EPA Region 5 Records Ctr.
357796

EPA

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
26	

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
Furniture Stripping Shop	891 W. Conway Rd.

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Harbor Springs	MI	49740	Emmet	047	11

09 COORDINATES LATITUDE	LONGITUDE	
45°25'42"	84°54'05"	USGS Petoskey Quad, 15 min., 1958

10 DIRECTIONS TO SITE (Starting from nearest public road) Take U.S. 131 north of Petoskey. At the State Police Post, turn left onto M-131/Harbor-Petoskey Rd. Conway Rd. turns right just past the Harbor Airport, at the big curve. Strip shop is near junction of [illegible] Potentially and Conway Rd. on S½, NE¼, Sec. 15, T35N, R5W.

III. RESPONSIBLE PARTIES

01 ~~OWNER (If known)~~ Past owner, 1975 - 12/81	02 STREET (Business, mailing, residential)
William P. Fisher	Candlewood Court

03 CITY	04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER
Harbor Springs	MI	49740	(616) 526-6975

07 ~~OPERATOR (If known and different from owner)~~ Present Owner, since 12/81	08 STREET (Business, mailing, residential)
Karl Santti	891 W. Conway Rd.

09 CITY	10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER
Harbor Springs	MI	49740	(616) 347-1131

13 TYPE OF OWNERSHIP (Check one)
☒ A. PRIVATE ☐ B. FEDERAL: _____ (Agency name) ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL
☐ F. OTHER: _____ (Specify) ☐ G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)
☐ A. RCRA 3001 DATE RECEIVED: ___/___/___ (MONTH DAY YEAR) ☐ B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: ___/___/___ (MONTH DAY YEAR) ☒ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION
☒ YES DATE 11/01/84 (MONTH DAY YEAR)
☐ NO

BY (Check all that apply)
☐ A. EPA ☐ B. EPA CONTRACTOR ☒ C. STATE ☐ D. OTHER CONTRACTOR
☐ E. LOCAL HEALTH OFFICIAL ☐ F. OTHER: _____ (Specify)

CONTRACTOR NAME(S): _____

02 SITE STATUS (Check one)
☒ A. ACTIVE ☐ B. INACTIVE ☐ C. UNKNOWN

03 YEARS OF OPERATION
_____ BEGINNING YEAR | _____ ENDING YEAR ☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED
Sludges (solvents & heavy metals) / toxic, persistent, flammable, ignitable. PCBs, organics.

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION
Groundwater / Population, Environment.
Direct Contact / Population

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)
☒ A. HIGH (Inspection required promptly) ☐ B. MEDIUM (Inspection required) ☐ C. LOW (Inspect on time available basis) ☐ D. NONE (No further action needed, complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NUMBER
Art Caden	MDNR - Roscommon Groundwater Quality	(517) 275-5151

04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
Melissa Luttrell	MDNR	Groundwater Quality	(517) 373-4800	1/30/85 (MONTH DAY YEAR)

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
26	

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- ☐ A. SOLID
- ☐ B. POWDER, FINES
- ☒ C. SLUDGE
- ☐ D. OTHER _____ (Specify)
- ☐ E. SLURRY
- ☐ F. LIQUID
- ☐ G. GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

TONS _____
CUBIC YARDS unknown
NO. OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)

- ☒ A. TOXIC
- ☐ B. CORROSIVE
- ☐ C. RADIOACTIVE
- ☒ D. PERSISTENT
- ☐ E. SOLUBLE
- ☐ F. INFECTIOUS
- ☒ G. FLAMMABLE
- ☒ H. IGNITABLE
- ☐ I. HIGHLY VOLATILE
- ☐ J. EXPLOSIVE
- ☐ K. REACTIVE
- ☐ L. INCOMPATIBLE
- ☐ M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE	unknown		
OLW	OILY WASTE			
SOL	SOLVENTS	unknown		
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS	unknown		
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS	unknown		

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
	Methylene Chloride	75-09-2	PL - Soil behind shop	qualitative analysis	
	Toluene	108-88-3	PL " " "	"	"
	Ethylbenzene	100-44-4	PL " " "	"	"
	Benzene	71-43-2	PL " " "	"	"
	Aroclor (AR1254)/PCB	999	PL " " "	330	ppb
	Lead		PL " " "	247,000	ppb
	Zinc		PL " " "	470,000	ppb

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS	Xylenes	1330-20-7	FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Remedial Action Section, Groundwater Quality Division files.
Art Caden, MDNR - Roscommon.

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE 26	02 SITE NUMBER

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☒ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 1557
04 NARRATIVE DESCRIPTION
Furniture stripper sludges containing solvents and heavy metals have been discharged to the ground surface and to groundwater via septic tank - tile field. 3,000 gallons of stripper was used between 1975-79. New owner has not used the compounds. Sludges and wastes were also dumped on the ground. No samples taken.

01 ☒ B. SURFACE WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 1557
04 NARRATIVE DESCRIPTION
Little Traverse Bay is approx 3/4 of a mile southwest of the site.

01 ☐ C. CONTAMINATION OF AIR — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____
04 NARRATIVE DESCRIPTION

01 ☒ D. FIRE/EXPLOSIVE CONDITIONS — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 693
04 NARRATIVE DESCRIPTION
Sludges containing benzene, toluene + xylene are exposed on ground surface behind shop.

01 ☒ E. DIRECT CONTACT — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 173
04 NARRATIVE DESCRIPTION
Sludges are exposed on ground surface, behind shop.

01 ☒ F. CONTAMINATION OF SOIL — 02 ☒ OBSERVED (DATE: 11/1/84) ☐ POTENTIAL ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: <1 (Acres)
04 NARRATIVE DESCRIPTION
Soil samples indicate methylene chloride, toluene, ethylbenzene, benzene, xylenes, PCB.

01 ☒ G. DRINKING WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 1557
04 NARRATIVE DESCRIPTION
Several residents + commercial establishments are using GW for drinking water supply.

01 ☒ H. WORKER EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: <5
04 NARRATIVE DESCRIPTION
Company well has potential of becoming contaminated; Was sampled in 9/84 and results were negative.

01 ☐ I. POPULATION EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____
04 NARRATIVE DESCRIPTION

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: 26 | 02 SITE NUMBER:

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 [X] J. DAMAGE TO FLORA — 02 [X] OBSERVED (DATE: 11/01/84) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
Dead vegetation evident in back of store where drums of stripping chemical consisting of methanol, methylene chloride, toluene xylene, & mineral spirits (per inventory sheets) were stored.

