RK (8)

DOVATRON INTERNATIONAL

Conklin Facility

1993 and 1994

OPERATION REPORT

For

ON-SITE GROUNDWATER RECOVERY AND TREATMENT SYSTEM

March 1995

HARZA NORTHEAST
Architects, Engineers,
and Construction Managers
181 Genesee Street
Utica, New York 13501

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APPENDICES

1.0 INTRODUCTION

1.1 Background

Dovatron is operating an on-site groundwater recovery and treatment system to reduce concentrations of solvent-type contaminants in groundwater at their former facility on Conklin Avenue in Binghamton, New York. The New York State Department of Environmental Conservation (NYSDEC) listed this site in December 1993 as an inactive hazardous waste site (classification 2). Since this time the NYSDEC regards this remedial action as an Interim Remedial Measure (IRM).

Groundwater contamination at this site had been attributed to leakage from a 1,000 gallon underground storage tank which was left in place by Binghamton Plastics, the previous owner of the facility. Removed in 1986, the tank was used as a hydraulic reservoir and contained 650 gallons of oil contaminated with 1,1,1-trichloroethane and trichloroethene.

In the area of the tank excavation and recovery well DMW1 there is perched groundwater in fill material which is more permeable than surrounding natural soils. Contaminated soil and past leakage directly into this zone had resulted in concentrations exceeding 90 ppm of total volatile organic compounds.

The remedial action for this site include utilizing an existing well DMW1 for groundwater extraction. Groundwater is pumped from the well with a pneumatic pump to the northeast corner of the building where it is treated and discharged to the Binghamton-Johnson City Sanitary Sewer System using an existing drain.

1.2 Purpose

This report assemblies basic operating data and maintenance reports regarding the groundwater recovery and treatment system during its operation from startup in October 1993 through December 1994.

2.0 DESCRIPTION AND EVALUATION OF EXISTING SYSTEM

2.1 Treatment System

2.1.1 Description of System

The treatment system consists of two 165 pound to 175 pound carbon adsorber units located in series. Groundwater is filtered prior to entering the carbon units by a bag filter as fine gray silt enters the system from the recovery well (DMW1).

The treatment system is located in the existing Compressor Room in the ~~northeast~~ Southeast corner of the building. Treated water exits the second carbon unit into a sump where an electric sump pump discharges water to the building's sanitary drain line.

Sampling ports are provided after the bag filter and in between the two carbon units. Groundwater is tested monthly at the sample port in between the carbon units for compliance with proposed pretreatment limits as established by the Binghamton-Johnson City Sewer Board.

2.1.2 Bag Filter Performance

A 20 micron bag filter placed within a 5 micron bag filter is used to accomplish filtration. Grain sizes for silt range from 5 to 75 microns. Silts of small particle size do have a tendency to clog filter bags by forming a low permeable sheen along the surface of the bag. The 20 micron bag screens larger particles to help prolong the life of the life of the 5 micron bag.

Bags are checked frequently and a supply of at least 6 bags of each type is kept in storage. Filters had been replaced about four times during the treatment of the first 50,000 gallons of groundwater. However, on at least one (1) occasion during August 1994 the bag was allowed to overfill resulting in silt entering the first carbon drum.

2.1.3 Carbon Adsorption Performance

Activated carbon has been very effective in achieving organic compound removal efficiencies, which have been at least 94 percent prior to breakthrough for the major contaminants found in the waste stream (see Table 2.1 below). Saturation of the first carbon unit occurred after treatment of approximately 15,000 gallons of water. Subsequent carbon unit replacements have also occurred at approximately 15,000 gallon intervals.

TABLE 2.1
PREDICTED REMOVAL EFFICIENCY FOR SPECIFIC ORGANIC COMPOUNDS

	MAXIMUM RECORDED CONCENTRATION µg/L	EFFLUENT CONCENTRATION	PERCENT (%) REMOVAL*
1,1-dichloroethane	1250	ND	100
1,1-dichloroethene	157	ND	94.7
trans-1,2-dichloroethene	22	ND	97.7
1,1,1-trichloroethene	7270	ND	100
trichloroethylene	14,800	ND	100
cis-1,2-dichloroethene	5970	ND	100

***Based on half the detection limit of 1 µg/L.**
ND - Compound not detected above Method Detection Limit (MDL).

2.2 Well Pump System

2.2.1 Description of System

The groundwater is conveyed to the treatment system by an air-powered submersible pump. This system was selected because of its reliability for pumping low flows at low discharge heads. Also, it is a safe pump to use where the atmosphere has a potential to be explosive due to the presence of ignitable volatile organics.

The groundwater is pumped from a 4 inch well near Chambers Street through the interior of the plant to the northeast corner of the building where the treatment system was located. A bubbler system is utilized to control pump operation.

2.2.2 Air Driven Pump

The air driven pump is essentially a stainless steel bailer with two check valves which allows water to be stored within the pump body. A compressed air charge through an air line is delivered to the pump, from an air compressor, forcing groundwater into the discharge tubing. When the air charge is removed, air is vented, and the pump body is refilled with water.

The original 0.5 gallon per cycle pump was replaced with a 1.0 gallon per cycle pump in December in order to reduce duty cycles which lend to compressor problems (Section 2.2.3).

A faulty bottom check valve was replaced in January 1995. The ball in the check valve stuck shut which caused excess air to flow into the system.

2.2.3 Air Compressor Performance

A dedicated air compressor provides the supply of compressed air to power the well pump. The air compressor system includes an oil-less piston compressor unit mounted on a 20 gallon tank with an automatic arrangement for draining condensate from the tank.

The pneumatic controller requires a minimum input pressure from the compressor of 55 psi. The compressor is sized to deliver a minimum of 2.5 SCFM at 100 psi.

The first compressor was replaced in December 1993. The thermal controls shut the initial compressor down due to high duty cycles and supply pressures. Geoguard (manufacturer of the pneumatic pump system) assessed the pump system during an inspection on December 7, 1993 (see Appendix C). Geoguard replaced the compressor, (although no damage was done to the original compressor) with an identical model.

2.2.4 Pneumatic Controller Performance

A pneumatic controller regulates the air supply from the compressor to the well pump. It functions as both a pressure reducer and timer to control the duration of the pressure (discharge) and vent (refill) cycles of the pump. By controlling the frequency of the pump cycle time, the pump discharge rate can be adjusted to match the rate of the well.

Flow rate is dependent on the static lift, pipe friction, and the air pressure setting. Average flow rate is dependent on discharge and vent time adjustments and needs to be equivalent to the actual well yield. When properly adjusted, the pump will switch to discharge mode when it is completely full.

The pressure and timing functions of the pneumatic controller have functioned without problems, although pressure settings may have been part of the reason why the compressor overheated in December 1993 (see Section 2.2.3). According to the October 1993 Engineering Report, the minimum pressure setting was estimated to be 18 to 24 psi. The manufacturer recommends the following equation to determine initial settings:

$$\text{Initial Pressure (psi)} = (\text{Pump Depth} \div 2) + 15$$

Given a pump depth of 13.5 feet, the initial pressure setting recommended by Geoguard is about 22 psi.

2.2.5 Bubbler Tube Performance

The bubbler tube runs from a probe set along side the pump body to the controller. Its function is to track the water level inside the well. If the water level is too low, the controller will sense back pressure from the bubbler tube and prevent compressed air from entering the pump timing control module.

The pressure regulator valve (level control valve) at the controller was replaced in June 1994 after an apparent malfunction in May 1994.

3.0 PHYSICAL AND CHEMICAL INFORMATION OF INFLUENT

3.1 Physical Description and Properties

This section presents the physical description and properties of each of the 13 organic pollutants detected in groundwater pumped from DMW1. EPA Method 601, Purgable Halocarbons, was used to generate the data. This method includes a target parameter list of 29 volatile organic compounds (VOCs).

3.1.1 Trichloroethene

Trichloroethene is a nonflammable, colorless liquid with a sweet odor, similar to chloroform. Trichloroethene is used as a solvent for fats, waxes, resins, oils, rubber, paint, and varnishes. It is also used in dry cleaning and the manufacture of organic chemicals and pharmaceuticals. Trichloroethene has a molecular weight of 131, a boiling point of 188 degrees F, and a solubility of 0.1 percent. Moderate exposure can have an inebriating effect on humans. Narcotic effects result from high concentrations.

3.1.2 1,1,1-Trichloroethane

1,1,1-Trichloroethane is a nonflammable, colorless liquid with a mild chloroform odor. 1,1,1-Trichloroethane is used for cold type metal cleaning and plastic mold cleaning. It has a molecular weight of 133, a boiling point of 165 degrees and a solubility of 0.07 percent. Irritation of eyes and mucous membranes may result, as well as a narcotic effect at high levels.

3.1.3 cis 1,2-Dichloroethene

Cis 1,2-Dichloroethene is a flammable colorless liquid with an ethereal, slightly acrid odor. Upon exposure to air, light, and moisture cis 1,2-dichloroethene will gradually decompose into hydrochloric acid (HCl). It is used as a solvent for fats, phenol, and camphor. It has a molecular weight of 97, a boiling point of 140 degrees F, is insoluble in water, and has a flash point of about 38 degrees F. Cis 1,2-Dichloroethene may cause respiratory irritation or narcosis.

3.1.4 1,1-Dichloroethane

1,1-Dichloroethane is a flammable, colorless, oily liquid with the odor and taste of chloroform. It has a molecular weight of 99, a boiling point of 135 degrees F, a solubility of <0.1 percent and a flash point of 17 degrees F. It can have narcotic effects at high exposure levels.

3.1.5 1,1-Dichloroethene

1,1-Dichloroethene is a nonflammable, colorless liquid with a mild, sweet chloroform-like odor. 1,1-Dichloroethene is an intermediate in the production of polymer plastics. It has a molecular weight of 97, a boiling point of 89°F and is nearly insoluble in water. 1,1-Dichloroethene is a skin and mucous membrane irritant and can be a narcotic at high concentrations.

3.1.6 Vinyl Chloride

Vinyl Chloride is a flammable, colorless gas. Vinyl Chloride is used for organic synthesis, as a refrigerant, and in industry. It has a molecular weight of 63, a boiling point of 8°F and is slightly soluble in water. Vinyl Chloride causes "vinyl chloride disease" and may be a narcotic in high concentrations.

3.1.7 Chloroethane

Chloroethane is a flammable liquid with an ethereal odor. Chloroethane is used as a refrigerant and a solvent. It has a molecular weight of 65, a boiling point of 54°F and a solubility of 0.547g/100ml of water. Chloroethane is a mild mucous membrane irritant and high concentrations can cause narcosis or unconsciousness.

3.1.8 Tetrachloroethene

Tetrachloroethene is a nonflammable, colorless liquid with an ethereal odor. Tetrachloroethene is used in dry cleaning, degreasing metals, and used as a solvent. It has a molecular weight of 166, a boiling point of 250°F and a low solubility. Tetrachloroethene can be a narcotic in high concentrations and causes dermatitis upon contact with the skin.

3.1.9 Methylene Chloride

Methylene Chloride is a nonflammable, colorless liquid. Methylene Chloride is used as a solvent and a degreasing and cleaning agent. It has a molecular weight of 85, a boiling point of 104°F and is soluble in about 50 parts water. Methylene Chloride can be narcotic in high concentrations.

3.1.10 Trans-1,2-Dichloroethene

Trans-1,2-Dichloroethene is a flammable, colorless liquid with an ethereal, slightly acrid odor. Upon exposure to air, light, and moisture, trans-1,2-Dichloroethene will gradually decompose into Hydrochloric acid (HCl). It is used as a solvent for fats, phenol, and camphor. It has a molecular weight of 97, a boiling point of 117°F and is insoluble in water. trans-1,2-Dichloroethene may respiratory irritation or narcosis.

3.1.11 1,1,2-Trichloroethane

1,1,2-Trichloroethane is a nonflammable liquid with a pleasant odor. 1,1,2-Trichloroethane is used as a solvent for fats and waxes. It has a molecular weight of 133, a boiling point of 235°F and is insoluble in water. 1,1,2-Trichloroethane is irritating to the eyes and mucous membranes and can be narcotic in high concentrations.

3.1.12 cis-1,2-Dichloropropane

cis-1,2-Dichloropropane is a nonflammable liquid with a chloroform-like odor. cis-1,2F Dichloropropane is used as a soil fumigant. It has a molecular weight of 111 and a boiling point of 220°F. cis-1,2-Dichloropropane is irritating to the skin, eyes, and mucous membranes.

3.1.13 Chloroform

Chloroform is a nonflammable, heavy, sweet tasting liquid with a characteristic odor. Chloroform is used as a solvent and a cleaner and is used in fire extinguishers and the rubber industry. It has a molecular weight of 120, a boiling point of 142°F and a low solubility. Chloroform can cause hypotension, respiratory and myocardial depression, and death if inhaled in large doses.

3.2 Laboratory Results

Table 3.1 shows total VOC results (sum total of all target compounds detected). The table indicates, with shading, results that were gathered prior to system start-up. Also, the table shows gallons treated at the time sampling took place. The bold concentrations indicate when carbon breakthrough was noted at 15,550, 29,980, and 45,710 gallons.

Tables 3.2 through 3.5 show results for compounds that were consistently detected at levels above 500 µg/L which include trichloroethene, 1,1,1-trichloroethene, 1,2-dichloroethene, and 1,1-dichloroethane.

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CONKLIN FACILITY- GROUNDWATER RECOVERY AND TREATMENT SYSTEM

TABLE 3.1

Total Volatile Organic Concentrations (ug/l) at various system locations

DATES	INFLUENT	MIDPOINT	EFFLUENT	GALLONS TREATED
6/4/91	85800	*	*	*
8/13/92	91420	*	*	*
10/28/93	20400	ND	ND	
1/13/94	26377	ND	ND	8370
3/22/94	11246	ND	ND	8570
5/12/94	31431	**173.6**	ND	15550
6/15/94	23379	ND	*	16220
8/16/94	*	**1.1**	*	29980
9/15/94	*	ND	*	38370
10/11/94	*	**11.8**	*	45710
11/15/94	*	**1701**	*	50030

* -No test taken

ND -Parameter not detected above method detection limit

MIDPOINT -Sample port between the two(2) carbon filters.

NOTE: Shading indicates that samples were taken directly from recovery wells prior to system start-up.

Bold concentrations indicate carbon breakthrough.

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TABLE 3.2

Trichloroethene Concentrations (ug/l) at various system locations

DATES	INFLUENT	MIDPOINT	EFFLUENT
6/4/91	31000	*	*
8/13/92	35200	*	*
10/28/93	5710	ND	ND
1/13/94	14800	ND	ND
3/22/94	9720	ND	ND
5/12/94	18500	ND	ND
6/15/94	15900	ND	*
8/16/94	*	ND	*
9/15/94	*	ND	*
10/11/94	*	ND	*
11/15/94	*	195	*

* -No test taken
ND -Parameter not detected above method detection limit
MIDPOINT -Sample port between the two(2) carbon filters.
NOTE: Shading indicates that samples were taken directly from recovery wells prior to system start-up.

TABLE 3.3

1,1,1-Trichloroethane Concentrations (ug/l) at various system locations

DATES	INFLUENT	MIDPOINT	EFFLUENT
6/4/91	17500	*	*
8/13/92	32700	*	*
10/28/93	7270	ND	ND
1/13/94	6020	ND	ND
3/22/94	571	ND	ND
5/12/94	6660	22.1	ND
6/15/94	4940	ND	*
8/16/94	*	ND	*
9/15/94	*	ND	*
10/11/94	*	1.5	*
11/15/94	*	235	*

* -No test taken
ND -Parameter not detected above method detection limit
MIDPOINT -Sample port between the two(2) carbon filters.
NOTE: Shading indicates that samples were taken directly from recovery wells prior to system start-up.

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TABLE 3.4

cis 1,2-Dichloroethene Concentrations (ug/l) at various system locations

DATES	INFLUENT	MIDPOINT	EFFLUENT
6/4/91	30300	*	*
8/13/92	17500	*	*
10/28/93	5970	1	ND
1/13/94	4690	ND	ND
3/22/94	356	ND	ND
5/12/94	5360	36.4	ND
6/15/94	1700	ND	*
8/16/94	*	ND	*
9/15/94	*	ND	*
10/11/94	*	11.8	*
11/15/94	*	987	*

* -No test taken
ND -Parameter not detected above method detection limit
MIDPOINT -Sample port between the two(2) carbon filters.
NOTE: Shading indicates that samples were taken directly from recovery wells prior to system start-up.

TABLE 3.5

1,1-Dichloroethane Concentrations (ug/l) at various system locations

DATES	INFLUENT	MIDPOINT	EFFLUENT
6/4/91	2450	*	*
8/13/92	2720	*	*
10/28/93	1250	ND	ND
1/13/94	593	ND	ND
3/22/94	599	ND	ND
5/12/94	793	76	ND
6/15/94	476	ND	*
8/16/94	*	ND	*
9/15/94	*	ND	*
10/11/94	*	3.1	*
11/15/94	*	173	*

* -No test taken
ND -Parameter not detected above method detection limit
MIDPOINT -Sample port between the two(2) carbon filters.
NOTE: Shading indicates that samples were taken directly from recovery wells prior to system start-up.

4.0 CONCLUSIONS

Table 4.1 below shows the mass of the major pollutants removed from the system. It is estimated that over four thousand two hundred (4,200) grams of pure volatile organic chemicals have been removed from the system since its start-up in October 1993. This is an acceptable amount given the low yield of the recovery well (DMW1).

TABLE 4.1

AMOUNT OF POLLUTANTS REMOVED FROM SYSTEM

CHEMICAL	AVERAGE INFLUENT CONCENTRATION µG/L	TOTAL WATER TREATED		TOTAL POLLUTANT REMOVED		
		Gallons	Liters	µg	Grams	Pounds
Trichloroethene	12926	50030	189364	2.45E 09	2448	5.4
1,1,1Trichloroethane	5092	50030	189364	9.64E 08	964	2.1
cis 1,2-Dichloroethene	3615	50030	189364	6.85E 08	685	1.5
1,1-Dichloroethane	742	50030	189364	1.41E 08	141	0.3
TOTAL ORGANIC VOLATILES	**22566**	**50030**	**189364**	**4.27E 09**	**4273**	**9.4**

The maximum amount the system pumped in one day, according to flow records, was about 300 gallons which corresponds to a well yield of about .2 gallons per minute (gpm). Over a period of about 450 days, the system pumped 50,030 gallons which is an average of 110 gallons per day. The difference between a maximum of 300 gallons and the 110 average represents the effect of down time due to various operational/mechanical problems mentioned in this report, and winter shut-downs.

