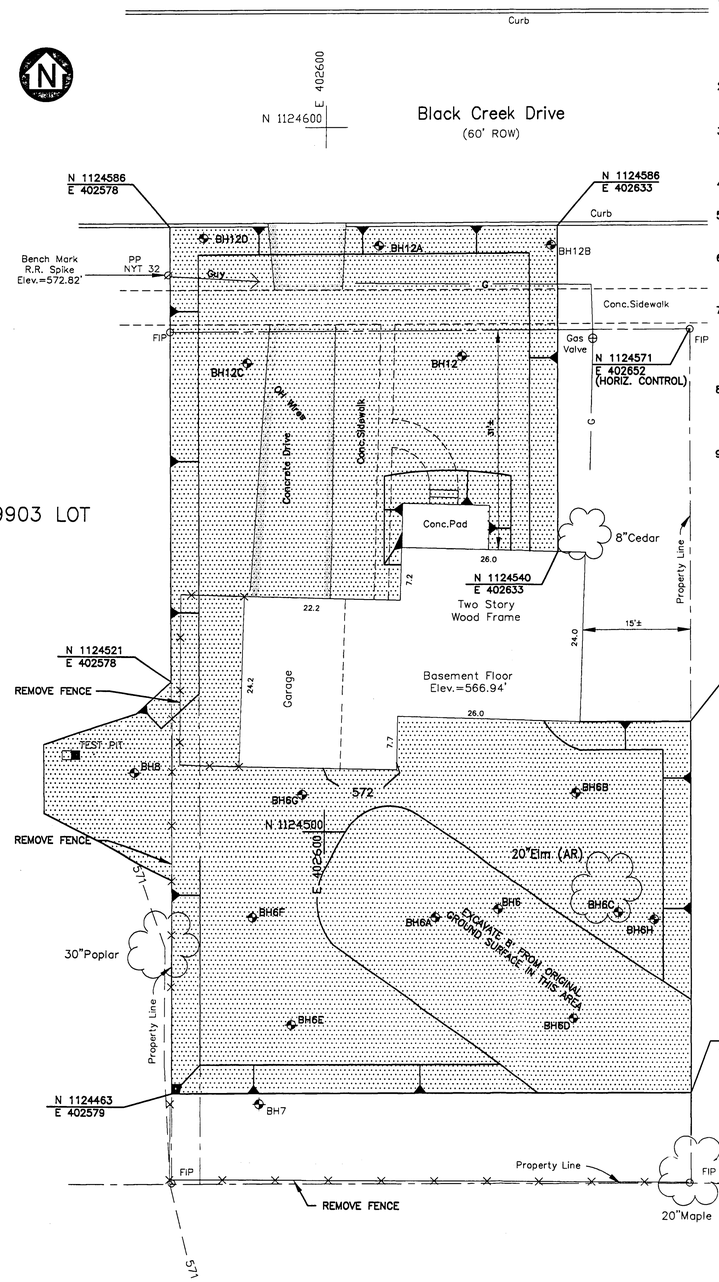
LEGEND

EXISTING

WATER VALVE	⊗
UTILITY POLE	⌀
CATCH BASIN	▦
MANHOLE	⊕
BORINGS	✥ BH6
WATER LINE	——···——
ELECTRICAL	—OHE—
GAS LINE	— G —
EXISTING PIPE	= = = = =
FENCE	— X — X —
CURB	═══
EXISTING CONTOUR	— 726 —
TREE	✿
SHRUBS	✿✿✿
PROPERTY PIN	○ PIP

INDEX

TITLE	DWG. NO.
COVER SHEET	——
EDA-4	C-101
CAP REPAIR	C-102
FRONTIER AVE. \ 100th STREET	C-201
42-INCH STORM SEWER	C-202
DETAILS	C-301