01 ☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include name(s) of species)

01 ☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 [X] M. UNSTABLE CONTAINMENT OF WASTES (Spills/runoff/standing liquids/leaking drums) — 02 [X] OBSERVED (DATE: 11-1-84) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 1557
04 NARRATIVE DESCRIPTION
Solvents were discharged to septic tank & onto ground. Location of tank is unknown by current owner, so it hasn't been pumped.

01 ☐ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 [X] P. ILLEGAL/UNAUTHORIZED DUMPING — 02 [X] OBSERVED (DATE: 11-1-84) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
Soils behind shop contaminated due to illegal discharge/dumping onto ground of overflowing drums (per former employee).

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS
Records indicate ≥ 53 drums (55 gals each) of stripping chemical, containing methanol, methylene chloride, toluene, xylene & mineral spirits were purchased between 1975-80. 40 drums are accounted for.

III. TOTAL POPULATION POTENTIALLY AFFECTED: 1557

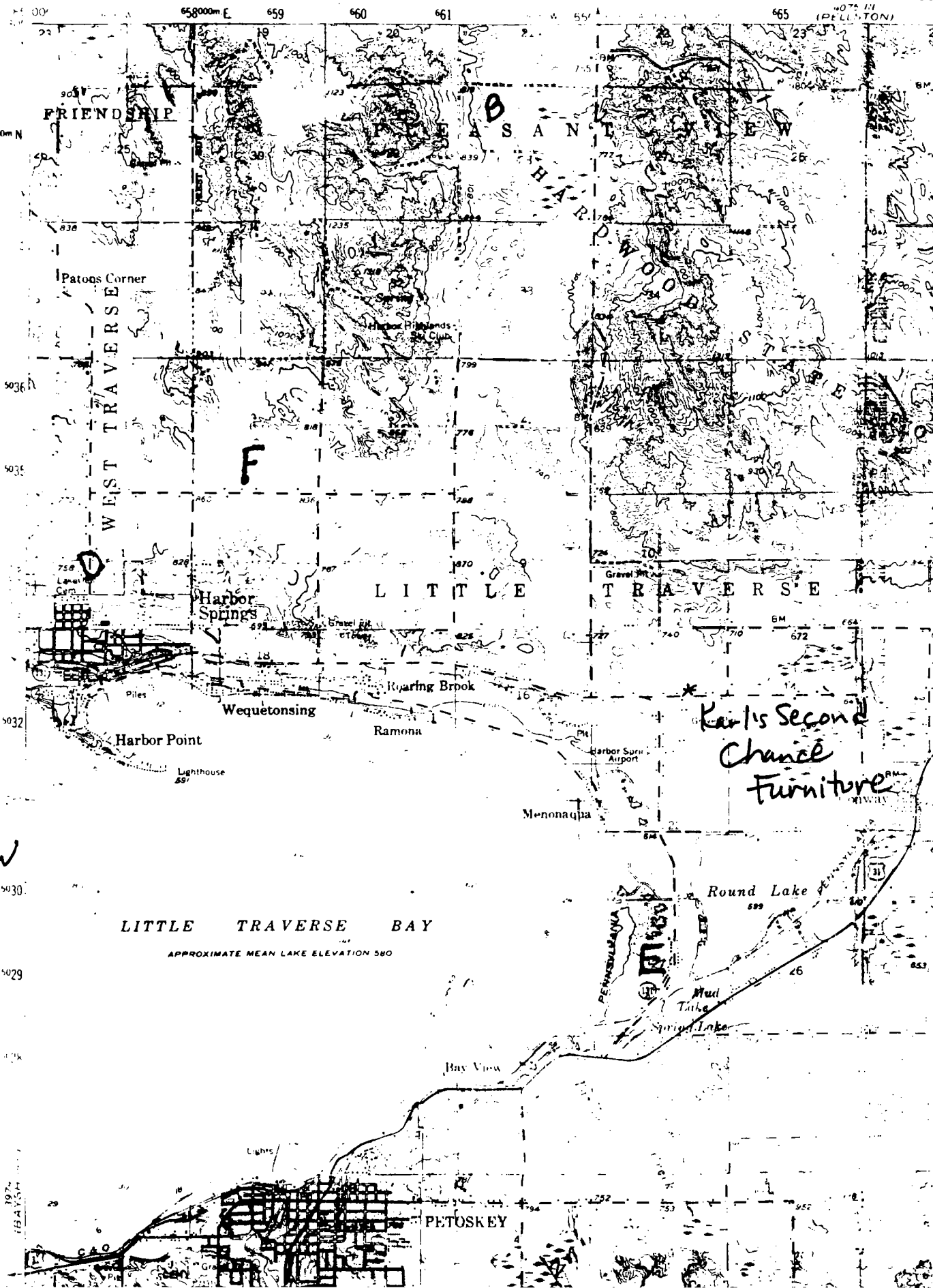
IV. COMMENTS
Site is currently under criminal investigation by Conservation Officer Glenthare. Groundwater samples are urgently needed for this reason.

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)
Remedial Action Section, Groundwater Quality Division files.
Art Caden, MDNR-Roscommon. 1980 Population Density Map.

Petoskey Quad. (I-23)
15 min series
1958

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

MICHIGAN
STATE HIGHWAY DEPART
JOHN C. MACKIE
STATE HIGHWAY COMMISS



Karl's
S½, NE¼,
Sec. 15,
T35N R5W

m10484

SITE DESCRIPTION/EXECUTIVE SUMMARY

Site Name and Location

Furniture Stripping Shop
891 W. Conway Road
Harbor Springs
Michigan 49740

County: Emmet
Michigan Code Number: 24-35N-05W-15A
DNR District: Roscommon
EPA ID Number:

SAS Score/Screen No.:

Furniture stripper sludges containing solvents and heavy metals have been discharged to the ground surface and to groundwater via septic tank - tile field. Location of the tank is unknown, so current owner has never pumped it. Approximately 3,000 gallons of stripper was used between 1975 - 79 by past owner. New owner has not used the compounds. Sludges and wastes were also dumped directly onto the ground, and are still exposed behind the shop. Dead vegetation is evident behind the shop where drums of stripping compound were stored.

No groundwater samples have been taken. However, soil samples indicate 470 ppm zinc, 247 ppm lead, .33 ppm arochlor/PCB, and the presence of methylene chloride, toluene, ethylbenzene, benzene and xylenes.

