OPERATION & MAINTENANCE REPORT

SWEDEN-3, CHAPMAN

Site #8-28-040-A

MAY 1995

Prepared by: Division of Hazardous Waste Remediation

New York State Department of Environmental Conservation

Operation & Maintenance Report
Sweden-3, Chapman, Site 8-28-040-A
May 1995

1.0 Introduction:

This Operation & Maintenance (O & M) Report summaries the field activities conducted at the Sweden-3, Chapman Properties site in December 1994. The field activities are part of the continuing O&M Plan for the site and are conducted jointly by the New York State Departments of Conservation and Health (NYSDEC & NYSDOH). The work was conducted as outlined in the Field Sampling Work Plan, Sweden-3, Chapman Properties Site, dated December 12, 1994. The goal of the program is to inspect, maintain and monitor present site conditions until the remedial action, described in the March 1993 Record of Decision (ROD), is implemented.

2.0 Site Background:

In 1991 an Interim Remedial Measure (IRM) consisting of a drum removal action was conducted. After the IRM, various structures important to future site remediation were left in place. These structures included site fencing, a landfill cap, erosion control devises and stockpiled contaminated soil. With the completion of the Remedial Investigation/ Feasibility Study (RI/FS) in 1993, numerous monitoring wells are situated on and adjacent to the site to monitor the groundwater plume.

Routine inspection is necessary to maintain the remediation structures and prevent release of contamination from the stockpiled soil. The maintenance of site facilities and the monitoring of the groundwater plume are necessary to maintain the public health and protect the environment.

3.0 Site Conditions:

In 1992, the NYSDEC initiated a RI/FS to determine the extent and magnitude of contamination derived from the Sweden-3 site. The RI/FS was conducted utilizing state superfunds and implemented by RUST (formally Dunn Corp). The RI/FS included the development and implementation of a groundwater monitoring system. Presently, twenty-five (25) monitoring wells are installed in both the overburden and the bedrock. See Figure 1 for the location of the monitoring well points. The monitoring system includes ten (10) wells outside of the fenced perimeter which are within a state registered wetland. The monitoring well data indicates that the groundwater is contaminated with volatile organic compounds (VOCs) including chlorinated and non-chlorinated solvents. The groundwater plume extends north and north-east into the wetland. As part of the groundwater evaluation private wells surrounding the site have been monitored. To date approximately twenty (20) homeowner well have been sampled and no site related contamination has been observed.

The RI/FS also included on-site surface and subsurface soil testing which identified three residual VOC source areas remaining in and adjacent to the landfill. These source areas are acting as a continuing source of groundwater contamination.

4.0 Multivendor Treatability Demonstration of Biological Treatment:

The Sweden-3 site was chosen by the NYSDEC for a pilot program entitled, Multi-Vendor Treatability Demonstration of Bioremediation Treatment (MVTDBT). The intent of this program is to promote and utilize biological treatment technologies to remediate inactive hazardous waste disposal sites where chlorinated and non-chlorinated solvents are present in soil. The demonstration is jointly sponsored by the NYSDEC, the United States Environmental Protection Agency, Risk Reduction Engineering Laboratory and the New York Center for Hazardous Waste Management. Three vendors were awarded contracts to participate in the study and field work started in May 1994. Two of the vendors completed the study in December 1994. It is anticipated that one vendor will continue into 1995. After completion of the field work, data regarding the effectiveness of the three biovendors will be evaluated and released to the public. The ROD states that, if one of the biological treatment methods proves effective at remediating the site soils, the selected alternative for soil treatment can be changed.

5.0 Elements of the Operation and Maintenance Plan:

The purpose of the Operation and Maintenance Plan (OMP) is to inspect, monitor and maintain the Sweden-3 site until the remedial design/remedial action (RD/RA) is initiated. Currently RD/RA negotiations are being conducted by the NYSDEC Division of Environmental Enforcement. Because of the prolonged nature of the negotiations the OPM is necessary to protect public health and the environment. The OMP involves four major elements, inspection, monitoring, report preparation, and maintenance.

5.1 Inspection:

On December 12 and 13, 1994 the site was inspected and a check list was completed (see attachment #1). The inspection indicated that the site security fence, the monitoring wells, erosion control devises and the stockpiled soil cover were all in good condition and no repairs are presently required. There was no water in the stockpiled soil sump therefore sump water sampling was not necessary. The landfill cap was disturbed from the activities of the MVTDBT study. As part of the MVTDBT study source area soil was excavated for an above ground treatment system. In December 1994 the excavation was only partially filled. Additional backfilling and site grading are necessary to complete this phase of the field work. The field work for the MVTDBT is expected to continue until September of 1995, therefore any repairs to the landfill cap should be evaluated at that time. The decontamination pad and drum storage area were being utilized for the MVTDBT study and were not inspected.

5.2 Monitoring:

Monitoring of groundwater, ambient air and selected private wells were conducted. Ten (10) monitoring wells and three (3) private wells were sampled for VOCs. Figure 1 shows the location of the monitoring well sampling points. The wells sampled were specified in the Field Sampling Work Plan. In addition a complete round of water level measurements were collected. Figure 2 presents the interface zone groundwater map. Ambient air was monitored via hand held instrumentation (i.e. photoionization detector).