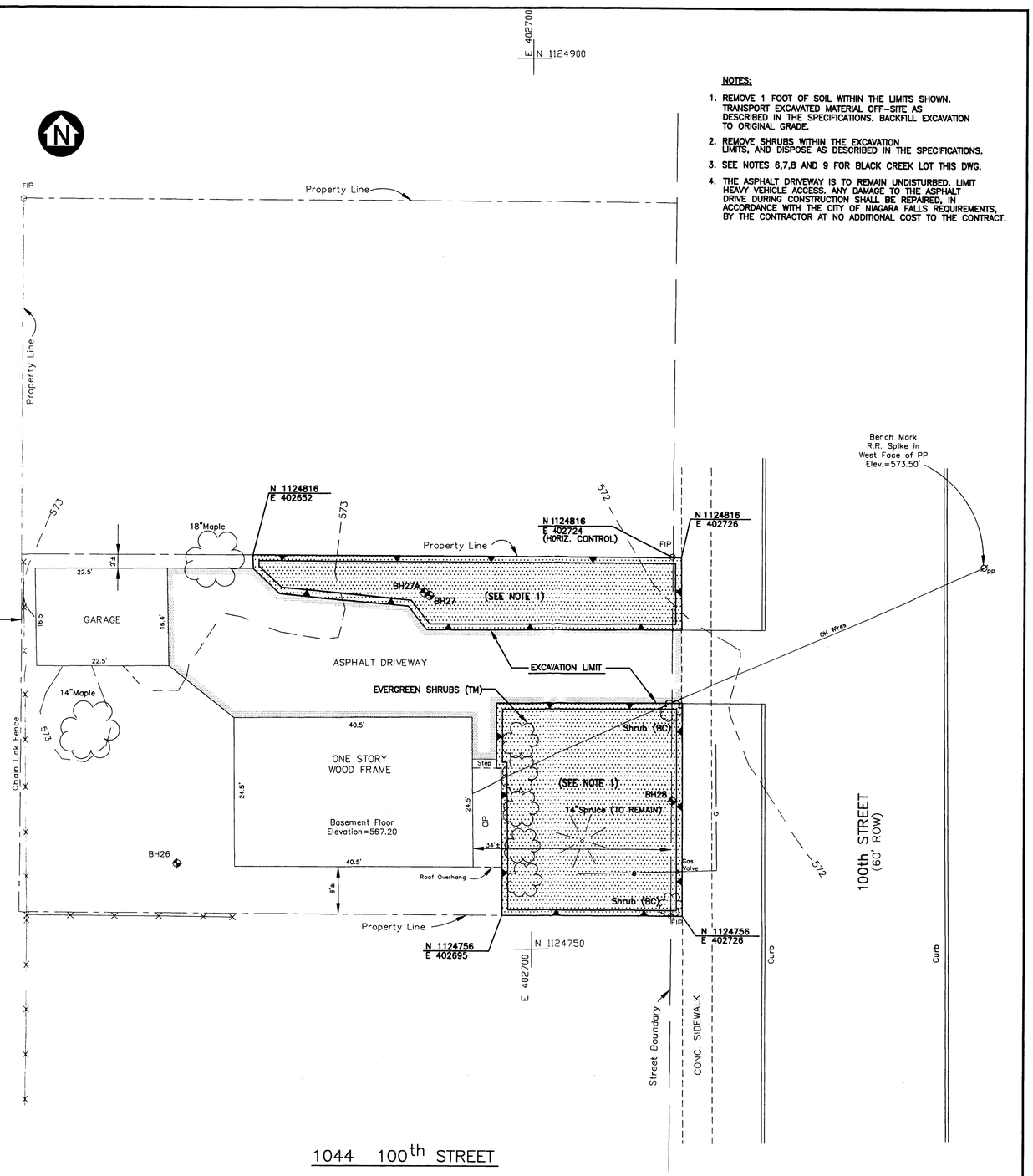


NOTES:

1. EXCAVATE 2' DEEP IN ALL SHADED AREAS SHOWN EXCEPT IN THE BACK YARD WHERE DEPTH OF EXCAVATION IS 6' IN THE AREA CONTAINING BORINGS BH6A, BH6 AND BH6D. REMOVE EXCAVATED MATERIAL AND TRANSPORT OFF-SITE AS DESCRIBED IN THE SPECIFICATIONS. BACKFILL EXCAVATION TO ORIGINAL GRADE.
2. EXCAVATE SIDE SLOPES NO GREATER THAN THE MAXIMUM ALLOWABLE AS RECOMMENDED BY OSHA.
3. REMOVE CONCRETE DRIVE AND SIDEWALK UP TO CONCRETE PAD. REPLACE WITH BITUMINOUS PAVEMENT MATCHING ORIGINAL WIDTH. SEE DRAWING C-301 FOR DETAIL.
4. EXCAVATION LIMIT ALONG BLACK CREEK DRIVE SHALL BE UP TO THE CURB FACE.
5. REMOVE SHRUBS AND TREES WITHIN THE EXCAVATION LIMITS, AND DISPOSE AS DESCRIBED IN THE SPECS.
6. EXISTING VEGETATION WITH PARENTHESIS FOLLOWING, REPRESENTS THE SYMBOL OF THE REPLACEMENT PLANT. SEE PLANT SCHEDULE FOR REPLACEMENT SHRUBS AND TREES.
7. REMOVE PROPERTY PINS THAT WILL BE DISTURBED DURING CONSTRUCTION. FOLLOWING COMPLETION OF SITE RESTORATION, HAVE PINS PLACED BY A SURVEYOR LICENSED IN THE STATE OF NEW YORK.
8. BACKFILLING OF THE EXCAVATION SHALL TAKE PLACE WITHIN TWO DAYS OF EXCAVATION COMPLETION. OPEN EXCAVATIONS SHALL BE CORDONED OFF AT THE END OF THE DAY (BOTH SITES).
9. IF THE ENGINEER DETERMINES VISUALLY THAT CONTAMINATION IS EVIDENT AT THE LIMIT OF EXCAVATION, ADDITIONAL EXCAVATION WILL BE NECESSARY UNTIL ALL CONTAMINATION IS REMOVED (BOTH SITES).