The site is currently under investigation by Conservation Officer Glen Hare.

Recommendation for EPA:

Groundwater samples are urgently needed to complete the criminal investigation. At least 3 to 4 monitoring wells should be installed to determine the nature and extent of groundwater contamination. Soil samples should also be taken at specified intervals. Per well logs, there appears to be a confining clay layer beneath the property, although both the vertical and lateral extent are unknown.

Current Date: 3/6/85
Author: M. Luttrell

Site Assessment Unit
Groundwater Quality Division
Michigan Dept. of Natural Resources

Wood 'N Shed
(Jacket)
Miscellaneous
Sheets: 19

March 7, 1974

TO: Karl Zollner, Regional Engineer
Water Quality Control Division

FROM: Milton Gere, Jr., Geologist
Water & Environment Section
Geological Survey Division

SUBJECT: Ground-Water Report for Proposed New Use
Jos. M. Althoff, Wood'N Shed, Inc.
Harbor Springs, Michigan
SE, SE, NE, Sec. 15, T 35N, R 5W

The information supplied on the proposed new use statement states that chemical rinse wastewater will be disposed of through a tile-field-system at the rate of approximately 100 gallons per day.

The sparse well records in our files (tables 1-6) indicate that the local water wells penetrate sands, clays, and gravels. The individual wells vary in depth and stratigraphy, suggesting that there may be multiple aquifers. The semi-impermeable formations may be discontinuous and thus the aquifers may possibly be interconnected. It appears that any wastewater entering the ground could possibly flow throughout the whole ground-water system and affect present and future wells in the area. The direction of ground-water flow at or near the proposed site appears to be to the southwest, south, and the southeast, as shown on Figure 2.

It should be noted that this proposed site, as shown on the plat map, Figure 1, is on property formerly operated as a fur farm. The location is apparently downgradient of the Harbor Springs wastewater disposal plant located in Sections 10 and 11. There is a possibility that some level of pollutants may have entered the ground-water system in the area from operation of the fur farm and the waste disposal plant. A limited adjacent area is to be served with a municipal water system in the future.

A majority of the available local well records are for observation wells constructed for the above mentioned Harbor Springs disposal site. A more precise prediction of the ground-water conditions immediately adjacent to the proposed rinse water disposal site could be made if more observation wells adjacent to the proposed site were to be made and studied.

Two privately prepared geologic reports for the Harbor Springs sewage disposal site concur with the conclusion of discontinuous clay layers and a south to southeasterly direction of ground-water flow.

If you have any further questions concerning our interpretation of the geology at this location, please feel free to call upon us.

MG/eh

Enc. Figures 1 and 2
Tables 1 through 6

REVIEWED BY: _____ DATE _____

APPROVED BY:

_____ DATE _____
State Geologist

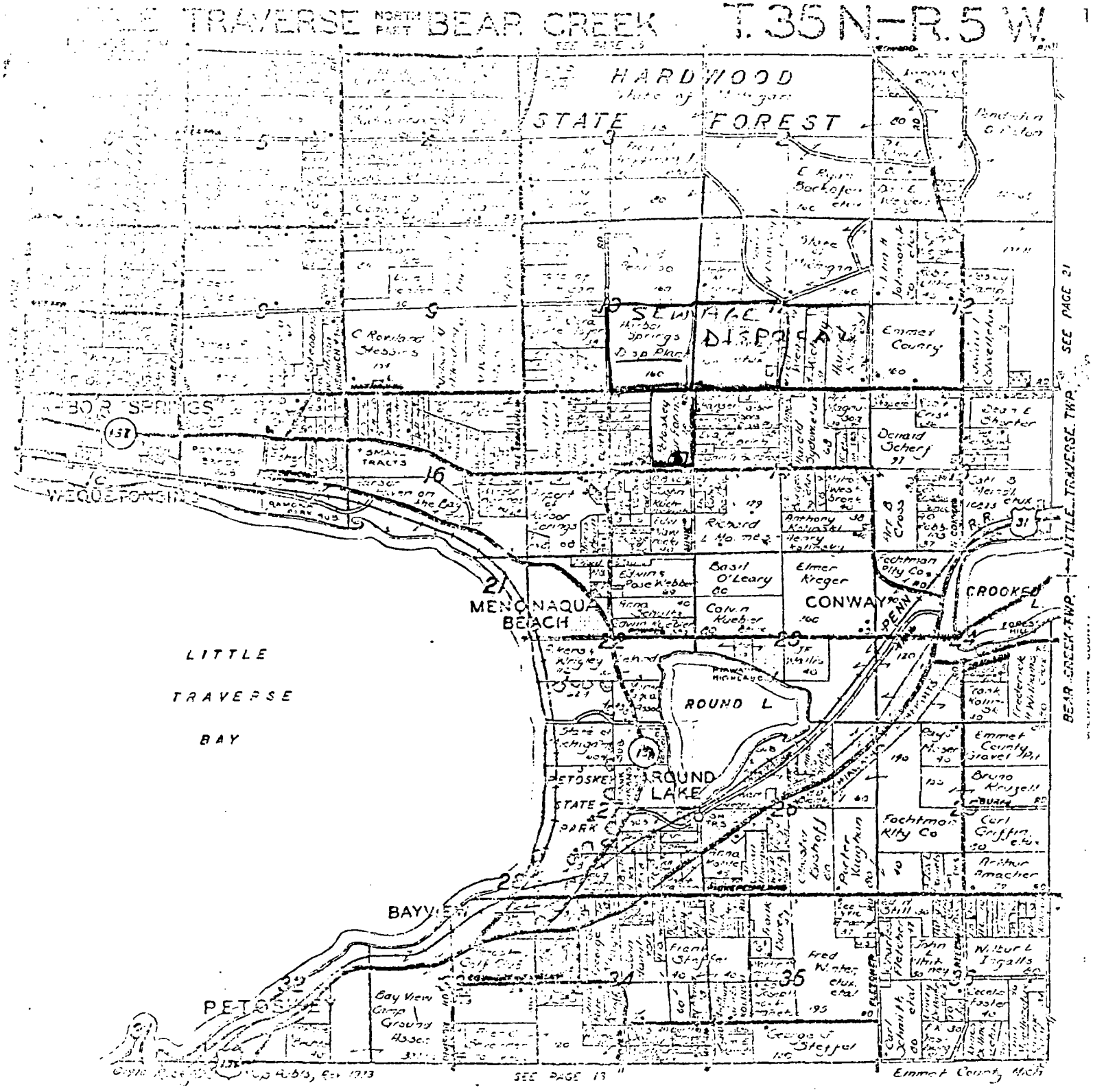

TRAVERSE NORTH PART BEAR CREEK
T. 35 N.—R. 5 W.
HARDWOOD
STATE FOREST
HARBOR SPRINGS
WEQUETONSING
MENONAQUA BEACH
CONWAY
CROOKED L
ROUND L
ROUND LAKE
PETOSKEY STATE PARK
BAYVIEW
PETOSKEY
LITTLE TRAVERSE BAY
BEAR CREEK TWP.
LITTLE TRAVERSE TWP.
SEE PAGE 21
SEE PAGE 13
Emmet County, Mich.