Table 1 present a summary of the sampling result. The highlights of the sampling event are as follows:

- No site related contamination was found in any of the private wells sampled.
- Ambient air monitoring indicated no levels of VOCs above background levels.
- Monitoring Well (MW)-8 S & D, south east of the landfill, showed no site related contamination which is consistent with the last sampling round for these wells in October 1992.
- MW-12 I & D, the furthest downgradient wells, continue to show low levels of VOCs which possibly indicates the edge of the plume migration. However, the methylene chloride detections could be laboratory related.
- VOC levels in MW -11 I & D are elevated above the previous sampling rounds. This may be indicative of lateral spreading of the plume to the south-east.
- Source area well MW-6S had slightly lower concentrations of VOCs then previous sampling. However, vinyl chloride levels remained at elevated.
- Source area well MW-3I had levels of VOCs consistent with previous results.
- Groundwater flow directions and elevation were similar to previous late fall/early winter measurements.

5.3 Report Preparation:

This O & M report fulfills this element of the OMP.

5.4 Maintenance:

Based on the field work conducted in December 1994 no maintenance items are proposed at this time. However, it is recommended that the MVTDBT study complete the excavation activities and regrade the landfill cap.

6.0 Conclusion:

The Sweden-3, Chapman Properties site remains secure and direct exposure to site contaminants is minimal. The site subsurface contamination continues to impact the local groundwater resource. Groundwater contamination appears to be spreading to the north-east within the state registered wetland and possibly spreading laterally to the south-east. No site related contamination was noted in the private wells sampled along Beadle Road. It is recommended that quarterly site inspection and semi-annual sampling of groundwater monitoring and selected private wells continue in 1995.

All site facilities appear to be in good condition with the exception of the landfill cap. The cap is presently being impacted by the activities of the MVTDBT study. It is recommended that the MVTDBT study complete the excavation activities and regrade/reseed the landfill cap. The cap should be inspected in the spring to assess potential damage to the cap and extent of cap erosion.

Prepared by: David A. Crosby, Environmental Engineer
Division of Hazardous Waste Remediation

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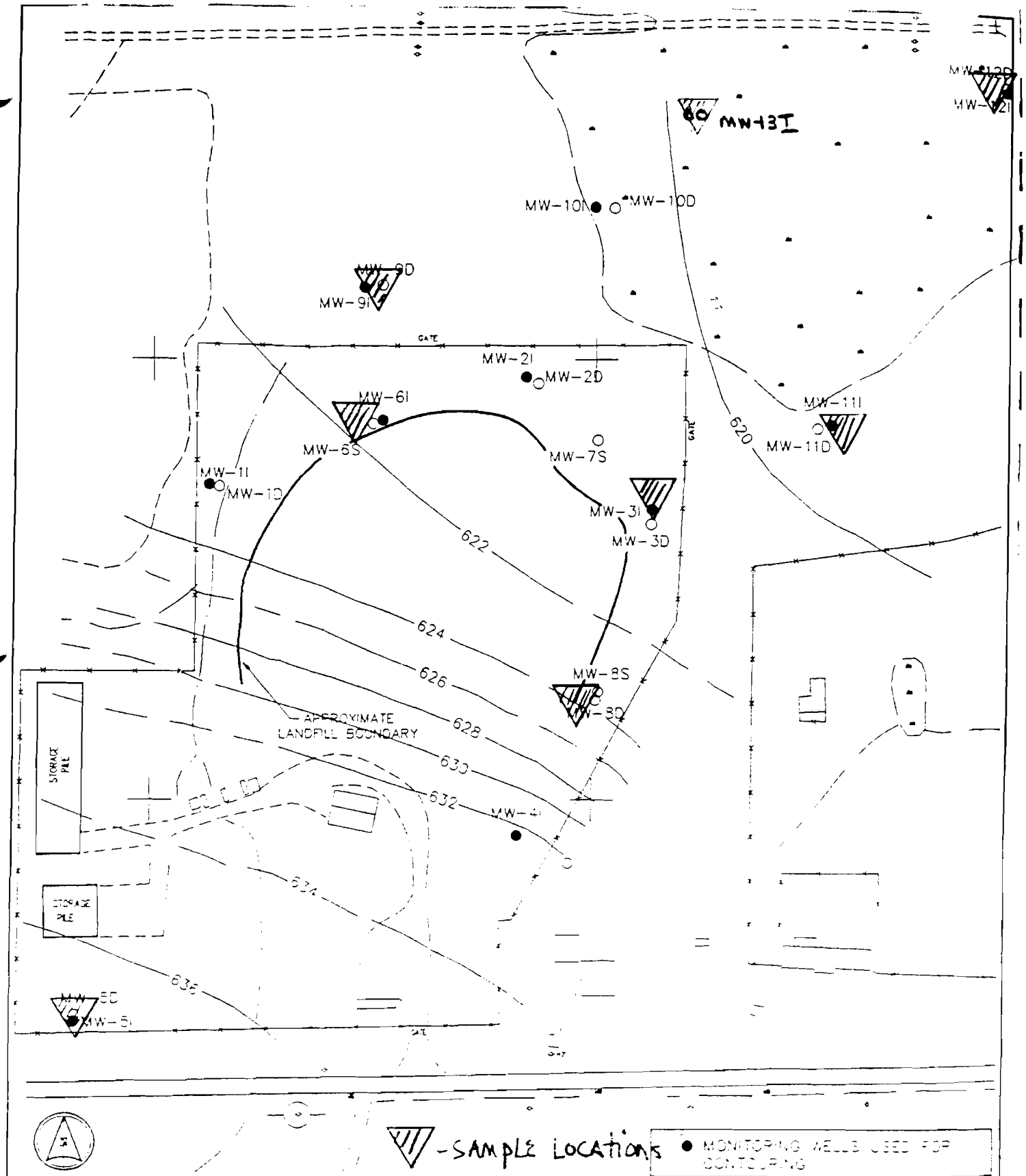
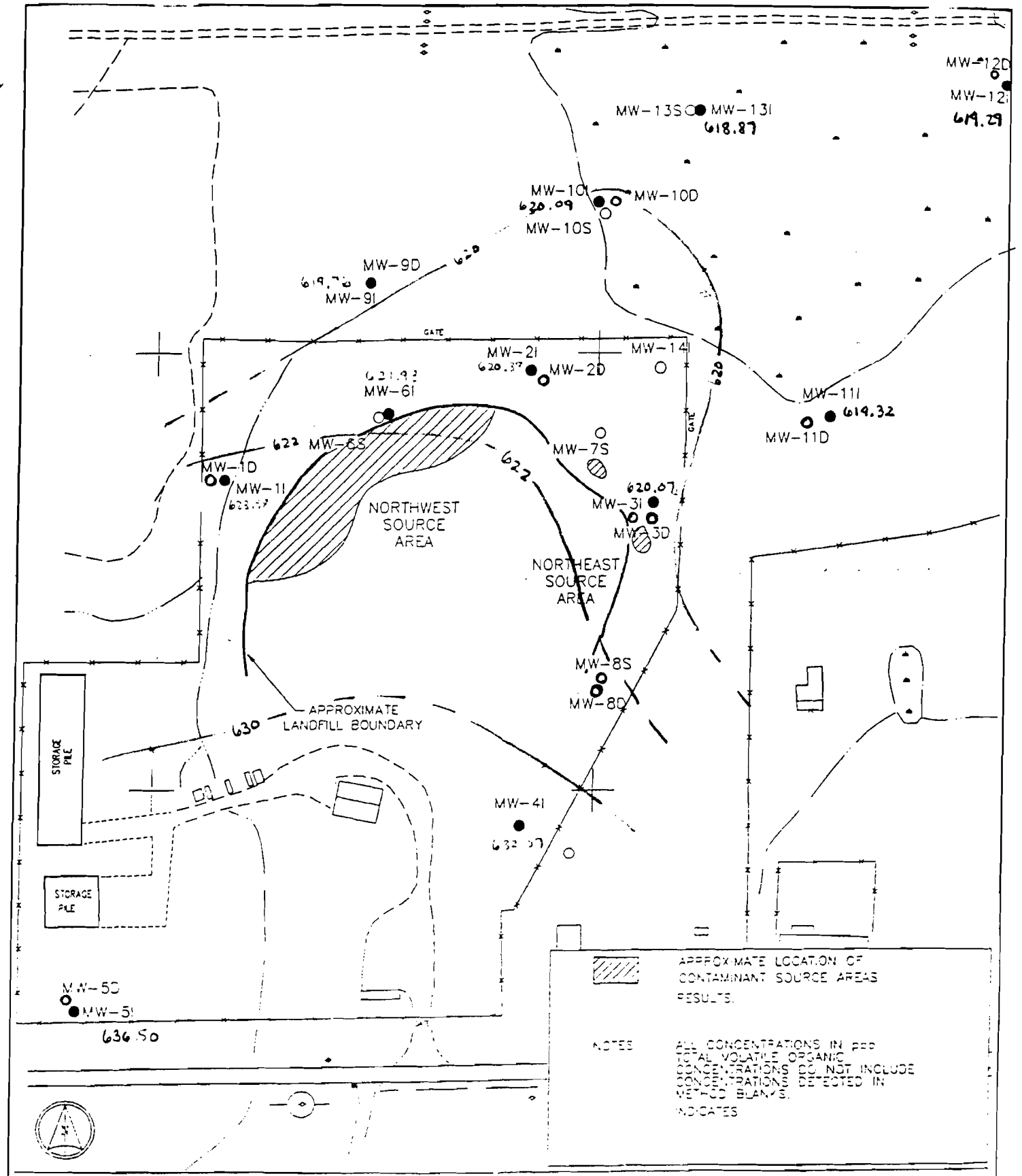


