

Tenneco Packaging
200 Main Street
Macedon, New York 14502

Tel 315 986 6118
Fax 315 986 6275



February 8, 1999

Mr. Michael Zamiarski
Region 8
New York State Department of
Environmental Conservation
6274 East Avon-Lima Rd.
Avon, NY 14414-9519

**RE: UST CLOSURE REPORT
TENNECO PACKAGING, MACEDON, NY**

Dear Mr. Zamiarski:

Enclosed you will find a Site Assessment and Closure of Two Chemical Bulk Storage Tanks, Final Report for two 4,000 gallon storage tanks (CBS No. 8-000025) located at Tenneco Packaging's Macedon, NY facility. These tanks were permanently closed during the week of November 16, 1998, following procedures outlined in Tammy Anderson's letter dated November 9, 1998 (copy attached).

If you have any questions regarding the Final Report, or would like to visit Tenneco's Macedon facility, please contact me at 716-393-3267.

Sincerely,

A handwritten signature in cursive script, appearing to read "Richard J. St. James".

Richard J. St. James
Environmental Engineer

cc: T. Anderson (IT Corp.)
R. D'Ottavio (w/o attach.)
G. Hill (Mobil Chemical Co.)
W. Hyatt (w/o attach.)
D. Porterfield (Dames & Moore)
R. Reott (Jenner & Block)
L. Winterberger (NYSDEC, Albany)
B. Wolfe (w/o attach.)

ust02



140 Allen's Creek Road—Suite 150
Rochester, New York 14618-3307
716-271-6430
Fax: 716-271-0251

November 9, 1998

Mike Zamiarski
Region 8 NYSDEC
6274 East Avon-Lima Road,
Avon, NY 14414-9519

RECEIVED
NOV 11 1998
Canandaigua
Environmental

Dear Mr. Zamiarski:

On behalf of Tenneco Packaging, I am writing to notify you of Tenneco's intention to permanently close two 4,000 gallon storage tanks located at Tenneco's 200 Main Street, Macedon, NY facility. Tank No. 1 with CBS No. 8-000025 contained a hazardous substance that was originally specified as toluene mixture (CAS# 00108-88-3). Tank 2 with CBS No. 8-000025 contained a hazardous substance that was originally specified as ethylbenzene mixture (CAS# 100-41-4). There have been no known releases from either tank based upon historical and operational information. Both tanks were cleaned in September, 1991 and have been empty since that time.

Tenneco has hired Marcor Remediation, Inc. of Rochester to physically close the tanks, and IT Corporation to provide oversight, and to prepare a closure report for submittal to the NYSDEC.

Due to the proximity of buildings/structures to the tank pit, Marcor intends to close the tanks in place and fill them with inert flowable fill. Marcor will enter and visually inspect the tanks for cleanliness and structural integrity prior to filling.

Closure sampling will be performed consistent with guidelines set forth in *Site Assessments at Bulk Storage Facilities*, SPOTS 14, August 1994. A closure report will also be provided in accordance with this guidance.

Site work for the closure is scheduled to begin November 16, 1998. It is expected that Marcor will be onsite for several days. A GeoProbe 5400 rig is scheduled to be onsite, Tuesday, November, 17 to be used for sampling activities. If you would like to visit the site, please join us.

If you have any questions, concerns, or would like to arrange a time to visit the site, please call me at either (716) 271-6430 X211, or (716) 924-1644.

Sincerely,

Tammy S. Anderson
Project Manager

C: Re: St. James, Tenneco Packaging
S. Stockmaster, Marcor

**SITE ASSESSMENT AND CLOSURE
OF TWO CHEMICAL BULK STORAGE TANKS
CBS Registration NO. 8-00025**

FINAL REPORT

**TENNECO PACKAGING
MACEDON FACILITY**

Prepared for:

Tenneco Packaging Company
200 Main street
Macedon, NY

January 1999

**SITE ASSESSMENT AND CLOSURE
OF TWO CHEMICAL BULK STORAGE TANKS
CBS Registration NO. 8-000025**

FINAL REPORT

**TENNECO PACKAGING
MACEDON FACILITY**

Prepared for:

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200 Main street
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January 1999

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Table 1

Results of Analysis and Comparison of Values to TAGM 4046

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Appendix C—Schematic of Historical Hazardous Substance Releases Near UST Closure and Sample Locations

Appendix D—Laboratory Results of Sample Analysis and Boring Logs

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1.0 Conclusions and Recommendations

Tenneco Packaging is located in Macedon, NY in a formerly unified facility owned by Mobil Chemical which now includes separately owned manufacturing facilities for Tenneco, Mobil's Commercial Films Division and Huntsman Design Products. Tenneco purchased Mobil Chemical's Plastics Division in November 1995. Tenneco manufactures flexible packaging products including various types of polyethylene bags.

The total facility is approximately 23.6 acres in area with Tenneco plant buildings occupying approximately 92,000 square feet. The total facility is bounded by Route 31 to the south, route 350 to the west, Quaker road and a truck trailer parking area to the east, and the New York State Barge Canal and a Pennsylvania Central Railroad spur to the north. The chemical bulk storage tanks which are the subject of this report are located in the area north of Building 10.

Underground storage tanks previously used to store toluene and ethylbenzene solvent and registered in CBS database as No. 8-000025 have been permanently closed. Attached as Appendix A is a NYSDEC Chemical Bulk Storage Program Facility Information Report that reflects the closed status of both tanks.

There have been no known releases from either tank. The tanks were entered and inspected on November ¹⁶ ~~11~~ ^{Ruffin}, 1998, and found to be in very good condition with no indication of either tank being compromised. The tanks were both closed in place due to their close proximity to other structures.

Contaminants were detected in subsurface samples obtained near the closed tanks via GeoProbe®. However, neither ethylbenzene or toluene were detected in the samples analyzed. It is believed that the contaminants detected were present due to historic releases unrelated to the two solvent tanks being closed. These historic releases included a 5,000 gallon lacolene release, diesel fuel and gasoline releases, and a 500 gallon fuel oil spill. The site history and relevant releases are

described in more detail in Section 3.0. Mobil Chemical Company's remediation of soil and groundwater related to these releases included excavation of contaminated soil and a multi-phase extraction system. Mobil Chemical Company and Tenneco Packaging are currently undergoing discussions regarding the status of the site with Lynne Winterberger, NYSDEC, 50 Wolf Road, Albany.

It is recommended that no further action be taken regarding the closed tanks. With respect to the contaminants observed during the site assessment, it is recommended that these findings be addressed as part of the ongoing discussions between NYSDEC, Mobil Chemical Company, and Tenneco Packaging.

2.0 Tank System Design

In May 1987, two 4,000 gallon underground storage tanks (USTs) were installed at the facility now owned by Tenneco Packaging in Macedon, New York. Both tanks were manufactured by Buffalo Tank Corporation, model P340 DW 360. The double walled underground tank design included protective coating, cathodic protection system, testing station, UL approved electrical isolation of all openings, lifting lugs, integral piping containment chamber, and labeling as specified in contract drawings provided in Appendix B. Detailed specifications of the tank excavation and spill containment pad are also included in the Appendix B drawings. The only significant difference between the plan drawings and the actual tank installation was that only two tanks were installed instead of the three shown on the drawing.

3.0 Site History

The two USTs were installed in 1987 by Mobil Chemical Company. Tank 1 contained a hazardous substance that was originally specified as toluene mixture (CAS #00108-88-3). Tank 2 contained a hazardous substance that was originally specified as ethylbenzene mixture (CAS #100-41-4). There have been no known releases from either tank based upon historical and operational information. Both tanks were completely emptied and cleaned in 1991, and have been empty and out of service since that time.

The USTs were installed in 1987 to replace five co-solvent and one methyl alcohol USTs previously located in the same location. Approximately 266 tons of contaminated soil was excavated and removed as part of the removal of the previous USTs in 1987. Also, included in this removal were ten drums of "purple dirt." In the process of the soil removal, an old dry well was reportedly discovered filled with old rags and cans/lids believed to be from the time the property was owned by G.L.F. (now Agway).

In addition, there have been three significant spill events at the facility. Each of these spills occurred in close proximity to the area where the two USTs were recently closed and the site assessment was performed in December 1998. The three release events include:

- Releases during the 1970's due to leaking aboveground diesel fuel and underground gasoline tanks from the area northeast of Building 11;
- 5,000-gallon lacolene spill in 1982 in the area north of Building 10; and
- 500-gallon release of fuel oil from an aboveground storage tank in 1980's from the area just south of Building 12.

The schematic provided in Appendix C depicts the approximate location of these releases with respect to the recently closed tanks. Documentation for past excavation activities at the site indicated that soil excavation limits were generally based on visual observations rather than confirmatory sampling. Therefore, there is potential for residual contamination to be present from the historical releases in these areas.

4.0 Field Observations and Tank Closure

Tank closure activities were performed by Marcor Remediation, Inc, during the period of November 16-20, 1998. These activities included the dismantling and removal of all aboveground piping and vents, visual inspection of the tanks interior, and filling the tanks with flowable fill topped with concrete. Closure sampling was also performed via truck-mounted GeoProbe[®] 5400 direct-push sampling system. Marcor's on-site crew included Jay Bradshaw

and Dave Engart who performed the GeoProbe[®] work. Pete Spagnola, Supervisor, Willie Howell and Roger Joseph performed the tank cleaning and filling tasks. Tammy Anderson of IT Corporation was also present during the closure activities to provide oversight on behalf of Tenneco and to document closure activities.

When opened, Tank 2 appeared very clean and dry. No odors were detected. When Tank 1 was opened it was observed that the tank contained several inches of water. There was also a slight sheen on the water surface. See photographs 17 and 18. The water was pumped out and drummed. The volume of water removed was less than 150 gallons. The three drums were stored in the facility's hazardous waste storage area while awaiting disposal. It is believed that the water in Tank 1 came from precipitation that entered the tank through the vapor vent. Neither the Oxygen/LEL nor OVA meters displayed significant readings to indicate the presence of volatile organic compounds.

When piping associated with Tank 1 was dismantled a small quantity (less than a liter) of liquid containing some solvent (based upon odor) emptied back into the tank. The liquid was cleaned up with absorbent pads that were drummed for off-site disposal. The confined space of the tank continued to be monitored. After the liquid was cleaned up, both the meters indicated conditions were safe for entry into the tank.

Both tanks were entered by Pete Spagnola. The inside of both tanks was in very good condition. No indications of significant corrosion or other damage were observed. See photographs 5-15. Once all piping was removed the tanks and entry vault area were filled with flowable fill (photos 19 and 20). Concrete was used to top off the flowable fill. Photographs 21 and 22 depict the finished work.

5.0 Sampling and Analysis

Samples of soil and groundwater were obtained from two locations using the GeoProbe[®] 5400 direct-push sampling system. Samples sent for laboratory analysis were subject to the following analytical methods: VOC by Method 8260 (water), SVOC by Method 8270 (soils), and TPH (water). It was impossible to obtain a third sample near the tank area due to confining physical structures that obstructed most of the area of concern. The two sample locations were identified on the schematic included in Appendix C. Boring logs and analytical results are provided in Appendix D. Samples were taken at two foot intervals in each boring. The sampling intervals and corresponding descriptions are included in the boring logs in Appendix D. Each core was screened in the field and the sample collected for laboratory analysis was from the layer with the highest field measurements. In both cases, this was at a depth of 10-12 feet. The depth to groundwater at GP1 was 11.5 feet. The depth to groundwater at GP2 was 6.5 feet.

The following Table 1 summarizes the results of laboratory analysis and compares these values to guidance cleanup levels in NYSDEC TAGM 4046.

As summarized in Table 1, contaminants were detected at locations GP1 and GP2. However, neither ethylbenzene nor toluene were detected in the samples analyzed. It is believed that the contaminants detected are present due to historic releases unrelated to the two solvent tanks being closed. These historic releases included a 5,000 gallon lacolene release, diesel fuel and gasoline releases, and a 500 gallon fuel oil spill.

It is recommended that no further action be taken regarding the closed tanks. With respect to the contaminants observed during the site assessment, it is recommended that these findings be addressed as part of the ongoing discussions between NYSDEC, Mobil Chemical Company, and Tenneco Packaging.

TABLE 1
RESULTS OF ANALYSIS AND COMPARISON OF VALUES TO TAGM 4046

	<u>GP1</u>		<u>GP2</u>		<u>4046</u> <u>Value</u> ppm
	Soil mg/kg ppm	Water ug/L ppb	Soil mg/kg ppm	Water ug/L ppb	
<u>PAH Compounds</u>					
Phenanthrene	0.713	ND	0.292	*	50.0
Anthracene	0.212	ND	0.068J	*	50.0
Fluoranthene	2.036	ND	ND	*	50.0
Pyrene	1.773	ND	ND	*	50.0
Benzo(a)anthracene	0.511	ND	ND	*	0.224 or MDL
Benzo(b)fluoranthene	0.658	ND	ND	*	0.224 or MDL
Benzo(k)fluoranthene	0.380	ND	ND	*	0.224 or MDL
Benzo(a)pyrene	0.561	ND	ND	*	0.061 or MDL
Chrysene	0.671	ND	ND	*	0.4
Fluorene	0.093J	ND	0.204	*	50.0
<u>VOAs</u>					
TPH	*	13,727	*	144,300	*
Isopropylbenzene	*	38.4	*	ND	*
N-Propylbenzene	*	84.8	*	101.3	*
tert-Butylbenzene	*	33.8	*	ND	*
1,2,4-Trimethylbenzene	*	29.4	*	511.7	*
sec-Butylbenzene	*	185.9	*	48.6	*
4-Isopropyltoluene	*	146.1	*	462.4	*
n-Butylbenzene	*	476.0	*	560.6	*
Hexachlorobutadiene	*	24.8	*	ND	*
Naphthalene	*	228.6	0.083J	317.7	13.0
Chloroform	*	ND	*	158.0	0.3
1,3,5-Trimethylbenzene	*	ND	*	217.5	*

*--Intentionally Blank

ND—Not Detected

NOTE: Toluene and Ethylbenzene - Analyzed, but not detected in either sample.