Figure 1

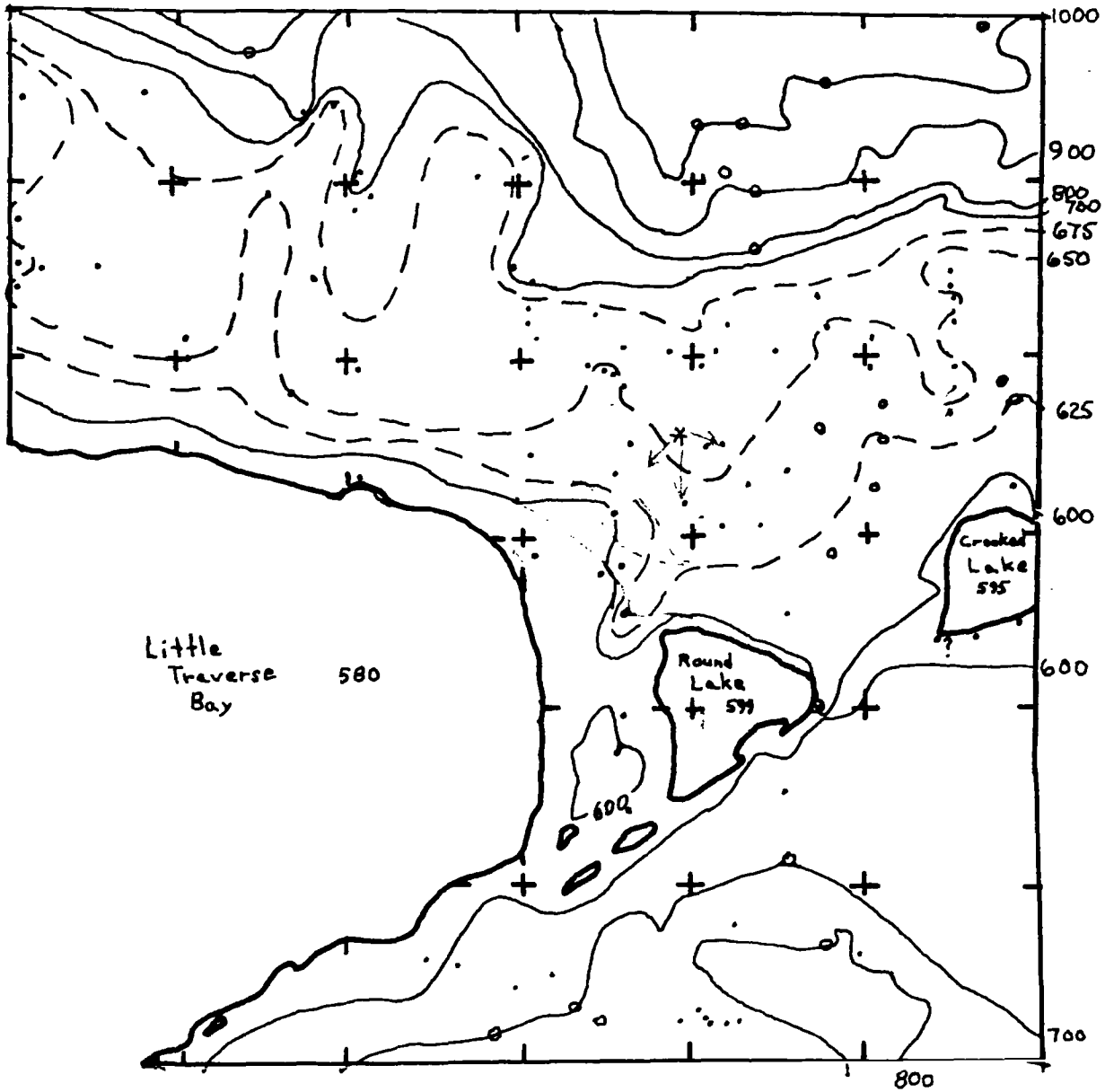


Figure 2

Contour Map of Static Water Elevations
(Emmet County - T 35N, R 5W)