PLANT SCHEDULE				
QTY.	SYM.	BOTANICAL/COMMON NAME	SIZE	ROOT
		DECIDUOUS TREES		
1	AR	ACER RUBRUM/RED MAPLE	2 1/2"-3" CAL.	B&B
		DECIDUOUS SHRUBS		
2	BC	BERBERIS CANDIDULA/ PALELEAF BARBERRY	2 1/2'-3'HT.	B&B
		EVERGREEN SHRUBS		
4	TM	TAXUS MEDIA HICKSI/ HICKS YEW	2'-2 1/2'HT.	B&B

9909 BLACK CREEK DRIVE



NOTES:

1. REMOVE 1 FOOT OF SOIL WITHIN THE LIMITS SHOWN. TRANSPORT EXCAVATED MATERIAL OFF-SITE AS DESCRIBED IN THE SPECIFICATIONS. BACKFILL EXCAVATION TO ORIGINAL GRADE.
2. REMOVE SHRUBS WITHIN THE EXCAVATION LIMITS, AND DISPOSE AS DESCRIBED IN THE SPECIFICATIONS.
3. SEE NOTES 6,7,8 AND 9 FOR BLACK CREEK LOT THIS DWG.
4. THE ASPHALT DRIVEWAY IS TO REMAIN UNDISTURBED. LIMIT HEAVY VEHICLE ACCESS. ANY DAMAGE TO THE ASPHALT DRIVE DURING CONSTRUCTION SHALL BE REPAIRED, IN ACCORDANCE WITH THE CITY OF NIAGARA FALLS REQUIREMENTS, BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.

1044 100th STREET

OM P. POPLI ENGINEERS & SURVEYORS
LOVE CANAL OPERABLE UNIT B9
CONTAMINATED SOIL REMOVAL - EDA NO. 4

No.	REFERENCE DRAWINGS
1.	9909 BLACK CREEK DRIVE
	DWG. NO. 01
2.	1044 100th. STREET
	DWG. NO. 01

REV.	DATE	STATUS	MF	BY	CHKD	APPD
1	9/27/93	RECORD DRAWING		PWF	PHO	VAL
0	4/10/92	FOR CONSTRUCTION		RDC		
B	3/20/92	FOR NYSDEC FINAL REVIEW		RDC		
A	1/31/92	INITIAL DRAFT FOR NYSDEC REVIEW		RDC		

STATE OF NEW YORK
NICHOLAS KOSTA
062353
PROFESSIONAL ENGINEER

E.C. JORDAN CO.
CONSULTING ENGINEERS

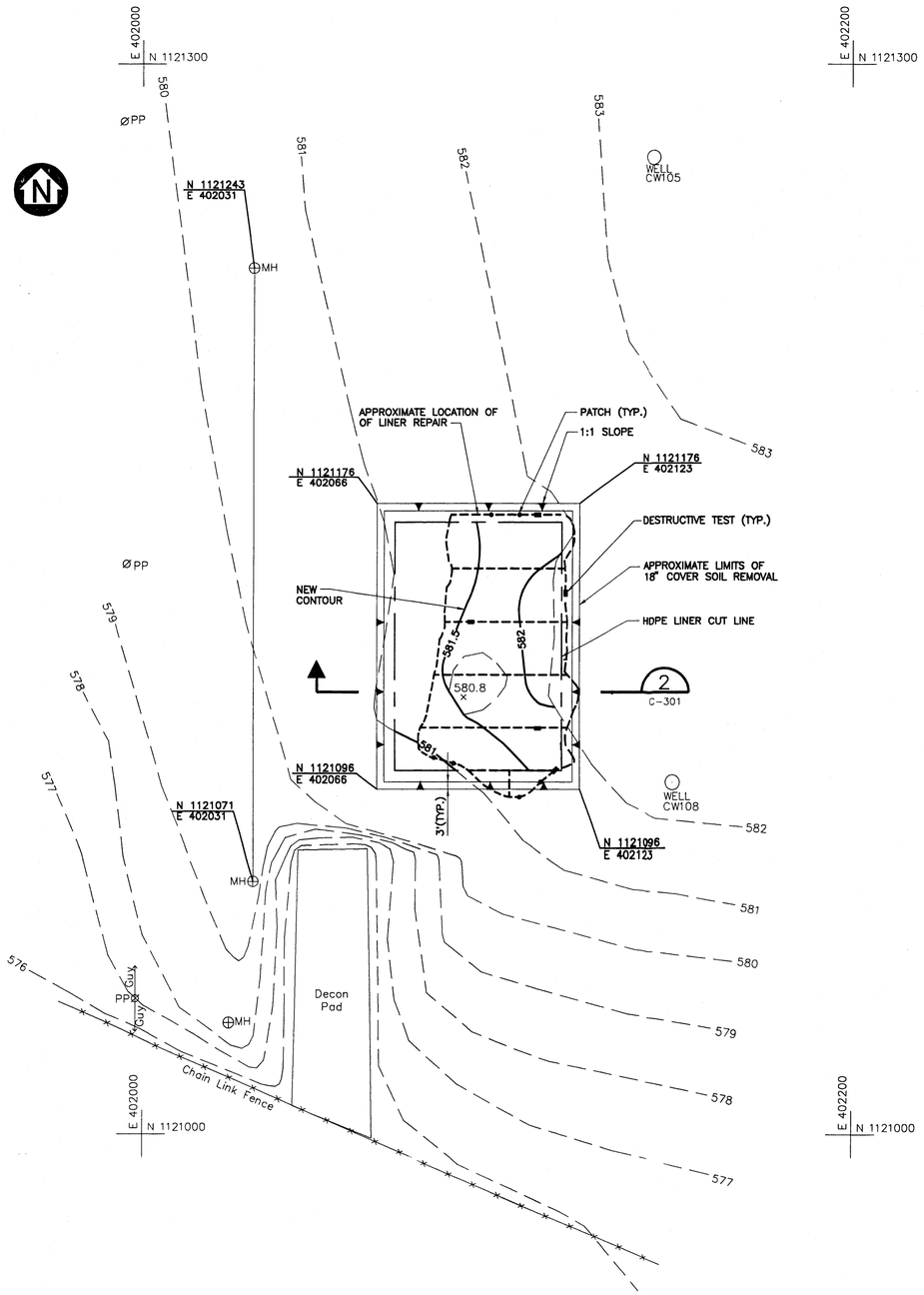
CLIENT
NEW YORK STATE
DEPT. OF ENVIRONMENTAL CONSERVATION