DUNN GEOSCIENCE ENGINEERING Co.
12 Metro Park Road
Albany, NY 12205

NYS DEPT OF ENVIRONMENTAL CONSERVATION
NCPA ASSIGNMENT No. C-2520-14

INTERFACE GROUNDWATER CONTOUR MAP
DECEMBER 18, 1993
SWEDEN-3 - CHAPMAN SITE

PROJECT NO.	DATE	DWG NO	SCALE	FIGURE NO
40396-150	March, 1993	R9182_9	1"=150'	1



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N.Y.S. DEPT. OF ENVIRONMENTAL CONSERVATION
WORK ASSIGNMENT No. D-2520-14

INTERFACE GROUNDWATER CONTOUR MAP, DEC 94.

SWEDEN-3 - CHAPMAN SITE

PROJECT NO.	DATE	DWG NO.	SCALE	FIGURE NO.
40096-150	March, 1993	F9150_9	1"=150'	2

Table 1
Page 1 of 6

SWEDEN-3 CHAPMAN SITE
Summary Table of Volatile and Semi-Volatile Organic Compounds
Monitoring Well Groundwater Samples
(Concentration Values in ug/l-ppb)

Analytical Fraction/Analytes	GROUNDWATER SAMPLE LOCATION																				NYS	NYSDEC
	SWE-MW1I-GW						SWE-MW1D-GW			SWE-MW2I-GW						SWE-MW2D-GW						Water Quality
Volatile Organic Compounds	Jun-92	Oct-92	Mar-93	Jun-93	Nov-93	Aug-94	Jun-92	Oct-92	Mar-93	Jun-92	Oct-92	Mar-93	Jun-93	Nov-93	Aug-94	Jun-92	Oct-92	Mar-93	Jun-93	Nov-93	Aug-94	Standards	TOGS (1.1.1)
Vinyl Chloride	7	ND	ND	ND	ND	ND	ND	ND	ND	78	79	100	230	150	420D	ND	ND	ND	ND	ND	5J	2.0	-
Acetone	ND	ND	78J	ND	ND	ND	ND	ND	78J	ND	ND	78J	ND	ND	6J	ND	ND	78J	ND	ND	ND	50.0	-
Methylene Chloride	ND	78	38J	ND	ND	2BJ	ND	5B	3BJ	3J	2BJ	4BJ	34J	27	2BJ	ND	3BJ	4BJ	ND	ND	2BJ	5.0	-
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	23	24	21	24J	ND	19	ND	ND	ND	ND	ND	ND	5.0	-
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	10	27	24	51	ND	120	ND	ND	ND	ND	ND	ND	5.0	-
2-Butanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	50.0
1,2-Dichloroethene(total)	ND	ND	ND	ND	ND	ND	ND	ND	ND	200	190D	230D	400	390	740D	ND	ND	ND	ND	ND	4J	5.0	-
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.0	-
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2J	ND	ND	ND	ND	ND	ND	5.0	-
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1J	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	
Trichloroethene	ND	ND	ND	ND	ND	2BJ	ND	ND	ND	1500D	1400D	1200D	1500	840D	1400D	ND	4J	5	10	ND	3BJ	5.0	-
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.0	-
Benzene	2J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.7	-
4-Methyl-2-Pentanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3J	ND	ND	ND	ND	ND	ND	-	50.0
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	3J	4J	2J	ND	25	2J	ND	ND	ND	ND	ND	ND	5.0	-
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	2J	2J	2J	ND	ND	2J	ND	ND	ND	ND	ND	ND	5.0	-
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2J	ND	ND	ND	ND	ND	5.0	-
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.0	-
Total Xylenes	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.0	-
Total Volatiles	2	7	10	ND	ND	4	ND	5	10	1819	1808	1481	2239	1432	2716	2	7	18	10	0	14		100.0
Total Volatile TIC's	0	0	0	0	0	7J	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Semi-Volatile Organics																							
Di-n-Butylphthalate	ND	-	-	-	-	-	ND	-	-	ND	-	-	-	-	-	ND	-	-	-	-	-	50.0	-
4-Methylphenol	ND	-	-	-	-	-	ND	-	-	ND	-	-	-	-	-	ND	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	ND	-	-	-	-	-	ND	-	-	ND	-	-	-	-	-	ND	-	-	-	-	-	50.0	-
Phenol	ND	-	-	-	-	-	ND	-	-	ND	-	-	-	-	-	ND	-	-	-	-	-	50.0	-
Chrysene	ND	-	-	-	-	-	ND	-	-	ND	-	-	-	-	-	ND	-	-	-	-	-	50.0	0.002
Total Semi-Volatiles	ND	-	-	-	-	-	ND	-	-	ND	-	-	-	-	-	ND	-	-	-	-	-		
Total Semi-Volatile TIC'S	272J	-	-	-	-	-	459J	-	-	489J	-	-	-	-	-	98	-	-	-	-	-		
Pesticides/PCB's																							
All Parameters	ND	-	-	-	-	-	ND	-	-	ND	-	-	-	-	-	ND	-	-	-	-	-	-	-

NOTE. June 1992 sampling was analyzed for Full CLP and validated.
October 1992, March 1993, June 1993, November 1993, August, 1994 and December 1994 sampling was analyzed for SSICs.
SWE-MW5I-GW and SWE-MW5D-GW are background groundwater samples for the Site.

SWEDEN-3 CHAPMAN SITE
Summary Table of Volatile and Semi-Volatile Organic Compounds
Monitoring Well Groundwater Samples
(Concentration Values in ug/l-ppb)