It is expected that the average pump rate will increase to over 200 gpd given the improvements made since October 1993 to reduce compressor over-heating and the improved maintenance practices regarding filter changes at the bag filter and adjustments to the pressure and timing settings at the pneumatic controller.

APPENDIX A

COLOR PHOTOGRAPHS

Photo 1: Well head location on west side of the building.

Photo 2: View inside well head enclosure.

Photo 3: View of treatment system, facing northeast.

Photo 4: View of treatment system, facing west.

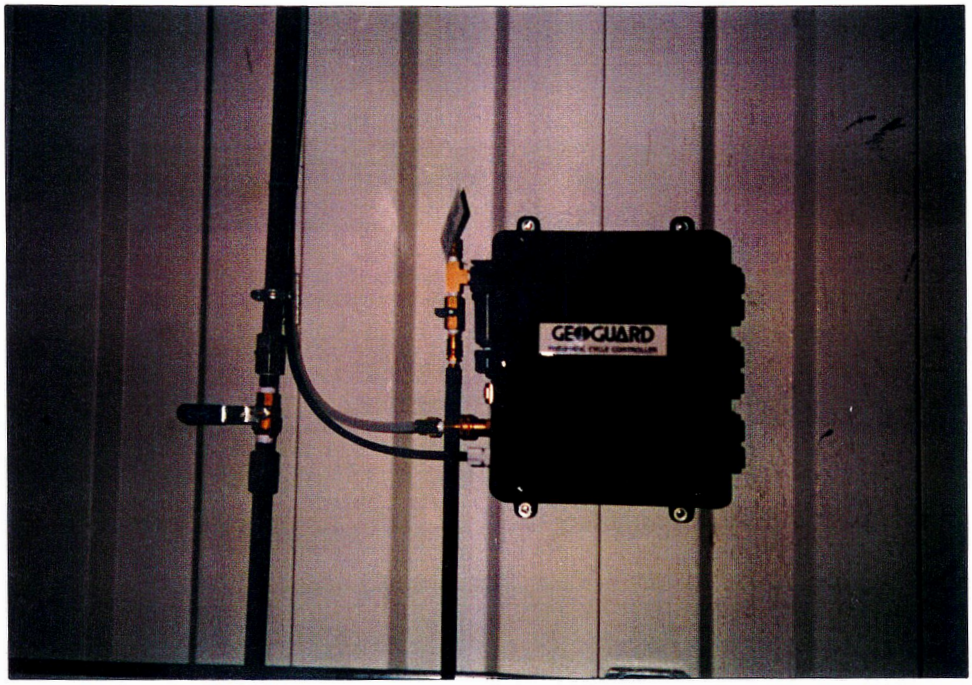

Photo 5: The Geoguard pneumatic cycle controller.

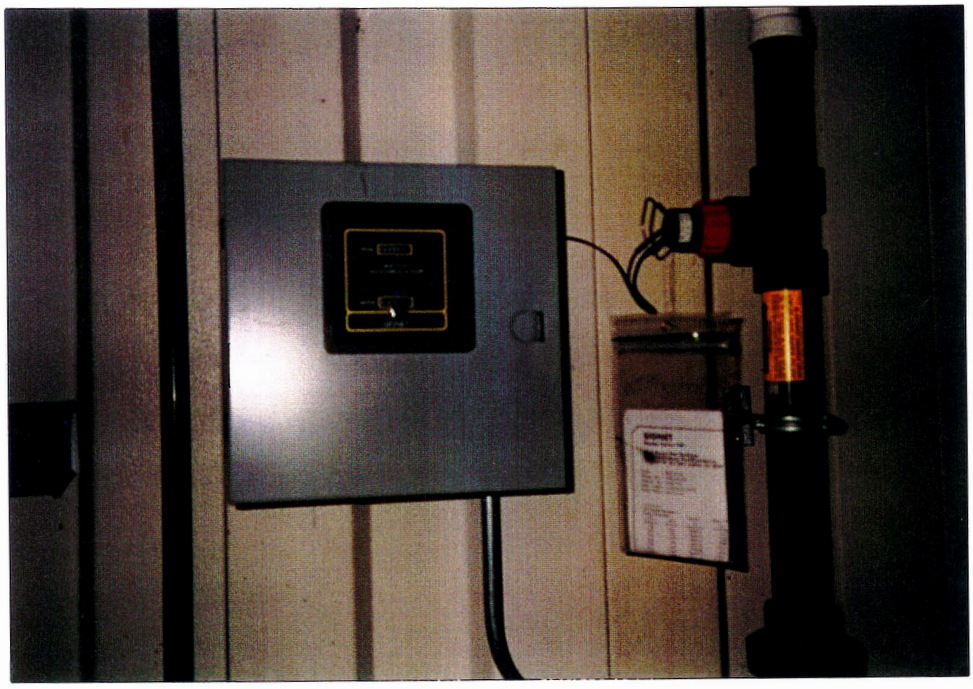

Photo 6: The Signet Total Flow Recorder.

APPENDIX B

INDUSTRIAL DISCHARGE PERMIT AND MONTHLY REPORTS

Binghamton-Johnson City
JOINT SEWAGE BOARD
CONTAMINATED GROUNDWATER DISCHARGE PERMIT

PERMIT NUMBER: 002

INDUSTRIAL CODE: NA EFFECTIVE DATE: DRAFT

SIC: NA EXPIRATION DATE: September 30, 1994

In compliance with Article 6, Section 6.03 of the Rules and Regulations Relating to Use of the Binghamton-Johnson City Joint Sewage Treatment Plant issued by the Binghamton-Johnson City Joint Sewage Board,

DOVATRON MANUFACTURING EAST
NAME OF COMPANY

is authorized by the Board to discharge industrial wastewater from an industrial facility located at 498 Conklin Avenue
Binghamton, New York 13903
ADDRESS OF COMPANY FACILITY DISCHARGING WASTEWATER

to the Binghamton-Johnson City Joint Sewage Treatment Plant in accordance with the following conditions:

A. EFFLUENT LIMITATIONS

The wastewater discharge of the Permittee shall be limited by local limits defined in Article 5.07 of the Rules and Regulations.

In addition, the wastewater shall meet the limitations listed below prior to any discharge to the public sewer system.

PARAMETER[1]	ALLOWABLE DAILY AVERAGE EFFLUENT CONCENTRATION LIMIT[2]
Cadmium	0.30 mg/l
Chromium	5.36 mg/l
Copper	3.38 mg/l
Cyanide	2.31 mg/l
Lead	2.50 mg/l
Mercury	0.001 mg/l
Nickel	3.98 mg/l
Zinc	8.81 mg/l
Oil & Grease	100[3] mg/l
Total Toxic Organics	2.13 mg/l
PCBs, Total	0.001 mg/l
Flow	1,500 gpd

WILLIAM J. HORRIGAN, JR., *Superintendent*—Binghamton-Johnson City Joint Sewage Treatment Facilities
4480 Old Vestal Road, Vestal, New York 13850
Phone 1-607-729-2975 TELEFAX 1-607-729-0110

1. All concentrations listed for metallic substances shall be as "total metal" which shall be defined as the value measured in a sample acidified to a pH value of less than two without prior filtration.
2. As determined by a composite of hourly grab samples taken of the user's daily discharge over the operational and/or production period.
3. As determined by individual grab samples of the user's daily discharge.

The following wastes shall not be introduced into the public sewer system:

(1) Wastes which create a fire or explosion hazard in the sewer system or treatment works including, but not limited to, wastestreams with a closed-cup flashpoint of less than 140°F (60°C) using the test methods specified in 40 CFR 261.21.

(2) Wastes which have a pH lower than 6.0 or higher than 10.0.

(3) Solid or viscous wastes in amounts which would cause obstruction to the flow in sewers, or other interference with the proper operation of the sewage treatment plant.

(4) Wastes at a flow rate and/or pollutant discharge rate which is excessive over relatively short time periods so that there is a treatment process upset or subsequent loss of treatment efficiency at the sewage treatment plant.

(5) Wastes which are prohibited in Article 5 of the Rules and Regulations Relating to Use of the Binghamton-Johnson City Joint Sewage Treatment Plant.

B. MONITORING AND RECORDING

The monitoring of each industrial discharge and the recording of quantitative values shall be performed by the Permittee according to schedules established by the Joint Sewage Board utilizing approved methodology. The flow (in gallons per day) shall be measured during each sampling period. If flow measurement is not practicable, water use records may be substituted in place of flow measurement.

The sampling schedule cited below shall become effective when discharge to the sewer system begins.

SAMPLING LOCATION	PARAMETERS	MONITORING FREQUENCY	TYPE OF SAMPLE
Discharge from the First Carbon Unit	TTO	Monthly	Grab
	Lead	Monthly	Grab
	Oil & Grease	Monthly	Grab
	PCBs, Total	Monthly	Grab
	pH	Monthly	Grab
	Flow	Continuous	Meter

All analyses shall be performed in accordance with the latest edition of the following references:

STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, Latest Edition, American Public Health Association, New York, New York 10019.

METHODS FOR CHEMICAL ANALYSIS OF WATER AND WASTES, March, 1983, EPA-600/4-79-020, Environmental Protection Agency, Water Quality Office, Environmental Monitoring and Support Laboratory, NERC, 1014 Broadway, Cincinnati, Ohio 45268.

GUIDELINES ESTABLISHING TEST PROCEDURES FOR THE ANALYSIS OF POLLUTANTS UNDER THE CLEAN WATER ACT, FINAL RULE, Environmental Protection Agency, 40 CFR Part 136, October 26, 1984.

C. REPORTING REQUIREMENTS

SELF MONITORING REPORT - The industrial user shall submit to the Joint Sewage Board a Self Monitoring Report as required under Federal regulation 40 CFR 403.12. Such reports shall be submitted quarterly and contain the results of the monitoring required under this permit.

D. NOTICE OF NON-COMPLIANCE

In the event the Permittee does not comply with or will be unable to comply with any effluent limitation specified in this permit due to:

(1) Breakdown of Industrial Waste Pretreatment Equipment,
(2) Accidents caused by human error or negligence; or
(3) Other causes, such as acts of nature,

the Permittee shall notify the Pretreatment Program Manager forthwith so that the necessary steps to prevent damage to the wastewater collection and treatment system can be taken. In addition to the notice provided above, the Permittee shall notify the Manager in writing within five days of the date of occurrence, by a detailed statement including the following pertinent information:

(1) Cause of noncompliance.
(2) A description of the noncomplying discharge.
(3) Anticipated time the condition of noncompliance is expected to continue, or if such condition has been corrected, the duration of the period of noncompliance.
(4) Steps taken by the Permittee to reduce and eliminate the non-complying discharge; and
(5) Steps to be taken by the Permittee to prevent recurrence of the condition of noncompliance.

Nothing in this permit shall be construed to relieve the Permittee from the penalties for noncompliance with this permit for any reason subject to the Rules and Regulations Relating to Use of the Binghamton-Johnson City Joint Sewage Treatment Plant.

E. CHANGE IN WASTEWATER DISCHARGE

All discharges authorized herein shall comply with the terms and conditions of this permit. Any industrial facility expansions, production increases or process modifications which result in new, different or increased discharges of pollutants must be reported by submission of revised Industrial Chemical Survey and Industrial Waste Survey Forms pursuant to Article 6 Section 6.02 of the Rules and Regulations Relating to Use of the Binghamton-Johnson City Joint Sewage Treatment Plant. This permit may be modified to specify and limit any pollutants not previously limited. The discharges of any pollutant more frequently than, or at a level in excess of, that specified and authorized by this permit shall constitute a violation of the terms and conditions of this permit.

F. MODIFICATION, SUSPENSION OR REVOCATION OF PERMITS

(1) Industrial Wastewater Discharge Permits may be modified, suspended or revoked whenever the Joint Sewage Board finds after a hearing held in conformance with the procedures set forth in Article 3:

- that the user has violated any term of the permit; or
- that the user obtained the permit by misrepresentation or failure to disclose fully all relevant facts.

(2) Permits may additionally be modified, suspended or revoked whenever the Board determines that a change in conditions or the existence of a condition at the Joint Sewage Treatment Plant requires either a temporary or permanent reduction or elimination of the authorized discharge. The Manager shall notify affected users of any proposed changes in their permit at least 30 days prior to the effective date of the change. Any changes or new conditions in the permit shall include a reasonable time schedule for compliance. Any user aggrieved by a proposed modification, suspension or revocation of the user's wastewater discharge permit may appeal to the Board for relief in accordance with the provisions of Article 3, Section 3.08 of the Rules and Regulations.

(3) If the Manager finds that the public health, safety or welfare requires emergency action, and incorporates a finding to that effect in his/her order, summary suspension or modification of a permit may be ordered pending proceedings for modification, suspension, revocation or other action. As soon as possible thereafter, but not to exceed 15 days, the Board shall provide the affected user an opportunity to be heard in accordance with the hearing provisions of Article 3 of the Rules and Regulations.

G. RIGHT OF ENTRY

The Permittee shall allow duly authorized employees or representatives of the Joint Board to enter the Permittee's premises for the purpose of inspection, observation, measurement, sampling, and testing in accordance with Article 6, Section 6.19 of the Rules and Regulations.

H. TRANSFER OF PERMIT

Industrial Wastewater Discharge Permits are issued to a specific User for a specific operation and are non-transferable. In the event of any change in ownership of the industrial facility, the Permittee shall notify the new owner of the existence of the permit by letter, a copy of which shall be forwarded to the Manager.

I. PRETREATMENT FACILITIES

The Permittee shall provide and maintain at his expense, all necessary facilities for the pretreatment of industrial wastewaters when required by the Joint Sewage Board pursuant to Article 6, Section 6.14 of the Rules and Regulations Relating to Use of the Binghamton-Johnson City Joint Sewage Treatment Plant. All reports, plans and/or specifications for new or modified pretreatment facilities must be submitted to the Joint Sewage Board.

J. WASTE MATERIAL DISPOSAL

Any screenings, sludges, solids, waste oils, or other waste materials removed or separated from the Permittee's authorized discharge shall be disposed of in such a manner as to prevent entry of such materials into navigable waters or into the wastewater treatment system. The following data shall be reported to the Joint Sewage Board:

(1) The sources of materials to be disposed of.
(2) The approximate volumes and weights.
(3) The method by which they were removed and transported.
(4) The company contracted to remove such materials.
(5) The final disposal or recovery location.

K. MONITORING FACILITY REQUIREMENTS

If, in the opinion of the Pretreatment Program Manager, there are not adequate facilities where representative samples can be obtained and accurate flow measurement taken, the Joint Sewage Board can require that monitoring facilities be installed by the Permittee at his expense in accordance with Article 6, Section 6.13 of the Rules and Regulations Relating to Use of the Binghamton-Johnson City Joint Sewage Treatment Plant.

L. RECORD-KEEPING REQUIREMENTS

The Permittee shall maintain records of all information resulting from any monitoring activities for a minimum of three years, whether or not such monitoring activities are required by the Joint Sewage Board. The period of retention shall be extended during the course of any unresolved litigation regarding the Industrial User. The records shall be made available for inspection and copying by the Joint Sewage Board. Records for all monitoring shall include:

(1) The date, exact place, method and time of sampling and the names of the person or persons taking the samples.

(2) The dates analyses were performed.
(3) Who performed the analyses.
(4) The analytical methods used.
(5) The results of such analyses.

M. COMPUTATION AND PAYMENTS OF INDUSTRIAL WASTE SURCHARGE

The Permittee shall pay its proportionate share of the cost of operation and maintenance and local debt retirement of the treatment facility to which it discharges industrial wastewater.

As stated in Article 7, Section 7.03 of the Rules and Regulations, the Industrial Wastewater shall be computed by the Board in the following manner:

$$\text{Surcharge} = 8.34\ Q\ (C_x - C_{x\ STP})\ \$_x + \ldots$$

Where:

- Q = Flow of User's Discharge in millions of gallons per day.
- C_x = Concentration of parameter x in user's discharge in parts per million.
- C_x STP = Sewage treatment plant design concentration of parameter x in parts per million.
- $\$_x$ = Unit charge for treatment of parameter x in dollars per pound.

The unit charge ($\$_x$) for any parameter (x) subject to surcharge will be determined as follows:

$$\$_x = \frac{[P_{cx}\ (\text{Capital Cost}) + P_{ox}\ (\text{Operation and Maintenance Cost})] \div 365}{L_x} +$$

Where:

- P_{cx} = Percentage of annual capital cost debt retirement attributable to treatment of parameter x.
- P_{ox} = Percentage of annual operation and maintenance cost attributable to treatment of parameter x.
- L_x = Average sewage treatment plant influent loading of parameter x in pounds per day.

The parameter x shall be based upon the measured or estimated constituents and characteristics of your wastewater discharge which may include but are not limited to: flow rate, Biochemical Oxygen Demand (BOD_5), Total Suspended Solids (TSS), Total Phosphorous (TP), Total Nitrogen (TKN), Total Organic Carbon (TOC).

Payments shall be made to the Joint Sewage Board by the industrial users no less often than annually. If there is a substantial change in the wastewater characteristics and flow rate introduced into the sewer system by an industrial user, such user's industrial surcharge shall be adjusted accordingly.

N. OTHER REQUIREMENTS

AUTHORIZATION AND AGREEMENT

This permit and the authorization to discharge industrial wastewater into the Binghamton-Johnson City Joint Sewage Treatment Plant shall be legally binding upon the Permittee. The Permittee shall not discharge after the date of expiration. In order to receive a new permit and continued authorization to discharge wastewater to the Binghamton-Johnson City Joint Sewage Treatment Plant beyond the date of expiration, the Permittee shall have paid all industrial waste surcharges owed to the Joint Sewage Board to date and submit any other information as required by the Board no earlier than 60 days and no later than 30 days prior to the expiration of this permit.