APPENDIX A
NYSDEC Chemical Bulk Storage Program Facility Information Report

CBS # : 8-000025

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Printed : 10/20/98

Chemical Bulk Storage Program
Facility Information Report

Site : TENNECO PLASTICS COMPANY
200 E. MAIN STREET
MACEDON, NY 14502

Site Status : 2 -Unregulated
Total Tanks : 0
Total Capacity : 0
Date App. Rcvd : 03/14/91
Amount Paid : 125

Owner : TENNECO PLASTICS COMPANY
1603 ORRINGTON AVENUE
EVANSTON, IL 60204

Phone : (708) 492-4418
Owner Type : Corporate/Commercial

County : WAYNE Town : MACEDON
Latitude : N Longitude : N
Oper : RICHARD ST. JAMES (315) 986-6253
Emer : RICHARD ST. JAMES (315) 986-6060
Type of Site : Manufacturing

Site Stat. : 1 -No Errors
Own Stat. : 1 -No Errors
Tank Stat. : 0 -Major Errors
Expiration Date : 03/03/93

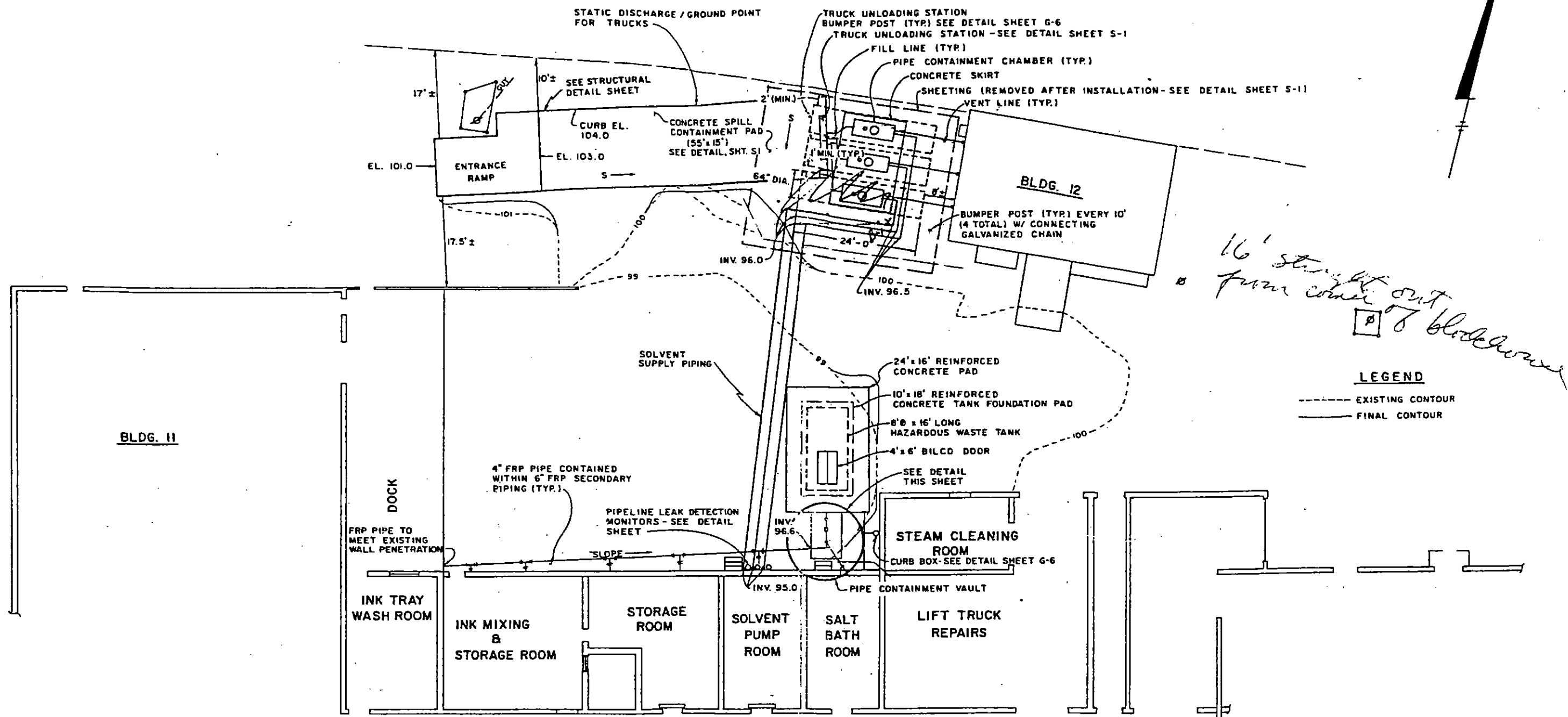
Mail : TENNECO PLASTICS COMPANY
100 NORTH STREET
CANANDAIGUA, NY 14424

SPDES # :
PBS # :
MOSF # :

Att : WILLIAM HYATT (716) 393-3290

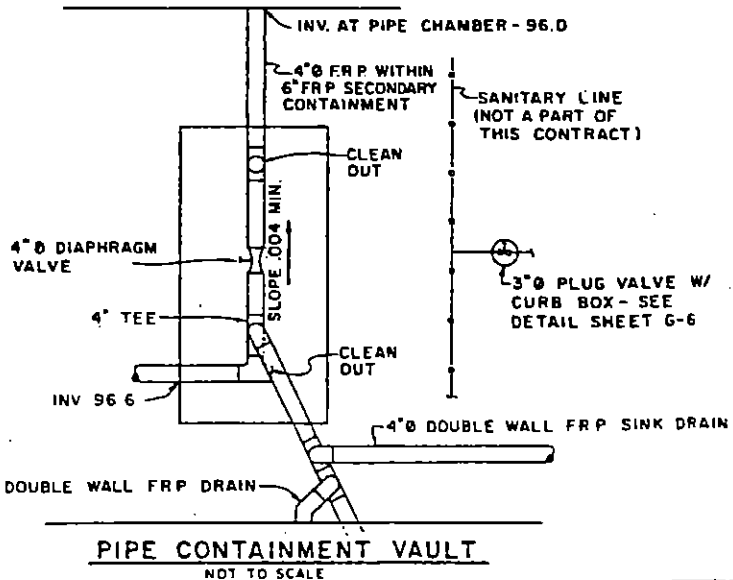
TankNo	Tankloc	Stat	DateIn	Capac (g)	Casno	Chemical Name	TankType	TankIP	TankEPI	TrankSC	Pipeloc	PipeType	PipeIP	PipeEP	PipeSC	Leak	Spill	Subdes	%Haz	TStat
1	5	4	07/90	4,000	108883	Toluene	9	0	9	4	2	5	0	4	4	1	2	2	5	CLOSED:10/91
2	5	4	07/90	4,000	100414	Ethylbenzene	9	0	9	4	2	5	0	4	4	1	2	2	5	CLOSED:02/91

APPENDIX B
Solvent Tank Drawings and Detail Specifications



16' straight out from corner of Bldg. 12

LEGEND
 - - - - - EXISTING CONTOUR
 _____ FINAL CONTOUR



- NOTES:**
1. FOR DETAILS OF SOLVENT TANKS & PIPING, SEE SHEET M-1
 2. FOR DETAILS OF HAZARDOUS WASTE TANK & PIPING, SEE SHEET M-2
 3. AREA NORTH OF GALVANIZED CHAIN CONNECTED BUMPER POSTS SHALL BE BACKFILLED TO GRADE WITH TYPE "A" SELECT FILL.
 4. UNLESS OTHERWISE NOTED, ALL PIPING SHOWN IS PART OF THIS CONTRACT.

*15' concrete
 ↓ 3.5' off wall*

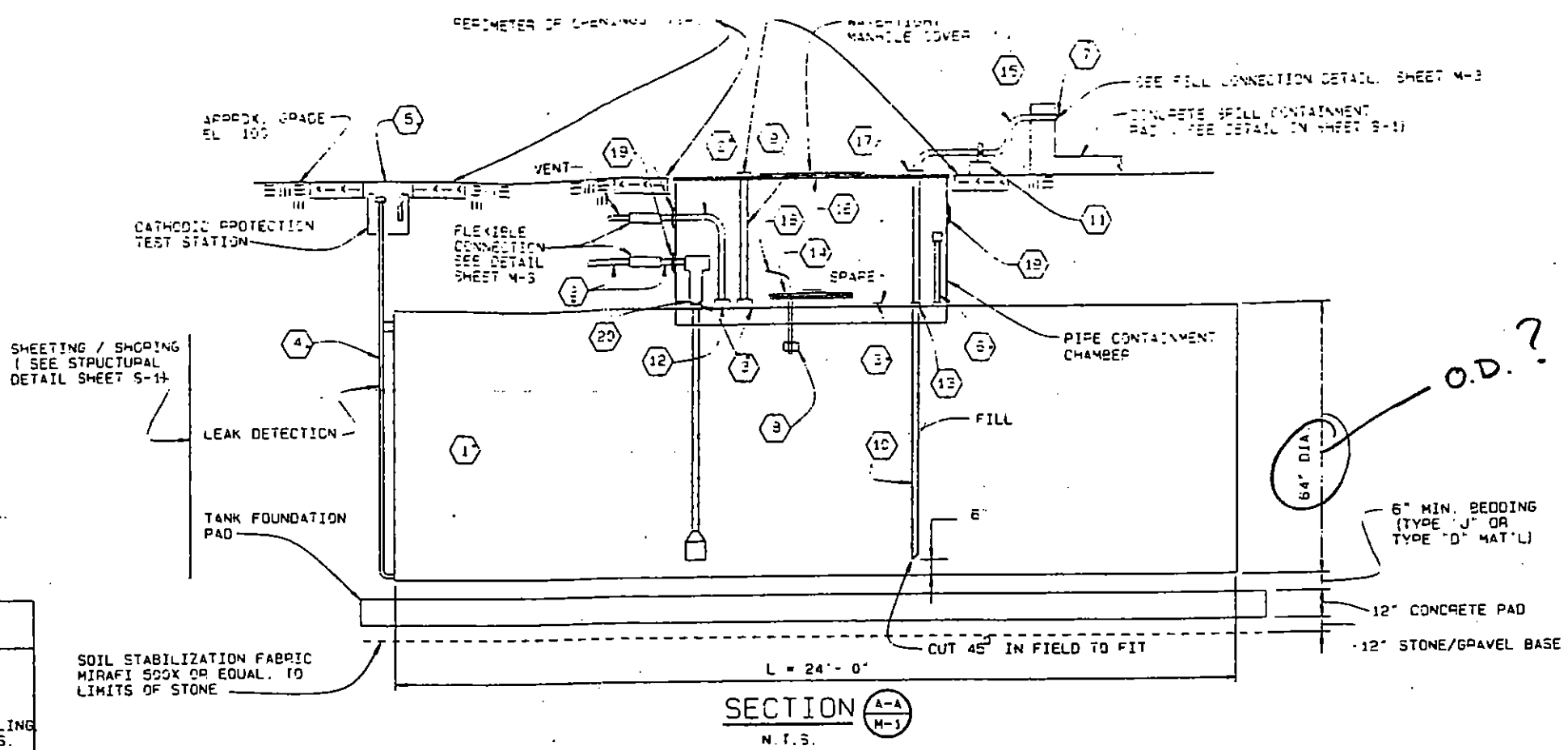
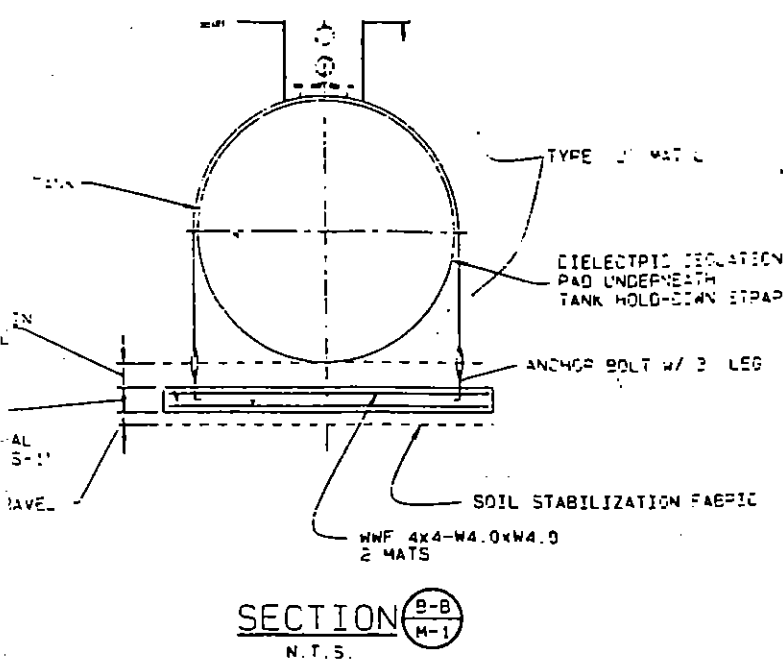
Verifying the pipe pit shall be double wall. Upon entering the pipe pit, the pipe shall be double wall.

Operations shall be in conformance with the liner manufacturers instructions.

Discharge from RW2 is scheduled to be discontinued before construction. This pipeline discharge is not discontinued, the Contractor shall route to the sanitary sewer.

The Contractor shall be responsible for verifying all pipe inverts in order to maintain a minimum slope of .4%.