DESIGN	P. OWEN	9/29/93
DRAWN	R.D. CYR	
CHKD.		9/29/93
DEPT. HD		9/29/93
PROCESS		
PROJ. MGR.		9-29-93
CLIENT		
SCALE	1"=10'	

TITLE
REMEDIATION OF FRONTIER AVENUE/ 100th STREET AND EDA 4 LOTS

EDA-4

PROJ. NO.	6609-60	REV. 1
DWG. NO.	C-101	



NOTES:

1. REMOVE SOIL IN AREA ABOVE LINER WITHOUT PIERCING LINER AND STOCKPILE ON TARP.
2. REMOVE ALL SOIL WITHIN THE LIMITS SHOWN PRIOR TO CUTTING LINER.
3. CUT REMOVE AND DISPOSE OF LINER MATERIAL OR ANY SOIL MATERIAL REMOVED FROM BELOW THE LINER AS HAZARDOUS WASTE PER SPECIFICATION.
4. FILL AREA UNDER LINER WITH MATERIAL FROM CLEAN SOIL STOCKPILE AT NORTHEAST CORNER OF LOVE CANAL SITE TO ELEVATION OF FINAL GRADE MINUS 1.5 FEET. BACKFILL PLACED UNDER LINER SHALL BE HAND COMPACTED BEFORE REPLACING LINER.
5. REPLACE LINER/REWELD.
6. REPLACE SOIL AND TOPSOIL USING ORIGINAL SOIL/TOPSOIL, SEED AND FERTILIZE.

GENERAL NOTES:
(FOR ALL SITES)

1. HORIZONTAL CONTROL IS BASED ON THE NEW YORK STATE PLAN COORDINATE SYSTEM.
2. VERTICAL CONTROL IS TIED TO MEAN SEA LEVEL AS DETERMINED BY THE 1929 GENERAL ADJUSTMENT.
3. ANY EXCAVATION NOT BACKFILLED AT THE END OF THE WORK SHALL BE CORDONED OFF WITH A TEMPORARY FENCE.

OM P. POPLI ENGINEERS & SURVEYORS
LOVE CANAL CAP REPAIR
1. DWG. NO. 01

No.	REFERENCE DRAWINGS

REV.	DATE	STATUS	MF	BY	CHKD	APPD
1	9/27/93	RECORD DRAWING		RDC	Sum PHO	RAC
0	4/10/92	FOR CONSTRUCTION		RDC		
B	3/20/92	FOR NYSDEC FINAL REVIEW		RDC		
A	1/31/92	INITIAL DRAFT FOR NYSDEC APPROVAL		RDC		

STATE OF NEW YORK
ROY ALAN ROSEN
052353-1
PROFESSIONAL ENGINEER

E.C. JORDAN CO.
CONSULTING ENGINEERS

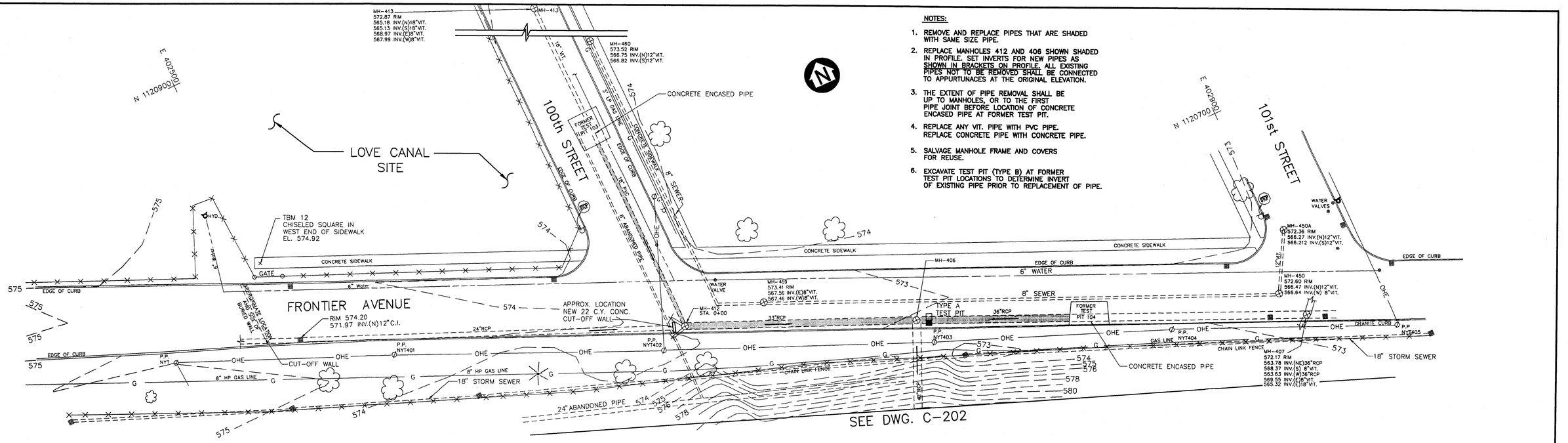
CLIENT
NEW YORK STATE
DEPT. OF ENVIRONMENTAL CONSERVATION