DATE SIGNATURE

By the authority of The Binghamton-Johnson City Joint Sewage Board. I hereby agree to comply with the terms, conditions and requirements of this permit.

SIGNATURE OF PERMITTEE OR AUTHORIZED REPRESENTATIVE DATE

PRINTED NAME OF PERSON SIGNING TITLE

Test Date: 5/12/94

BINGHAMTON-JOHNSON CITY JOINT SEWAGE BOARD
INDUSTRIAL WASTEWATER PRETREATMENT PROGRAM
PERIODIC MONITORING REPORT
CONTAMINATED GROUNDWATER DISCHARGE

DNE Time 1 of 2

A. General Information

Company Name DOVATRON INTERNATIONAL

Site Address 498 CONKLIN AVE

BINGHAMTON, N.Y. 13903

Permit Number 002 SIC Code 3679

Contact Person JIM O'BRIEN

Process Modifications since last reporting period [redacted]

B. Monitoring Results

Name of Laboratory BUCK ENVIRONMENTAL

Address of Laboratory 3845 RT 11 SOUTH

CORTLAND, N.Y. 13045

Laboratory Contact Person John Buck

Location of Sample WW2 - BETWEEN 1ST + 2ND CARBON UNITS + D3

Please enclose copies of the laboratory analytical results.

C. Certification

Certification: I certify that the material being discharged to the sanitary sewer system is not a listed hazardous waste or exhibits a characteristic of a hazardous waste. I further certify under penalty of law that this document and its attachments were prepared under my direction. Based on my inquiry of the persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violations. I further certify that sampling and analytical methodologies employed during the collection of data required for this submission conform to accepted methods established by the United States Environmental Protection Agency (USEPA) and/or the ~~New York~~ State Department of Health.

Signature of Preparer: ON BEHALF OF DOVATRON INTERNATIONAL James R O'Brien

Title: ENVIRONMENTAL + FACILITIES ENGINEER Date: 6/29/94

D. **Monthly Sampling Results**

Parameter	Unit	Daily Average Concentration Limit	Sampling Results
Date	–	–	
Cadmium, total	mg/l	0.30	N/A
Chromium, total	mg/l	5.36	N/A
Copper, total	mg/l	3.38	N/A
Cyanide,total	mg/l	2.31	N/A
Lead, total	mg/l	2.50	N.D.
Mercury, total	mg/l	0.001	N/A
Nickel, total	mg/l	3.98	N/A
Zinc, total	mg/l	8.81	N/A
Oil & Grease	mg/l	100	2.7
Total Toxic Organics (TTO)	mg/l	2.13	.076
PCBs, Total	mg/l	0.001	ND.
Flow	gal	1,500	100
pH			7.59

Any parameters greater than the Daily Concentration Limits NONE

Reason for non-compliance N/A

Steps taken to correct the cause of non-compliance N/A

BINGHAMTON-JOHNSON CITY JOINT SEWAGE BOARD
INDUSTRIAL WASTEWATER PRETREATMENT PROGRAM
PERIODIC MONITORING REPORT
CONTAMINATED GROUNDWATER DISCHARGE

A. General Information

Company Name DOVATRON INTERNATIONAL
Site Address 498 CONKLIN AVE.
BINGHAMTON, N.Y. 13903
Permit Number 002 SIC Code 3679
Contact Person JIM O'BRIEN
Process Modifications since last reporting period NONE

B. Monitoring Results

Name of Laboratory BUCK ENVIRONMENTAL
Address of Laboratory 3845 RT. 11 SOUTH
CORTLAND, N.Y. 13045
Laboratory Contact Person JOHN BUCK
Location of Sample WW2 - BETWEEN 1ST & 2ND CARBON UNITS + WW3

Please enclose copies of the laboratory analytical results. JUNE 15, 1994

C. Certification

Certification: I certify that the material being discharged to the sanitary sewer system is not a listed hazardous waste or exhibits a characteristic of a hazardous waste. I further certify under penalty of law that this document and its attachments were prepared under my direction. Based on my inquiry of the persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violations. I further certify that sampling and analytical methodologies employed during the collection of data required for this submission conform to accepted methods established by the United States Environmental Protection Agency (USEPA) and/or the New York State Department of Health.

ON BEHALF OF DOVATRON INTERNATIONAL

Signature of Preparer: James L O'Brien

Title: ENVIRONMENTAL + FACILITIES ENGINEER Date: 7/21/94

D. **Monthly Sampling Results**

Parameter	Unit	Daily Average Concentration Limit	Sampling Results
Date	–	–	
Cadmium, total	mg/l	0.30	N/A
Chromium, total	mg/l	5.36	N/A
Copper, total	mg/l	3.38	N/A
Cyanide,total	mg/l	2.31	N/A
Lead, total	mg/l	2.50	.001
Mercury, total	mg/l	0.001	N/A
Nickel, total	mg/l	3.98	N/A
Zinc, total	mg/l	8.81	N/A
Oil & Grease	mg/l	100	.5
Total Toxic Organics (TTO)	mg/l	2.13	ND
PCBs, Total	mg/l	0.001	ND
Flow	gal	1,500	~ 150

Any parameters greater than the Daily Concentration Limits NONE

Reason for non-compliance N/A

Steps taken to correct the cause of non-compliance N/A

BINGHAMTON-JOHNSON CITY JOINT SEWAGE BOARD
INDUSTRIAL WASTEWATER PRETREATMENT PROGRAM
PERIODIC MONITORING REPORT
CONTAMINATED GROUNDWATER DISCHARGE

A. General Information

Company Name DOVATRON INTERNATIONAL
Site Address 498 CONKLIN AVE
BINGHAMTON, N.Y. 13903
Permit Number 002 SIC Code 3679
Contact Person JIM O'BRIEN
Process Modifications since last reporting period NONE
NO SAMPLING FOR JULY PERIOD DUE TO SYSTEM BEING DOWN

B. Monitoring Results

Name of Laboratory BUCK ENVIRONMENTAL
Address of Laboratory 3945 RT. 11 SOUTH
CORTLAND, N.Y. 13045
Laboratory Contact Person JOHN BUCK
Location of Sample WW2 BETWEEN 1ST & 2ND CARBON UNITS & [redacted]

Please enclose copies of the laboratory analytical results. Sample Collection Date: [redacted] 8/16/94 4/6

C. Certification

Certification: I certify that the material being discharged to the sanitary sewer system is not a listed hazardous waste or exhibits a characteristic of a hazardous waste. I further certify under penalty of law that this document and its attachments were prepared under my direction. Based on my inquiry of the persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violations. I further certify that sampling and analytical methodologies employed during the collection of data required for this submission conform to accepted methods established by the United States Environmental Protection Agency (USEPA) and/or the New York State Department of Health.

ON BEHALF OF DOVATRON

Signature of Preparer: James R. O'Brien

Title: Environmental & Facilities Engineer Date: 9/13/94

D. **Monthly Sampling Results**

Parameter	Unit	Daily Average Concentration Limit	Sampling Results
Date	–	–	
Cadmium, total	mg/l	0.30	N/A
Chromium, total	mg/l	5.36	N/A
Copper, total	mg/l	3.38	N/A
Cyanide,total	mg/l	2.31	N/A
Lead, total	mg/l	2.50	[redacted] .014
Mercury, total	mg/l	0.001	N/A
Nickel, total	mg/l	3.98	N/A
Zinc, total	mg/l	8.81	N/A
Oil & Grease	mg/l	100	[redacted] 4.1
Total Toxic Organics (TTO)	mg/l	2.13	.0011
PCBs, Total	mg/l	0.001	ND
Flow	gal	1,500	270 gal/day
pH			7.54

Any parameters greater than the Daily Concentration Limits NONE

Reason for non-compliance NONE

Steps taken to correct the cause of non-compliance

Conklin

BINGHAMTON-JOHNSON CITY JOINT SEWAGE BOARD
INDUSTRIAL WASTEWATER PRETREATMENT PROGRAM
PERIODIC MONITORING REPORT
CONTAMINATED GROUNDWATER DISCHARGE

A. General Information

Company Name DOVatron International
Site Address 498 Conklin Ave.
Binghamton, NY 13903
Permit Number 002 SIC Code 3679
Contact Person Jim O'Brien
Process Modifications since last reporting period None

B. Monitoring Results

Name of Laboratory Buck Environmental
Address of Laboratory 3845 Rt. 11 South
Cortland, NY 13045
Laboratory Contact Person John Buck
Location of Sample WW2 Between 1st & 2nd Carbon Units

Please enclose copies of the laboratory analytical results. Sampling Date: 9/15/94

C. Certification

Certification: I certify that the material being discharged to the sanitary sewer system is not a listed hazardous waste or exhibits a characteristic of a hazardous waste. I further certify under penalty of law that this document and its attachments were prepared under my direction. Based on my inquiry of the persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violations. I further certify that sampling and analytical methodologies employed during the collection of data required for this submission conform to accepted methods established by the United States Environmental Protection Agency (USEPA) and/or the New York State Department of Health.

Signature of Preparer: On behalf of DOVatron: James K O'Brien

Title: Environmental & Facilities Engineer Date: 10/25/94

D. **Monthly Sampling Results**

Parameter	Unit	Daily Average Concentration Limit	Sampling Results
Date	–	–	
Cadmium, total	mg/l	0.30	N/A
Chromium, total	mg/l	5.36	N/A
Copper, total	mg/l	3.38	N/A
Cyanide,total	mg/l	2.31	N/A
Lead, total	mg/l	2.50	.006
Mercury, total	mg/l	0.001	N/A
Nickel, total	mg/l	3.98	N/A
Zinc, total	mg/l	8.81	N/A
Oil & Grease	mg/l	100	3.5
Total Toxic Organics (TTO)	mg/l	2.13	0
PCBs, Total	mg/l	0.001	ND
Flow	gal	1,500	≈ 280 gal/day
pH			7.38

Any parameters greater than the Daily Concentration Limits None

Reason for non-compliance None.

Steps taken to correct the cause of non-compliance

498 Conklin Ave

BINGHAMTON-JOHNSON CITY JOINT SEWAGE BOARD
INDUSTRIAL WASTEWATER PRETREATMENT PROGRAM
PERIODIC MONITORING REPORT
CONTAMINATED GROUNDWATER DISCHARGE

A. General Information

Company Name: Dovatron International
Site Address: 498 Conklin Ave.
Binghamton, NY 13903
Permit Number: 002 SIC Code: 3679
Contact Person: Laurie Capalaces
Process Modifications since last reporting period: None

B. Monitoring Results

Name of Laboratory: Buck Environmental
Address of Laboratory: 3845 Rt. 11 South
Cortland, NY 13045
Laboratory Contact Person: John Buck
Location of Sample: WW2 Between 1st and 2nd Carbon units

Please enclose copies of the laboratory analytical results. Sampling Date: 10/11/94

C. Certification

Certification: I certify that the material being discharged to the sanitary sewer system is not a listed hazardous waste or exhibits a characteristic of a hazardous waste. I further certify under penalty of law that this document and its attachments were prepared under my direction. Based on my inquiry of the persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violations. I further certify that sampling and analytical methodologies employed during the collection of data required for this submission conform to accepted methods established by the United States Environmental Protection Agency (USEPA) and/or the New York State Department of Health.

On Behalf of Dovatron:

Signature of Preparer: Laurie L. Capalaces

Title: Environmental Tech. / Service Eng. Date: 11-21-94

D. **Monthly Sampling Results**

Parameter	Unit	Daily Average Concentration Limit	Sampling Results
Date	--	--	
Cadmium, total	mg/l	0.30	N/A
Chromium, total	mg/l	5.36	N/A
Copper, total	mg/l	3.38	N/A
Cyanide,total	mg/l	2.31	N/A
Lead, total	mg/l	2.50	ND
Mercury, total	mg/l	0.001	N/A
Nickel, total	mg/l	3.98	N/A
Zinc, total	mg/l	8.81	N/A
Oil & Grease	mg/l	100	19.1
Total Toxic Organics (TTO)	mg/l	2.13	.0118
PCBs, Total	mg/l	0.001	ND
Flow	gal	1,500	~372 gal/day
pH			7.13

Any parameters greater than the Daily Concentration Limits None

Reason for non-compliance None

Steps taken to correct the cause of non-compliance —

BINGHAMTON-JOHNSON CITY JOINT SEWAGE BOARD
INDUSTRIAL WASTEWATER PRETREATMENT PROGRAM
PERIODIC MONITORING REPORT
CONTAMINATED GROUNDWATER DISCHARGE

A. General Information

Company Name: DoVatron International
Site Address: 498 Conklin Ave.
Binghamton, NY 13903
Permit Number: 002 SIC Code: 3679
Contact Person: Laurie Capalaces
Process Modifications since last reporting period: None

B. Monitoring Results

Name of Laboratory: Buck Environmental
Address of Laboratory: 3845 Rt. 11 South
Cortland, NY 13045
Laboratory Contact Person: John Buck
Location of Sample: WW2 Between 1st and 2nd Carbon Units.

Please enclose copies of the laboratory analytical results. Sampling Date: 11-15-94

C. Certification

Certification: I certify that the material being discharged to the sanitary sewer system is not a listed hazardous waste or exhibits a characteristic of a hazardous waste. I further certify under penalty of law that this document and its attachments were prepared under my direction. Based on my inquiry of the persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violations. I further certify that sampling and analytical methodologies employed during the collection of data required for this submission conform to accepted methods established by the United States Environmental Protection Agency (USEPA) and/or the New York State Department of Health.

On Behalf of DoVatron:

Signature of Preparer: Laurie A. Capalaces

Title: Environmental Technician Date: 12-16-94

D. **Monthly Sampling Results**

Parameter	Unit	Daily Average Concentration Limit	Sampling Results
Date	–	–	
Cadmium, total	mg/l	0.30	N/A
Chromium, total	mg/l	5.36	N/A
Copper, total	mg/l	3.38	N/A
Cyanide,total	mg/l	2.31	N/A
Lead, total	mg/l	2.50	~~N/A~~ .001
Mercury, total	mg/l	0.001	N/A
Nickel, total	mg/l	3.98	N/A
Zinc, total	mg/l	8.81	N/A
Oil & Grease	mg/l	100	28.1
Total Toxic Organics (TTO)	mg/l	2.13	1.7
PCBs, Total	mg/l	0.001	ND
Flow	gal	1,500 ≈	233 gal/Day
pH			7.63

Any parameters greater than the Daily Concentration Limits None

Reason for non-compliance None

Steps taken to correct the cause of non-compliance —

BUCK ENVIRONMENTAL LABORATORIES INC.
3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150
607-753-3403

LABORATORY REPORT
Lab Log No: 9401126

Client: Stetson-Harza
181 Genesee Street
Utica, NY 13501-2168

Site: Dovatron

Report Date: February 14, 1994
Sampling Date: 01/13/94
Sampled By: P. Romano
Date Received: 01/13/94

Sample ID: WW3

TEST	METHOD	ANALYZED	BY	UNITS	DL	RESULT
Lead	239.2/7421	01/18/94	SRG	mg/L	.001	.013
Oil & Grease	413.1/9070	01/19/94	SAG	mg/L	.5	1.34
pH	150.1/9040	01/17/94	TRA	units	.1	7.38

ND - None detected greater than detection limits (DL) noted.

These results are certified as conforming with generally accepted laboratory standards and requirements of the New York State Department of Health ELAP Program.

John H. Buck

Laboratory Director
ELAP ID - 10795

BUCK ENVIRONMENTAL LABORATORIES INC.
ACCREDITED ENVIRONMENTAL ANALYSIS
3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150 607-753-3403

498 Conklin Ave N.Tc

Report Date: 4/15/94

Lab Log Number: 9403246

LABORATORY REPORT

Client: **Stetson-Harza**
181 Genesee Street
Utica, NY 13501

Site: Dovatron

Sample: WW-3

Date of Sample: 3/22/94 by Paul Romano, received 3/22/94

PCB (by EPA 3510 and 8080) volatile
RESULTS

CHK w/ S-H OK

WW-3	ND (<0.05 mg/L)

ND - None detected greater than detection limits noted.

These analyses are certified as conforming to generally accepted laboratory practices and requirements of the New York State Health Department ELAP program.

John H. Buck, P.E.
Laboratory Director
NYS ELAP CERT 10795

APPENDIX C

LABORATORY DATA

BUCK ENVIRONMENTAL LABORATORIES INC.
ACCREDITED ENVIRONMENTAL ANALYSIS
3845 ROUTE 11 SOUTH, P.O. BOX 5150
CORTLAND, N.Y. 13045 607-753-3403

LABORATORY REPORT
Lab Log No: 9310368

Client: *Stetson-Harza*
181 Genesee Street
Utica, NY 13501-2168

Site: Dovatron, 498 Conklin Ave. Site

Report Date: 12/01/93
Sampling Date: 10/28/93
Sampled By: P. Romano
Date Received: 10/28/93
Analyzed by: EAC, 11/10/93

Sample ID: WW-1 Before first Carbon Unit

VOLATILES BY METHOD EPA_601

ANALYTE	CAS #	UNITS	DL	RESULT
Bromodichloromethane	75-27-4	ug/l	1.0	ND
Bromoform	75-25-2	ug/l	1.0	ND
Bromomethane	74-83-9	ug/l	1.0	ND
Carbon Tetrachloride	56-23-5	ug/l	1.0	ND
Chlorobenzene	108-90-7	ug/l	1.0	ND
Chloroethane	75-00-3	ug/l	1.0	ND
2-Chloroethylvinyl ether	110-75-8	ug/l	1.0	ND
Chloroform	67-66-3	ug/l	1.0	ND
Chloromethane	74-87-3	ug/l	1.0	ND
Dibromochloromethane	124-48-1	ug/l	1.0	ND
1,2-Dichlorobenzene	95-50-1	ug/l	1.0	ND
1,3-Dichlorobenzene	541-73-1	ug/l	1.0	ND
1,4-Dichlorobenzene	106-46-7	ug/l	1.0	ND
Dichlorodifluoromethane	75-71-8	ug/l	1.0	ND
1,1-Dichloroethane	75-34-3	ug/l	1.0	*1250*
1,2-Dichloroethane	107-06-2	ug/l	1.0	ND
1,1-Dichloroethene	75-35-4	ug/l	1.0	*157*
trans-1,2-Dichloroethene	156-60-5	ug/l	1.0	*22.1*
cis-1,2-Dichloroethene	156-59-2	ug/l	1.0	*5970*
1,2-Dichloropropane	78-87-5	ug/l	1.0	ND
cis-1,3-Dichloropropene	10061-01-5	ug/l	1.0	ND
trans-1,3-Dichloropropene	10061-02-6	ug/l	1.0	ND
Methylene Chloride	75-09-2	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	1.0	ND
Tetrachloroethene	127-18-4	ug/l	1.0	*19.0*
1,1,1-Trichloroethane	71-55-6	ug/l	1.0	*7270*
1,1,2-Trichloroethane	79-00-5	ug/l	1.0	*1.7*
Trichloroethene	79-01-6	ug/l	1.0	*5710*
Trichlorofluoromethane	75-69-4	ug/l	1.0	ND
Vinyl Chloride	75-01-4	ug/l	1.0	ND

ND - None detected greater than detection limit (DL) noted.
These results are certified as conforming with generally accepted laboratory standards and requirements of the New York State Department of Health ELAP Program.