The Contractor shall inspect the existing piping network before starting work. Any damage shall be immediately reported to Mobil Chemical Company.

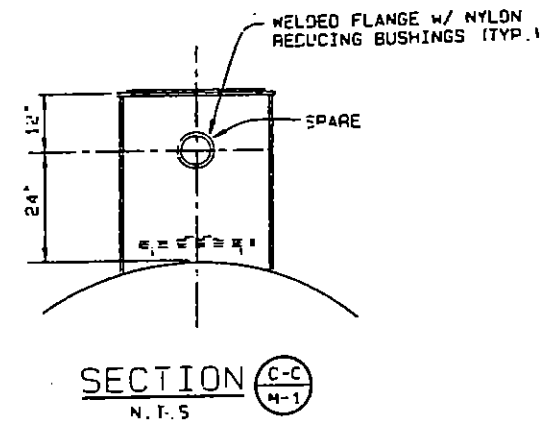
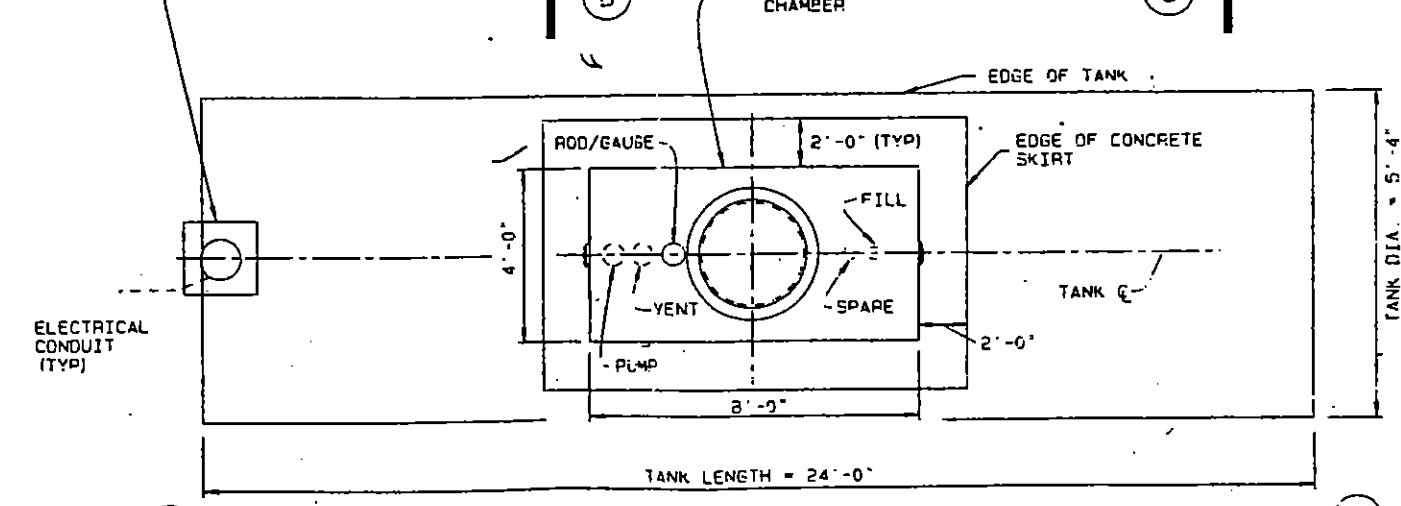


BILL OF MATERIALS

QUANTITY	DESCRIPTION
5 PER'D.	4000 GAL. UNDERGROUND TANK WITH PROTECTIVE COATING CATHODIC PROTECTION SYSTEM AND TESTING STATION UL APPROVED ELECTRICAL ISOLATION OF ALL OPENINGS. LIFTING LUGS, INTEGRAL PIPING CONTAINMENT CHAMBER, LABELING ETC AS SPECIFIED, SCHEDULED, AND SHOWN ON CONTRACT DWGS.
2/TANK	2" DIA. EPOXY RESIN PIPE AND FITTINGS, SUPPLY AND VENT WITH 3" DIA. EPOXY RESIN PIPE AND FITTINGS SECONDARY CONTAINMENT, SECONDARY CONTAINMENT PIPING TERMINATES AT CONNECTION TO PIPING CONTAINMENT CHAMBER.
1/TANK	5" TH'D. CONNECTION WITH 5" x 4" DIELECTRIC BUSHING PROVIDE TH'D PLUG ON SPARE CONNECTION.
1/TANK	2" DIA. STEEL LEAK DETECTION PROBE RISER, PROBE CONNECTION TO BE NEAR SURFACE, LEAK DETECTION PROBE TO BE POLLULERT MODEL FD221PA.
1/TANK	EMCO WHEATON SEALED MANHOLE MODEL #A719-002 OR APPROVED EQUAL
1/TANK	2" RISER PIPE TO BE INSTALLED AT LOW POINT IN FLOOR OF PIPING CONTAINMENT CHAMBER, RISER PIPE TO BE INSTALLED WITH LEAK DETECTION SENSOR PROBE, POLLULERT MODEL FD241PRA.
1/TANK	3" DIA. CAMLOCK DRY DISCONNECT FILL CONNECTIONS, MALE END, SUPPLY WITH DUST CAP CHAINED TO PIPING.
1/TANK	HIGH LEVEL ALARM SWITCH, GEMS MODEL LSP-54000 WITH KYNAR FLOAT AND STEM, SWITCH NO. 63725, OR APPROVED EQUAL.
1/TANK	4" DIA. SCHEDULE 30 TYPE 316L STAINLESS STEEL RISER LENGTH TO SUIT, RISERS TO BE ONE PIECE.
1/TANK	SEYFERTH MFG. INC. 3" DIA. SUBMERGED, REMOVABLE DROP TUBE, CUT IN FIELD TO LENGTH REQUIRED.
AS PER'D.	PIPE SUPPORTS FOR 3" DIA. FILL PIPES SEE DETAIL SHEET G-6.
1/TANK	3" DIA. HALF COUPLING WITH 3" x 2" DIELECTRIC BUSHING ON TOP
1/TANK	4" DIA. FULL COUPLING WITH 4" x 3" DIELECTRIC THREADED BUSHINGS ON EACH SIDE
1/TANK	24" I.D. TANK MANHOLE WITH HANDLES AND BOLTED COVER
AS PER'D.	3" DIA. THREADED GALVANIZED STEEL FILL PIPING AND FITTINGS
1/TANK	30" DIA. WATERTIGHT MANHOLE COVER AND GASKET, TO BE PROVIDED BY TANK MANUFACTURER.
1/TANK	WELDED FLANGED WITH 4" x 3" DIELECTRIC COUPLING
AS PER'D.	CABLE FOR HIGH LEVEL ALARM SWITCH, CONNECT TO HIGH LEVEL ALARM PANEL, INSTALL W/ SLACK IN CABLE FOR MANHOLE OPENING
3/TANK	WELDED FLANGE WITH 4" x 3" DIELECTRIC REDUCING BUSHINGS
1/TANK	RED JACKET DISMANTLEABLE PUMP MODEL LP23RI PROVIDED WITH RED JACKET INTEGRAL LEAK DETECTOR

double walled

LIMITS OF CROWN (TYP) 2'-0" MIN. BEYOND EDGE OF EACH OPENING.

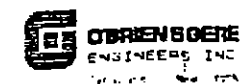


**SOLVENT TANK DETAILS
MOBIL CHEMICAL COMPANY
MACEDON, N.Y.**

NOT TO SCALE

*need w/for brochure
more details*

NO	DATE	REVISION	INIT



MOBIL CHEMICAL COMPANY
UNDERGROUND SOLVENT & WASTE STORAGE
TANK REPLACEMENT PROJECT
MACEDON, N.Y.

SOLVENT TANK DETAILS

FILE NO	24-14-206
DATE	11/14/06
BY	

M-1

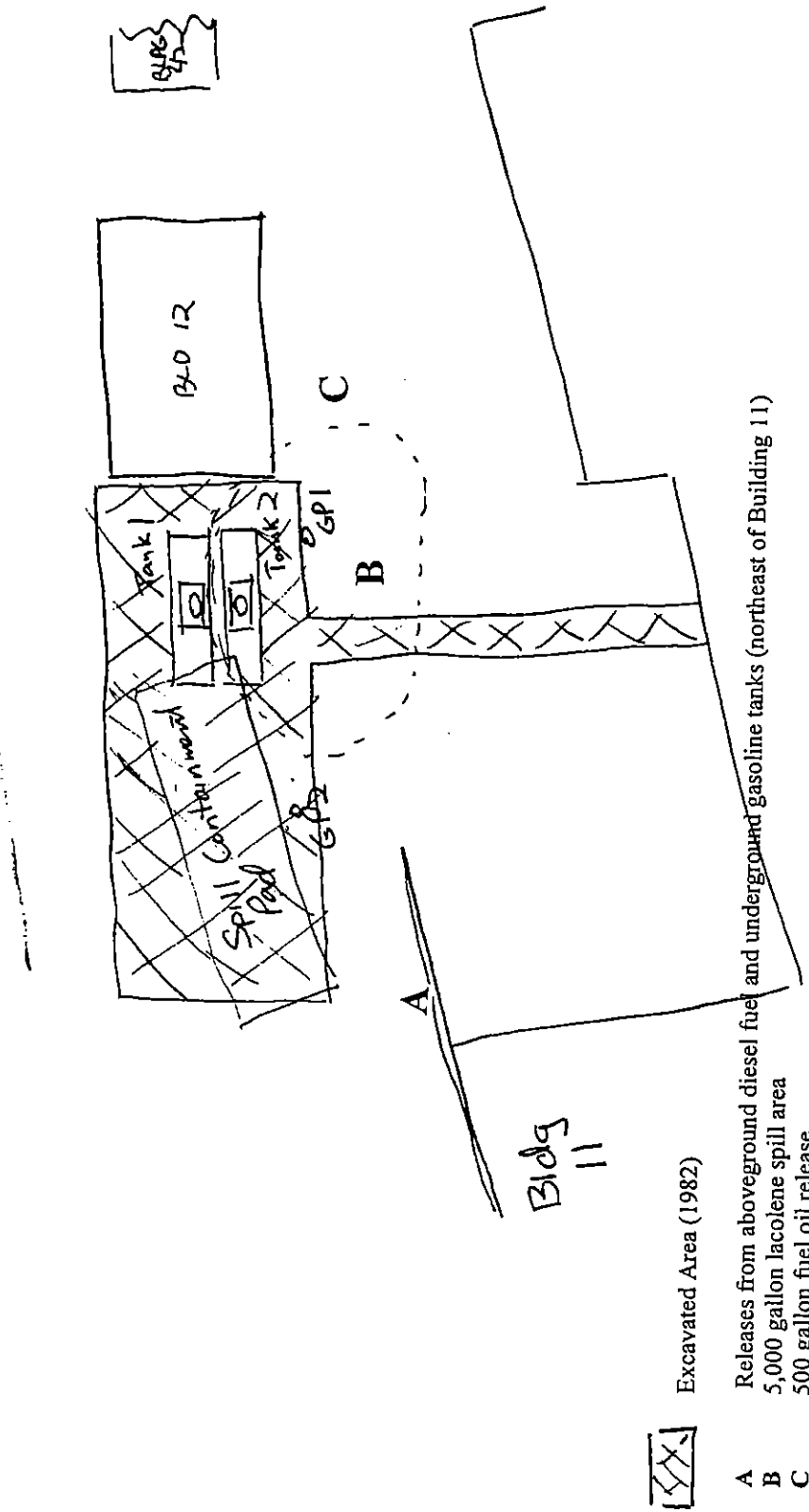
APPENDIX C
Schematic of Historical Hazardous Substance Releases Near UST Closure
And
Sample Locations

SITE SCHEMATIC
 Tank Closure Area and Approximate Location of Historical Releases
 Tenneco Packaging
 Macedon, NY

OLD ERIE CANAL



NOT TO SCALE



Excavated Area (1982)

- A Releases from aboveground diesel fuel and underground gasoline tanks (northeast of Building 11)
- B 5,000 gallon lacolene spill area
- C 500 gallon fuel oil release

APPENDIX D
Laboratory Results of Sample Analysis
And
Boring Logs

EXPRESSLAB

PO Box 40 5611 Water Street Middlesex NY 14507

Tel: (716) 354-3337

Tel: (800) THE LABS

Tel: (800) 443-5227

FAX: (716) 554-4114

SPECIALIZING IN ENVIRONMENTAL SOIL TESTS
NEW YORK STATE LABORATORY #11369

LABORATORY REPORT - METHOD 8270

Cust **MARCOR**
Address **52 MARWAY CIRCLE**
ROCHESTER, NY 14624

Attn:

Phone 247-6955
FAX 247-6852

PO Number:
Project Number **R8-02482-001**
Project Cust: **TENNECO**
Project Site: **TANK CLOSURE RD.**
Date FAXED:
Lab Director *WJW*

SAMPLE DEMOGRAPHICS AND TEST RESULTS

Results in bold type; Detection Limits in small print

Detection Limits* - Soil=mg/kg ppm

*See Individual Limit

Results shown are: **PAH COMPOUNDS**
Extraction Method: **EPA 3550 Sonication**
Analysis Method: **EPA 8270 GC/MS**

Sample ID (LAB)
Sample ID#1(CUST)
Sample ID#2(CUST)
Matrix
Sampled By
Date Sampled
Date Received
Date Analyzed
Date Reported

22415	
GP 1	
SOIL	
J. BRADSHAW	
11/16/98	10:00
11/16/98	10:20
11/23/98	
11/23/98	

Det Limit*(ppm)