100 feet } Contour Interval
25 feet

→ Inferred direction of ground-water flow

• Well site

○ Surface water elevation

✱ Proposed rinse water disposal site

Scale: 0 — 1 mile
Locations not field checked

3/74 M. Gere

County Emmet

Township T35N R5W Little Traverse & Bear Creek

TABLE 1 WELL DATA SUMMARY

Map No.	Location	Owner / Use	Date Drilled / Method	Total Depth	Casing Size	Casing Depth	Surf. Elev.	Water Level Depth Static / Pump	Water Level Elev. Static / Pump	Clay Strata From / To	No. Units	Thickness Total	Thickness Max.	Thickness Min.	Aquifer From / To	Lithology
15-1	NE, SE, SE Sec 15 T35N, R5W 1/4 mi S. of W. Conway Rd. on Mackinaw Rd.	City of Harbor Springs / Obs. test well	8/24/70 / Bored	67	2"	64	695±10	52.3 / —	642.7 / —	67 / 68	1	1	1	1	58 / 67	Sand, fine to med., water bearing.
15-2	SW, NW, NE Sec 15 T35N, R5W 1/2 mi N of int. 131 & Conway Rd.	L. Adaline / domestic	8/10/70 / rotary	132	4"	127	730±5	90 / 95	640 / 635	—	0	—	—	—	90 / 132	water bearing sand
15-3	NE, NE, NW Sec 15 T35N, R5W. 1/2 mi. E of Pleasant View & Hathaway	J. Kotch / domestic	9/11/69 / cable tool	115	4"	110	740±5	94 / 96	646 / 644	105 / 110	1	5	5	5	110 / 115	sand
15-4	questionable log - omitted	—	—					—	—						—	—
15-5	NE, NW Sec 15 T35N, R5W 1/8 mi. W / Clayton Rd.	R. Barker / domestic	6/72 / cable tool	115	4"	110? (screen 110-115)	745±5	75 / 97	670 / 648	37-39 / 89-90	2	3	2	1	90 / 115	sand
15-6	NW, NW, NE Sec 15 T35N, R5W 600' S. / Hathaway on Clayton	C. Lasbett / domestic	2/28/73 / rotary	134	4"	130	735±5	84 / 90	651 / 645	—	— / 0	—	—	—	85 / 135	water sand
15-7	SW, NW, SE Sec 15 T35N R5W Jct. 131 & W. Conway	Moto Ski Shop / domestic	11/27/72 / rotary	132	4"	126	700±10	60 / 70	640 / 630	—	— / 0	—	—	—	60 / 132	water sand
15-8	NW, NW, SW Sec 15, T35N, R5W 600' E / Pleasantview on 131	Control Eng. Co. / industry	5/10/73 / rotary	142	4"	129	700±10	60 / 105	640 / 595	40 / 70	1 (sandy clay)	30	30	30	70 / 142	water sand-coarse
15-9	SW, SW, SE Sec 15 T35N, R5W 200 yds E / Clayton on W. Conway (N)	V.F.W. #2051 / Public Supply	12/3/73 / cable tool	101	4"	96	710±5	69 / 69	641 / 641	69 / 72	1	3	3	3	72 / 101	sand
15-10	SW, SW, SE Sec 15 T35N, R5W Appx. loc. in Field Book	Boese Wood Prod. / industry	8/70 / rotary	88	4"	84	670±10	70 / 75	600 / 595	—	— / 0	—	—	—	70 / 88	water sand
—	—	—	—					—	—	—					—	
—	—	—	—					—	—	—					—	

NA. = Not available

Δ = May contain sand &/or gravel lenses

* = Upper section described as unknown or drift

☆ — omitted well due to questionable loc. data.

Michigan Geological Survey
M. GERE 3/74

County Emmet

Township Little Traverse & Bear Creek T35N R5W

TABLE 2 WELL DATA SUMMARY

Map No.	Location	Owner / Use	Date Drilled / Method	Total Depth	Casing Size	Casing Depth	Surf. Elev.	Water Level Depth Static / Pump	Water Level Elev. Static / Pump	Clay Strata From / To	No. Units	Thickness Total	Thickness Max.	Thickness Min.	Aquifer From / To	Lithology
14-1	SE, SE, SW Sec 14 T35N, R5W 2070' E/mink & 2396' S/ W. Conway	City/ Harbor Springs Obsv. test well	8/25/70 bored	26	2"	23	645±5	13.8 / —	631.2 / —	— / —	0	—	—	—	15-18 / 18-27	Sand, fine to med. wet / Sand, med. to fine some gravel
14-2	NW, SE, SW Sec 14 T35N, 5W 1650' E (mined), 1/4 mi. E/ W. Conway	City/ Harbor Springs Obsv. test well	8/25/70 bored	27.5	2"	18	655±5	11.2 / —	643.8 / —	21 / 27.5	1	6.5	?	?	12 / 21	Sand, fine to med. Brn, wet
14-3	SE, SW, SW Sec 14 T35N, R5W 1000' E (mine) + 1050' S of ¼ mi.	City/ Harbor Springs Obsv. test well W. Conway	8/25/70 bored	37	2"	33	665±5	24.8 / —	640.2 / —	— / —	0	—	—	—	24 / 37	Sand, fine to med., wet
14-4	NE, NW, SW Sec 14 T35N, R5W 1056' E/mink & 150' S/ W. Conway	City/ Harbor Springs Obsv. test well	8/26/70 bored	30	2"	22.5	665±5	13.0 / —	652 / —	26 / 30	1	4	?	?	15 / 26	Sand, fine to med. wet
14-5	SE, NE, SW Sec 14 T35N, 5W 244' E/mink & 120' S/ W. Conway	City/ Harbor Springs Obsv. test well	8/27/70 bored	22	2"	18	648±5	9.1 / —	638.9 / —	— / —	0	—	—	—	10 / 22	Sand, fine to med. wet
14-6	NE, NW, SW Sec 14 T35N, R5W on W. Conway, 1/4 mi. E/mink on S.	Heinz & Moellering industry	6/18/73 rotary	Omitted 206	4	201	660±10	33 (?) / 100	627 / 560	23-25, 35-57, 88-180 Δ	7	138	57	2	57-58, 80-88 / 180-206	Sand, some water fine sand, some water sand
14-7	NW, NE, NE Sec 14 T35N, R5W 3/4 mi. E/mink on W. Conway	R. Beitely domestic	7/14/70 rotary	Omitted 67	2"	63	648±10	53 ? / 58 ?	387 / 582	— / —	0	—	—	—	57 / 67	water gravel
14-8	NW, NW, NW Sec 14 T35N, R5W Cor. mink & Hathaway	L. Clare ? domestic	8/16/73 rotary	113	4"	108	710±10	55 / 65	655 / 645	75 / 105 Δ	1	30 Δ	30	30	105 / 113	water sand
14-9	NW, NW, SW, Sec 14 T35N, R5W S side W. Conway, 500' E/mink	Moellering & Heinz industry	6/18/73 rotary	206	4"	201	690±5	33 / 100	657 / 590	23-25, 35-57, 58-60, 88-143, 145-170 Δ, 170-174, 174-180 Δ	7	138 Δ	57	2	57-58, 80-88 / 180-206	Sand — major water fine sand & water Hard sand

N.A. = Not available

Δ = May contain sand & gravel lenses

* = Upper section described as unknown or drift

Michigan Geological Survey
M. GERE 3/74

County Emmet

Township Little Traverse + Bear Creek T35N, R5W

TABLE 3 WELL DATA SUMMARY

Map No.	Location	Owner / Use	Date Drilled / Method	Total Depth	Casing Size	Casing Depth	Surf. Elev.	Water Level Depth Static / Pump	Water Level Elev. Static / Pump	Clay Strata From / To	Clay Strata No. Units	Clay Strata Thickness Total	Clay Strata Thickness Max.	Clay Strata Thickness Min.	Aquifer From / To	Lithology
23-1	SWSE, NE, S.23 T.35N, R5W ½ mi. w/ Pond + [illegible]	E. Kreager / domestic	5/10/68 / cable tool	181	4"	176	618±5	5 / 10	613 / 608	30-170 / 170-175Δ	2	145	140	5	175 / 181	coarse sand