DESIGN	P. OWEN	9/09/93
DRAWN	R.D. CYR	
CHKD.	J. Mitchell	9/29/93
DEPT. HD.	WJWilson	9/29/93
PROCESS		
PROJ. MGR.	J. Mitchell	9/29/93
CLIENT		
SCALE	1" = 20'	

TITLE
REMEDIATION OF FRONTIER AVENUE/
100th STREET AND EDA 4 LOTS

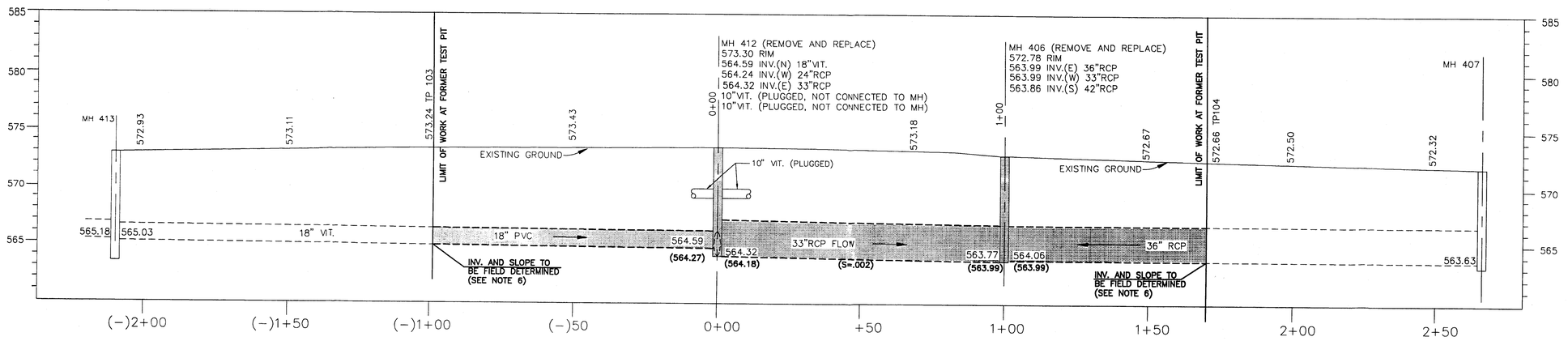
CAP REPAIR

PROJ. NO.	6609-40	REV. 1
DWG. NO.	C-102	



NOTES:

1. REMOVE AND REPLACE PIPES THAT ARE SHADED WITH SAME SIZE PIPE.
2. REPLACE MANHOLES 412 AND 406 SHOWN SHADED IN PROFILE. SET INVERTS FOR NEW PIPES AS SHOWN IN BRACKETS ON PROFILE. ALL EXISTING PIPES NOT TO BE REMOVED SHALL BE CONNECTED TO APPURTUNACES AT THE ORIGINAL ELEVATION.
3. THE EXTENT OF PIPE REMOVAL SHALL BE UP TO MANHOLES, OR TO THE FIRST PIPE JOINT BEFORE LOCATION OF CONCRETE ENCASED PIPE AT FORMER TEST PIT.
4. REPLACE ANY VIT. PIPE WITH PVC PIPE. REPLACE CONCRETE PIPE WITH CONCRETE PIPE.
5. SALVAGE MANHOLE FRAME AND COVERS FOR REUSE.
6. EXCAVATE TEST PIT (TYPE B) AT FORMER TEST PIT LOCATIONS TO DETERMINE INVERT OF EXISTING PIPE PRIOR TO REPLACEMENT OF PIPE.



100th STREET

FRONTIER AVENUE

No.	REFERENCE DRAWINGS
	OM P. POPLI ENGINEERS & SURVEYORS
	LOVE CANAL OPERABLE UNIT 18
	FRONTIER AVENUE STORM SEWER REMEDIATION
1.	DWG. NO. 02 (PLAN)
2.	DWG. NO. 02 (PROFILE)
	PIPER & MARBURY, WASHINGTON, D.C.
	LOVE CANAL – SOUTH SECTION
3.	UNDERGROUND UTILITIES – DWG. CADD 56

REV.	DATE	STATUS	BY	CHK'D	APP'D
1	9/27/93	RECORD DRAWING	PWF	[illegible]	RMC
0	4/10/92	FOR CONSTRUCTION	RDC		
B	3/20/92	FOR NYSDEC FINAL REVIEW	RDC		

STATE OF NEW YORK — JOHN ALAN ROSCH — 062853-1 — LICENSED PROFESSIONAL ENGINEER

CLIENT

NEW YORK STATE
DEPT. OF ENVIRONMENTAL CONSERVATION

E.C. JORDAN CO.
CONSULTING ENGINEERS

DESIGN	P. OWEN	9/29/93
DRAWN	R.D. CYR	
CHKD.	[illegible]	9/29/93
DEPT. HD.	[illegible]	9/29/93
PROCESS		
PROJ. MGR.	[illegible]	9/29/93
CLIENT		
SCALE	1"=20' HORIZ. 1"=5' VERT.	