Naphthalene	< DL(U)	0.17
Acenaphthylene	< DL(U)	0.17
Acenaphthene	< DL(U)	0.17
Fluorene	0.095J	0.17
Phenanthrene	0.713	0.17
Anthracene	0.212	0.17
Fluoranthene	2.036	0.17
Pyrene	1.773	0.17
Benzo(a)anthracene	0.511	0.17
Chrysene	0.671	0.17
Benzo(b)fluoranthene	0.658	0.17
Benzo(k)fluoranthene	0.380	0.17
Benzo(a)pyrene	0.361	0.17
Indeno(1,2,3-c,d)pyrene	< DL(U)	0.17
Dibenz(a,h)anthracene	< DL(U)	0.17
Benzo(g,h,i)perylene	< DL(U)	0.17

E=Exceeds calibration range

J=Detected above MDL, but below PQL

EXPRESSLAB

PO Box 40 5611 Water Street Middletown NY 14507

Tel: (716) 554-3347

Tel: (800) THE LABS

Tel: (800) 843-3227

FAX: (716) 554-4114

SPECIALIZING IN ENVIRONMENTAL SOIL TESTS
NEW YORK STATE LABORATORY #11369**LABORATORY REPORT - METHOD TPH**Cust **MARCOR**
Address **52 MARWAY CIRCLE**
ROCHESTER, NY 14624

Attn:

Phone **247-6955**
FAX **247-6852**

PO Number:

Project Number **R0-02482-001**Project Cust: **TENNECO**Project Site: **TANK CLOSURE RD.**

Date FAXED:

Lab Director

*WJ***SAMPLE DEMOGRAPHICS AND TEST RESULTS**

Results in bold type; Detection Limits in small print

Detection Limits* =

Soil=ug/kg ppb

*See Individual Limit

Water=ug/L ppb

Results shown are: **Volatile Organic Analytes**Extraction Method: **EPA 5030 Purge & Trap**Analysis Method: **EPA 8260 GC/MS**

Sample ID (LAB)

Sample ID#1(CUST)

Sample ID#2(CUST)

Matrix

Sampled By

Date Sampled

Date Received

Date Analyzed

Date Reported

22416	
GP 1	
WATER	
J. BRADSHAW	
11/16/98	10:30
11/18/98	10:20
11/18/98	
11/19/98	
Results	Det Limit*
13727	1000.0

TPH (Gas Range)

EXPRESSLAB

PO Box 40 5611 Water Street Middlesex NY 14507

Tel: (716) 534-3347

Tel: (800) THE LABS

Tel: (800) 843-3227

FAX: (716) 534-4114

SPECIALIZING IN ENVIRONMENTAL SOIL TESTS
NEW YORK STATE LABORATORY #11369

LABORATORY REPORT - METHOD 8260

Cust **MARCOR**
Address **52 MARWAY CIRCLE**
ROCHESTER, NY 14624

Attn:

Phone 247-6955

FAX 247-6852

PO Number:
Project Number **RO-02482-001**
Project Cust: **TENNECO**
Project Site: **TANK CLOSURE RD.**
Date FAXED:
Lab Director *W W*

SAMPLE DEMOGRAPHICS AND TEST RESULTS

Results in bold type; Detection Limits in small print

Detection Limits* = Soil=ug/kg ppb

*See Individual Limit Water=ug/L ppb

Results shown are: **Volatle Organic Analytes**

Extraction Method: **EPA 5030 Purge & Trap**

Analysis Method: **EPA 8260 GC/MS**

Sample ID (LAB)
Sample ID#1(CUST)
Sample ID#2(CUST)
Matrix
Sampled By
Date Sampled
Date Received
Date Analyzed
Date Reported

22417	
GP1	
WATER	
J. BRADSHAW	
11/16/98	10:30
11/18/98	10:20
11/18/98	
11/19/98	

	Results	Det Limit*		Results	Det Limit*
Dichlorodifluoromethane	< DL(U)	20.0	Carbon Tetrachloride	< DL(U)	20.0
Vinyl Chloride	< DL(U)	20.0	1,2-Dichloroethane	< DL(U)	20.0
Chloromethane	< DL(U)	80.0	Trichloroethene	< DL(U)	80.0
Bromomethane	< DL(U)	60.0	1,2-Dichloropropane	< DL(U)	20.0
Chloroethane	< DL(U)	50.0	Dibromomethane	< DL(U)	20.0
Trichlorofluoromethane	< DL(U)	20.0	Bromoform	< DL(U)	100.0
1,1-Dichloroethane	< DL(U)	20.0	Bromodichloromethane	< DL(U)	80.0
Methylene Chloride	< DL(U)	100.0	1,1,2,2-Tetrachloroethane	< DL(U)	100.0
trans-1,2-Dichloroethene	< DL(U)	20.0	Benzene	< DL(U)	40.0
Methyl-tert-butyl ether	< DL(U)	80.0	cis-1,3-Dichloropropene	< DL(U)	20.0
1,1-Dichloroethane	< DL(U)	20.0	Toluene	< DL(U)	50.0
2,2-Dichloropropane	< DL(U)	80.0	trans-1,3-Dichloropropene	< DL(U)	20.0
cis-1,2-Dichloroethene	< DL(U)	20.0	1,1,2-Trichloroethane	< DL(U)	80.0
Methyl ethyl ketone	< DL(U)	400.0	Tetrachloroethane	< DL(U)	20.0
Bromochloromethane	< DL(U)	20.0	1,3-Dichloropropane	< DL(U)	20.0
Chloroform	< DL(U)	50.0	Dibromochloromethane	< DL(U)	80.0
1,1,1-Trichloroethane	< DL(U)	20.0	1,2-Dibromoethane	< DL(U)	80.0
1,1-Dichloropropene	< DL(U)	20.0	Ethylbenzene	< DL(U)	20.0

* DL = Detection Limit

EXPRESSLAB

PO Box 40 5611 Water Street Middlesex NY 14507

Tel: (716) 354-3347

Tel: (800) THE LABS

Tel: (800) 843-3227

FAX: (716) 354-4114

SPECIALIZING IN ENVIRONMENTAL SOIL TESTS
NEW YORK STATE LABORATORY #11369

LABORATORY REPORT - METHOD 8260

Cust **MARCOR**
Address **52 MARWAY CIRCLE**
ROCHESTER, NY 14624

Attn:

Phone **247-6955**
FAX **247-6852**

PO Number:
Project Number **R0-02482-001**
Project Cust: **TENNECO**
Project Site: **TANK CLOSURE RD.**
Date FAXED:
Lab Director *W W*

SAMPLE DEMOGRAPHICS AND TEST RESULTS

Results in bold type; Detection Limits in small print

Detection Limits* =

Soil=ug/kg ppb

*See Individual Limit

Water=ug/L ppb

Results shown are: **Volatile Organic Analytes**

Extraction Method: **EPA 5030 Purge & Trap**

Analysis Method: **EPA 8260 GC/MS**

Sample ID (LAB)
Sample ID#1(CUST)
Sample ID#2(CUST)
Matrix
Sampled By
Date Sampled
Date Received
Date Analyzed
Date Reported

22417	
GPI	
WATER	
J. BRADSHAW	
11/16/98	10:30
11/18/98	10:20
11/18/98	
11/19/98	

	Results	Det Limit*		Results	Det Limit*
m&p-Xylene	< DL(U)	40.0	1,2-Dichlorobenzene	< DL(U)	20.0
o-Xylene	< DL(U)	20.0	n-Butylbenzene	476.0	20.0
Styrene	< DL(U)	20.0	1,2-Dibromo-3-chloropropane	< DL(U)	100.0
Isopropylbenzene	38.4	20.0	1,2,4-Trichlorobenzene	< DL(U)	40.0
n-Propylbenzene	84.8	20.0	Hexachlorobutadiene	24.8	20.0
1,3,5-Trimethylbenzene	< DL(U)	20.0	Naphthalene	218.6	100.0
tert-Butylbenzene	33.8	20.0	1,2,3-Trichlorobenzene	< DL(U)	100.0
1,2,4-Trimethylbenzene	29.4	20.0			
sec-Butylbenzene	185.9	20.0			
Chlorobenzene	< DL(U)	20.0			
1,1,1,2-Tetrachloroethane	< DL(U)	60.0			
Bromobenzene	< DL(U)	20.0			
1,2,3-Trichloropropane	< DL(U)	20.0			
2-Chlorotoluene	< DL(U)	20.0			
4-Chlorotoluene	< DL(U)	20.0			
1,3-Dichlorobenzene	< DL(U)	20.0			
4-Isopropyltoluene	148.1	20.0			
1,4-Dichlorobenzene	< DL(U)	20.0			

< DL(U) = analyzed but not detected

L = estimated value

B = analyte found in blank

E = exceed calibration range

* DL = Detection Limit

EXPRESSLAB

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Tel: (800) THE LABS

Tel: (800) 843-5227

FAX: (716) 554-4114

SPECIALIZING IN ENVIRONMENTAL SOIL TESTS
NEW YORK STATE LABORATORY #11369

LABORATORY REPORT - METHOD 8270

Cust **MARCOR**
Address **52 MARWAY CIRCLE**
ROCHESTER, NY 14624

Attn:

Phone 247-6955
FAX 247-6852

PO Number:
Project Number **R0-02482-001**
Project Cust: **TENNECO**
Project Site: **TANK CLOSURE RD.**
Date FAXED:
Lab Director *[Signature]*

SAMPLE DEMOGRAPHICS AND TEST RESULTS

Results in bold type; Detection Limits in small print

Detection Limits* = Soil=mg/kg ppm

*See Individual Limit

Results shown are: **PAH COMPOUNDS**

Extraction Method: **EPA 3550 Sonication**

Analysis Method: **EPA 8270 GC/MS**

Sample ID (LAB)
Sample ID#1(CUST)
Sample ID#2(CUST)
Matrix
Sampled By
Date Sampled
Date Received
Date Analyzed
Date Reported

22418	
GP 2	
SOIL	
J. BRADSHAW	
11/16/98	14:00
11/18/98	10:20
11/20/98	
11/23/98	

Det Limit*(ppm)

Naphthalene	0.083J	0.17
Acenaphthylene	<DL(U)	0.17
Acenaphthene	<DL(U)	0.17
Fluorene	0.204	0.17
Phenanthrene	0.292	0.17
Anthracene	0.068J	0.17
Fluoranthene	<DL(U)	0.17
Pyrene	<DL(U)	0.17
Benzo(a)anthracene	<DL(U)	0.17
Chrysene	<DL(U)	0.17
Benzo(b)fluoranthene	<DL(U)	0.17
Benzo(k)fluoranthene	<DL(U)	0.17
Benzo(a)pyrene	<DL(U)	0.17
Indano(1,2,3-c,d)pyrene	<DL(U)	0.17
Dibenz(a,h)anthracene	<DL(U)	0.17
Benzo(g,h,i)perylene	<DL(U)	0.17

E=Exceeds calibration range

J=Detected above MDL, but below PQL

EXPRESSLAB

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Tel: (800) THE LABS

Tel: (800) 843-5227

FAX: (716) 554-4114

SPECIALIZING IN ENVIRONMENTAL SOIL TESTS
NEW YORK STATE LABORATORY #11369

LABORATORY REPORT - METHOD TPH

Cust **MARCOR**
Address **52 MARWAY CIRCLE**
ROCHESTER, NY 14624

Attn:

Phone **247-6955**
FAX **247-6852**

PO Number:
Project Number **R0-02482-001**
Project Cust: **TENNECO**
Project Site: **TANK CLOSURE RD.**
Date FAXED:
Lab Director *WJW*

SAMPLE DEMOGRAPHICS AND TEST RESULTS

Results in bold type; Detection Limits in small print

Detection Limits* = Soil-ug/kg ppb
*See Individual Limit Water-ug/L ppb

Results shown are: **Volatile Organic Analytes**
Extraction Method: **EPA 5030 Purge & Trap**
Analysis Method: **EPA 8260 GC/MS**

Sample ID (LAB)
Sample ID#1(CUST)
Sample ID#2(CUST)

Matrix

Sampled By

Date Sampled

Date Received

Date Analyzed

Date Reported

27419	
GP 2	
WATER	
J. BRADSHAW	
11/16/98	14:30
11/18/98	10:20
11/18/98	
11/19/98	
Results	Det Limit*
144300	10000.0

TPH (Gas Range)

EXPRESSLAB

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SPECIALIZING IN ENVIRONMENTAL SOIL TESTS
NEW YORK STATE LABORATORY #11369

LABORATORY REPORT - METHOD 8260

Cust **MARCOR**
Address **52 MARWAY CIRCLE**
ROCHESTER, NY 14624

Attn:

Phone 247-6955
FAX 247-6852

PO Number:
Project Number **RO-02482-001**
Project Cust: **TENNECO**
Project Site: **TANK CLOSURE RD.**
Date FAXED:
Lab Director *WJW*

SAMPLE DEMOGRAPHICS AND TEST RESULTS

Results in bold type; Detection Limits in small print

Detection Limits* - Soil=ug/kg ppb

*See Individual Limit Water=ug/L ppb

Results shown are: **Volatile Organic Analytes**

Extraction Method: **EPA 5030 Purge & Trap**

Analysis Method: **EPA 8260 GC/MS**

Sample ID (LAB)
Sample ID#1(CUST)
Sample ID#2(CUST)
Matrix
Sampled By
Date Sampled
Date Received
Date Analyzed
Date Reported

22420	
GP 3	
WATER	
J. BRADSHAW	
11/16/98	14:30
11/18/98	16:30
11/18/98	
11/19/98	

Dichlorodifluoromethane
Vinyl Chloride
Chloromethane
Bromomethane
Chloroethane
Trichlorofluoromethane
1,1-Dichloroethene
Methylene Chloride
trans-1,3-Dichloroethene
Methyl-tert-butyl ether
1,1-Dichloroethane
2,2-Dichloropropane
cis-1,2-Dichloroethane
Methyl ethyl ketone
Bromochloromethane
Chloroform
1,1,1-Trichloroethane
1,1-Dichloropropane