Analytical Fraction/Analytes	GROUNDWATER SAMPLE LOCATION																				NYS	NYSDEC
	SWE-MW3I-GW							SWE-MW3D-GW						SWE-MW4I-GW		SWE-MW5I-GW			SWE-MW5D-GW		Water Quality	TOGS
Volatile Organic Compounds	Jun-92	Oct-92	Mar-93	Jun-93	Nov-93	Aug-94	Dec-94	Jun-92	Oct-92	Mar-93	Jun-93	Nov-93	Aug-94	Jun-92	Oct-92	Jun-92	Oct-92	Dec-94	Jun-92	Oct-92	Standards	(1.1.1)
Vinyl Chloride	5J	ND	ND	ND	14	16	4J	ND	ND	ND	ND	ND	ND	ND	ND*	ND	ND	ND	ND	ND	2.0	-
Methylene Chloride	ND	140B	6BJ	ND	650BD	2BJ	ND	ND	ND	5B	ND	6B	2BJ	ND	2J*	ND	18	ND	ND	ND	50.0	-
Acetone	ND	ND	7BJ	ND	ND	ND	ND	21	2BJ	10B	ND	ND	ND	ND	ND*	ND	ND	ND	ND	ND	5.0	-
1,1-Dichloroethene	11	ND	4J	ND	4J	11	5J	ND	ND	ND	ND	ND	ND	ND	ND*	ND	ND	ND	ND	ND	5.0	-
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND*	ND	ND	ND	ND	ND	5.0	-
2-Butanone	ND	ND	ND	ND	ND	ND	ND	62	ND	ND	ND	ND	ND	ND	ND*	ND	ND	ND	ND	ND	-	50.0
1,2- Dichloroethene(total)	17	21J	12	ND	130	160	39	8J	2J	ND	ND	ND	2J	ND	ND*	ND	ND	ND	ND	ND	5.0	-
Chloroform	ND	ND	ND	ND	ND	ND	ND	9J	ND	ND	ND	ND	ND	ND	ND*	ND	ND	ND	ND	ND	7.0	-
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND*	ND	ND	ND	ND	ND	5.0	-
Trichloroethene	39	72	43	45	120	400D	130	9J	ND	ND	ND	ND	4BJ	ND	ND*	ND	ND	ND	ND	ND	5.0	-
1,1,2-Trichloroethane	ND	ND	1J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND*	ND	ND	ND	ND	ND	5.0	-
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	3J	ND	ND	ND	ND	ND	ND*	2J	ND	ND	ND	ND	0.7	-
4-Methyl-2-Pentanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND*	ND	ND	ND	ND	ND	-	50.0
Tetrachloroethene	3800D	4300D	4900D	3700D	2700D	21000D	7200D	ND	2J	2J	ND	ND	ND	ND	ND*	ND	ND	ND	ND	ND	5.0	-
Toluene	2J	ND	3J	ND	3J	11	5J	ND	4J	ND	ND	ND	ND	ND	ND*	ND	ND	ND	ND	ND	5.0	-
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	4J	ND	ND	ND	ND	ND	ND*	ND	ND	ND	ND	ND	5.0	-
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	3J	ND	ND	ND	ND	ND	ND*	ND	ND	ND	ND	ND	5.0	-
Total Xylenes	ND	ND	ND	ND	ND	1J	ND	ND	10	ND	ND	ND	ND	ND	ND*	ND	ND	ND	ND	ND	5.0	-
Total Volatiles	3874	4533	4976	3745	3621	21601	7383	109	30	17	ND	6	8	ND	2*	2	18	ND	ND	ND		100.0
Total Volatile TIC's	6JN	0	0	25J	0	0	97	78J	0	0	128J	0	0	0	0*	0	0	22J	0	0		
Semi-Volatile Organics																						
Di-n-Butylphthalate	ND	-	-	-	-	-	-	2J	-	-	-	-	-	ND	-	ND	-	-	ND	-	50.0	-
4-Methylphenol	ND	-	-	-	-	-	-	ND	-	-	-	-	-	ND	-	ND	-	-	ND	-	-	-
bis(2-Ethylhexyl)phthalate	ND	-	-	-	-	-	-	11	-	-	-	-	-	1J	-	5J	-	-	11	-	50.0	-
Phenol	ND	-	-	-	-	-	-	ND	-	-	-	-	-	ND	-	ND	-	-	ND	-	50.0	-
Chrysene	ND	-	-	-	-	-	-	ND	-	-	-	-	-	ND	-	ND	-	-	ND	-	50.0	0.002
Total Semi-Volatiles	ND	-	-	-	-	-	-	13	-	-	-	-	-	1	-	5	-	-	11	-		
Total Semi-Volatile TIC'S	220J	-	-	-	-	-	-	37J	-	-	-	-	-	38J	-	35J	-	-	236J	-		
Pesticides/PCB's																						
All Parameters	ND	-	-	-	-	-	-	ND	-	-	-	-	-	ND	-	ND	-	-	ND	-	-	-

NOTE: June 1992 sampling was analyzed for Full CLP and validated
October 1992, March 1993, June 1993, November 1993, August, 1994 and December 1994 sampling was analyzed for SSICs.
SWE-MW5I-GW and SWE-MW5D-GW are background groundwater samples for the Site

* SWE-MW4I-GW sample holding times exceeded, however results determined useable.

Table 1

SWEDEN-3 CHAPMAN SITE
Summary Table of Volatile and Semi-Volatile Organic Compounds
Monitoring Well Groundwater Samples
(Concentration Values in ug/l-ppb)