NA. = Not available

Δ = May contain small pitch gravel lenses

* = Upper section described as unknown or drift

Michigan Geological Survey
[illegible] 3/74

County Emmet

Township Little Traverse + Bear Creek T35N, R5W

TABLE 4 WELL DATA SUMMARY

Map No.	Location	Owner / Use	Date Drilled / Method	Total Depth	Casing Size	Casing Depth	Surf. Elev.	Water Level Depth Static / Pump	Water Level Elev. Static / Pump	Clay Strata From / To	No. Units	Thickness Total	Thickness Max.	Thickness Min.	Aquifer From / To	Lithology
22-1	SW, SW, NE, S22 T35N, R5W 1/2 mi. E/M-131 2 mi. N/Powell	G.A. Tripp / domestic	12/69 / cable tool	224	4"	216	615±5	+15 (flowing) / N.A.	630 / N.A.	36 / 210	1	174	174	174	210 / 224	Sand-gravel
22-2	SE, NE, NW, S22 T35N, R5W 3/4 mi. S/W Conway on W side M-131	J. Matheson / commercial	1/15/72 / cable tool	99	4"	91	625±5	28 / 35	597 / 590	31 / 75	1	44	44	44	75-90 / 90-99	dirty sand + water clean sand + water
22-3	SW, NW, NW S22 T35N, R5W 2/10 mi. SE/Beach Rd 2/10 mi. E/Emmet Rd	P.W. Schafer / domestic	3/10/69 / cable tool	140	4"	130	595±5	18 / N.A.	577 / NA.	22-82, 82-122 Δ, 122-140 Δ, 140-Stop	4	118 Δ	60	18 Δ	120 / 140	sand w/ chunk clay
22-4	SW, NW, NE, S22 T35N, R5W 1/2 mi. N/Powell on M-131	E. Webber / domestic	4/30/73 / rotary	105	4"	100	620±10	Flow / 10	620 / 610	10 / 90	1	80	80	80	90 / 105	water sand

N.A. = Not available

Δ = May contain sand and/or gravel lenses

* = Upper section described as unknown or drift

Michigan Geological Survey
M. G.E.E. 3/74

County Emmet

Township Little Traverse + Bear Creek

TABLE 5 WELL DATA SUMMARY

Map No.	Location	Owner / Use	Date Drilled / Method	Total Depth	Casing Size	Casing Depth	Surf. Elev.	Water Level Depth Static / Pump	Water Level Elev. Static / Pump	Clay Strata From / To	Clay Strata No. Units	Clay Strata Thickness			Aquifer From / To	Aquifer Lithology
11-1	SE, SW, SW, S 11, T35N, R 5W, 740 ft. E / ¢ Mink + Harbor	City / Harbor Springs / Observ. Test well	6/26/70 / bored	62	2"	56	700±5	44.7 / N.A.	655.3 / N.A.	4 / 62 (+)	2	14+	10	4+	20 / 48	Sand, fine to med. wet.
11-2	SE, SE, SW, S 11, T35N, R 5W, Int. W/ N. Corner on N. side / Harbor	W. Hunter / domestic	9/21/68 / cable tool	38	4"	35	625±5	16 / 16	659 / 659	14 / 23	1	9	9	9	12-14 / 23-32 / 32-35	Sand, some water, medium sand, water clear and, water
11-3	SW, SW, SE, S 11, T35N, R 5W, 600 ft. E / Mink, 300 ft. N / Harbor	William Hunter / test well	5/9/71 / rotary	73	4"	68	700±10	25 / 30	675 / 670	25 / 50	1	25	25	25	50 / 73	water bearing sand
11-4	NW, SE, SE, S 11, T35N, R 5W, 2 miles E / Mink, W of N / Harbor	Harbor Springs Sewage Disposal / sewage disposal	8/73 / rotary	200	4"	69	700±20	54 / N.A.	646 / N.A.	31-41, 41-45, 67-69 Δ	3	18	10	4	69 / 200	(various layers of sand & gravel)
11-5	SE, NW, SE, S 11, T35N, R 5W, 1800 ft. N / ¢ Harbor + 400 ft. W / Harbor	Harbor Springs / monitor test well	8/3/73 / rotary	200	4"	65	720±10	53.15 / N.A.	667 / N.A.	26-40 Δ, 65-66, 95-100 Δ	3	20	14	1	66 / 200	(various layers of sand & gravel)

N.A. = Not available

Δ = May contain sand and/or gravel lenses

* = Upper section described as unknown or drift

Michigan Geological Survey
3/74

County Emmet

Township Little Traverse + Bear Creek
T35N R5W

TABLE 6 WELL DATA SUMMARY

Map No.	Location	Owner / Use	Date Drilled / Method	Total Depth	Casing Size	Casing Depth	Surf. Elev.	Water Level Depth Static / Pump	Water Level Elev. Static / Pump	Clay Strata From / To	Clay Strata No. Units	Clay Strata Thickness Total	Clay Strata Thickness Max.	Clay Strata Thickness Min.	Aquifer From / To	Lithology
10-1	SE, SE, SW, S10 T35N, R5W 125 ft. W/Clayton 75 ft. N/Hathaway	W. Moyer / domestic	9/20/71 / cable tool + bored	126	2"	126	745±5	78 / 85	667 / 660	33-43Δ 43-51Δ 51-60 60-70Δ	7Δ	59 Δ	10 Δ	6 Δ	106 / 26	soft rock-water
		—	—					—	—	78-84Δ 84-91Δ 91-100Δ					—	
10-2	NW, NW, SW, S10 T35N, R5W 75 ft. E/Pleasant View, N/Hathaway	J. L. Swanger / domestic	5/29/71 / cable tool + bored	105	2"	105	742±5	40 / —	702 / —	20-38Δ 76-84Δ 84-90	3	32 Δ	18 Δ	6	44-54 / 98-105	some water, fine gravel / gravel water
10-3	SW, NW, SW, S10 T35N, R5W 3/10 mi. N/Hathaway Cr Pleasant View	J. Duvernay / domestic	12/71 (?) / cable tool	109	4"	101	745±5	N.A. / 91	N.A / 654	82 / 93	1	11	11	11	93 / 109	fine gravel water
10-4	SW, SW, SW, S10 T35N, R5W 600 ft. E/Pleasant View on Hatha...	R. Clancey / domestic	10/5/72 / rotary	120	4"	116	740±10	80 / 80	660 / 660	— / —	0	—	—	—	80 / 120	water bearing sand
10-5	SE, SE, SE, S10 T35N, R5W 557 ft. W + 105 ft. N/Mok + Hathaway	City / Harbor Service / test well	8/26/70 / bored	97	2"	92	742±5	82.5 / N.A.	659.5 / N.A.	— / —	0	—	—	—	84 / 97	Sand, fine to med., clean, water bearing
10-6	SW, SW, SE S10 T35N, R5W 400 ft. E/Clayton 35 ft. N/Hathaway	Williams + Works / test well	8/9/71 / rotary	133	4"	128	745±5	80 / 85	665 / 660	— / —	0	—	—	—	80 / 133	water bearing sand
10-7	NW, SW, SW, S10 T35N, R5W 1/4 mi. N/Hathaway E side/Pleasant View	E. Roe / domestic	8/16/69 / cable tool	115	4"	110	735±5	82 / 82	653 / 653	77(?) / 82Δ	1Δ	5Δ	5Δ	5Δ	82 / 115	clean sand water
		—	—					—	—	—					—	
		—	—					—	—	—					—	
		—	—					—	—	—					—	
		—	—					—	—	—					—	