Results	Det Limit*	
< DL(U)	20.0	Carbon Tetrachloride
< DL(U)	20.0	1,2-Dichloroethane
< DL(U)	90.0	Trichloroethene
< DL(U)	60.0	1,2-Dichloropropane
< DL(U)	50.0	Dibromomethane
< DL(U)	20.0	Bromoform
< DL(U)	20.0	Bromodichloromethane
< DL(U)	200.0	1,1,2-Tetrachloroethane
< DL(U)	20.0	Benzene
< DL(U)	30.0	cis-1,3-Dichloropropene
< DL(U)	20.0	Toluene
< DL(U)	80.0	trans-1,3-Dichloropropene
< DL(U)	20.0	1,1,2-Trichloroethane
< DL(U)	400.0	Tetrachloroethane
< DL(U)	20.0	1,3-Dichloropropane
158.0	20.0	Dibromochloromethane
< DL(U)	20.0	1,2-Dibromomethane
< DL(U)	20.0	Ethylbenzene

Results	Det Limit*
< DL(U)	20.0
< DL(U)	20.0
< DL(U)	80.0
< DL(U)	20.0
< DL(U)	20.0
< DL(U)	100.0
< DL(U)	80.0
< DL(U)	100.0
< DL(U)	40.0
< DL(U)	20.0
< DL(U)	50.0
< DL(U)	20.0
< DL(U)	80.0
< DL(U)	20.0
< DL(U)	20.0
< DL(U)	80.0
< DL(U)	20.0

* DL = Detection Limit

EXPRESSLAB

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SPECIALIZING IN ENVIRONMENTAL SOIL TESTS
NEW YORK STATE LABORATORY #11369

LABORATORY REPORT - METHOD 8260

Cust **MARCOR**
Address **52 MARWAY CIRCLE**
ROCHESTER, NY 14624

Attn:

Phone **247-6955**
FAX **247-6852**

PO Number:
Project Number **R0-02482-001**
Project Cust: **TENNECO**
Project Site: **TANK CLOSURE RD.**
Date FAXED:
Lab Director *WJW*

SAMPLE DEMOGRAPHICS AND TEST RESULTS

Results in bold type; Detection Limits in small print
Detection Limits* = Soil=ug/kg ppb
*See Individual Limit Water=ug/L ppb

Results shown are: **Volatile Organic Analytes**
Extraction Method: **EPA 5030 Purge & Trap**
Analysis Method: **EPA 8260 GC/MS**

Sample ID (LAB)
Sample ID#1(CUST)
Sample ID#2(CUST)
Matrix
Sampled By
Date Sampled
Date Received
Date Analyzed
Date Reported

22420	
GP 2	
WATER	
J. BRADSHAW	
11/16/98	14:30
11/18/98	10:20
11/18/98	
11/19/98	

m&p-Xylene
o-Xylene
Styrene
Isopropylbenzene
n-Propylbenzene
1,3,5-Trimethylbenzene
tert-Butylbenzene
1,2,4-Trimethylbenzene
sec-Butylbenzene
Chlorobenzene
1,1,1,2-Tetrachloroethane
Bromobenzene
1,2,3-Trichloropropane
2-Chlorotoluene
4-Chlorotoluene
1,3-Dichlorobenzene
4-Isopropyltoluene
1,4-Dichlorobenzene

Results	Det Limit*	Results	Det Limit*
< DL(U)	40.0	1,2-Dichlorobenzene	< DL(U) 20.0
< DL(U)	20.0	n-Butylbenzene	560.6 20.0
< DL(U)	20.0	1,2-Dibromo-3-chloropropane	< DL(U) 100.0
< DL(U)	20.0	1,2,4-Trichlorobenzene	< DL(U) 40.0
101.3	20.0	Hexachlorobutadiene	< DL(U) 20.0
217.5	20.0	Naphthalene	317.7 100.0
< DL(U)	20.0	1,2,3-Trichlorobenzene	< DL(U) 100.0
311.7	20.0		
48.6	20.0		
< DL(U)	20.0		
< DL(U)	60.0		
< DL(U)	20.0		
< DL(U)	20.0		
< DL(U)	20.0		
< DL(U)	20.0		
462.4	20.0		
< DL(U)	20.0		

< DL(U) = analyzed but not detected
L = estimated value
B = analyte found in blank
E = exceed calibration range

* DL = Detection Limit

MARCOR

3 Days 11:30

CHAIN OF CUSTODY

LABORATORY NUMBER

20640

CLIENT
TEJUECO

PROJECT NAME & NUMBER
TANK

TEJUECO - CANTON RO. 02883-001

SAMPLE PROPERTIES	DATE	TIME	OCCUP. QUANT	SAMPLING LOCATION	NUMBER OF CONTAINERS	TYPE OF ANALYSIS			DEPTH TO WATER	GROUNDWATER ELEVATION	SAMPLING SAMPLES & COMMENTS
						8015	480	8270			
1LE	11-16-98	10:00	X	GP1	1	X			11.5		SOIL - GP1 1
M1		10:30	X	GP1	1	X					WATER - GP1-H2O
1LE		14:00	X	GP2	1		X				WATER - GP1-H2O
M1		14:30	X	GP2	1	X					SOIL - GP2
M1		14:30	X	GP2	1	X					WATER - GP2-H2O
M1		14:30	X	GP2	1		X				WATER - GP2-H2O

22415

22419

MANILLA

22416

22420

MANILLA COPY

22417

MANILLA COPY

22418

MANILLA COPY

SAMPLED BY: J BRADSHAW

PROJECT MANAGER: S. STOCKMASTER

RELINQUISHED BY:

RECEIVED BY:

NO.	DATE	TIME	NO.	DATE	TIME	NO.	DATE	TIME
1	11-16-98	17:00	2	11-17-98	4:38	3		
	11-17-98	4:30		11-17-98	4:48			
			4					

METHOD OF SHIPMENT:

PREPARED AT LABORATORY BY:

11/18/98

MARCOR Remediation Inc. Environmental Contractors 52 Marway Circle Rochester, NY 14624 Phone (716) 247-8855 Fax (716) 247-8852	Log of Boring		Sheet 1 of 1
			Job Number: RO-02482-001
			Elevation:

Driller: J BRADSHAW	Drilling	Date	Time
Drill Method: GEOPROBE	Started	11.16.98	1300
Sample Method: MALLO CORE	Finished	11.16.98	1400
Borehole Diameter: 2.5"	Water Level: 6.5'	Logged By: J. BRADSHAW	Checked By:

Sample No.	Recovery (in.)	Sample Type	PID/FID	Depth (feet)	Graphic Log	Materials Description	Moisture
0-2	18		0	1		BROWN SILT AND MP SAND	
2-4	18		0	2		SOME MP GRAVEL	
4-8	24		0	3			
8-8	24		16.5	4		LIGHT BROWN SILT AND MP SAND	
8-10	24		97.7	5			
10-12	24		109.2	6		BROWN SILT AND MP SAND	SLIGHT MOISTURE
				7		BROWN SILT, SOME F SAND GREY STAINING - ODOR	
				8		BROWN SILT AND MP SAND	MOIST
				9			
				10		BROWN SILT AND P SAND BLACK STAINING - ODOR	SATURATED
				11		BROWN SILT AND MP SAND SOME MP GRAVEL BLACK STAINING - ODOR	
				12		BROWN SILT AND VERY F SAND GREY STAINING - ODOR	
				13			
				14			
				15			
				16			
				17			
				18			
				19			
				20			

MARCOR Remediation Inc. Environmental Contractors 62 Marway Circle Rochester, NY 14624 Phone (716) 247-8855 Fax (716) 247-8852	Log of Boring		Sheet 1 of 1
			Job Number: RO-0282-001
			Elevation:

Driller: <u>J BRADSHAW</u>	Drilling	Date	Time
Drill Method: <u>GEOPROBE - MACRO CORE</u>	Started	<u>11.16.98</u>	<u>0900</u>
Sample Method: <u>MACRO CORE</u>	Finished	<u>11.16.98</u>	<u>1000</u>
Borehole Diameter: <u>2.5"</u>	Water Level: <u>11.5'</u>	Logged By: <u>J BRADSHAW</u>	Checked By:

Sample No.	Recovery (in.)	Sample Type	PID/FID	Depth (feet)	Graphic Log	Materials Description	Moisture
0-2	18		0	1		BROWN SILT AND MF SANDS AND MF GRAVEL	
2-4	18		1.7	2			
4-8	18		8.6	3			
6-8	18		9.5	4			
8-10	24		2.4	5			
10-12	24		122.8	6		BROWN SILT AND MF SANDS ■ <u>SOME MF GRAVEL</u>	
				7			
				8			
				9			
				10			
				11		BROWN SILT AND CLAY SOME MF GRAVEL BLACK STAINING ODOOR	
				12			
				13			
				14			
				15			
				16			
				17			
				18			
				19			
				20			

APPENDIX E
Photographs

Tenneco Packaging
200 Main Street
Macedon, NY

Tank Closure
Photographs and Log
November 16-20, 1998

Photo #	Date	Description
1	11/16/98	Site setup which shows location of tanks, piping, vents, and first Geoprobe [®] sample location.
2	11/16/98	Site setup.
3	11/16/98	Geoprobe [®] sample location number two.
4	11/16/98	Sample core from location number two.
5	11/16/98	View from inside Tank 1.
6	11/16/98	View from inside Tank 1.
7	11/16/98	View from inside Tank 1.
8	11/16/98	View from inside Tank 1.
9	11/16/98	View from inside Tank 1.
10	11/16/98	View from inside Tank 2.
11	11/16/98	View from inside Tank 2.
12	11/16/98	View from inside Tank 2.
13	11/16/98	View from inside Tank 2.
14	11/16/98	View from inside Tank 2.
15	11/16/98	View from inside Tank 2.
16	11/16/98	Tank entry setup.
17	11/16/98	Inside of Tank 2 view from above.
18	11/16/98	Inside of Tank 2 view from above.
19	11/17/98	Flowable fill being added to tank.
20	11/17/98	Flowable fill being added to tank.
21	11/20/98	Topped off with concrete.
22	11/20/98	Tanks filled in place and all piping removed.



(1)



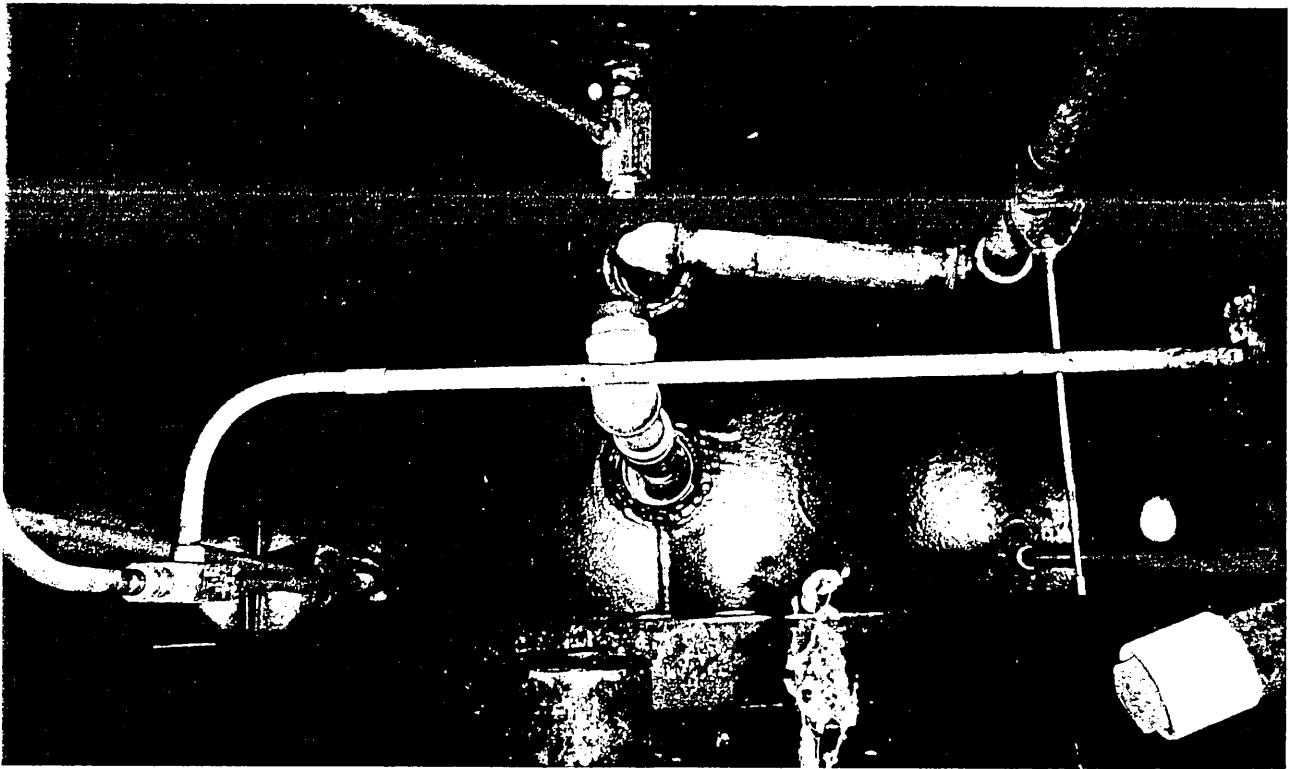
(2)



(3)