John H. Buck

Laboratory Director
ELAP ID - 10795

BUCK ENVIRONMENTAL LABORATORIES INC.
ACCREDITED ENVIRONMENTAL ANALYSIS
3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150 607-753-3403

LABORATORY REPORT
Lab Log No: 9310368

Client: Stetson-Harza
181 Genesee Street
Utica, NY 13501-2168

Site: Dovatron

Report Date: November 16, 1993
Sampling Date: 10/28/93
Sampled By: P. Romano
Date Received: 10/28/93

Sample ID: WW-1

TEST	METHOD	ANALYZED	BY	UNITS	DL	RESULT
Cadmium	200.7/6010	11/02/93	SRG	mg/l	.05	.050
Chromium	200.7/6010	11/02/93	SRG	mg/l	.05	ND
Copper	200.7/6010	11/02/93	SRG	mg/l	.05	.050
Lead	239.2/7421	11/01/93	SRG	mg/L	.001	.010
Mercury	245.1/7470	11/03/93	SRG	mg/L	.0004	ND
Oil & Grease	413.1/9070	11/03/93	TRA	mg/L	.5	4.3
Total Cyanide	335.2/9010	11/02/93	JEC	mg/L	.001	ND
Zinc	200.7/6010	11/02/93	SRG	mg/L	.05	.460

ND - None detected greater than detection limits (DL) noted.

These results are certified as conforming with generally accepted laboratory standards and requirements of the New York State Department of Health ELAP Program.

John H. Buck

Laboratory Director
ELAP ID - 10795

BUCK ENVIRONMENTAL LABORATORIES INC.
A CERTIFIED ENVIRONMENTAL ANALYSIS
3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150 607-753-3403

LABORATORY REPORT
Lab Log No: 9310368

Client: *Stetson-Harza*
181 Genesee Street
Utica, NY 13501-2168

Site: Dovatron

Report Date: 12/01/93
Sampling Date: 10/28/93
Sampled By: P. Romano
Date Received: 10/28/93
Analyzed by: EAC, 11/10/93

Sample ID: WW-2 AFTER 1ST CARBON Unit **VOLATILES BY METHOD EPA_601**

ANALYTE	CAS #	UNITS	DL	RESULT
Bromodichloromethane	75-27-4	ug/l	1.0	ND
Bromoform	75-25-2	ug/l	1.0	ND
Bromomethane	74-83-9	ug/l	1.0	ND
Carbon Tetrachloride	56-23-5	ug/l	1.0	ND
Chlorobenzene	108-90-7	ug/l	1.0	ND
Chloroethane	75-00-3	ug/l	1.0	ND
2-Chloroethylvinyl ether	110-75-8	ug/l	1.0	ND
Chloroform	67-66-3	ug/l	1.0	ND
Chloromethane	74-87-3	ug/l	1.0	ND
Dibromochloromethane	124-48-1	ug/l	1.0	ND
1,2-Dichlorobenzene	95-50-1	ug/l	1.0	ND
1,3-Dichlorobenzene	541-73-1	ug/l	1.0	ND
1,4-Dichlorobenzene	106-46-7	ug/l	1.0	ND
Dichlorodifluoromethane	75-71-8	ug/l	1.0	ND
1,1-Dichloroethane	75-34-3	ug/l	1.0	ND
1,2-Dichloroethane	107-06-2	ug/l	1.0	ND
1,1-Dichloroethene	75-35-4	ug/l	1.0	ND
trans-1,2-Dichloroethene	156-60-5	ug/l	1.0	ND
cis-1,2-Dichloroethene	156-59-2	ug/l	1.0	ND
1,2-Dichloropropane	78-87-5	ug/l	1.0	ND
cis-1,3-Dichloropropene	10061-01-5	ug/l	1.0	ND
trans-1,3-Dichloropropene	10061-02-6	ug/l	1.0	ND
Methylene Chloride	75-09-2	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	1.0	ND
Tetrachloroethene	127-18-4	ug/l	1.0	ND
1,1,1-Trichloroethane	71-55-6	ug/l	1.0	ND
1,1,2-Trichloroethane	79-00-5	ug/l	1.0	ND
Trichloroethene	79-01-6	ug/l	1.0	ND
Trichlorofluoromethane	75-69-4	ug/l	1.0	ND
Vinyl Chloride	75-01-4	ug/l	1.0	ND

ND - None detected greater than detection limit (DL) noted.
These results are certified as conforming with generally accepted laboratory standards and requirements of the New York State Department of Health ELAP Program.

John H. Benson

Laboratory Director
ELAP ID - 10795

BUCK ENVIRONMENTAL LABORATORIES INC.
ACCREDITED ENVIRONMENTAL ANALYSIS
3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150
607-753-3403

LABORATORY REPORT
Lab Log No: 9310368

Client: Stetson-Harza
181 Genesee Street
Utica, NY 13501-2168

Site: Dovatron

Report Date: November 16, 1993
Sampling Date: 10/28/93
Sampled By: P. Romano
Date Received: 10/28/93

Sample ID: WW-2

TEST	METHOD	ANALYZED	BY	UNITS	DL	RESULT
Cadmium	200.7/6010	11/02/93	SRG	mg/l	.05	ND
Chromium	200.7/6010	11/02/93	SRG	mg/l	.05	ND
Copper	200.7/6010	11/02/93	SRG	mg/l	.05	ND
Lead	239.2/7421	11/02/93	SRG	mg/L	.001	ND
Mercury	245.1/7470	11/03/93	SRG	mg/L	.0004	ND
Oil & Grease	413.1/9070	11/03/93	TRA	mg/L	.5	ND
Total Cyanide	335.2/9010	11/02/93	JEC	mg/L	.001	ND
Zinc	200.7/6010	11/02/93	SRG	mg/L	.05	ND

ND - None detected greater than detection limits (DL) noted.

These results are certified as conforming with generally accepted laboratory standards and requirements of the New York State Department of Health ELAP Program.

John H. Buck

Laboratory Director
ELAP ID - 10795

BUCK ENVIRONMENTAL LABORATORIES INC.
ACCREDITED ENVIRONMENTAL ANALYSIS
3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150 607-753-3403

LABORATORY REPORT
Lab Log No: 9310368

Client: *Stetson-Harza*
181 Genesee Street
Utica, NY 13501-2168

Site: Dovatron

Report Date: 12/01/93
Sampling Date: 10/28/93
Sampled By: P. Romano
Date Received: 10/28/93
Analyzed by: EAC, 11/10/93

Sample ID: WW-3 After 2nd Carbon Unit

VOLATILES BY METHOD EPA_601

ANALYTE	CAS #	UNITS	DL	RESULT
Bromodichloromethane	75-27-4	ug/l	1.0	ND
Bromoform	75-25-2	ug/l	1.0	ND
Bromomethane	74-83-9	ug/l	1.0	ND
Carbon Tetrachloride	56-23-5	ug/l	1.0	ND
Chlorobenzene	108-90-7	ug/l	1.0	ND
Chloroethane	75-00-3	ug/l	1.0	ND
2-Chloroethylvinyl ether	110-75-8	ug/l	1.0	ND
Chloroform	67-66-3	ug/l	1.0	ND
Chloromethane	74-87-3	ug/l	1.0	ND
Dibromochloromethane	124-48-1	ug/l	1.0	ND
1,2-Dichlorobenzene	95-50-1	ug/l	1.0	ND
1,3-Dichlorobenzene	541-73-1	ug/l	1.0	ND
1,4-Dichlorobenzene	106-46-7	ug/l	1.0	ND
Dichlorodifluoromethane	75-71-8	ug/l	1.0	ND
1,1-Dichloroethane	75-34-3	ug/l	1.0	ND
1,2-Dichloroethane	107-06-2	ug/l	1.0	ND
1,1-Dichloroethene	75-35-4	ug/l	1.0	ND
trans-1,2-Dichloroethene	156-60-5	ug/l	1.0	ND
cis-1,2-Dichloroethene	156-59-2	ug/l	1.0	ND
1,2-Dichloropropane	78-87-5	ug/l	1.0	ND
cis-1,3-Dichloropropene	10061-01-5	ug/l	1.0	ND
trans-1,3-Dichloropropene	10061-02-6	ug/l	1.0	ND
Methylene Chloride	75-09-2	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	1.0	ND
Tetrachloroethene	127-18-4	ug/l	1.0	ND
1,1,1-Trichloroethane	71-55-6	ug/l	1.0	ND
1,1,2-Trichloroethane	79-00-5	ug/l	1.0	ND
Trichloroethene	79-01-6	ug/l	1.0	ND
Trichlorofluoromethane	75-69-4	ug/l	1.0	ND
Vinyl Chloride	75-01-4	ug/l	1.0	ND

ND - None detected greater than detection limit (DL) noted.
These results are certified as conforming with generally accepted laboratory standards and requirements of the New York State Department of Health ELAP Program.

John A. Beene

Laboratory Director
ELAP ID - 10795

BUCK ENVIRONMENTAL LABORATORIES INC.
A DIVISION OF ENVIRONMENTAL ANALYSIS
3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150
607-753-3403

LABORATORY REPORT
Lab Log No: 9310368

Client: Stetson-Harza
181 Genesee Street
Utica, NY 13501-2168

Site: Dovatron

Report Date: November 16, 1993
Sampling Date: 10/28/93
Sampled By: P. Romano
Date Received: 10/28/93

Sample ID: WW-3

TEST	METHOD	ANALYZED	BY	UNITS	DL	RESULT
Cadmium	200.7/6010	11/02/93	SRG	mg/l	.05	**ND**
Chromium	200.7/6010	11/02/93	SRG	mg/l	.05	**ND**
Copper	200.7/6010	11/02/93	SRG	mg/l	.05	**.330**
Lead	239.2/7421	11/02/93	SRG	mg/L	.001	**.037**
Mercury	245.1/7470	11/03/93	SRG	mg/L	.004	**ND**
Oil & Grease	413.1/9070	11/03/93	TRA	mg/L	.5	**2.3**
Total Cyanide	335.2/9010	11/02/93	JEC	mg/L	.001	**ND**
Zinc	200.7/6010	11/02/93	SRG	mg/L	.05	**.380**

ND - None detected greater than detection limits (DL) noted.

These results are certified as conforming with generally accepted laboratory standards and requirements of the New York State Department of Health ELAP Program.

John H. Buck

Laboratory Director
ELAP ID - 10795

TABLE 2.1

POLLUTANT DETECTED IN GROUNDWATER AT MONITORING WELL DMW1

Pollutant	Groundwater Conc. (ug/l)* 6/4/91	Groundwater Conc. (ug/l)** 8/13/92
Cloroethane	194	ND
Chloroform	7	ND
Chloromethane	22	ND
1,1-dichloroethane	2,450	2,720
1,1-dichloroethylene	3,100	1,650
Trans-1, 2-dichloroethylene	505	1,650
Tetrachloroethylene	149	ND
1,1,1-trichloroethane	17,500	32,700
1,1,2-trichloroethane	12	ND
Trichloroethylene	31,000	35,200
Vinyl Chloride	400	ND
Cis 1,2-dichloroethylene	30,300	17,500
Ethylbenzene	7	ND
Toluene	64	ND
Xylenes (m, o, & p)	21	ND
Bis (2-ethylhexyl) phthalate	14	DNT
Di-n-butyl phthalate	55	DNT

ND - Nondetect

DNT - Did not test for this pollutant

*EPA Methods 8240 and 8270, volatiles and semi-volatiles

**EPA Method 8240, volatiles

BUCK ENVIRONMENTAL LABORATORIES INC.
3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150 607-753-3403

Report Date: 2/14/94

Lab Log Number: 9401126

LABORATORY REPORT

Client: STETSON-HARZA

Site: Dovatron

Sample Description: Water - WW3

Date of Sample: 1/13/94 by P. Romano, Received 1/13/94

PCB (by EPA 3510 and 8080)
RESULTS

ND (<0.05 ug/L)

ND - None detected greater than detection limits noted.

These analyses are certified as conforming to generally accepted laboratory practices and requirements of the New York State Health Department ELAP program.

John H. Buck, P.E.
Laboratory Director
NYS ELAP CERT 10795

BUCK ENVIRONMENTAL LABORATORIES INC.
3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150 607-753-3403

LABORATORY REPORT
Lab Log No: 9401126

flow 4700 gal.

Client: *Stetson-Harza*
181 Genesee Street
Utica, NY 13501-2168

Site: Dovatron

Report Date: 02/14/94
~~Sampling Date:~~ ~~01/13/94~~
Sampled By: P. Romano
Date Received: 01/13/94
Analyzed by: EAC, 01/19/94

Sample ID: WW1 Before 1st Carbon Unit

VOLATILES BY METHOD EPA_601

ANALYTE	CAS #	UNITS	DL	RESULT
Bromodichloromethane	75-27-4	ug/l	50.0	ND
Bromoform	75-25-2	ug/l	50.0	ND
Bromomethane	74-83-9	ug/l	50.0	ND
Carbon Tetrachloride	56-23-5	ug/l	50.0	ND
Chlorobenzene	108-90-7	ug/l	50.0	ND
Chloroethane	75-00-3	ug/l	50.0	ND
2-Chloroethylvinyl ether	110-75-8	ug/l	50.0	ND
Chloroform	67-66-3	ug/l	50.0	ND
Chloromethane	74-87-3	ug/l	50.0	ND
Dibromochloromethane	124-48-1	ug/l	50.0	ND
1,2-Dichlorobenzene	95-50-1	ug/l	50.0	ND
1,3-Dichlorobenzene	541-73-1	ug/l	50.0	ND
1,4-Dichlorobenzene	106-46-7	ug/l	50.0	ND
Dichlorodifluoromethane	75-71-8	ug/l	50.0	ND
1,1-Dichloroethane	75-34-3	ug/l	50.0	*593*
1,2-Dichloroethane	107-06-2	ug/l	50.0	ND
1,1-Dichloroethene	75-35-4	ug/l	50.0	*108*
trans-1,2-Dichloroethene	156-60-5	ug/l	50.0	ND
cis-1,2-Dichloroethene	156-59-2	ug/l	50.0	*4,690*
1,2-Dichloropropane	78-87-5	ug/l	50.0	ND
cis-1,3-Dichloropropene	10061-01-5	ug/l	50.0	ND
trans-1,3-Dichloropropene	10061-02-6	ug/l	50.0	ND
Methylene Chloride	75-09-2	ug/l	50.0	ND
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	50.0	ND
Tetrachloroethene	127-18-4	ug/l	50.0	*68.3*
1,1,1-Trichloroethane	71-55-6	ug/l	50.0	*6,020*
1,1,2-Trichloroethane	79-00-5	ug/l	50.0	ND
Trichloroethene	79-01-6	ug/l	50.0	*14,800*
Trichlorofluoromethane	75-69-4	ug/l	50.0	ND
Vinyl Chloride	75-01-4	ug/l	50.0	*97.4*

ND - None detected greater than detection limit (DL) noted.
These results are certified as conforming with generally accepted laboratory standards and requirements of the New York State Department of Health ELAP Program.

Laboratory Director
ELAP ID - 10795

BUCK ENVIRONMENTAL LABORATORIES INC.
3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150 607-753-3403

LABORATORY REPORT
Lab Log No: 9401126

Client: *Stetson-Harza*
181 Genesee Street
Utica, NY 13501-2168

Site: Dovatron

Report Date: 02/14/94
Sampling Date: 01/13/94
Sampled By: P. Romano
Date Received: 01/13/94
Analyzed by: EAC, 01/19/94

Sample ID: WW2 AFTER 1ST CARBON UNIT

VOLATILES BY METHOD EPA_601

ANALYTE	CAS #	UNITS	DL	RESULT
Bromodichloromethane	75-27-4	ug/L	1.0	ND
Bromoform	75-25-2	ug/L	1.0	ND
Bromomethane	74-83-9	ug/L	1.0	ND
Carbon Tetrachloride	56-23-5	ug/L	1.0	ND
Chlorobenzene	108-90-7	ug/L	1.0	ND
Chloroethane	75-00-3	ug/L	1.0	ND
2-Chloroethylvinyl ether	110-75-8	ug/L	1.0	ND
Chloroform	67-66-3	ug/L	1.0	ND
Chloromethane	74-87-3	ug/L	1.0	ND
Dibromochloromethane	124-48-1	ug/L	1.0	ND
1,2-Dichlorobenzene	95-50-1	ug/L	1.0	ND
1,3-Dichlorobenzene	541-73-1	ug/L	1.0	ND
1,4-Dichlorobenzene	106-46-7	ug/L	1.0	ND
Dichlorodifluoromethane	75-71-8	ug/L	1.0	ND
1,1-Dichloroethane	75-34-3	ug/L	1.0	ND
1,2-Dichloroethane	107-06-2	ug/L	1.0	ND
1,1-Dichloroethene	75-35-4	ug/L	1.0	ND
trans-1,2-Dichloroethene	156-60-5	ug/L	1.0	ND
cis-1,2-Dichloroethene	156-59-2	ug/L	1.0	ND
1,2-Dichloropropane	78-87-5	ug/L	1.0	ND
cis-1,3-Dichloropropene	10061-01-5	ug/L	1.0	ND
trans-1,3-Dichloropropene	10061-02-6	ug/L	1.0	ND
Methylene Chloride	75-09-2	ug/L	1.0	ND
1,1,2,2-Tetrachloroethane	79-34-5	ug/L	1.0	ND
Tetrachloroethene	127-18-4	ug/L	1.0	ND
1,1,1-Trichloroethane	71-55-6	ug/L	1.0	ND
1,1,2-Trichloroethane	79-00-5	ug/L	1.0	ND
Trichloroethene	79-01-6	ug/L	1.0	ND
Trichlorofluoromethane	75-69-4	ug/L	1.0	ND
Vinyl Chloride	75-01-4	ug/L	1.0	ND

ND - None detected greater than detection limit (DL) noted.
These results are certified as conforming with generally accepted laboratory standards and requirements of the New York State Department of Health ELAP Program.