	GROUNDWATER SAMPLE LOCATION																	NYS	NYSDEC
Analytical Fractions/Analyte	Dup1G	SWE-MW6S-GW							SWE-MW7S-GW			SWE-MW8S-GW			SWE-MW8D-GW			Water Quality	TOGS
Volatile Organic Compound	Jun-92	Jun-92	Oct-92	Mar-93	Jun-93	Nov-93	Aug-94	Dec-94	Jun-92	Oct-92	Mar-93	Jun-92	Oct-92	Dec-94	Jun-92	Oct-92	Dec-94	Standards	(1.1.1)
Vinyl Chloride	ND	ND	40	16	310E	640E	4000E	1800E	ND	ND	ND	ND	ND*	ND	ND	ND	ND	2.0	-
Methylene Chloride	6J	4J	120DJ	4BJ	5	18	30B	2J	ND	5	2BJ	ND	ND*	ND	ND	2J	ND	50.0	-
Acetone	110	87	ND	7BJ	160	100	960E	120	ND	ND	10B	ND	ND*	ND	ND	ND	ND	5.0	-
1,1-Dichloroethene	110	110	28	12	120	160	550E	230	ND	ND	ND	ND	ND*	ND	ND	ND	ND	5.0	-
1,1-Dichloroethane	48	47	18	9	56	71	230E	68	ND	ND	ND	ND	ND*	ND	ND	ND	ND	5.0	-
2-Butanone	ND	ND	ND	ND	ND	390E	5700E	ND	ND	ND	ND	ND	ND*	ND	ND	ND	ND	-	50.0
1,2- Dichloroethene(total)	86000D	100000	18000D	5300D	30000D	37000D	54000D	88000D	ND	ND	ND	ND	ND*	ND	ND	ND	ND	5.0	-
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND*	ND	ND	ND	ND	7.0	-
1,2-Dichloroethane	ND	ND	5	ND	ND	ND	ND	68	ND	ND	ND	ND	ND*	ND	ND	ND	ND	5.0	-
Trichloroethene	62000D	78000D	14000D	3700D	20000D	19000D	22000D	46000D	ND	ND	ND	ND	ND*	ND	ND	ND	ND	5.0	-
1,1,2-Trichloroethane	9J	7J	4J	4J	12	ND	48	9J	ND	ND	ND	ND	ND*	ND	ND	ND	ND	5.0	-
Benzene	4J	4J	2J	ND	3J	ND	11	3J	ND	ND	ND	ND	ND*	ND	ND	ND	ND	0.7	-
4-Methyl-2-Pentanone	33	31	ND	ND	20	41	420E	100	ND	ND	ND	ND	ND*	ND	ND	ND	ND	-	50.0
Tetrachloroethene	10	9J	7	4J	17	15	26	18	ND	ND	ND	ND	ND*	ND	ND	ND	ND	5.0	-
Toluene	13	12	2J	2J	15	23	120	63	ND	ND	ND	ND	ND*	ND	ND	ND	ND	5.0	-
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND*	ND	ND	ND	ND	5.0	-
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND*	ND	ND	ND	ND	5.0	-
Total Xylenes	ND	ND	ND	ND	ND	ND	4J	4J	ND	ND	ND	ND	ND*	ND	ND	ND	ND	5.0	-
Total Volatiles	148343	178311	32226	9058	50718	57458	88099	136485	ND	5	12	ND	ND*	ND	ND	2	ND		100.0
Total Volatile TIC's	14000J	19000J	110J	0	58J	0	392	26000J	0	0	0	0	0*	0	0	0	25J		
Semi-Volatile Organics																			
Di-n-Butylphthalate	ND	ND	-	-	-	-	-	-	ND	-	-	ND	-	-	ND	-	-	50.0	-
4-Methylphenol	ND	2J	-	-	-	-	-	-	ND	-	-	ND	-	-	ND	-	-	-	-
bis(2-Ethylhexyl)phthalate	ND	ND	-	-	-	-	-	-	ND	-	-	ND	-	-	2J	-	-	50.0	-
Phenol	ND	ND	-	-	-	-	-	-	ND	-	-	ND	-	-	ND	-	-	50.0	-
Chrysene	ND	ND	-	-	-	-	-	-	ND	-	-	ND	-	-	ND	-	-	50.0	0.002
Total Semi-Volatiles	ND	2	-	-	-	-	-	-	ND	-	-	ND	-	-	2	-	-		
Total Semi-Volatile TIC'S	15J	28J	-	-	-	-	-	-	13J	-	-	23J	-	-	61J	-	-		
Pesticides/PCB's	ND	ND	-	-	-	-	-	-	ND	-	-	ND	-	-	ND	-	-	-	-

NOTE: June 1992 sampling was analyzed for Full CLP and validated.

October 1992, March 1993, June 1993, November 1993, August, 1994 and December 1994 sampling was analyzed for SSICs.

* SWE-MW8S-GW samples holding times exceeded, however results determined useable.

SWE-MW5I-GW and SWE-MW5D-GW are background groundwater samples for the Site

SWEDEN-3 CHAPMAN SITE
Summary Table of Volatile and Semi-Volatile Organic Compounds
Monitoring Well Groundwater Samples (Concentration Values in ug/l-ppb)

Analytical Fraction/Analyte	GROUNDWATER SAMPLE LOCATION																		NYSWater Quality	NYSDEC TOGS
	DUP2	MW-6I					MW9I						MW9D							
Volatile Organic Compoun	Oct-92	Oct-92	Mar-93	Jun-93	Nov-93	Aug-94	Oct-92	Mar-93	Jun-93	Nov-93	Aug-94	Dec-94	Oct-92	Mar-93	Jun-93	Nov-93	Aug-94	Dec-94	Standards	(1 1 1)
Vinyl Chloride	48	52	29	65J	730D	4400D	2J	ND	ND	ND	28	9	ND	ND	ND	ND	6J	5J	2.0	-
Methylene Chloride	ND	ND	8B	28J	33	68J	ND	4BJ	2J	7B	2BJ	ND	ND	13B	2J	3J	2BJ	ND	50.0	-
Acetone	ND	ND	7BJ	ND	ND	150	ND	9BJ	ND	ND	ND	6J	ND	48B	ND	ND	ND	8J	5.0	-
Carbon Disulfide	ND	ND	ND	18J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	-
1,1-Dichloroethene	10	10	8	17J	ND	69	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.0	-
1,1-Dichloroethane	ND	ND	2J	ND	ND	21	ND	3J	6	ND	19	8J	ND	ND	3J	ND	6J	4J	5.0	-
2-Butanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	50 0
1,2-Dichloroethene (total)	620D	690D	310D	610	2300D	9000D	2J	6	16	ND	82	30	2J	ND	7	6	25	14	5.0	-
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7 0	-
1,2-Dichloroethane	ND	ND	ND	ND	ND	19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.0	-
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	-
Trichloroethene	1300D	1300D	140D	900	810	8200D	ND	7	21	ND	64	31	ND	1J	6	11	13	13	5 0	-
Dibromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	-
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	5J	NI	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5 0	-
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.7	-
4-Methyl-2-Pentanone	ND	ND	ND	ND	ND	41	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	50.0
Tetrachloroethene	ND	ND	ND	ND	71	ND	ND	ND	ND	ND	ND	5J	ND	ND	ND	ND	ND	ND	5.0	-
Toluene	ND	ND	ND	ND	ND	7J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.0	-
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.0	-
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5 0	-
Total Xylenes	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.0	100.0
Total Volatiles	1978	2052	504	1628	3944	21918	4	29	45	7	195	89	2	62	18	20	52	30		
Total Volatile TIC's	100J	96J	0	0	0	65J	0	5J	108J	0	0	136J	0	0	100J	0	0	200J		
Semi-Volatile Organics																				
Di-n-Butylphthalate	ND*	ND	-	-	-	-	ND	-	-	-	-	-	ND	-	-	-	-	-	50 0	-
4-Methylphenol	ND*	ND	-	-	-	-	ND	-	-	-	-	-	ND	-	-	-	-	-		-
3,3'-Dichlorobenzidine	ND*	ND	-	-	-	-	ND	-	-	-	-	-	ND	-	-	-	-	-	-	-
bis(2Ethylhexyl)phthalate	ND*	ND	-	-	-	-	ND	-	-	-	-	-	ND	-	-	-	-	-	50 0	-
Phenol	ND*	ND	-	-	-	-	ND	-	-	-	-	-	ND	-	-	-	-	-	50 0	-
Chrysene	1BJ	ND	-	-	-	-	1J	-	-	-	-	-	3J	-	-	-	-	-	50 0	0.002
Hexachlorocyclopentadien	ND*	ND	-	-	-	-	ND	-	-	-	-	-	ND	-	-	-	-	-	-	-
Total Semi-Volatiles	1*	ND	-	-	-	-	1	-	-	-	-	-	3	-	-	-	-	-		
Total Semi-Volatile TIC'S	0*	0	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-		