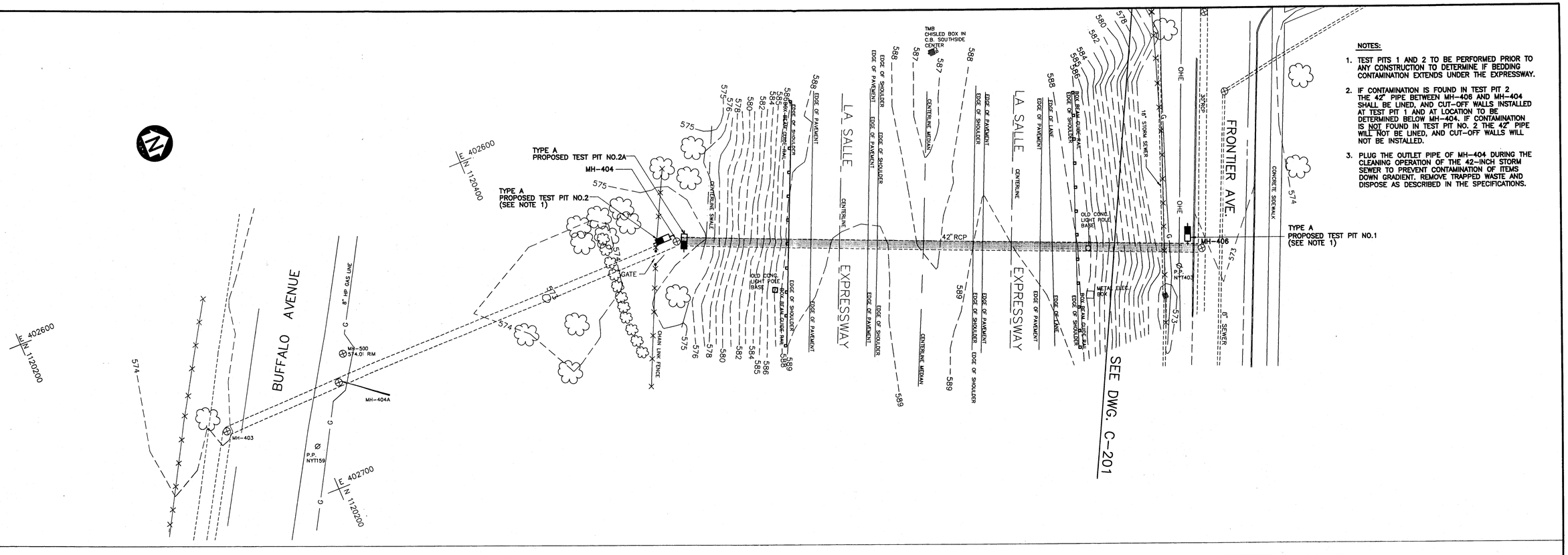
TITLE
REMEDIATION OF FRONTIER AVENUE/ 100th STREET AND EDA 4 LOTS

FRONTIER AVE. / 100th STREET

PROJ. NO. 6609-40

DWG. NO. C-201

REV. 1



PROFILE OF 42" STORM SEWER

No.	REFERENCE DRAWINGS
	OM P. POPLI ENGINEERS & SURVEYORS
	LOVE CANAL OPERABLE UNIT 18
	FRONTIER AVENUE STORM SEWER REMEDIATION
1.	DWG. NO. 03 (PLAN)
2.	DWG. NO. 01 (PROFILE)

REV.	DATE	STATUS	MF	BY	CHKD	APPD
1	9/27/93	RECORD DRAWING		PWF	PAO Saini	DJK
0	4/10/92	FOR CONSTRUCTION		RDC		
B	3/20/92	FOR NYSDEC FINAL REVIEW		RDC		
A	1/31/92	INITIAL DRAFT FOR NYSDEC REVIEW		RDC		

STATE OF NEW YORK — DOUGLAS A. KOSZER — 062853-1 — PROFESSIONAL ENGINEER

E.C. JORDAN CO.
CONSULTING ENGINEERS

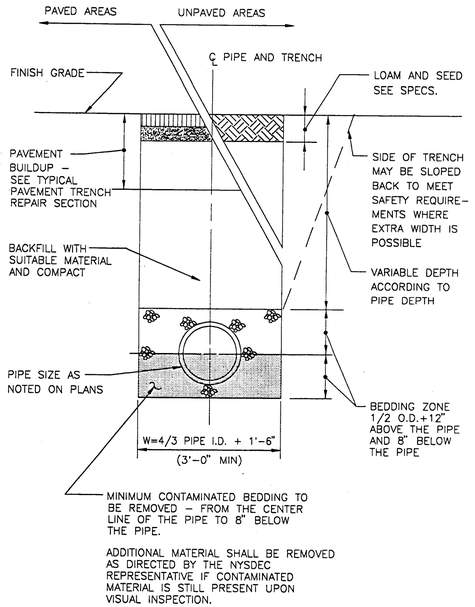
CLIENT
NEW YORK STATE
DEPT. OF ENVIRONMENTAL CONSERVATION