N.A. = Not available

Δ = May contain sand & gravel lenses

* = Upper section described as unknown or drift

Michigan Geological Survey
M. Gale 3/74

BUREAU OF WATER MANAGEMENT

AND

WATER RESOURCES COMMISSION

Memorandum

To: John Byerlay - Geological Survey

From: George Liddle, District Engineer

Date: 12/11/73

Subject Groundwater Report for Proposed New Use - Jos M. Althoff, Wood'N Shed, Inc. Harbor Springs

Note attached new use statement. A report on groundwater flow direction and protection of individual water supplies from a surface discharge is requested. The site is in the NE¼ Section 15, T35N, R5W.

elev. 705 ± 10

Att.

	Manager		Bus. Exec.
	Asst. Mgr.		Asst.-Pers.
	Ins. Mgr.		Asst.-Pur.
	Engineer		Surveyor

October 31, 1973

Geo. H. Altdorff, President
Wood'n Shed, Inc.
R. #2, West Conway Road
Harbor Springs, MI 49740

Gentlemen:

Receipt of your discharge permit application describing your proposed new use of the waters of the state for waste disposal purposes is acknowledged. It has been assigned to Mr. Karl Zollner, our Regional Engineer, for investigation. Any restriction upon this use found to be necessary will be written into a proposed permit to discharge in accordance with the requirements of Section 6(b), Act 245, Public Acts of 1929, as amended and the Commission's Part 21 Rules.

You will be contacted by one of our representatives during the course of our investigation and will be given an opportunity to review the permit prior to issuance. Should you wish to make further inquiry during the processing of your application, please get in touch with Mr. Zollner.

Very truly yours,

WATER RESOURCES COMMISSION

Robert J. Courchaine
Chief Engineer

cc: Susanna Holmes, Little Traverse Township Clerk
Emmet County Health Department
George Liddle, Basin Engineer

State of Michigan
Department of Natural Resources
Water Resources Commission

STATEMENT OF NEW OR INCREASED USE OF WATER OF THE STATE FOR WASTE DISPOSAL PURPOSES

Received 10/22/73
Submitted 10/23/73

Please print or type all information except for required signatures
Refer to corresponding numbers on instruction sheet for clarification of questions.

NAME OF APPLICANT: Wood'n Shed, Inc.

ADDRESS (No. & Street): Rt #2, West Conway Road

CITY, STATE, ZIP CODE: Harbor Springs, Michigan 49740

Telephone No. (Incl. Area Code) (Where applicant can be contacted): 616-347-7525

1. TYPE OF LEGAL ENTITY: ☐ Sole Owner ☐ Partnership ☒ Corporation ☐ Government Unit ☐ Non-Profit Organization

2. STATE OF INCORPORATION: Michigan

3. (a) LOCATION OF PROPOSED OPERATION AND WASTE DISPOSAL FACILITIES

Street Address: Rt #2, West Conway Road

City, Village:

LEGAL DESCRIPTION, IF RURAL LOCATION

County: Emmet

Township: Little Traverse

Town: Range: Section(s):

(b) NATURE OF ENTERPRISE: Furniture & metal stripping, rust removal

4. DEVELOPMENT CONTEMPLATED: ☒ NEW ☐ Expansion of Existing Operation

5. PROPOSED STARTING DATE FOR USE (Month, Year): 8/73

6. SOURCE OF WATER SUPPLY FOR:

		SOURCE	AMOUNT (gal/day)
Process Water	Hot process tank	Well - private	1600 gal/yr to charge 2400 gal/yr to maintain
Cooling & Condensing Water			
Domestic Water			
Other (Specify)	Rinse waste	Well - private	100 gal/day average

7. PROPOSED POINTS OF WASTE DISCHARGE

Process Waste	Hot process waste - septic tank hauler Cold process stripping waste - barrel to incineration
Cooling & Condensing Water	
Sanitary Sewage	
Other (Specify)	Rinse waste - To tile field

8. ESTIMATED DAILY VOLUME OF WASTES TO BE DISCHARGED – GALLONS PER DAY:

Process Waste	none on site	Cooling & Condensing Water	
Sanitary Sewage		Other (Specify)	Rinse waste, 1 shift 100 gal/day average

9. (a) BRIEF DESCRIPTION OF PROPOSED TREATMENT OR CONTROL FACILITIES:

Rinse waste - none
Hot process chemicals - septic tank hauler
Cold process stripping sludge - incineration

Process Waste	Hot process waste - unknown Cold process waste - unknown
Cooling & Condensing Water	
Sanitary Sewage	
Anticipated Temperature of Discharge	58 °F
Other (Specify)	Rinse, chemical - non-flammable, non-toxic, ecologically benign per Delhi Chemical, non-flammable, low toxicity per Bendix labs.