John H. Benson

Laboratory Director
ELAP ID - 10795

BUCK ENVIRONMENTAL LABORATORIES INC.
3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150 607-753-3403

LABORATORY REPORT
Lab Log No: 9401126

Client: *Stetson-Harza*
181 Genesee Street
Utica, NY 13501-2168

Site: Dovatron

Report Date: 02/14/94
Sampling Date: 01/13/94
Sampled By: P. Romano
Date Received: 01/13/94
Analyzed by: EAC, 01/19/94

Sample ID: WW3 After 2nd Carbon Unit

VOLATILES BY METHOD EPA_601

ANALYTE	CAS #	UNITS	DL	RESULT
Bromodichloromethane	75-27-4	ug/l	1.0	ND
Bromoform	75-25-2	ug/l	1.0	ND
Bromomethane	74-83-9	ug/l	1.0	ND
Carbon Tetrachloride	56-23-5	ug/l	1.0	ND
Chlorobenzene	108-90-7	ug/l	1.0	ND
Chloroethane	75-00-3	ug/l	1.0	ND
2-Chloroethylvinyl ether	110-75-8	ug/l	1.0	ND
Chloroform	67-66-3	ug/l	1.0	ND
Chloromethane	74-87-3	ug/l	1.0	ND
Dibromochloromethane	124-48-1	ug/l	1.0	ND
1,2-Dichlorobenzene	95-50-1	ug/l	1.0	ND
1,3-Dichlorobenzene	541-73-1	ug/l	1.0	ND
1,4-Dichlorobenzene	106-46-7	ug/l	1.0	ND
Dichlorodifluoromethane	75-71-8	ug/l	1.0	ND
1,1-Dichloroethane	75-34-3	ug/l	1.0	ND
1,2-Dichloroethane	107-06-2	ug/l	1.0	ND
1,1-Dichloroethene	75-35-4	ug/l	1.0	ND
trans-1,2-Dichloroethene	156-60-5	ug/l	1.0	ND
cis-1,2-Dichloroethene	156-59-2	ug/l	1.0	ND
1,2-Dichloropropane	78-87-5	ug/l	1.0	ND
cis-1,3-Dichloropropene	10061-01-5	ug/l	1.0	ND
trans-1,3-Dichloropropene	10061-02-6	ug/l	1.0	ND
Methylene Chloride	75-09-2	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	1.0	ND
Tetrachloroethene	127-18-4	ug/l	1.0	ND
1,1,1-Trichloroethane	71-55-6	ug/l	1.0	ND
1,1,2-Trichloroethane	79-00-5	ug/l	1.0	ND
Trichloroethene	79-01-6	ug/l	1.0	ND
Trichlorofluoromethane	75-69-4	ug/l	1.0	ND
Vinyl Chloride	75-01-4	ug/l	1.0	ND

ND - None detected greater than detection limit (DL) noted.
These results are certified as conforming with generally accepted laboratory standards and requirements of the New York State Department of Health ELAP Program.

John A. Buck

Laboratory Director
ELAP ID - 10795

BUCK ENVIRONMENTAL LABORATORIES INC.
ACCREDITED ENVIRONMENTAL ANALYSIS
3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150 607-753-3403

LABORATORY REPORT
Lab Log No: 9403246

flow - 4900

Client: *Stetson-Harza*
181 Genesee Street
Utica, NY 13501-2168

Site: Dovatron 498 Conklin Ave Site

Report Date: 04/15/94
Sampling Date: 03/22/94
Sampled By: Paul Romano
Date Received: 03/22/94
Analyzed by: EAC, 04/07/94

Sample ID: WW-1 Before 1st Carbon Unit **VOLATILES BY METHOD EPA_601**

ANALYTE	CAS #	UNITS	DL	RESULT
Bromodichloromethane	75-27-4	ug/l	100	ND
Bromoform	75-25-2	ug/l	100	ND
Bromomethane	74-83-9	ug/l	100	ND
Carbon Tetrachloride	56-23-5	ug/l	100	ND
Chlorobenzene	108-90-7	ug/l	100	ND
Chloroethane	75-00-3	ug/l	100	ND
2-Chloroethylvinyl ether	110-75-8	ug/l	100	ND
Chloroform	67-66-3	ug/l	100	ND
Chloromethane	74-87-3	ug/l	100	ND
Dibromochloromethane	124-48-1	ug/l	100	ND
1,2-Dichlorobenzene	95-50-1	ug/l	100	ND
1,3-Dichlorobenzene	541-73-1	ug/l	100	ND
1,4-Dichlorobenzene	106-46-7	ug/l	100	ND
Dichlorodifluoromethane	75-71-8	ug/l	100	ND
1,1-Dichloroethane	75-34-3	ug/l	100	*599*
1,2-Dichloroethane	107-06-2	ug/l	100	ND
1,1-Dichloroethene	75-35-4	ug/l	100	ND
trans-1,2-Dichloroethene	156-60-5	ug/l	100	ND
cis-1,2-Dichloroethene	156-59-2	ug/l	100	*356*
1,2-Dichloropropane	78-87-5	ug/l	100	ND
cis-1,3-Dichloropropene	10061-01-5	ug/l	100	ND
trans-1,3-Dichloropropene	10061-02-6	ug/l	100	ND
Methylene Chloride	75-09-2	ug/l	100	ND
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	100	ND
Tetrachloroethene	127-18-4	ug/l	100	ND
1,1,1-Trichloroethane	71-55-6	ug/l	100	*571*
1,1,2-Trichloroethane	79-00-5	ug/l	100	ND
Trichloroethene	79-01-6	ug/l	100	*9720*
Trichlorofluoromethane	75-69-4	ug/l	100	ND
Vinyl Chloride	75-01-4	ug/l	100	ND

ND - None detected greater than detection limit (DL) noted.
These results are certified as conforming with generally accepted laboratory standards and requirements of the New York State Department of Health ELAP Program.

John Buck

Laboratory Director
ELAP ID - 10795

BUCK ENVIRONMENTAL LABORATORIES INC.
ACCREDITED ENVIRONMENTAL ANALYSIS
3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150 607-753-3403

LABORATORY REPORT
Lab Log No: 9403246

Client: *Stetson-Harza*
181 Genesee Street
Utica, NY 13501-2168

Site: Dovatron 498 Corklin Ave Site

Report Date: 04/15/94
Sampling Date: 03/22/94
Sampled By: Paul Romano
Date Received: 03/22/94
Analyzed by: EAC, 04/07/94

Sample ID: WW-2 After 1st Carbon Unit **VOLATILES BY METHOD EPA_601**

ANALYTE	CAS #	UNITS	DL	RESULT
Bromodichloromethane	75-27-4	ug/l	1.0	ND
Bromoform	75-25-2	ug/l	1.0	ND
Bromomethane	74-83-9	ug/l	1.0	ND
Carbon Tetrachloride	56-23-5	ug/l	1.0	ND
Chlorobenzene	108-90-7	ug/l	1.0	ND
Chloroethane	75-00-3	ug/l	1.0	ND
2-Chloroethylvinyl ether	110-75-8	ug/l	1.0	ND
Chloroform	67-66-3	ug/l	1.0	ND
Chloromethane	74-87-3	ug/l	1.0	ND
Dibromochloromethane	124-48-1	ug/l	1.0	ND
1,2-Dichlorobenzene	95-50-1	ug/l	1.0	ND
1,3-Dichlorobenzene	541-73-1	ug/l	1.0	ND
1,4-Dichlorobenzene	106-46-7	ug/l	1.0	ND
Dichlorodifluoromethane	75-71-8	ug/l	1.0	ND
1,1-Dichloroethane	75-34-3	ug/l	1.0	ND
1,2-Dichloroethane	107-06-2	ug/l	1.0	ND
1,1-Dichloroethene	75-35-4	ug/l	1.0	ND
trans-1,2-Dichloroethene	156-60-5	ug/l	1.0	ND
cis-1,2-Dichloroethene	156-59-2	ug/l	1.0	ND
1,2-Dichloropropane	78-87-5	ug/l	1.0	ND
cis-1,3-Dichloropropene	10061-01-5	ug/l	1.0	ND
trans-1,3-Dichloropropene	10061-02-6	ug/l	1.0	ND
Methylene Chloride	75-09-2	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	1.0	ND
Tetrachloroethene	127-18-4	ug/l	1.0	ND
1,1,1-Trichloroethane	71-55-6	ug/l	1.0	ND
1,1,2-Trichloroethane	79-00-5	ug/l	1.0	ND
Trichloroethene	79-01-6	ug/l	1.0	ND
Trichlorofluoromethane	75-69-4	ug/l	1.0	ND
Vinyl Chloride	75-01-4	ug/l	1.0	ND

ND - None detected greater than detection limit (DL) noted.
These results are certified as conforming with generally accepted laboratory standards and requirements of the New York State Department of Health ELAP Program.

John Buck

Laboratory Director
ELAP ID - 10795

BUCK ENVIRONMENTAL LABORATORIES INC.
ACCREDITED ENVIRONMENTAL ANALYSIS
3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150 607-753-3403

LABORATORY REPORT
Lab Log No: 9403246

Client: *Stetson-Harza*
181 Genesee Street
Utica, NY 13501-2168

Site: Dovatron 498 Conklin Ave Site

Report Date: 04/15/94
Sampling Date: 03/22/94
Sampled By: Paul Romano
Date Received: 03/22/94
Analyzed by: EAC, 04/07/94

Sample ID: WW-3 AFTER 2ND CARBON UNIT **VOLATILES BY METHOD EPA_601**

ANALYTE	CAS #	UNITS	DL	RESULT
Bromodichloromethane	75-27-4	ug/l	1.0	ND
Bromoform	75-25-2	ug/l	1.0	ND
Bromomethane	74-83-9	ug/l	1.0	ND
Carbon Tetrachloride	56-23-5	ug/l	1.0	ND
Chlorobenzene	108-90-7	ug/l	1.0	ND
Chloroethane	75-00-3	ug/l	1.0	ND
2-Chloroethylvinyl ether	110-75-8	ug/l	1.0	ND
Chloroform	67-66-3	ug/l	1.0	ND
Chloromethane	74-87-3	ug/l	1.0	ND
Dibromochloromethane	124-48-1	ug/l	1.0	ND
1,2-Dichlorobenzene	95-50-1	ug/l	1.0	ND
1,3-Dichlorobenzene	541-73-1	ug/l	1.0	ND
1,4-Dichlorobenzene	106-46-7	ug/l	1.0	ND
Dichlorodifluoromethane	75-71-8	ug/l	1.0	ND
1,1-Dichloroethane	75-34-3	ug/l	1.0	ND
1,2-Dichloroethane	107-06-2	ug/l	1.0	ND
1,1-Dichloroethene	75-35-4	ug/l	1.0	ND
trans-1,2-Dichloroethene	156-60-5	ug/l	1.0	ND
cis-1,2-Dichloroethene	156-59-2	ug/l	1.0	ND
1,2-Dichloropropane	78-87-5	ug/l	1.0	ND
cis-1,3-Dichloropropene	10061-01-5	ug/l	1.0	ND
trans-1,3-Dichloropropene	10061-02-6	ug/l	1.0	ND
Methylene Chloride	75-09-2	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	1.0	ND
Tetrachloroethene	127-18-4	ug/l	1.0	ND
1,1,1-Trichloroethane	71-55-6	ug/l	1.0	ND
1,1,2-Trichloroethane	79-00-5	ug/l	1.0	ND
Trichloroethene	79-01-6	ug/l	1.0	ND
Trichlorofluoromethane	75-69-4	ug/l	1.0	ND
Vinyl Chloride	75-01-4	ug/l	1.0	ND

ND - None detected greater than detection limit (DL) noted.
These results are certified as conforming with generally accepted laboratory standards and requirements of the New York State Department of Health ELAP Program.

Laboratory Director
ELAP ID - 10795

BUCK ENVIRONMENTAL LABORATORIES INC.
ACCREDITED ENVIRONMENTAL ANALYSIS
3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150 607-753-3403

LABORATORY REPORT
Lab Log No: 9403246

Client: Stetson-Harza
181 Genesee Street
Utica, NY 13501-2168

Report Date: April 15, 1994
Sampling Date: 03/22/94
Sampled By: Paul Romano
Date Received: 03/22/94

Site: Dovatron 498 Conklin Ave Site

Sample ID: WW-3

TEST	METHOD	ANALYZED	BY	UNITS	DL	RESULT
Lead	239.2/7421	03/30/94	SRG	mg/L	.001	.004
Oil & Grease	413.1/9070	04/12/94	TRA	mg/L	.5	3.1
pH	150.1/9040	03/24/94	TRA	units	.1	7.48

ND - None detected greater than detection limits (DL) noted.

These results are certified as conforming with generally accepted laboratory standards and requirements of the New York State Department of Health ELAP Program.

John Dunn

Laboratory Director
ELAP ID - 10795

BUCK ENVIRONMENTAL LABORATORIES INC.
3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150
607-753-3403

Report Date: 5/23/94

Lab Log Number: 9405223

LABORATORY REPORT

Client: Stetson Harza

Site: Dovatron

Sample Description: WW-2

Date of Sample: 5/12/94 by P. Romano

PCB (by EPA 3540 and 8080)
RESULTS

WW-2	ND (<0.05 ug/g)

ND - None detected greater than detection limits noted.

These analyses are certified as conforming to generally accepted laboratory practices and requirements of the New York State Health Department ELAP program.

John H. Buck, P.E.
Laboratory Director
NYS ELAP CERT 10795

BUCK ENVIRONMENTAL INC.
3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150 607-753-3403

LABORATORY REPORT
Lab Log No: 9405223

Client: ***Stetson-Harza***
181 Genesee Street
Utica, NY 13501-2168

Site: Dovatron

Report Date: 05/26/94
Sampling Date: 05/12/94
Sampled By: P. Romano
Date Received: 05/12/94
Analyzed by: EAC, 05/26/94

Sample ID: WW-2

VOLATILES BY METHOD EPA_601

ANALYTE	CAS #	UNITS	DL	RESULT
Bromodichloromethane	75-27-4	ug/l	1.0	ND
Bromoform	75-25-2	ug/l	1.0	ND
Bromomethane	74-83-9	ug/l	1.0	ND
Carbon Tetrachloride	56-23-5	ug/l	1.0	ND
Chlorobenzene	108-90-7	ug/l	1.0	ND
Chloroethane	75-00-3	ug/l	1.0	*20.4*
2-Chloroethylvinyl ether	110-75-8	ug/l	1.0	ND
Chloroform	67-66-3	ug/l	1.0	ND
Chloromethane	74-87-3	ug/l	1.0	ND
Dibromochloromethane	124-48-1	ug/l	1.0	ND
1,2-Dichlorobenzene	95-50-1	ug/l	1.0	ND
1,3-Dichlorobenzene	541-73-1	ug/l	1.0	ND
1,4-Dichlorobenzene	106-46-7	ug/l	1.0	ND
Dichlorodifluoromethane	75-71-8	ug/l	1.0	ND
1,1-Dichloroethane	75-34-3	ug/l	1.0	*76.0*
1,2-Dichloroethane	107-06-2	ug/l	1.0	ND
1,1-Dichloroethene	75-35-4	ug/l	1.0	ND
trans-1,2-Dichloroethene	156-60-5	ug/l	1.0	ND
cis-1,2-Dichloroethene	156-59-2	ug/l	1.0	*36.4*
1,2-Dichloropropane	78-87-5	ug/l	1.0	ND
cis-1,3-Dichloropropene	10061-01-5	ug/l	1.0	ND
trans-1,3-Dichloropropene	10061-02-6	ug/l	1.0	ND
Methylene Chloride	75-09-2	ug/l	1.0	*1.7*
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	1.0	ND
Tetrachloroethene	127-18-4	ug/l	1.0	ND
1,1,1-Trichloroethane	71-55-6	ug/l	1.0	*22.1*
1,1,2-Trichloroethane	79-00-5	ug/l	1.0	ND
Trichloroethene	79-01-6	ug/l	1.0	ND
Trichlorofluoromethane	75-69-4	ug/l	1.0	ND
Vinyl Chloride	75-01-4	ug/l	1.0	*17.0*

ND - None detected greater than detection limit (DL) noted.
These results are certified as conforming with generally accepted laboratory standards and requirements of the New York State Department of Health ELAP Program.

Laboratory Director
ELAP ID - 10795

BUCK ENVIRONMENTAL LABORATORIES INC.
3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150 607-753-3403

LABORATORY REPORT
Lab Log No: 9405223

Client: Stetson-Harza
181 Genesee Street
Utica, NY 13501-2168

Site: Dovatron

Report Date: May 26, 1994
Sampling Date: 05/12/94
Sampled By: P. Romano
Date Received: 05/12/94

Sample ID: WW-2

TEST	METHOD	ANALYZED	BY	UNITS	DL	RESULT
Lead	239.2/7421	05/16/94	SRG	mg/L	.001	ND
Oil & Grease	413.1/9070	05/20/94	TRA	mg/L	.5	2.7
pH	150.1/9040	05/17/94	TRA	units	.1	7.59

ND - None detected greater than detection limits (DL) noted.

These results are certified as conforming with generally accepted laboratory standards and requirements of the New York State Department of Health ELAP Program.