NOTE: March 1993, June 1993, November 1993, August 1994 and December 1994 sampling was analyzed for SSICs.
October 1992 sampling was analyzed for Full CLP and validated.
* MW6I-GW and DUP-GW analytical method blank TIC greater than 10%,however results determined useable

SWE-MW5I-GW & SWE-MW5D-GW are background groundwater samples for the Site.
** Duplicate of MW6I-GW

Table 1 Page 5 of 6

SWEDEN-3 CHAPMAN SITE

Summary Table of Volatile and Semi-Volatile Organic Compounds

Monitoring Well Groundwater Samples (Concentration Values in ug/l-ppb)

Analytical Fraction/Analytes	GROUNDWATER SAMPLE LOCATION																	NYS Water Quality	NYSDEC TOGS
	MW10S	MW10I		DUP3	MW10I			MW10D					MW-11I			MW11D			
Volatile Organic Compounds	Mar-93	Oct-92	Mar-93	Mar-93	Jun-93	Nov-93	Aug-94	Oct-92	Mar-93	Jun-93	Nov-93	Aug-94	Oct-92	Mar-93	Dec-94	Oct-92	Mar-93	DEC-94	Standards	(1.1.1)
Vinyl Chloride	14	9J	16	12	42	10	170	ND	ND	ND	ND	ND	ND	ND	8J	ND	ND	ND	2.0	-
Methylene Chloride	21B	ND	4BJ	4BJ	4BJ	ND	1BJ	ND	7B	ND	5B	1BJ	ND	2BJ	ND	ND	2BJ	7J	50.0	-
Acetone	17B	ND	7BJ	12B	5BJ	ND	ND	ND	11B	ND	ND	11	ND	6BJ	ND	ND	7BJ	ND	5.0	-
Carbon Disulfide	ND	ND	ND	ND	ND	ND	ND	ND	2J	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	-
1,1-Dichloroethene	3J	2J	3J	3J	4J	ND	4J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.0	-
1,1-Dichloroethane	3J	ND	4J	3J	6	ND	16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.0	-
2-Butanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	50.0
1,2-Dichloroethene (total)	36	26	40	40	72	37	310	ND	ND	ND	ND	ND	ND	ND	10	ND	ND	ND	5.0	-
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10	ND	ND	7.0	-
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.0	-
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	-
Trichloroethene	140	190	200	200	360D	50	300D	ND	ND	ND	ND	ND	ND	ND	7J	ND	ND	ND	5.0	-
Dibromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	-
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.0	-
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.7	-
4-Methyl-2-Pentanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	50.0
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2J	ND	ND	ND	5.0	-
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.0	-
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.0	-
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.0	-
Total Xylenes	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.0	100.0
Total Volatiles	234	227	274	274	493	97	631	ND	20	ND	5	12	ND	8	27	10	9	7		
Total Volatile TIC's	0	0	0	0	86J	0	0	0	0	15J	0	0	0	0	0	0	0	0		
Semi-Volatile Organics																				
Di-n-Butylphthalate	-	ND	-	-	-	-	-	ND	-	-	-	-	ND	-	-	ND	-	-	50.0	-
4-Methylphenol	-	ND	-	-	-	-	-	ND	-	-	-	-	ND	-	-	ND	-	-	-	-
3,3'-Dichlorobenzidine	-	ND	-	-	-	-	-	ND	-	-	-	-	ND	-	-	ND	-	-	-	-
bis(2Ethylhexyl)phthalate	-	ND	-	-	-	-	-	ND	-	-	-	-	ND	-	-	ND	-	-	50.0	-
Phenol	-	ND	-	-	-	-	-	ND	-	-	-	-	ND	-	-	ND	-	-	50.0	-
Chrysene	-	ND	-	-	-	-	-	ND	-	-	-	-	ND	-	-	7J	-	-	50.0	0.002
Hexachlorocyclopentadiene	-	ND	-	-	-	-	-	ND	-	-	-	-	ND	-	-	ND	-	-	-	-
Total Semi-Volatiles	-	ND	-	-	-	-	-	ND	-	-	-	-	ND	-	-	7	-	-		
Total Semi-Volatile TIC'S	-	0	-	-	-	-	-	0	-	-	-	-	0	-	-	0	-	-		

NOTE: March 1993, June 1993, November 1993 and December 1994 sampling was analyzed for SSICs.

October 1992 sampling was analyzed for Full CLP and validated.