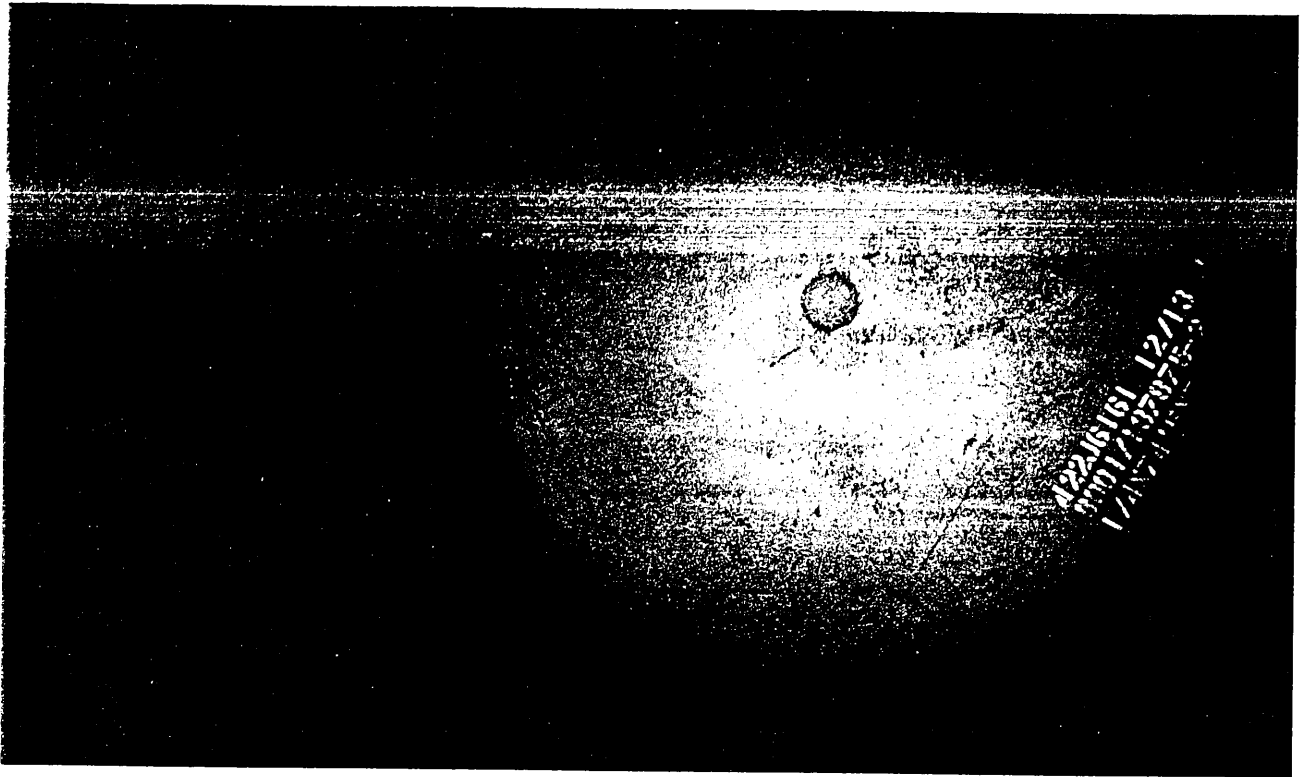
(4)



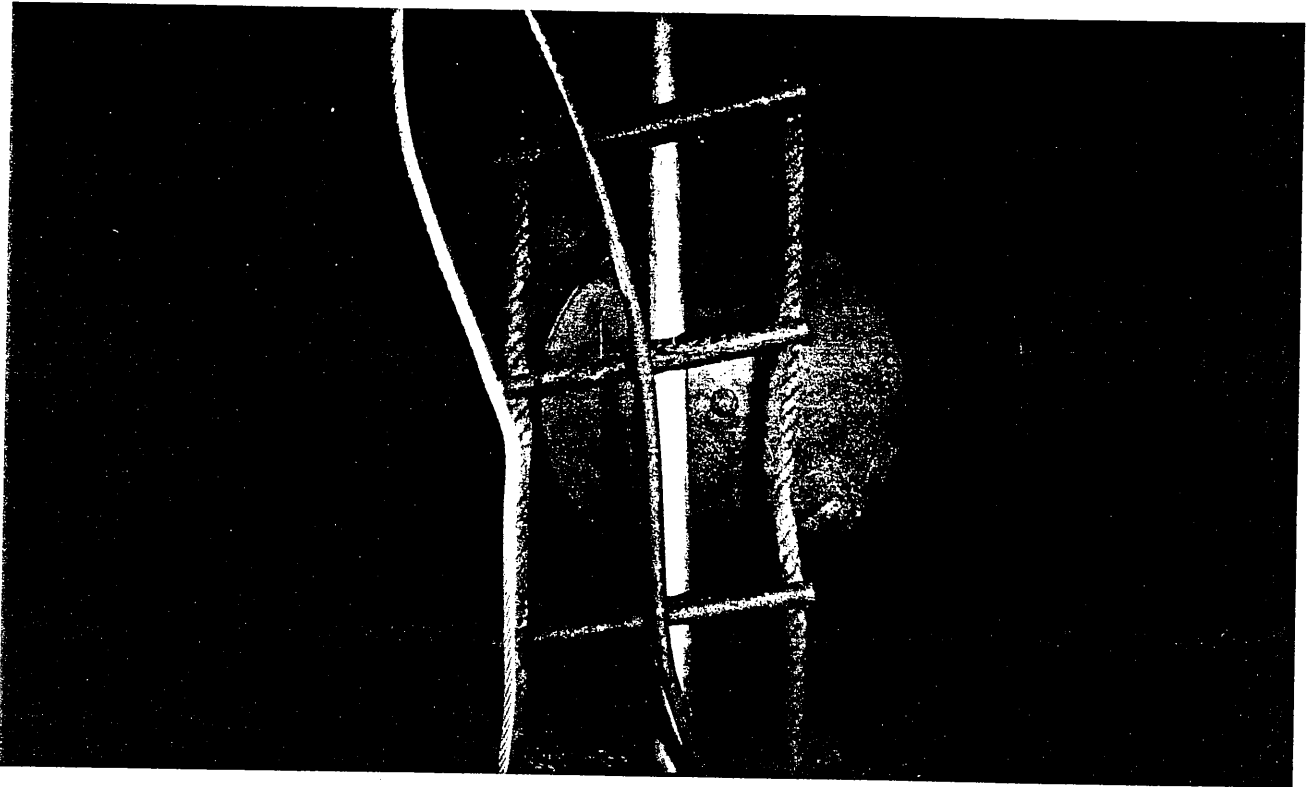
(5)



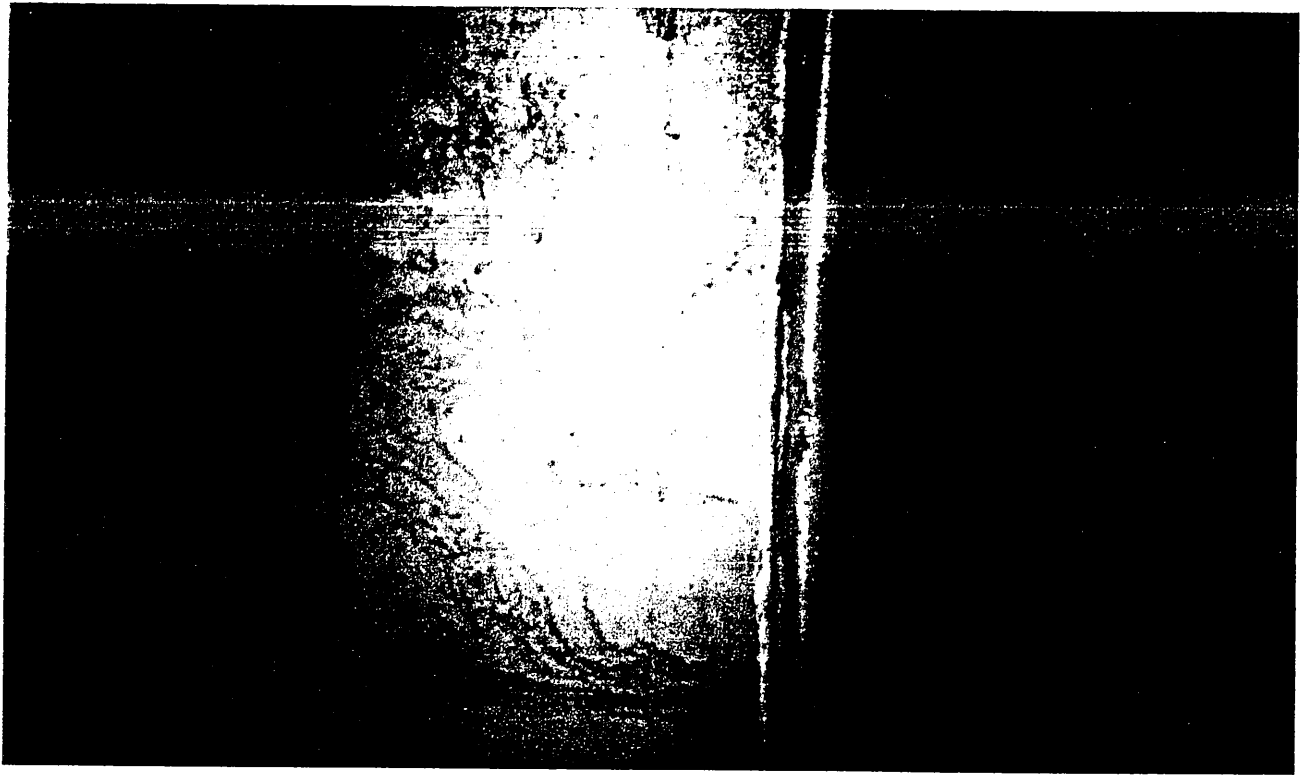
(6)



(7)



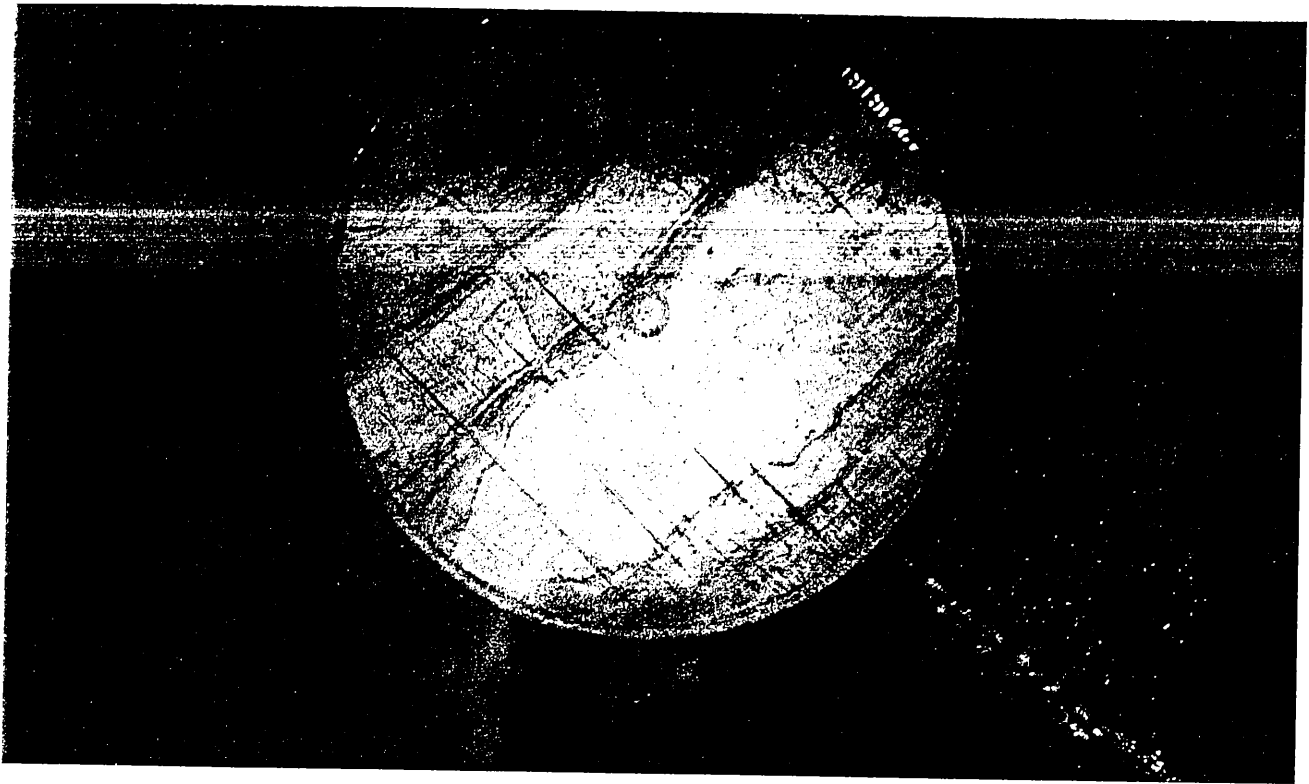
(8)