John Buck

Laboratory Director
ELAP ID - 10795

BUCK ENVIRONMENTAL ASSOCIATES INC.
3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150, 607-753-3403

LABORATORY REPORT
Lab Log No: 9405223

Client: Stetson-Harza
181 Genesee Street
Utica, NY 13501-2168

Site: Dovatron

Report Date: 05/26/94
Sampling Date: 05/12/94
Sampled By: P. Romano
Date Received: 05/12/94
Analyzed by: EAC, 05/26/94

Sample ID: WW-2 **METHOD:BTEX by 602**

ANALYTE	CAS #	UNITS	DL	RESULT
Benzene	71-43-2	ug/l	1.0	ND
Toluene	108-88-3	ug/l	1.0	ND
Ethylbenzene	100-41-4	ug/l	1.0	ND
Total Xylenes	1330-20-7	ug/l	1.0	ND
Surrogate (60-120%)	Surrogate	percentage	accept	99%

ND - None detected greater than detection limit (DL) noted.

These results are certified as conforming with generally accepted laboratory standards and requirements of the New York State Department of Health ELAP Program.

John Buck

Laboratory Director
ELAP ID - 10795

BUCK ENVIRONMENTAL LABORATORIES INC.
3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150 607-753-3403

LABORATORY REPORT
Lab Log No: 9405223

Client: *Stetson-Harza*
181 Genesee Street
Utica, NY 13501-2168

Site: Dovatron

Report Date: 05/26/94
Sampling Date: 05/12/94
Sampled By: P. Romano
Date Received: 05/12/94
Analyzed by: EAC, 05/26/94

Sample ID: WW-1 **VOLATILES BY METHOD EPA_601**

ANALYTE	CAS #	UNITS	DL	RESULT
Bromodichloromethane	75-27-4	ug/l	100	ND
Bromoform	75-25-2	ug/l	100	ND
Bromomethane	74-83-9	ug/l	100	ND
Carbon Tetrachloride	56-23-5	ug/l	100	ND
Chlorobenzene	108-90-7	ug/l	100	ND
Chloroethane	75-00-3	ug/l	100	ND
2-Chloroethylvinyl ether	110-75-8	ug/l	100	ND
Chloroform	67-66-3	ug/l	100	ND
Chloromethane	74-87-3	ug/l	100	ND
Dibromochloromethane	124-48-1	ug/l	100	ND
1,2-Dichlorobenzene	95-50-1	ug/l	100	ND
1,3-Dichlorobenzene	541-73-1	ug/l	100	ND
1,4-Dichlorobenzene	106-46-7	ug/l	100	ND
Dichlorodifluoromethane	75-71-8	ug/l	100	ND
1,1-Dichloroethane	75-34-3	ug/l	100	*793*
1,2-Dichloroethane	107-06-2	ug/l	100	ND
1,1-Dichloroethene	75-35-4	ug/l	100	*118*
trans-1,2-Dichloroethene	156-60-5	ug/l	100	ND
cis-1,2-Dichloroethene	156-59-2	ug/l	100	*5360*
1,2-Dichloropropane	78-87-5	ug/l	100	ND
cis-1,3-Dichloropropene	10061-01-5	ug/l	100	ND
trans-1,3-Dichloropropene	10061-02-6	ug/l	100	ND
Methylene Chloride	75-09-2	ug/l	100	ND
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	100	ND
Tetrachloroethene	127-18-4	ug/l	100	ND
1,1,1-Trichloroethane	71-55-6	ug/l	100	*6660*
1,1,2-Trichloroethane	79-00-5	ug/l	100	ND
Trichloroethene	79-01-6	ug/l	100	*18500*
Trichlorofluoromethane	75-69-4	ug/l	100	ND
Vinyl Chloride	75-01-4	ug/l	100	ND

ND - None detected greater than detection limit (DL) noted.
These results are certified as conforming with generally accepted laboratory standards and requirements of the New York State Department of Health ELAP Program.

Laboratory Director
ELAP ID - 10795

BUCK ENVIRONMENTAL LABORATORIES INC.
3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150 607-753-3403

LABORATORY REPORT
Lab Log No: 9405223

Client: *Stetson-Harza*
181 Genesee Street
Utica, NY 13501-2168

Site: Dovatron

Report Date: 05/26/94
Sampling Date: 05/12/94
Sampled By: P. Romano
Date Received: 05/12/94
Analyzed by: EAC, 05/26/94

Sample ID: WW-3 FINAL DISCHARGE TO P.O.T.W **VOLATILES BY METHOD EPA_601**

ANALYTE	CAS #	UNITS	DL	RESULT
Bromodichloromethane	75-27-4	ug/l	1.0	ND
Bromoform	75-25-2	ug/l	1.0	ND
Bromomethane	74-83-9	ug/l	1.0	ND
Carbon Tetrachloride	56-23-5	ug/l	1.0	ND
Chlorobenzene	108-90-7	ug/l	1.0	ND
Chloroethane	75-00-3	ug/l	1.0	ND
2-Chloroethylvinyl ether	110-75-8	ug/l	1.0	ND
Chloroform	67-66-3	ug/l	1.0	ND
Chloromethane	74-87-3	ug/l	1.0	ND
Dibromochloromethane	124-48-1	ug/l	1.0	ND
1,2-Dichlorobenzene	95-50-1	ug/l	1.0	ND
1,3-Dichlorobenzene	541-73-1	ug/l	1.0	ND
1,4-Dichlorobenzene	106-46-7	ug/l	1.0	ND
Dichlorodifluoromethane	75-71-8	ug/l	1.0	ND
1,1-Dichloroethane	75-34-3	ug/l	1.0	ND
1,2-Dichloroethane	107-06-2	ug/l	1.0	ND
1,1-Dichloroethene	75-35-4	ug/l	1.0	ND
trans-1,2-Dichloroethene	156-60-5	ug/l	1.0	ND
cis-1,2-Dichloroethene	156-59-2	ug/l	1.0	ND
1,2-Dichloropropane	78-87-5	ug/l	1.0	ND
cis-1,3-Dichloropropene	10061-01-5	ug/l	1.0	ND
trans-1,3-Dichloropropene	10061-02-6	ug/l	1.0	ND
Methylene Chloride	75-09-2	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	1.0	ND
Tetrachloroethene	127-18-4	ug/l	1.0	ND
1,1,1-Trichloroethane	71-55-6	ug/l	1.0	ND
1,1,2-Trichloroethane	79-00-5	ug/l	1.0	ND
Trichloroethene	79-01-6	ug/l	1.0	ND
Trichlorofluoromethane	75-69-4	ug/l	1.0	ND
Vinyl Chloride	75-01-4	ug/l	1.0	ND

ND - None detected greater than detection limit (DL) noted.
These results are certified as conforming with generally accepted laboratory standards and requirements of the New York State Department of Health ELAP Program.

Laboratory Director
ELAP ID - 10795

Original

BUCK ENVIRONMENTAL LABORATORIES INC.

3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150 607-753-3403

Report Date: 07/05/94

Lab Log Number: 9406265

LABORATORY REPORT

Client: **DOVATRON INTERNATIONAL, INC.**
PO Box 5212
Binghamton, NY 13902

Site: 498 Conklin Ave

Sample Description: Water - Test Point #2

Date of Sample: 06/15/94 by E. Spencer

PCB (by EPA 3510 and 8080) RESULTS

Test Point #2	ND (<.05 ug/L)

ND - None detected greater than detection limits noted.

These analyses are certified as conforming to generally accepted laboratory practices and requirements of the New York State Health Department ELAP program.

John H. Buck, P.E.
Laboratory Director
NYS ELAP CERT 10795

BUCK ENVIRONMENTAL LABORATORIES INC.

3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150 607-753-3403

LABORATORY REPORT
Lab Log No: 9406265

Client: ***Dovatron International, Inc.***
PO Box 5212
Binghamton, NY 13902

Site: 498 Conklin Ave. carbon

Report Date: 07/05/94
Sampling Date: 06/15/94
Sampled By: E.Spencer
Date Received: 06/15/94
Analyzed by: EAC, 06/29/94

Sample ID: Stripper Influent

VOLATILES BY METHOD EPA_601

ANALYTE	CAS #	UNITS	DL	RESULT
Bromodichloromethane	75-27-4	ug/l	1.0	ND
Bromoform	75-25-2	ug/l	1.0	ND
Bromomethane	74-83-9	ug/l	1.0	ND
Carbon Tetrachloride	56-23-5	ug/l	1.0	ND
Chlorobenzene	108-90-7	ug/l	1.0	ND
Chloroethane	75-00-3	ug/l	1.0	*31.8*
2-Chloroethylvinyl ether	110-75-8	ug/l	1.0	ND
Chloroform	67-66-3	ug/l	1.0	ND
Chloromethane	74-87-3	ug/l	1.0	ND
Dibromochloromethane	124-48-1	ug/l	1.0	ND
1,2-Dichlorobenzene	95-50-1	ug/l	1.0	ND
1,3-Dichlorobenzene	541-73-1	ug/l	1.0	ND
1,4-Dichlorobenzene	106-46-7	ug/l	1.0	ND
Dichlorodifluoromethane	75-71-8	ug/l	1.0	ND
1,1-Dichloroethane	75-34-3	ug/l	1.0	*476*
1,2-Dichloroethane	107-06-2	ug/l	1.0	ND
1,1-Dichloroethene	75-35-4	ug/l	1.0	*162*
trans-1,2-Dichloroethene	156-60-5	ug/l	1.0	*21.2*
cis-1,2-Dichloroethene	156-59-2	ug/l	1.0	*1700*
1,2-Dichloropropane	78-87-5	ug/l	1.0	ND
cis-1,3-Dichloropropene	10061-01-5	ug/l	1.0	*5.3*
trans-1,3-Dichloropropene	10061-02-6	ug/l	1.0	ND
Methylene Chloride	75-09-2	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	1.0	ND
Tetrachloroethene	127-18-4	ug/l	1.0	*71.6*
1,1,1-Trichloroethane	71-55-6	ug/l	1.0	*4940*
1,1,2-Trichloroethane	79-00-5	ug/l	1.0	ND
Trichloroethene	79-01-6	ug/l	1.0	*15900*
Trichlorofluoromethane	75-69-4	ug/l	1.0	ND
Vinyl Chloride	75-01-4	ug/l	1.0	*71.1*

ND - None detected greater than detection limit (DL) noted.
These results are certified as conforming with generally accepted laboratory standards and requirements of the New York State Department of Health ELAP Program.

John Buck

Laboratory Director
ELAP ID - 10795

BUCK ENVIRONMENTAL LABORATORIES INC.
3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150 607-753-3403

LABORATORY REPORT
Lab Log No: 9406265

Client: ***Dovatron International, Inc.***
PO Box 5212
Binghamton, NY 13902

Site: 498 Conklin Ave.

Report Date: 07/05/94
Sampling Date: 06/15/94
Sampled By: E.Spencer
Date Received: 06/15/94
Analyzed by: EAC, 06/29/94

Sample ID: Test Point #2

VOLATILES BY METHOD EPA_601

ANALYTE	CAS #	UNITS	DL	RESULT
Bromodichloromethane	75-27-4	ug/l	1.0	ND
Bromoform	75-25-2	ug/l	1.0	ND
Bromomethane	74-83-9	ug/l	1.0	ND
Carbon Tetrachloride	56-23-5	ug/l	1.0	ND
Chlorobenzene	108-90-7	ug/l	1.0	ND
Chloroethane	75-00-3	ug/l	1.0	ND
2-Chloroethylvinyl ether	110-75-8	ug/l	1.0	ND
Chloroform	67-66-3	ug/l	1.0	ND
Chloromethane	74-87-3	ug/l	1.0	ND
Dibromochloromethane	124-48-1	ug/l	1.0	ND
1,2-Dichlorobenzene	95-50-1	ug/l	1.0	ND
1,3-Dichlorobenzene	541-73-1	ug/l	1.0	ND
1,4-Dichlorobenzene	106-46-7	ug/l	1.0	ND
Dichlorodifluoromethane	75-71-8	ug/l	1.0	ND
1,1-Dichloroethane	75-34-3	ug/l	1.0	ND
1,2-Dichloroethane	107-06-2	ug/l	1.0	ND
1,1-Dichloroethene	75-35-4	ug/l	1.0	ND
trans-1,2-Dichloroethene	156-60-5	ug/l	1.0	ND
cis-1,2-Dichloroethene	156-59-2	ug/l	1.0	ND
1,2-Dichloropropane	78-87-5	ug/l	1.0	ND
cis-1,3-Dichloropropene	10061-01-5	ug/l	1.0	ND
trans-1,3-Dichloropropene	10061-02-6	ug/l	1.0	ND
Methylene Chloride	75-09-2	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	1.0	ND
Tetrachloroethene	127-18-4	ug/l	1.0	ND
1,1,1-Trichloroethane	71-55-6	ug/l	1.0	ND
1,1,2-Trichloroethane	79-00-5	ug/l	1.0	ND
Trichloroethene	79-01-6	ug/l	1.0	ND
Trichlorofluoromethane	75-69-4	ug/l	1.0	ND
Vinyl Chloride	75-01-4	ug/l	1.0	ND

ND - None detected greater than detection limit (DL) noted.
These results are certified as conforming with generally accepted laboratory standards and requirements of the New York State Department of Health ELAP Program.

Laboratory Director
ELAP ID - 10795

BUCK ENVIRONMENTAL LABORATORIES INC.
3845 ROUTE 11 SOUTH, P.O. BOX 5150
CORTLAND, N.Y. 13045 607-753-3403

LABORATORY REPORT
Lab Log No: 9406265

Client: Dovatron International, Inc.
PO Box 5212
Binghamton, NY 13902

Site: 498 Conklin Ave.

Report Date: 07/05/94
Sampling Date: 06/15/94
Sampled By: E.Spencer
Date Received: 06/15/94
Analyzed by: EAC, 06/29/94

Sample ID: Stripper Influent **METHOD:BTEX by 602**

ANALYTE	CAS #	UNITS	DL	RESULT
Benzene	71-43-2	ug/l	1.0	*1.1*
Toluene	108-88-3	ug/l	1.0	*11.2*
Ethylbenzene	100-41-4	ug/l	1.0	ND
Total Xylenes	1330-20-7	ug/l	1.0	*2.4*
Surrogate (60-120%)	Surrogate	percentage	accept	99%

Sample ID: Test Point #2 **METHOD:BTEX by 602**

ANALYTE	CAS #	UNITS	DL	RESULT
Benzene	71-43-2	ug/l	1.0	ND
Toluene	108-88-3	ug/l	1.0	ND
Ethylbenzene	100-41-4	ug/l	1.0	ND
Total Xylenes	1330-20-7	ug/l	1.0	ND
Surrogate (60-120%)	Surrogate	percentage	accept	100%

ND - None detected greater than detection limit (DL) noted.

These results are certified as conforming with generally accepted laboratory standards and requirements of the New York State Department of Health ELAP Program.

John Spencer

Laboratory Director
ELAP ID - 10795

BUCK ENVIRONMENTAL LABORATORIES INC.
3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150
607-753-3403

LABORATORY REPORT
Lab Log No: 9406265

Client: Dovatron International, Inc.
PO Box 5212
Binghamton, NY 13902

Report Date: July 5, 1994
Sampling Date: 06/15/94
Sampled By: E.Spencer
Date Received: 06/15/94

Site: 498 Conklin Ave.

Sample ID: Test Point #2

TEST	METHOD	ANALYZED	BY	UNITS	DL	RESULT
Cadmium	200.7/6010	06/22/94	SAG	mg/l	.05	ND
Chromium	200.7/6010	06/22/94	SAG	mg/l	.05	.06
Copper	200.7/6010	06/22/94	SAG	mg/l	.05	ND
Digest - Liquids	3005		JEC	Date Com		06/20/94
Lead	239.2/7421	06/24/94	SRG	mg/L	.001	ND
Mercury	245.1/7470	06/24/94	SRG	mg/L	.0004	ND
Nickel	200.7/6010	06/22/94	SAG	mg/L	.05	ND
Oil & Grease	413.1/9070	06/16/94	TRA	mg/L	.5	ND
Total Cyanide	335.2/9010	06/28/94	JEC	mg/L	.001	ND
Zinc	200.7/6010	06/22/94	SAG	mg/L	.05	.07

ND - None detected greater than detection limits (DL) noted.

These results are certified as conforming with generally accepted laboratory standards and requirements of the New York State Department of Health ELAP Program.

Laboratory Director
ELAP ID - 10795

BUCK ENVIRONMENTAL LABORATORIES INC.

3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150 607-753-3403

Report Date: 9/7/94

Lab Log Number: 9408230

LABORATORY REPORT

Client: **DOVATRON INTERNATIONAL**
PO Box 5212
Binghamton, NY 13902

Site: Conklin Avenue

Sample Description: Water - System Effluent

Date of Sample: 8/16/94 by E. Spencer

PCB (by EPA 3510 and 8080)
RESULTS

System Effluent	ND (<0.05 ug/L)

ND - None detected greater than detection limits noted.

These analyses are certified as conforming to generally accepted laboratory practices and requirements of the New York State Health Department ELAP program.

John H. Buck, P.E.
Laboratory Director
NYS ELAP CERT 10795

BUCK ENVIRONMENTAL LABORATORIES INC.