DUP3 - Duplicate of MW10I-GW

SWEDEN-3 CHAPMAN SITE
Summary Table of Volatile and Semi-Volatile Organic Compounds
Monitoring Well Groundwater Samples (Concentration Values in ug/l-ppb)

Analytical Fraction/Analytes	GROUNDWATER SAMPLE LOCATION													NYS	NYSDE
	MW12I			MW12D			MW13S	MW13I					MW14I	Quality	TOGS
Volatile Organic Compounds	Oct-92	Mar-93	Dec-94	Oct-92	Mar-93	Dec-94	Mar-93	Mar-93	Jun-93	Nov-93	Aug-94	Dec-94	Mar-93	Standards	(1.1.1)
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	16	ND	34	20	ND	2.0	-
Methylene Chloride	ND	4BJ	7J	ND	4BJ	6J	5B	4BJ	2J	ND	ND	1J	4BJ	50.0	-
Acetone	ND	17B	ND	ND	10B	ND	8BJ	10B	ND	ND	ND	6J	10B	5.0	-
Carbon Disulfide	ND	ND	ND	ND	1J	ND	ND	ND	ND	ND	ND	ND	ND	-	-
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.0	-
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1J	ND	5.0	-
2-Butanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2J	ND	ND	-	50.0
1,2-Dichloroethene (total)	ND	ND	ND	ND	ND	ND	ND	ND	10	8	37	22	1J	5.0	-
Chloroform	ND	ND	ND	ND	ND	ND	ND	5	ND	ND	ND	ND	ND	7.0	-
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.0	-
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	4J	ND	ND	ND	ND	ND	-	-
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	8	11	22	9J	3J	5.0	-
Dibromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	-
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.0	-
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.7	-
4-Methyl-2-Pentanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	50.0
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.0	-
Toluene	ND	ND	2J	ND	ND	ND	ND	1J	ND	ND	ND	ND	ND	5.0	-
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.0	-
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.0	-
Total Xylenes	ND	ND	4J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.0	100.0
Total Volatiles	ND	21	13	ND	15	6	13	24	36	19	93	58	18		
Total Volatile TIC's	0	0	0	6J	6.5J	0	0	0	141J	0	7J	0	0		
Semi-Volatile Organics															
Di-n-Butylphthalate	ND	-		ND	-	-	-	-	-	-	-	-	-	50.0	-
4-Methylphenol	ND	-		ND	-	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	ND	-		ND	-	-	-	-	-	-	-	-	-	-	-
bis(2Ethylhexyl)phthalate	ND	-		ND	-	-	-	-	-	-	-	-	-	50.0	-
Phenol	ND	-		9J	-	-	-	-	-	-	-	-	-	50.0	-
Chrysene	2J	-		11	-	-	-	-	-	-	-	-	-	50.0	0.002
Hexachlorocyclopentadiene	ND	-		ND	-	-	-	-	-	-	-	-	-	-	-
Total Semi-Volatiles	2	-		20	-	-	-	-	-	-	-	-	-		
Total Semi-Volatile TIC'S	0	-		0	-	-	-	-	-	-	-	-	-		

NOTE: SWE-MW5I-GW and SWE-MW5D-GW are background groundwater samples for the Site.

October 1992 sampling was analyzed for Full CLP and validated.

March 1993, June 1993, November 1993, August 1994 and December 1994 sampling was analyzed for SSICs.

QUARTERLY OPERATIONS AND MAINTENANCE CHECKLIST
SITE NAME: SWEDEN 3 CHAPMAN SITE NO. 8-28-040

Inspector: David Crosby Date: 12/13/94 Time: 8:30 - 4:00 pm

Weather/Temperature: COLD & clear ~25°F

Descriptive Items	Discrete Items	Comments
Access Roads	Beadle Road Entrance	In good condition
	Perimeter Site Access	
	Onsite Access	
Fence/Signs Problems	Perimeter Fence repairs	In good condition
	Gate #1	
	Gate #2	
	Signs	
	Access to Gates	
	Locks	
Soil Staging Pad	Earthen Berms	OK
	Erosion	none noted
	Cover	OK
	Breaches	none noted
	Concrete Pad	OK
Containment Cap Problems:	Breakout/Breaching	no problems noted
	Subsidence	
	Ponding	
	Vegetation - Lack of Vegetation - Mowing Necessary - Scrubs/Tree to cut down	
	Vectors	
	Erosion	

QUARTERLY OPERATIONS AND MAINTENANCE CHECKLIST
SITE NAME: SWEDEN 3 CHAPMAN SITE NO. 8-28-040

Drainage Problems	Perimeter Drainage	NO problems noted
	Swale Drainage	
	Off-site Drainage	
	Run on Drainage	
	Flow	NO FLOW observed.
	Silting	OK
	Scouring	
	Silt Fences	

Monitoring Well	Sampled * Yes or No	Physical Condition (Cap, Lock, Viser, etc)
MW 1 I		
MW 1 D		
MW 2 I		
MW 2 D		
MW 3 I	YES	OK
MW 3 D		
MW 4 I		
MW 5 I	YES	OK
MW 5 D		
MW 6 S	YES	OK
MW 6 I		
MW 7 S		
MW 8 S	YES	OK
MW 8 D	YES	
MW 9 I	YES	
MW 9 D	YES	
MW 10 I		
MW 10 D		
MW 11 I	YES	OK
MW 11 D	YES	
MW 12 I	YES	
MW 12 D	YES	

* If yes complete "well sampling Record" form

MW 13I YES OK

QUARTERLY OPERATIONS AND MAINTENANCE CHECKLIST
SITE NAME: SWEDEN 3 CHAPMAN SITE NO. 8-28-040

Other General Items	Comments
	MVTDBT has disturbed landfill cap. Large excavation was not filled in 12/94 because of excessive water. It is recommended that the MVTDBT study complete excavation phase and regarde and reseed landfill.

Signed David A. Ivey Date 12/15/94