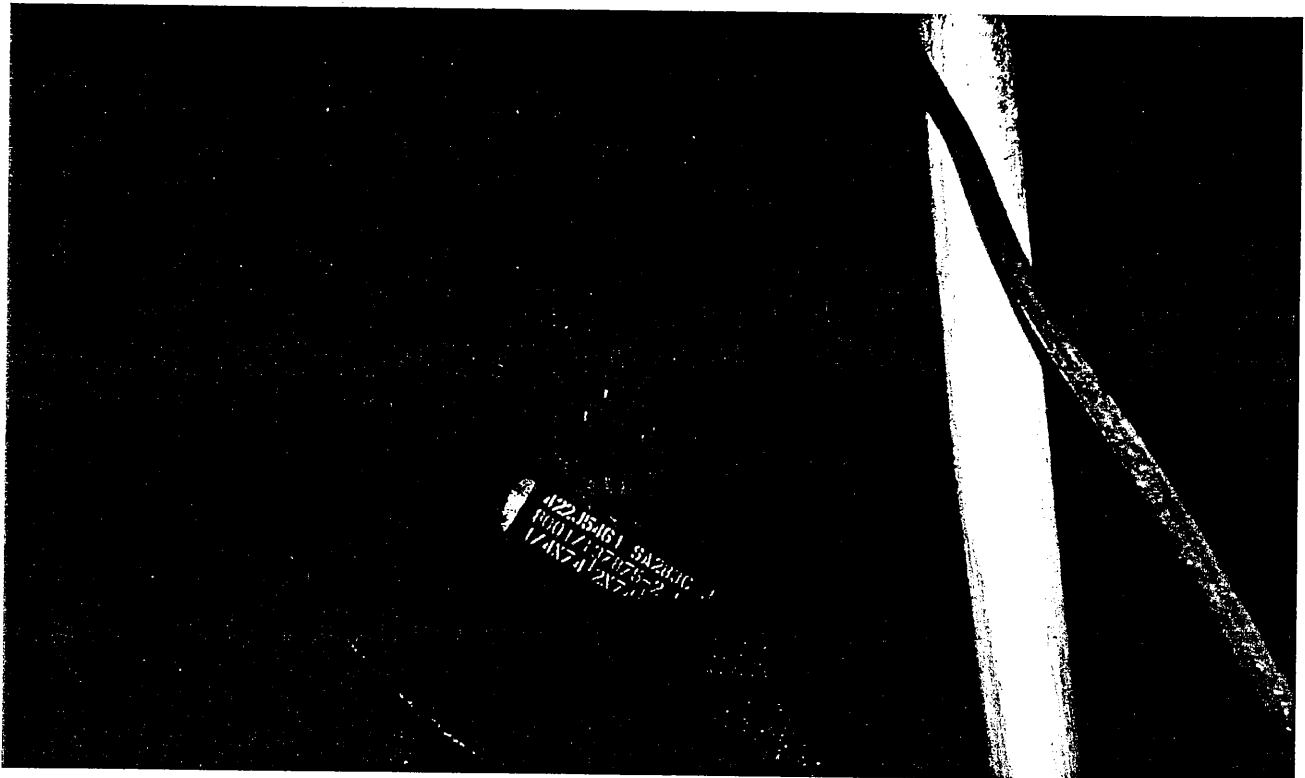
(9)



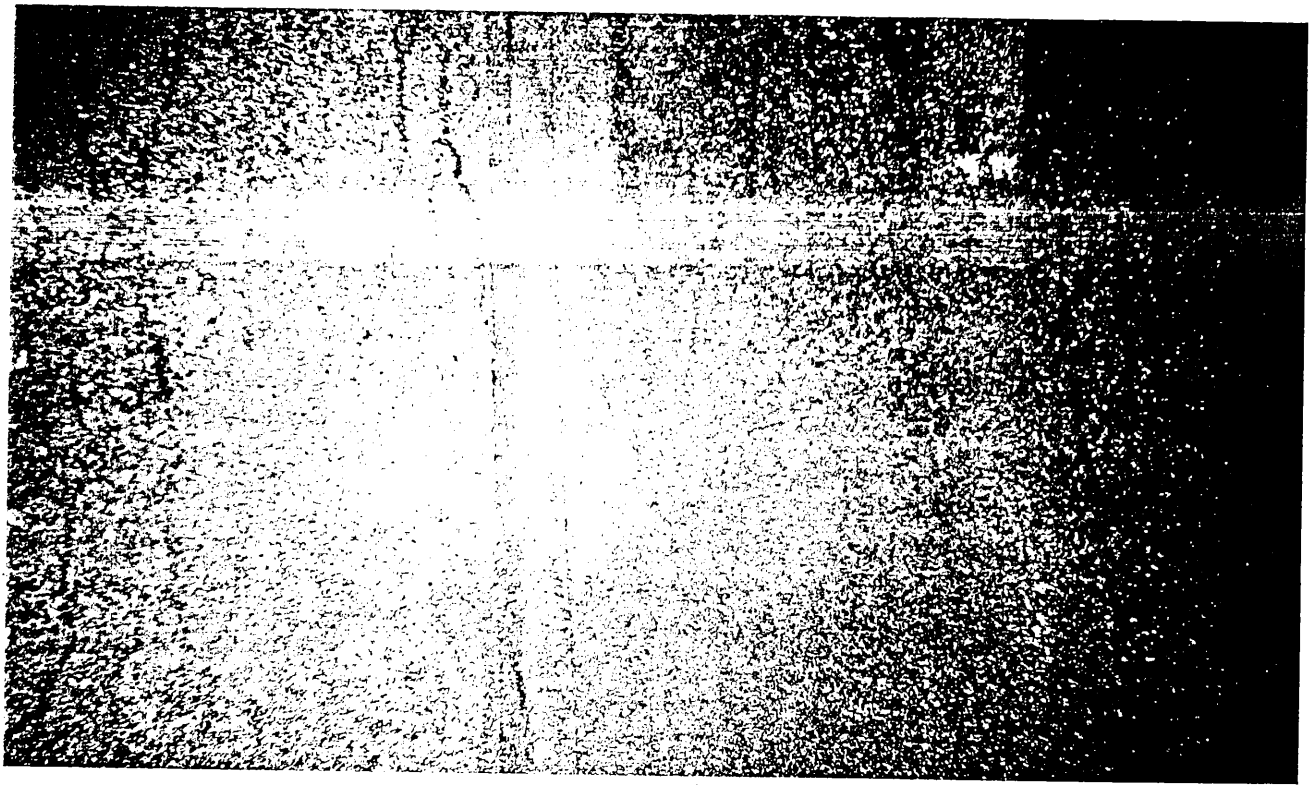
(10)



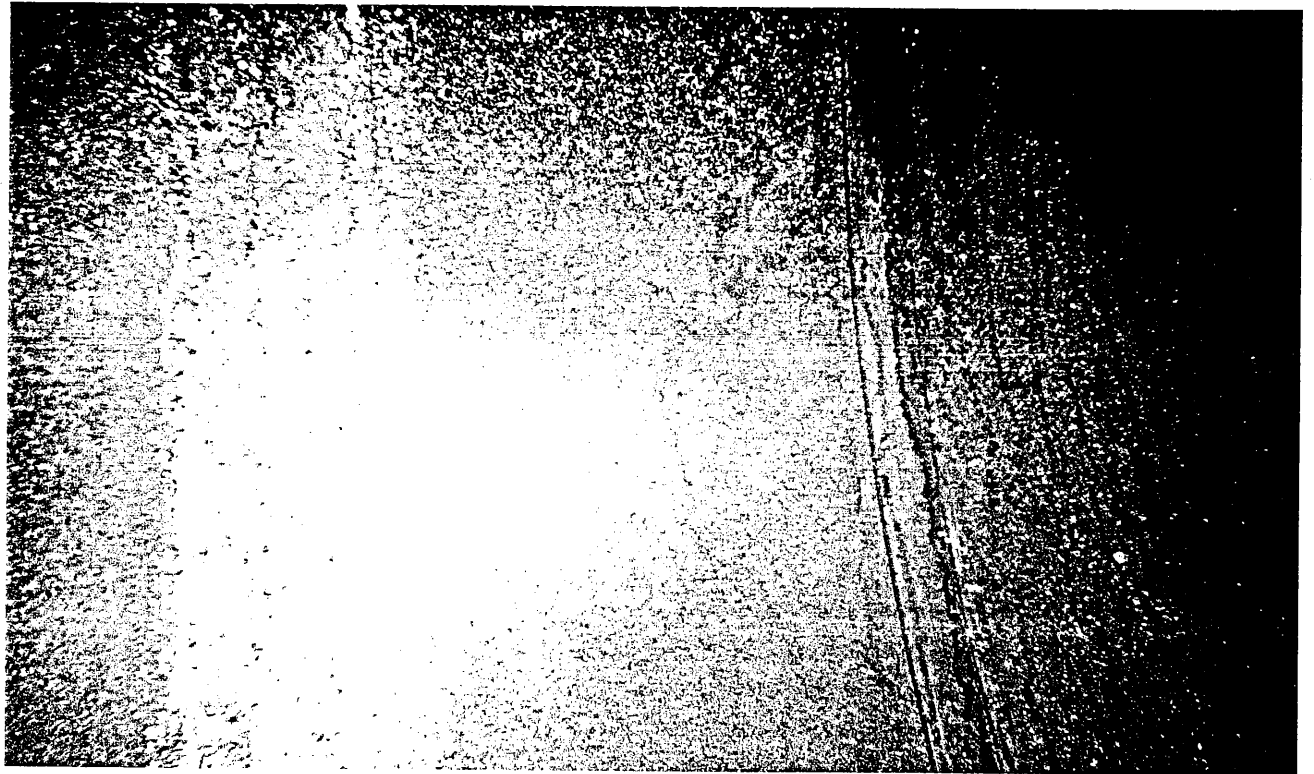
(11)



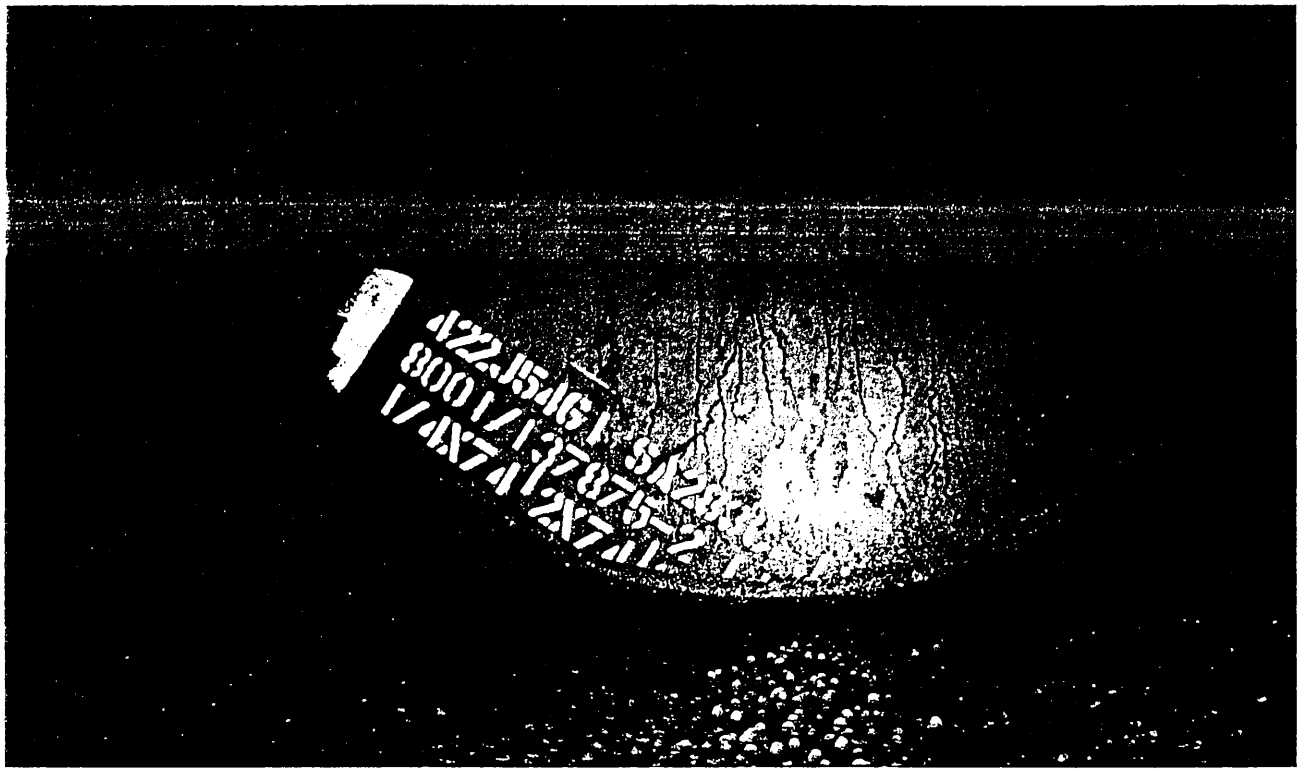
(12)



(13)