3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150 607-753-3403

LABORATORY REPORT
Lab Log No: 9408230

Client: ***Dovatron International, Inc.***
PO Box 5212
Binghamton, NY 13902

Site: [redacted]

Report Date: 09/12/94
Sampling Date: 08/16/94
Sampled By: E. Spencer
Date Received: 08/16/94
Analyzed by: EAC, 08/30/94

Sample ID: [redacted]

VOLATILES BY METHOD EPA_601

ANALYTE	CAS #	UNITS	DL	RESULT
Bromodichloromethane	75-27-4	ug/l	1.0	ND
Bromoform	75-25-2	ug/l	1.0	ND
Bromomethane	74-83-9	ug/l	1.0	ND
Carbon Tetrachloride	56-23-5	ug/l	1.0	ND
Chlorobenzene	108-90-7	ug/l	1.0	ND
Chloroethane	75-00-3	ug/l	1.0	ND
2-Chloroethylvinyl ether	110-75-8	ug/l	1.0	ND
Chloroform	67-66-3	ug/l	1.0	ND
Chloromethane	74-87-3	ug/l	1.0	ND
Dibromochloromethane	124-48-1	ug/l	1.0	ND
1,2-Dichlorobenzene	95-50-1	ug/l	1.0	ND
1,3-Dichlorobenzene	541-73-1	ug/l	1.0	ND
1,4-Dichlorobenzene	106-46-7	ug/l	1.0	ND
Dichlorodifluoromethane	75-71-8	ug/l	1.0	ND
1,1-Dichloroethane	75-34-3	ug/l	1.0	ND
1,2-Dichloroethane	107-06-2	ug/l	1.0	ND
1,1-Dichloroethene	75-35-4	ug/l	1.0	ND
trans-1,2-Dichloroethene	156-60-5	ug/l	1.0	ND
cis-1,2-Dichloroethene	156-59-2	ug/l	1.0	ND
1,2-Dichloropropane	78-87-5	ug/l	1.0	ND
cis-1,3-Dichloropropene	10061-01-5	ug/l	1.0	ND
trans-1,3-Dichloropropene	10061-02-6	ug/l	1.0	ND
Methylene Chloride	75-09-2	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	1.0	*1.1*
Tetrachloroethene	127-18-4	ug/l	1.0	ND
1,1,1-Trichloroethane	71-55-6	ug/l	1.0	ND
1,1,2-Trichloroethane	79-00-5	ug/l	1.0	ND
Trichloroethene	79-01-6	ug/l	1.0	ND
Trichlorofluoromethane	75-69-4	ug/l	1.0	ND
Vinyl Chloride	75-01-4	ug/l	1.0	ND

ND - None detected greater than detection limit (DL) noted.
These results are certified as conforming with generally accepted laboratory standards and requirements of the New York State Department of Health ELAP Program.

Laboratory Director
ELAP ID - 10795

BUCK ENVIRONMENTAL LABORATORIES INC.

3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150
607-753-3403

LABORATORY REPORT
Lab Log No: 9408230

Client: Dovatron International, Inc.
PO Box 5212
Binghamton, NY 13902

Report Date: September 7, 1994
Sampling Date: 08/16/94
Sampled By: E. Spencer
Date Received: 08/16/94

Site: [redacted]

Sample ID: [redacted]

TEST	METHOD	ANALYZED	BY	UNITS	DL	RESULT
Digest - Liquids	3005		JEC	Date Com		08/18/94
Lead	239.2/7421	08/19/94	SRG	mg/L	.001	.014
Oil & Grease	413.1/9070	09/01/94	KLW	mg/L	.5	4.1
pH	150.1/9040	08/19/94	TRA	units	.1	7.54

ND - None detected greater than detection limits (DL) noted.

These results are certified as conforming with generally accepted laboratory standards and requirements of the New York State Department of Health ELAP Program.

John Deese

Laboratory Director
ELAP ID - 10795

BUCK ENVIRONMENTAL LABORATORIES INC.

3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150 607-753-3403

Report Date: 09/30/94

Lab Log Number: 9409178

LABORATORY REPORT

Client: **DOVATRON INTERNATIONAL, INC.**
PO BOX 5212
BINGHAMTON, NY 13902

Site: Conklin

Sample Description: Water

Date of Sample: 09/15/94 by E. Spencer

PCB (by EPA 3510 and 8080)
RESULTS

System Effluent Meter Reading: 3469	ND (<.05 ug/L)

ND - None detected greater than detection limit stated.

These analyses are certified as conforming to generally accepted laboratory practices and requirements of the New York State Health Department ELAP program.

John H. Buck, P.E.
Laboratory Director
NYS ELAP CERT 10795

BUCK ENVIRONMENTAL LABORATORIES INC.

3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150 607-753-3403

LABORATORY REPORT
Lab Log No: 9409178

Client: Dovatron International, Inc.
PO Box 5212
Binghamton, NY 13902

Site: Conklin
Meter Reading 3,469

Report Date: September 30, 1994
Sampling Date: 09/15/94
Sampled By: E. Spencer
Date Received: 09/15/94

Sample ID: System Effluent

TEST	METHOD	ANALYZED	BY	UNITS	DL	RESULT
Digest - Liquids	3005		JC	Date Com		09/16/94
Lead	239.2/7421	09/19/94	SRG	mg/L	.001	.006
Oil & Grease	413.1/9070	09/27/94	TRA	mg/L	.5	3.5
pH	150.1/9040	09/19/94	TRA	units	.1	7.38

ND - None detected greater than detection limits (DL) noted.

These results are certified as conforming with generally accepted laboratory standards and requirements of the New York State Department of Health ELAP Program.

John Buck

Laboratory Director
ELAP ID - 10795

BUCK ENVIRONMENTAL LABORATORIES INC.

3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150 607-753-3403

LABORATORY REPORT
Lab Log No: 9409178

Client: ***Dovatron International, Inc.***
PO Box 5212
Binghamton, NY 13902

Site: Conklin
Meter Reading 3,469

Report Date: 09/28/94
Sampling Date: 09/15/94
Sampled By: E. Spencer
Date Received: 09/15/94
Analyzed by: EAC, 09/25/94

Sample ID: System Effluent — **VOLATILES BY METHOD EPA_601**

ANALYTE	CAS #	UNITS	DL	RESULT
Bromodichloromethane	75-27-4	ug/l	1.0	ND
Bromoform	75-25-2	ug/l	1.0	ND
Bromomethane	74-83-9	ug/l	1.0	ND
Carbon Tetrachloride	56-23-5	ug/l	1.0	ND
Chlorobenzene	108-90-7	ug/l	1.0	ND
Chloroethane	75-00-3	ug/l	1.0	ND
2-Chloroethylvinyl ether	110-75-8	ug/l	1.0	ND
Chloroform	67-66-3	ug/l	1.0	ND
Chloromethane	74-87-3	ug/l	1.0	ND
Dibromochloromethane	124-48-1	ug/l	1.0	ND
1,2-Dichlorobenzene	95-50-1	ug/l	1.0	ND
1,3-Dichlorobenzene	541-73-1	ug/l	1.0	ND
1,4-Dichlorobenzene	106-46-7	ug/l	1.0	ND
Dichlorodifluoromethane	75-71-8	ug/l	1.0	ND
1,1-Dichloroethane	75-34-3	ug/l	1.0	ND
1,2-Dichloroethane	107-06-2	ug/l	1.0	ND
1,1-Dichloroethene	75-35-4	ug/l	1.0	ND
trans-1,2-Dichloroethene	156-60-5	ug/l	1.0	ND
cis-1,2-Dichloroethene	156-59-2	ug/l	1.0	ND
1,2-Dichloropropane	78-87-5	ug/l	1.0	ND
cis-1,3-Dichloropropene	10061-01-5	ug/l	1.0	ND
trans-1,3-Dichloropropene	10061-02-6	ug/l	1.0	ND
Methylene Chloride	75-09-2	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	1.0	ND
Tetrachloroethene	127-18-4	ug/l	1.0	ND
1,1,1-Trichloroethane	71-55-6	ug/l	1.0	ND
1,1,2-Trichloroethane	79-00-5	ug/l	1.0	ND
Trichloroethene	79-01-6	ug/l	1.0	ND
Trichlorofluoromethane	75-69-4	ug/l	1.0	ND
Vinyl Chloride	75-01-4	ug/l	1.0	ND

ND - None detected greater than detection limit (DL) noted.
These results are certified as conforming with generally accepted laboratory standards and requirements of the New York State Department of Health ELAP Program.

Laboratory Director
ELAP ID - 10795

BUCK ENVIRONMENTAL LABORATORIES INC.
A RELIABLE ENVIRONMENTAL ANALYST
3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150 607-753-3403

Report Date: 10/26/94

Lab Log Number: 9410109

LABORATORY REPORT

Client: **DOVATRON INTERNATIONAL, INC.**
PO BOX 5212
BINGHAMTON, NY 13902

Site: Conklin

Sample Description: Water

Date of Sample: 10/11/94 by E. Spencer

PCB (by EPA 3510 and 8080)
RESULTS

System Effluent Meter Reading: 4204	ND (<.05 ug/L)

ND - None detected greater than detection limit stated.

These analyses are certified as conforming to generally accepted laboratory practices and requirements of the New York State Health Department ELAP program.

John H. Buck, P.E.
Laboratory Director
NYS ELAP CERT 10795

BUCK ENVIRONMENTAL LABORATORIES INC.
ALBERT L. BUCK ENVIRONMENTAL ANALYSIS
3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150 607-753-3403

LABORATORY REPORT
Lab Log No: 9410109

Client: ***Dovatron International, Inc.***
PO Box 5212
Binghamton, NY 13902

Site: Dovatron - Conklin
Meter Reading 4204

Report Date: 10/20/94
Sampling Date: 10/11/94
Sampled By: E. Spencer
Date Received: 10/11/94
Analyzed by: EAC, 10/18/94

Sample ID: System Effluent **VOLATILES BY METHOD EPA_601**

ANALYTE	CAS #	UNITS	DL	RESULT
Bromodichloromethane	75-27-4	ug/l	1.0	ND
Bromoform	75-25-2	ug/l	1.0	ND
Bromomethane	74-83-9	ug/l	1.0	ND
Carbon Tetrachloride	56-23-5	ug/l	1.0	ND
Chlorobenzene	108-90-7	ug/l	1.0	ND
Chloroethane	75-00-3	ug/l	1.0	*3.7*
2-Chloroethylvinyl ether	110-75-8	ug/l	1.0	ND
Chloroform	67-66-3	ug/l	1.0	ND
Chloromethane	74-87-3	ug/l	1.0	ND
Dibromochloromethane	124-48-1	ug/l	1.0	ND
1,2-Dichlorobenzene	95-50-1	ug/l	1.0	ND
1,3-Dichlorobenzene	541-73-1	ug/l	1.0	ND
1,4-Dichlorobenzene	106-46-7	ug/l	1.0	ND
Dichlorodifluoromethane	75-71-8	ug/l	1.0	ND
1,1-Dichloroethane	75-34-3	ug/l	1.0	*3.1*
1,2-Dichloroethane	107-06-2	ug/l	1.0	ND
1,1-Dichloroethene	75-35-4	ug/l	1.0	ND
trans-1,2-Dichloroethene	156-60-5	ug/l	1.0	ND
cis-1,2-Dichloroethene	156-59-2	ug/l	1.0	ND
1,2-Dichloropropane	78-87-5	ug/l	1.0	ND
cis-1,3-Dichloropropene	10061-01-5	ug/l	1.0	ND
trans-1,3-Dichloropropene	10061-02-6	ug/l	1.0	ND
Methylene Chloride	75-09-2	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	1.0	ND
Tetrachloroethene	127-18-4	ug/l	1.0	ND
1,1,1-Trichloroethane	71-55-6	ug/l	1.0	*1.5*
1,1,2-Trichloroethane	79-00-5	ug/l	1.0	ND
Trichloroethene	79-01-6	ug/l	1.0	ND
Trichlorofluoromethane	75-69-4	ug/l	1.0	ND
Vinyl Chloride	75-01-4	ug/l	1.0	*3.5*

ND - None detected greater than detection limit (DL) noted.
These results are certified as conforming with generally accepted laboratory standards and requirements of the New York State Department of Health ELAP Program.

Laboratory Director
ELAP ID - 10795

BUCK ENVIRONMENTAL LABORATORIES INC.
DEDICATED TO POTABLE WATER ANALYSIS
3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150 607-753-3403

LABORATORY REPORT
Lab Log No: 9410109

Client: Dovatron International, Inc.
PO Box 5212
Binghamton, NY 13902

Site: Dovatron - Conklin
Meter Reading 4204

Report Date: October 26, 1994
Sampling Date: 10/11/94
Sampled By: E. Spencer
Date Received: 10/11/94

Sample ID: System Effluent

TEST	METHOD	ANALYZED	BY	UNITS	DL	RESULT
Digest - Liquids	3005		JEC	Date Com		10/12/94
Lead	239.1/7420	10/14/94	SRG	mg/L	.10	ND
Oil & Grease	413.1/9070	10/18/94	TRA	mg/L	.5	19.1
pH	150.1/9040	10/13/94	TRA	units	.1	7.13

ND - None detected greater than detection limits (DL) noted.

These results are certified as conforming with generally accepted laboratory standards and requirements of the New York State Department of Health ELAP Program.

Laboratory Director
ELAP ID - 10795

BUCK ENVIRONMENTAL LABORATORIES INC.
ACCREDITED ENVIRONMENTAL ANALYSIS
3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150
607-753-3403

DEC 01 1994

Report Date: 11/18/94

Lab Log Number: 9411193

LABORATORY REPORT

Client: **DOVATRON INTERNATIONAL, INC.**
PO BOX 5212
BINGHAMTON, NY 13902

Site: Conklin

Sample Description: Water

Date of Sample: 11/15/94 by E. Spencer

PCB (by EPA 3510 and 8080)
RESULTS

System Effluent Meter Reading: 004636	ND (<.05 ug/l)

ND - None detected greater than detection limit stated.

These analyses are certified as conforming to generally accepted laboratory practices and requirements of the New York State Health Department ELAP program.

John H. Buck, P.E.
Laboratory Director
NYS ELAP CERT 10795

BUCK ENVIRONMENTAL LABORATORIES INC.
ACCREDITED ENVIRONMENTAL ANALYSIS
3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150 607-753-3403

LABORATORY REPORT
Lab Log No: 9411193

Client: ***Dovatron International, Inc.***
PO Box 5212
Binghamton, NY 13902

DEC 01 1994

Site: Conklin
Meter Reading 004636

Report Date: 11/28/94
Sampling Date: 11/15/94
Sampled By: E. Spencer
Date Received: 11/15/94
Analyzed by: EAC, 11/17/94

Sample ID: System Mid Tap — **VOLATILES BY METHOD EPA 8010**

ANALYTE	CAS #	UNITS	DL	RESULT
Bromobenzene	108-86-1	ug/l	1.0	ND
Bromodichloromethane	75-27-4	ug/l	1.0	ND
Bromoform	75-25-2	ug/l	1.0	ND
Bromomethane	74-83-9	ug/l	1.0	ND
Carbon Tetrachloride	56-23-5	ug/l	1.0	ND
Chlorobenzene	108-90-7	ug/l	1.0	ND
Chloroethane	75-00-3	ug/l	1.0	*5.4*
2-Chloroethylvinyl ether	110-75-8	ug/l	1.0	ND
Chloroform	67-66-3	ug/l	1.0	*37.8*
Chloromethane	74-87-3	ug/l	1.0	ND
Dibromochloromethane	124-48-1	ug/l	1.0	ND
Dibromomethane	74-95-3	ug/l	1.0	ND
1,2-Dichlorobenzene	95-50-1	ug/l	1.0	ND
1,3-Dichlorobenzene	541-73-1	ug/l	1.0	ND
1,4-Dichlorobenzene	106-46-7	ug/l	1.0	ND
Dichlorodifluoromethane	75-71-8	ug/l	1.0	ND
1,1-Dichloroethane	75-34-3	ug/l	1.0	*173*
1,2-Dichloroethane	107-06-2	ug/l	1.0	ND
1,1-Dichloroethene	75-35-4	ug/l	1.0	*37.4*
trans-1,2-Dichloroethene	156-60-5	ug/l	1.0	ND
cis-1,2-Dichloroethene	156-59-2	ug/l	1.0	*987*
1,2-Dichloropropane	78-87-5	ug/l	1.0	ND
cis-1,3-Dichloropropene	10061-01-5	ug/l	1.0	ND
trans-1,3-Dichloropropene	10061-02-6	ug/l	1.0	ND
Methylene Chloride	75-09-2	ug/l	1.0	*11.1*
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	1.0	ND
1,1,1,2-Tetrachloroethane	630-20-6	ug/l	1.0	ND
Tetrachloroethene	127-18-4	ug/l	1.0	*5.1*
1,1,1-Trichloroethane	71-55-6	ug/l	1.0	*235*
1,1,2-Trichloroethane	79-00-5	ug/l	1.0	ND
Trichloroethene	79-01-6	ug/l	1.0	*195*
Trichlorofluoromethane	75-69-4	ug/l	1.0	ND
1,2,3-Trichloropropane	96-18-4	ug/l	1.0	ND
Vinyl Chloride	75-01-4	ug/l	1.0	*14.2*

ND - None detected greater than detection limit (DL) noted.
These results are certified as conforming with generally accepted laboratory standards and requirements of the New York State Department of Health ELAP Program.

Laboratory Director
ELAP ID - 10795

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BUCK ENVIRONMENTAL LABORATORIES INC.
ENVIRONMENTAL ANALYSIS
3845 ROUTE 11 SOUTH, CORTLAND, N.Y. 13045
P.O. BOX 5150 607-753-3403

LABORATORY REPORT
Lab Log No: 9411193

DEC 01 1994

Client: Dovatron International, Inc.
PO Box 5212
Binghamton, NY 13902

Site: Conklin
Meter Reading 004636

Report Date: November 29, 1994
Sampling Date: 11/15/94
Sampled By: E. Spencer
Date Received: 11/15/94

Sample ID: System Mid Tap

TEST	METHOD	ANALYZED	BY	UNITS	DL	RESULT
Digest - Liquids	3005		JC	Date Com		11/16/94
Lead	239.2/7421	11/16/94	SRG	mg/L	.001	.001
Oil & Grease	413.1/9070	11/22/94	TRA	mg/L	.5	28.1
pH	150.1/9040	11/18/94	TRA	units	.1	7.63

ND - None detected greater than detection limits (DL) noted.

These results are certified as conforming with generally accepted laboratory standards and requirements of the New York State Department of Health ELAP Program.

John Buck

Laboratory Director
ELAP ID - 10795

APPENDIX D

FLOW DATA AND MAINTENANCE REPORTS

File 6691

Telefax Message From
GEOGUARD
Dedicated To Ground Water Technology
P.O. Box 149 - 536 Orient Street
Medina, NY 14103
Phone (800) 645-7654 Fax (716) 798-0147

To: Paul Romano **From:** Jim Mirand

Company: Stetson-Harza **Date:** March 4, 1994

Fax No.: 315-797-8143

Phone No.: 315-797-5800

Ref: Dovatron

Number of Pages Including Cover Page: 5

Dear Paul:

As requested by you and Jim O'Brien of Dovatron, listed below is a summary of the activities performed by GEOGUARD personnel last December. The technicians, Paul Fox and George Swartz, performed the following tasks on Thursday, December 7th, 1993.