DESIGN	P. OWEN	9/29/93
DRAWN	R.D. CYR	
CHKD.	J. Mitchell	9/29/93
DEPT. HD.	Lyn Nitsch	9/29/93
PROCESS		
PROJ. MGR.	J. Mitchell	9/29/93
CLIENT		
SCALE	1" =20' HORIZ. 1" =5' VERT.	

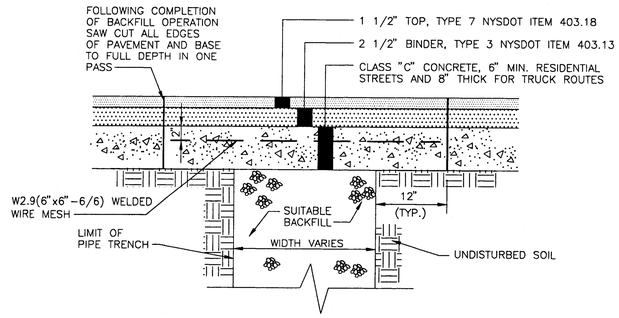
TITLE
REMEDIATION OF FRONTIER AVENUE/ 100th STREET AND EDA 4 LOTS

42-INCH STORM SEWER

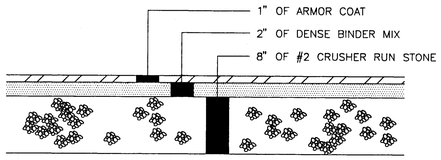
		REV.
PROJ. NO.	6609-40	
DWG. NO.	C-202	1



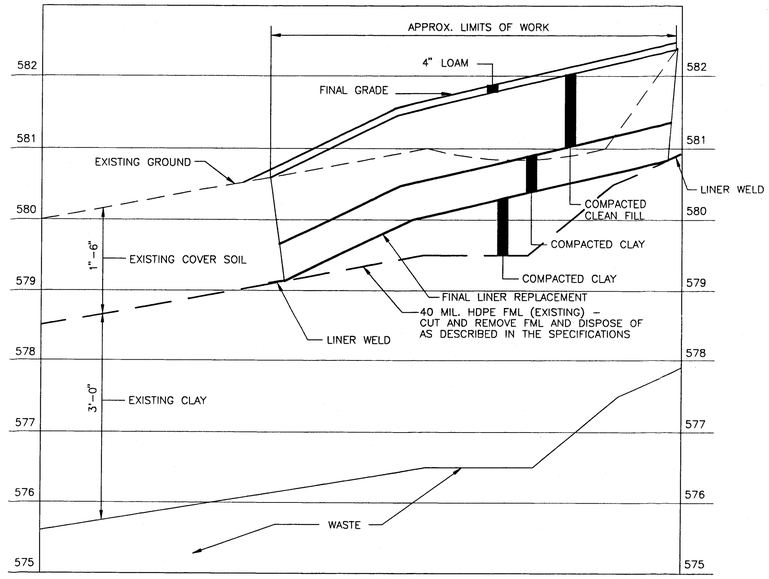
CONTAMINATED BEDDING PIPE TRENCH
N.T.S.



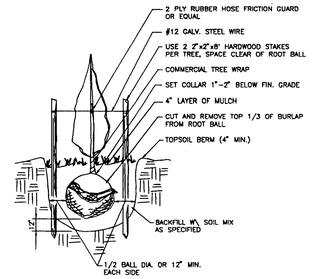
PAVEMENT TRENCH REPAIR SECTION (FRONTIER AVENUE/100TH STREET)
N.T.S.



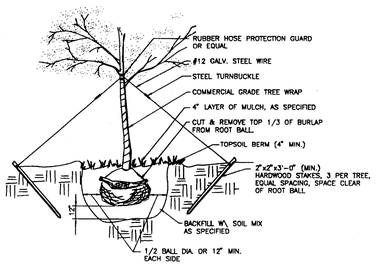
DRIVEWAY PAVING SECTION (9909 BLACK CREEK DRIVE)
N.T.S.