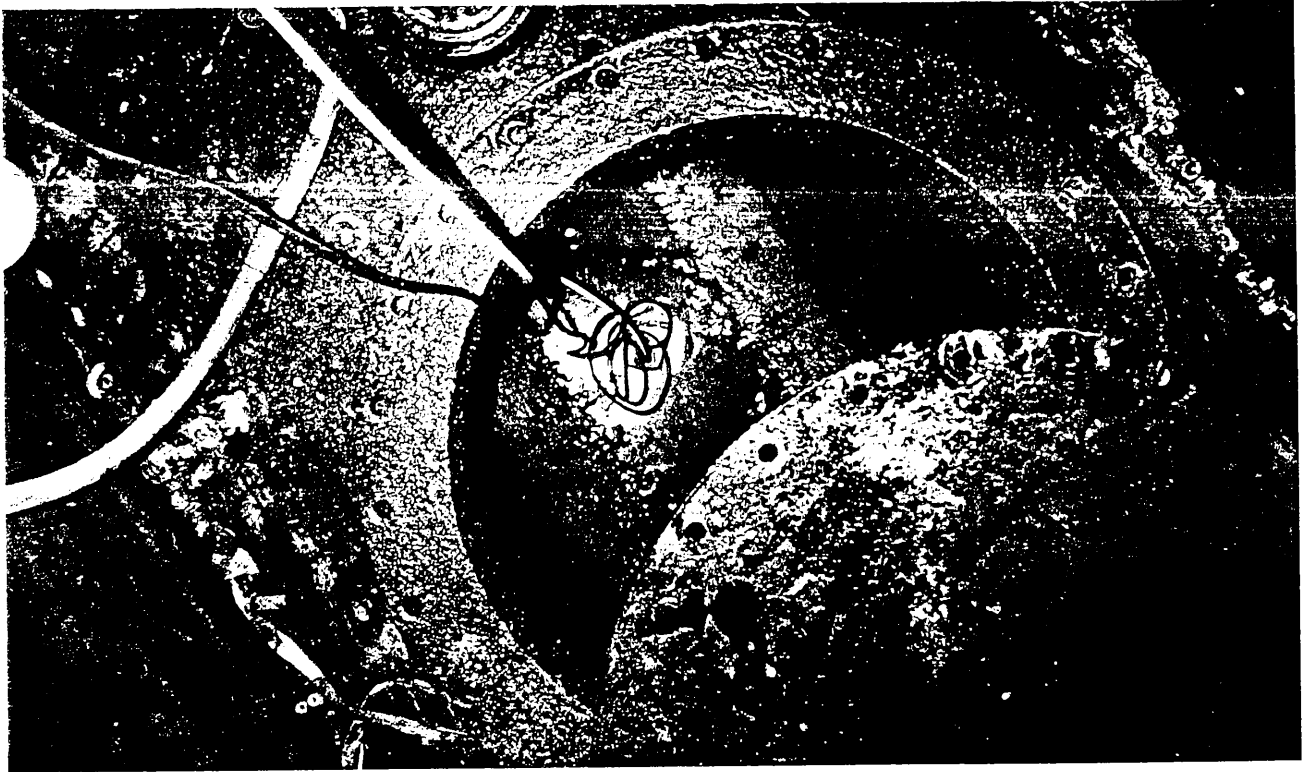
(14)



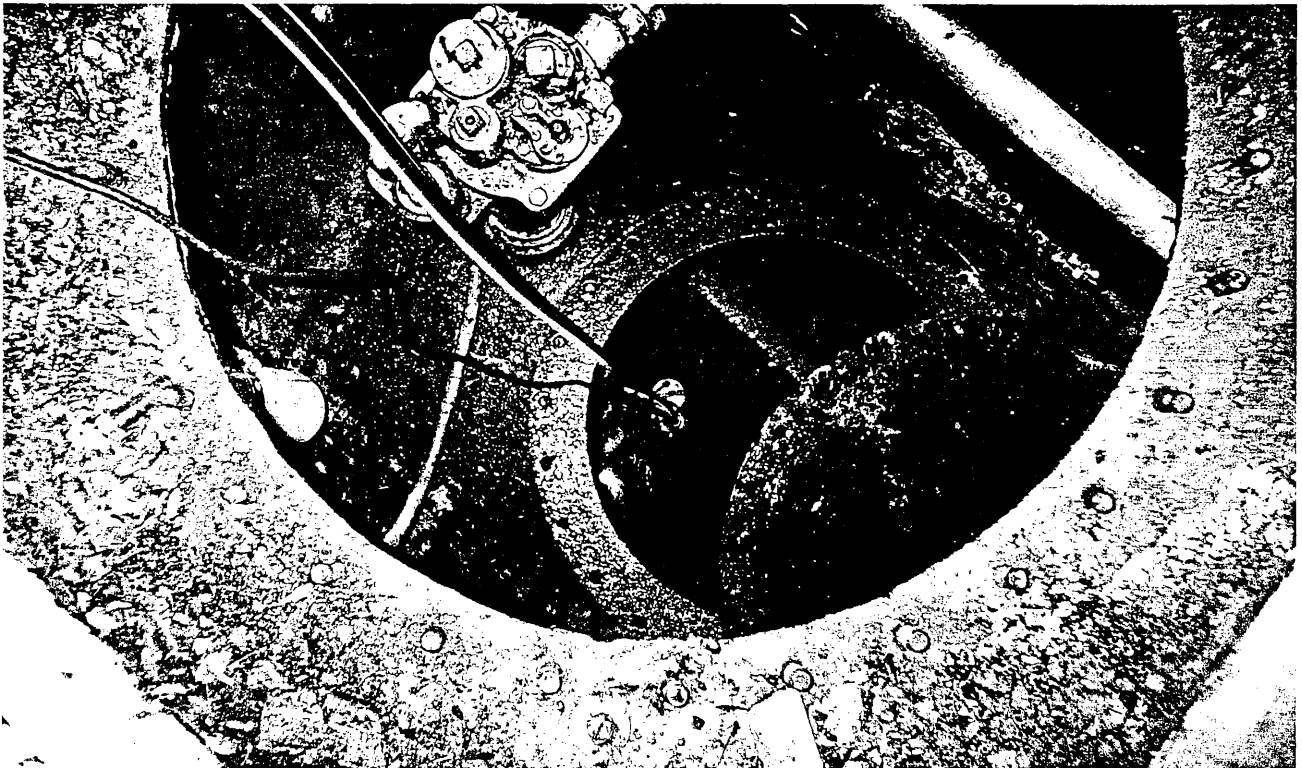
(15)



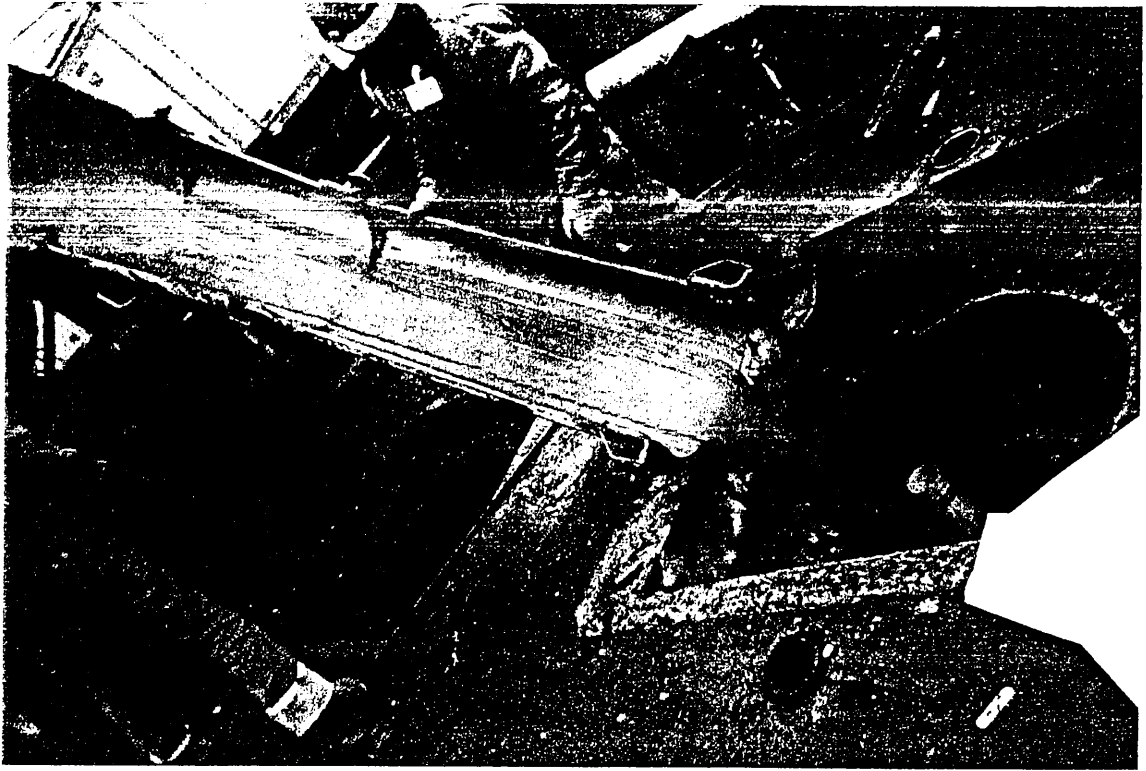
(16)



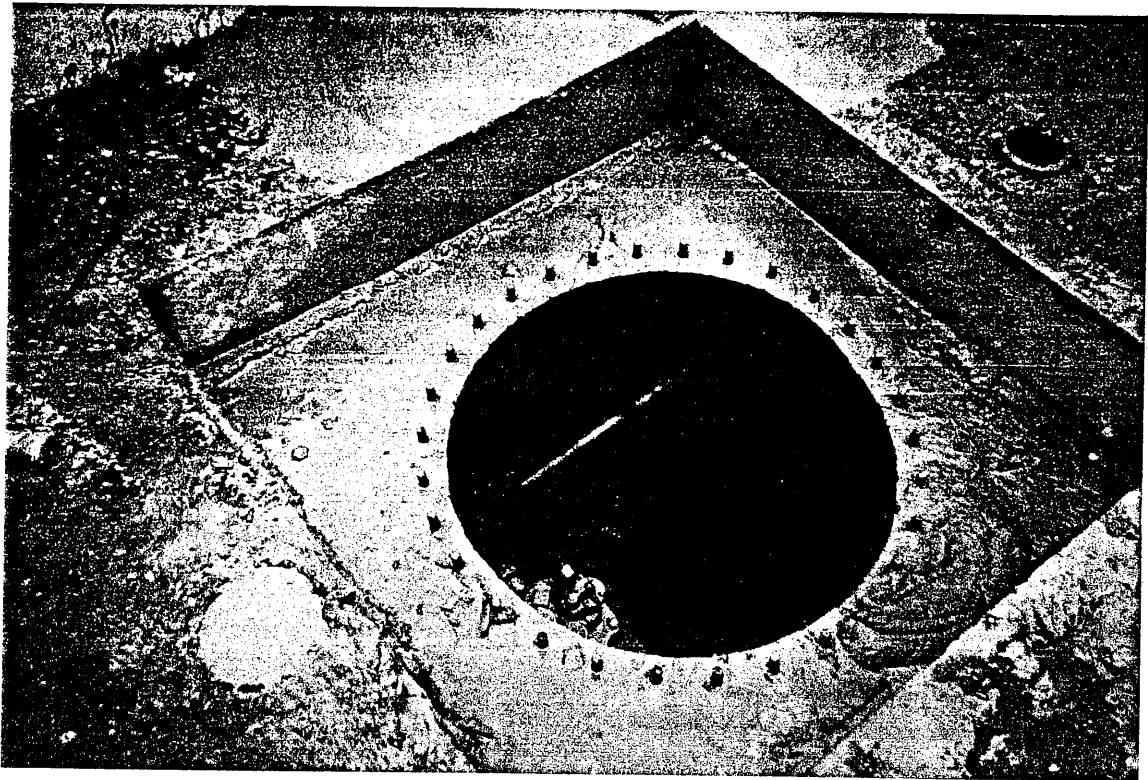
(17)



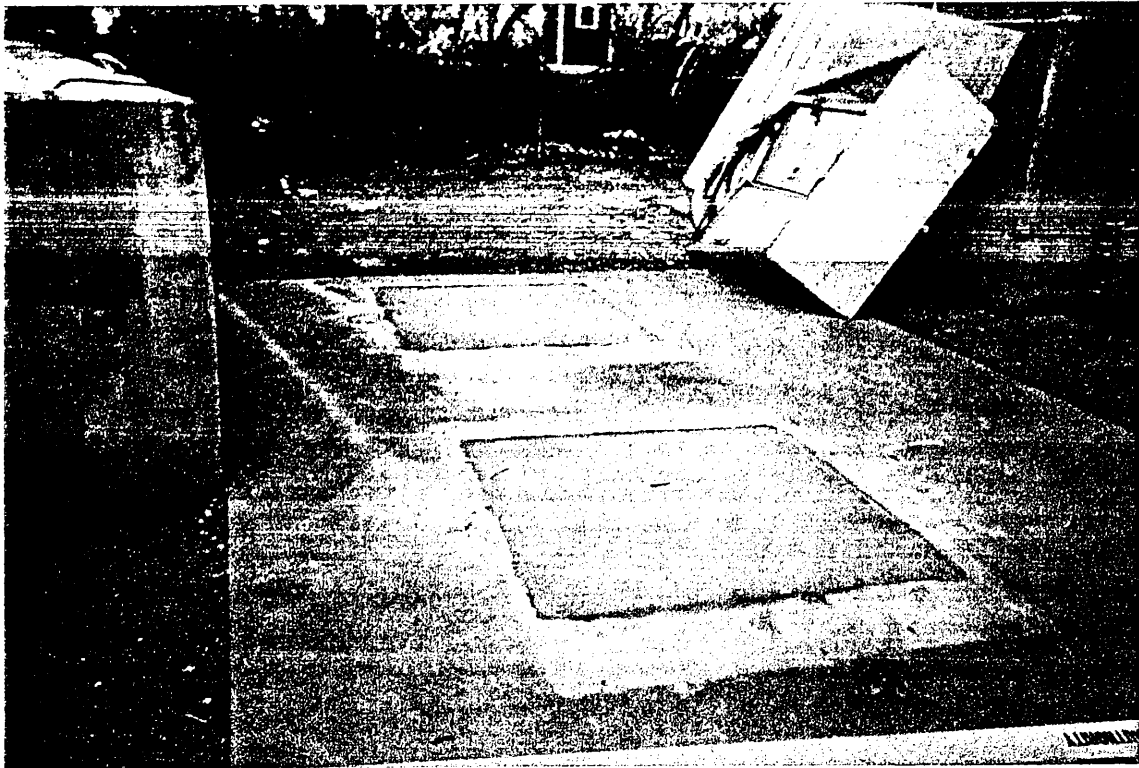
(18)



(19)



(20)



(21)



(22)