Agenda:
1. Replaced the electric compressor with an identical model
2. Installed a muffler on tank draining solenoid valve to reduce noise
3. Monitored the pump up time of compressor and duty cycle
4. Recalibrated the controller, specifically reducing the pressure setting
5. Installed a larger volume pump in the recovery well

Upon returning to the factory with the original compressor, a test was conducted on the unit, and it performed up to specification. Since there was no noticeable defects, we returned the unit to our inventory, rather than returning it to Gast Manufacturing for evaluation. That is not to say that upon closer scrutiny and continuous operation that a repeat of the conditions observed at Dovatron would be observed at our factory.

Which leads me to an analysis of air consumption and how it can effect the duty cycle of a compressor. The machine supplied to Dovatron is rated for 2.5 CFM (cubic feet per minute) air displacement. To properly size a compressor, one needs to estimate the air consumption, then factor in the duty cycle of the compressor. For long term operation, 50% duty cycle will ensure that the machine will not work excessively, which can minimize the potential for overheating.

To keep this particular machine operating at 50% duty cycle the air consumption of the pumping system should not exceed 1.25 CFM. The following calculation is meant purely for illustrative purposes, as it does not take into consideration the air consumption of the pneumatic controller or the tubing extending from the controller to the pump. Lets assume that the pumping rate of the system is 1 GPM. There are 7.5 gallons per cubic foot. By converting GPM to CFM, we see that 1 GPM is 0.13 CFM. At atmospheric pressure (15 psi), 0.13 cubic feet of air will displace 1 gallon of water.

However, this computation does not take into consideration the effect of pressurized air. If the controller was set at 100 psi, this yields a compressibility factor of 6.7 (100 divided by 15). This compressibility factor must be multiplied by the free air consumption of the system. Therefore, at an operating pressure of 100 psi, a 1 GPM pump is consuming 0.87 CFM. If this same system were operated at 50 psi, the compressibility factor would be 3.3, reducing the air consumption to 0.43 CFM.

Again, we haven't considered the air consumption of the controller (which is estimated to consume 0.2 CFM with the bubbler operated shut-off), or that of the tubing. If the air tubing length from the controller to the pump is 100 feet, it alone has a free air volume of 0.08 cubic feet. Each time the controller cycles the pump the system consumes this amount of air, compounded by the compressibility factor. At 100 psi this amounts to a consumption of 0.53 cubic feet.

I hope this illustration demonstrates how the system when operated at a high supply pressure can un-necessarily have a high air consumption. The total head of this system is relatively low. A good starting point in setting the controller pressure is to take the total calculated head in feet and divide it by two.

Although not really necessary, we replaced the original pump (Model 51019, yield of 0.5 gallons per cycle) by a larger capacity model (5952R, yield of 1.0 gallon per cycle). Our logic in this replacement was to further decrease the air consumption of the system. Since the new pump can produce the same amount of water in one cycle that the original can in two cycles, we eliminate the air consumption of one length of air tubing. Also, since the only time the level in the well drops is when the pump refills, the larger capacity pump will drop the level in the well further. A 4" well stores 0.65 gallons of water per linear foot. Assuming that the pumps take on a full volume each time they refill, the Model 51019 will drop the level in the well by 0.77 feet while the Model 5952R will drop the level by 1.54 feet. Since the bubbler shut off control is turned off by a falling water level and turned back on by a rising level, the level must increase an extra 0.77 feet with the Model 5952R pump. Since the well has been shown to have a low recharge rate, the use of the higher volume pump will further reduce the air consumption.

I trust that the above illustrations and explanation will serve to defend our choice of a compressor rated for 2.5 CFM. Although we cannot with all certainty point to the specific cause of the original compressor overheating, it could be due to continuous operation at a high duty cycle, which was caused by high air consumption due to the high air operating pressure of the cycle controller.

I personally will be out of the office until March 15th. At that time, if you require any additional information pertaining to this project, please call. Thank you for your continued interest in GEOGUARD, your past patronage, and your patience.

Sincerely,

GEOGUARD, Inc.

Jim Mirand

Jim Mirand
Sales Engineer

Encl: Pump Specification

cc: Area Representative
R.W. Deverell Co.
Weedsport, New York
Phone 315-834-9466

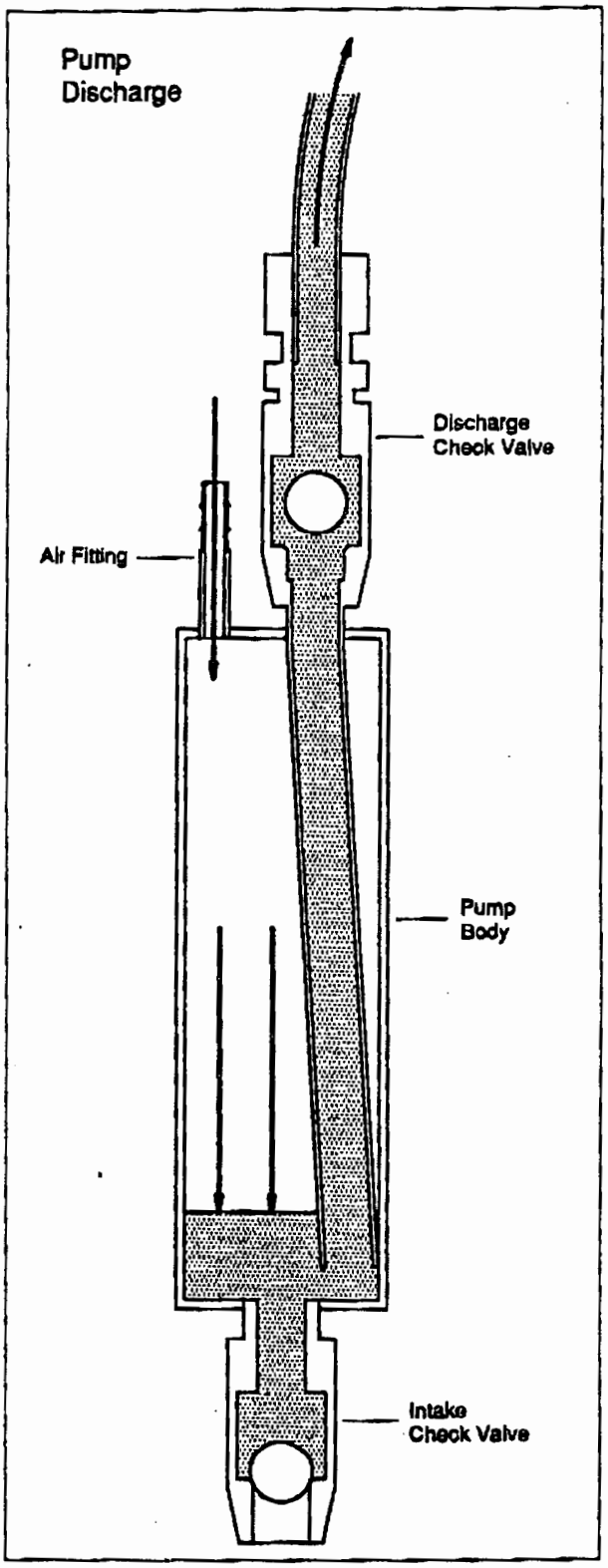
RELIA-FLO

STAINLESS STEEL GAS-DRIVE PUMPS

Constructed of Type 316 Stainless Steel and Teflon®, RELIA-FLO Gas Drive Pumps are ideal for ground water remediation pumping. With the inherent safety of fully pneumatic operation, these pumps may be used in ignition-prone situations without expensive, explosion-proofing modification. With only two moving parts, these pumps are designed to survive sand, dry pumping and dirty air, cycle after cycle, and year after year.

RELIA-FLO Gas Drive Pumps operate on a cyclic principle, with the duration of the discharge and refill cycles determined by a cycle controller. When a compressed air charge is delivered to the pump, it causes the lower (intake) check ball to seat, simultaneously forcing fluid through the discharge check valve and into the discharge tubing assembly. When the compressed air charge is removed, pressurized air vents from the pump, through the air tube, allowing the pump to refill.

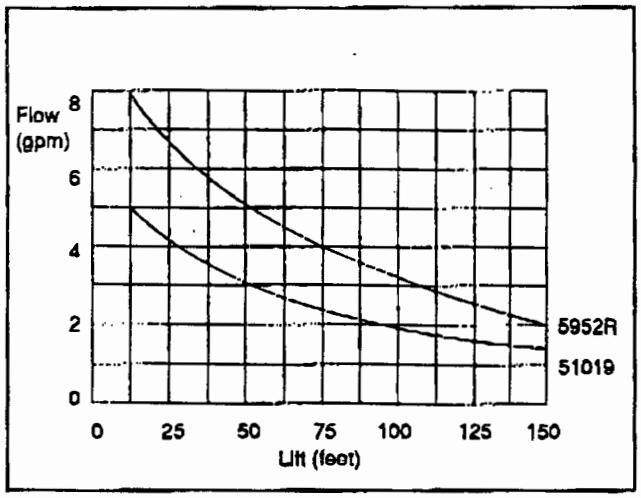
- Pump diameter of 2.88" (73 mm) to permit installation into 3" (76 mm) and larger wells.
- Rugged, welded construction.
- Capable of lifting from 300 feet (90 meters) without modification.
- Pumping rates up to 7 gpm (26 lpm) @ 20 ft. (6 m) for Model 5952R and 4.5 gpm (17 lpm) @ 20 ft. (6 m) for Model 51019.
- Threaded intake (1/2" female pipe thread) for use with intake filter screen or drop tube probe.
- Capable of pumping dry, or passing up to a 30% sand slurry without damage.
- 5 Year Unconditional Warranty.



Call 1-800-645-7654 for applications assistance.

STAINLESS STEEL GAS-DRIVE PUMPS

FLOW PERFORMANCE CURVES



Notes:

1. Flow based on air operating pressure of 100psi, air displacement rate of 3.5 cfm, and 10 feet of submergence.
2. Pumps utilize discharge tubing measuring 3/4" O.D. x 5/8" I.D., and air tubing measuring 1/2" O.D. x 3/8" I.D.
3. Flow at any depth based on specific tubing length and free discharge to atmosphere.
4. Flow of any models used in multiple pump, single controller systems will be reduced. Consult the factory for specifics.

DESIGN SPECIFICATIONS

MODEL	MATERIAL	D (in./mm.)	L (in./cm.)	WEIGHT (lbs./kg.)	CAPACITY (gal./L.)
51019	S.S./Teflon	2.88/73	32/80	7.5/3.9	0.50/1.9
5952R	S.S./Teflon	2.88/73	56/140	13.5/6.1	1.00/3.8

ENGINEERING SPECIFICATIONS

1. The pump shall have a major diameter of 2.88" (73 mm) to permit installation into 3 inch (76 mm) and larger wells.
2. The pump shall be constructed of Type 316 Stainless Steel and Teflon®.
3. The pump shall utilize Teflon intake and discharge check balls.
4. The pump shall utilize a twin tubing design, such that it has separate air delivery and water discharge ports.
5. The pump shall be of a welded design, with removable external check valve assemblies.
6. The pump shall be a positive displacement gas-drive pump, whereby a compressed air charge displaces the water contained within the interior of the pump, forcing it up through the discharge tubing to the top of the well casing.
7. The pump shall be capable of pumping dry without damage. It shall also be capable of pumping sand, silt, etc., without damage.
8. The pump shall be capable of lifting from 300 feet (90 m), with the application of 150 psi (10 bars) air pressure, without modification.
9. The pump shall have a threaded intake (1/2" female pipe thread) to permit use of an intake filter screen or drop tube probe.

Note: Teflon is a registered trademark of E.I. duPont.

GEOGUARD
Dedicated To Ground Water Technology

536 ORIENT STREET ● P.O. BOX 149 ● MEDINA, NEW YORK 14103-9710 ● 1-800-645-7654

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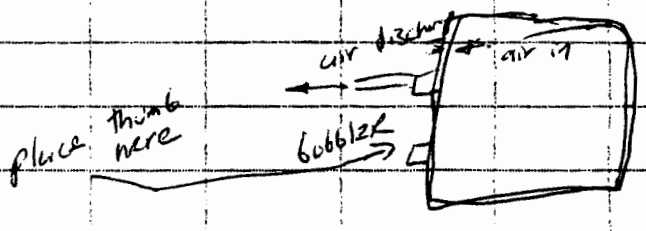
DATE	FLOWMETERS GALLONS	FILTERS BAG	CAR 1	CAR 2	WATER SAMPLES WW1	WW2	WW3	ALARMS RESET
11/22/93 *	9999633							
11/23	9999660							
11/24	9999688							
11/29	9999689							
11/30	9999718							
12/1	9999744	CK						
12/2	9999774							
12/3	9999785							
12/13	9999880							
12/14	9999910							
12/15	9999947							
12/16	9999971							
12/22	0000170							
12/30	0000418							
1/7/94	0000468							
1/10/94	0000468							
1/13/94	0000470							
1/25/94	0000490							
1/27/94	0000490							
1/31/94	0000490							
2/4/94	0000490	SYSTEM SHUT DOWN / NOT PUMPING						
2/18/94	0000490	SYSTEM START UP						
2/25	0000490	SYSTEM SHUT DOWN						
3/22/94	0000490	SYSTEM START UP / SAMPLES TAKEN						

KEY: CK=CHECKED OK, CH=CHANGED WITH NEW, CL=CLEANED, AL=ALARM RESET

DOVATRON
GEOGUARD WATER TREATMENT LOG

FLOWMETERS		FILTERS			WATER SAMPLES			ALARMS
DATE	GALLONS	BAG	CAR 1	CAR 2	WW1	WW2	WW3	RESET
4/2/94	0001074							
5/3/94	0001074	CH		NOT PUMPING				
5/9/94	0001186	FILTER CAN BLOW DOWN UNIT WAS PLUGGED REMOVED TO BE CLEANED. SYSTEM IS OPERATING NORMAL						
5/12/94	0001188	Had to induce pumping for taking samples by unhooking bubbler tube at compression connection on side of panel						



and putting thumb over inlet. If pumping does not start on its own soon - check bubbler line for leaks - especially at well head.

Paul Romano - Stetson-Harza

5-19-94	000 1188	Pump Not Working ↑ Remove piping from well head See if it Works	
6/8/94	000 1188	REMOVED FILTER BARREL FROM TEST POINT #1 AND SEALED AND LABELED, MOVED FILTER BARREL FROM TEST POINT #2 INTO TEST POINT #1. INSTALLED NEW FILTER BARREL INTO TEST POINT #2.	
6/13/94	000 1188	INSTALLED NEW LEVEL CONTROL VALVE. SYSTEM IS UP/RUNNING	

KEY: CK=CHECKED OK, CH=CHANGED WITH NEW, CL=CLEANED, AL=ALARM RESET

DOVATRON
GEOGUARD WATER TREATMENT LOG

FLOWMETERS			FILTERS			WATER SAMPLES			ALARMS
DATE	GALLONS total	GALLONS BATCH	BAG	CAR 1	CAR 2	WW1	WW2	WW3	RESET
6-15-94	1255	765	Sample Low Back						None
6-23-94	1518	1028	#2 Drum leaking tighten top PVC Pipe						
6-28-94	1734	1250	3.01 Small leakage #2 Drum						Sys OK
7-8-94	2090	1600	3.0 Small leakage #2 Drum						System OK
7-20-94	2494	1954	Air Comp Pressure Regulator Blown-out.						
8-9-94	2494	1954	Installed Press Regulator on Air Comp. Working OK						
8-10-94	2499	1959	Top of #1 Test Point Drum Raised and Bottom Fixed Bag Filter with a lot of Dirty Clay inside Drum #1 Clay on top of Carbon. Installed New drum into #1 Spot and Replaced Bag Filter (There is No holder For Bag Filter to hold Bag in to Place will have to call Factory or make one) 14:10 Return with Home made Holder For Filter, Installed Started System @ 14:30 No leaks at this time Water is pumping through the Drums and back to Pump tank.						
8-11-94	2450	1960	- Remove well to check Check Valve O.K measure well to Bottom 15'2" water level top of Pipe 2' total water 13.0 7' From bottom of pump to bottom of well Started Back-up @ 11:00 11:12 water coming out of #2 Drum into Pump Station						
8-12-94	2495	1995							Ok
8-15-94	2597	2107							OK

KEY: CK=CHECKED OK, CH=CHANGED WITH NEW, CL=CLEANED, AL=ALARM RESET

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DOVATRON
GEOGUARD WATER TREATMENT LOG

	FLOWMETERS		FILTERS			WATER SAMPLES			ALARMS
DATE	GALLONS TOTAL	Batch	BAG	CAR 1	CAR 2	WW1	WW2	WW3	RESET
8/6	2631 ~~2441~~ 3000	2141 ~~2631~~	Test Port / Sampling from Buck Engine					10:29	Ok Ek
8/19	2226 ~~2726~~	2206 ~~2726~~	1.5 P.S.I. Called by Joe						Ok Ek
8/25	2896	2406	Small leak on #2 Drum						Ok Ek
9/3	3043	2553	" " "						Ok Ek
9/7	3213	2753	" " "			" Pressure Building #1			O.k Ek
9/1	3470 3488	2980 ~~3470~~	TOTAL 839 Batch 839			Pressure Building #1 Drum			tested by Buck Eng Ek
10/6	4122	3632	4 lbs on FILTER ALOT OF PRESSURE ON DRUM #1						GW
10/11	4204	3714	0 lbs on Filter Pressure						Tested By Buck Ek
10/25			CHANGED Bag Filter	CALLED IN BY BOB DRUM LEAKING					
Refilled Drums. Drum were empty 11gals to Refill them									
11/9	4605	4115							BUCK TESTING GW
11/15	4636	4146	0 lbs - FILTER PRESSURE						↓
12/1	4746	4256	Filter Need to Be Change						

KEY: CK=CHECKED OK, CH=CHANGED WITH NEW, CL=CLEANED, AL=ALARM RESET

65 369 35N