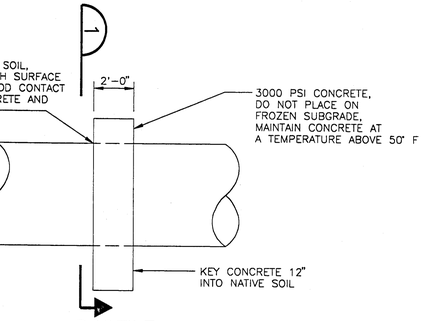
CAP REMEDIATION (2)
1"=10' HORIZ.
1"=1" VERT.
C102



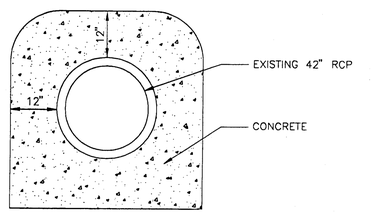
EVERGREEN TREE PLANTING/STAKING



DECIDUOUS TREE PLANTING\STAKING

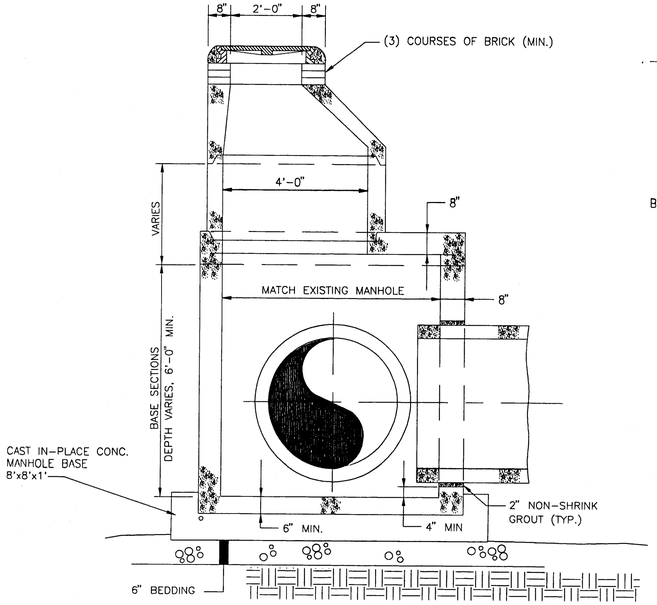


PROFILE

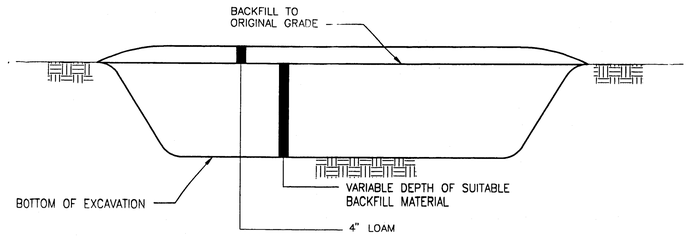


SECTION (1)

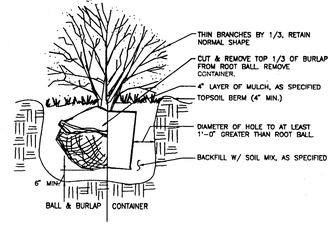
CONCRETE CUT–OFF WALL (42–INCH STORM SEWER)
N.T.S.



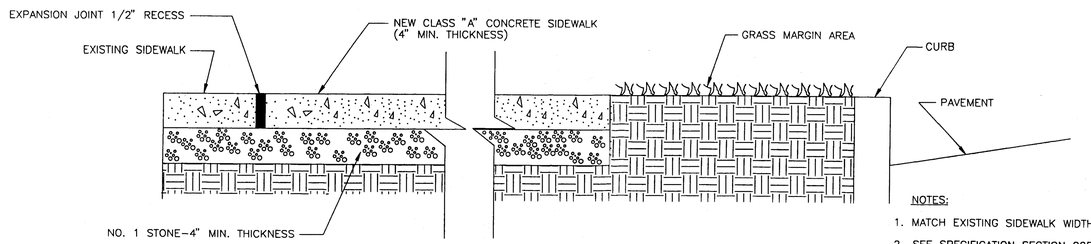
TYPICAL REPLACEMENT MANHOLE (FRONTIER AVENUE)
N.T.S.



TYPICAL EXCAVATION / BACKFILL SECTION EDA – 4 HOUSE LOTS
N.T.S.



SHRUB PLANTING



REPLACEMENT SIDEWALK SECTION FOR EDA 4 LOTS (TYP.)
N.T.S.

NOTES:
1. MATCH EXISTING SIDEWALK WIDTH
2. SEE SPECIFICATION SECTION 02514 FOR CITY OF NIAGARA FALLS REQUIREMENTS.

No.	REFERENCE DRAWINGS

REV.	DATE	STATUS	MF	BY	CHKD	APPD
1	9/27/93	RECORD DRAWING		PWF	THO	RAK
0	4/10/92	FOR CONSTRUCTION		RDC		
B	3/20/92	FOR NYSDEC FINAL REVIEW		RDC		
A	1/31/92	INITIAL DRAFT FOR NYSDEC REVIEW		RDC		

STATE OF NEW YORK ROY ALAN ROSSEN 062953 PROFESSIONAL ENGINEER

E.C. JORDAN CO.
CONSULTING ENGINEERS

CLIENT
NEW YORK STATE
DEPT. OF ENVIRONMENTAL CONSERVATION

DESIGN	P. OWEN	9/29/93
DRAWN	R.D. CYR	
CHKD.	[signature]	9/29/93
DEPT. HD.	[signature]	9/29/93
PROCESS		
PROJ. MGR.	[signature]	9/29/93
CLIENT		
SCALE	AS NOTED	

TITLE
REMEDIATION OF FRONTIER AVENUE/ 100th STREET AND EDA 4 LOTS

DETAILS

PROJ. NO. 6609–60
DWG. NO. C–301
REV. 1