10. DISTANCE OF TREATMENT FACILITIES FROM

Private Well	120 Feet
Municipal Well	Feet

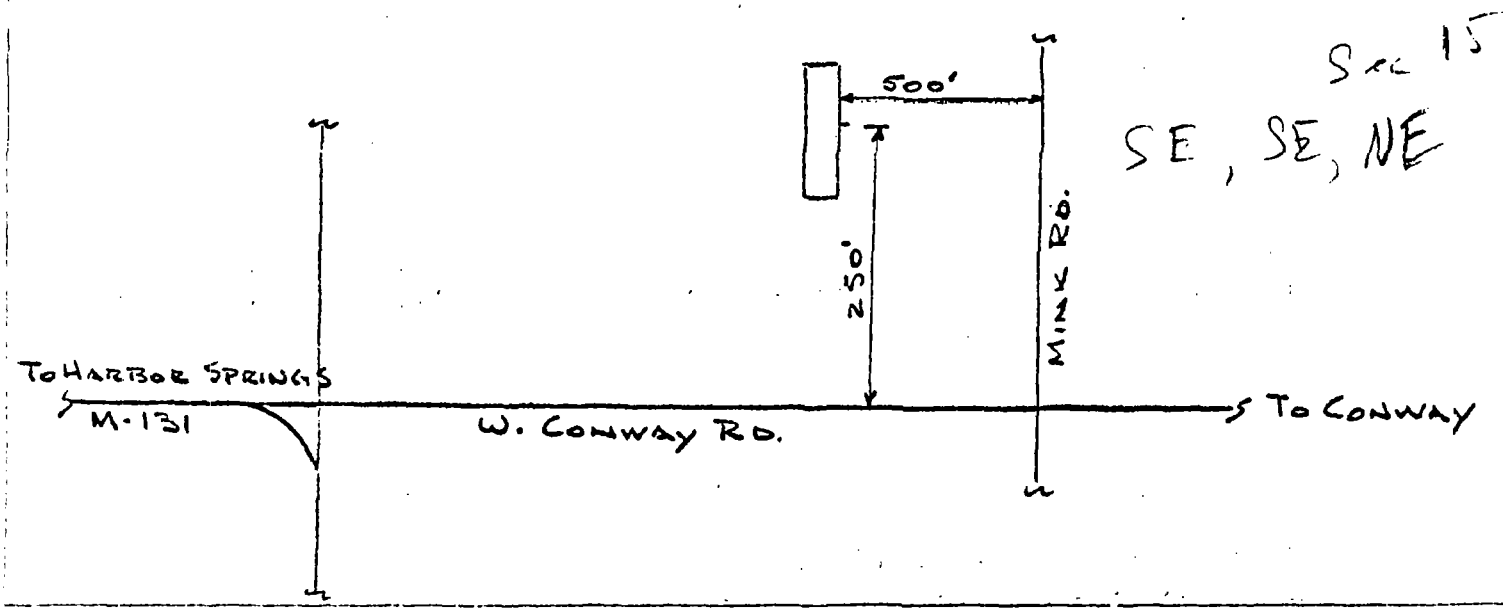
11. If Subsurface Disposal or Oxidation Pond is Approved, Nearest Distance to a Surface Watercourse:

_____ Feet

12. If discharge is to underground by injection well, complete data as to depth, and diameter of well, materials and details of construction, date of drilling screen data, and proposed operations of injection well.

This information should be included on a *FLY SHEET* with this statement.

13. Provide herewith, either by drawing in the space below or by attaching a USGS map or county map with appropriate marking, each proposed discharge point for process wastes, cooling waters or sanitary wastes.



14. Prior to start-up of your proposed operations, it will be necessary that an application be on file in this office for the person(s) for certification under the waste treatment plant operator certification program. A set of application forms applicable to your operations will be automatically sent to you upon receipt by this office of plans and specifications of your waste treatment facilities.

SUBMITTED IN ACCORDANCE WITH SECTION 8(b), ACT 245, PUBLIC ACTS OF 1929, AS AMENDED

XXXXXXX APPLICANT—PRINT OR TYPE NAME(S) AS WRITTEN Jos. M. Althoff	SIGNATURE (Owner or Applicant) IF PARTNERSHIP, CO-OWNER PLEASE SIGN:
TITLE(S) OF SIGNEE(S) President	DATE 10/24/73

NOTE: If sanitary sewage is to be discharged from housing developments, apartment buildings, shopping centers, or other commercial developments into a system *other* than an approved municipal sanitary waste collection system, the following should be completed and signed by an authorized municipal *official or township officer if in an unincorporated area.*

[illegible] PRINT OR TYPE NAME AS WRITTEN	SIGNATURE OF AUTHORIZED REPRESENTATIVE [illegible]
TITLE OF SIGNEE	MAILING ADDRESS OF ABOVE REPRESENTATIVE [illegible] (No. & Street, City or Village, Zip Code)
DATE	

WASTE DISPOSAL

The principal formulations used in Houck's Process Stripping Centers are the hot tank mix, Houck-Sol #1 (cold tank solution) and the neutralizer solution. When used in accordance with instructions at recommended concentrations, these formulations will have no adverse effects on pipes, tanks, etc., of municipal waste systems or on pipes, tanks, leach fields and surrounding ground areas of private waste systems.

The used hot tank solution is generally disposed of ~~by having~~ the tank emptied by a commercial septic tank cleaner and dumped into a landfill. Should it be necessary to drain the hot tank into a sewer, authorization to do so must be obtained in advance from the governing local agency. If draining into the sewer is approved, it is recommended that the hot tank be neutralized with the neutralizer solution, to bring it to a pH 6-8 range.

The Houck-Sol #1 tank is never drained into a sewer. Carry out and evaporation loss is compensated by adding new chemical solution. Cleaning of this tank is accomplished by scooping out old paint residues which settle to the bottom using a shovel or pitchfork covered by a screen. This residue is stored in an empty drum until dried and dumped in a landfill.

The neutralizer solution is 2% hydrochloric acid and may be flushed into a sewer with sufficient water to bring it to a pH 6-8 range. Local authorities should be consulted before draining in this manner.

NOTE: Do not attempt to dispose of solids from the cold tank by emptying these into the hot tank when you are having the hot tank drained by a commercial septic tank cleaner. Unless the solids are completely dried, the solvents they carry will be evaporated rapidly by the hot tank and will release heavy fumes which could be dangerous and could cause an eruption of hot tank chemical.

Never permit the septic tank cleaner to pump cold tank chemicals into his tank with hot tank chemicals. This would release fumes similarly and could cause an explosion in the closed tank.

Reproduced by the State of Michigan

Permit No._____

STATE OF MICHIGAN

WATER RESOURCES COMMISSION

Statement of WOOD'N SHED, INC., Regarding :

a NEW USE of the GROUND WATERS in LITTLE :

TRAVERSE TOWNSHIP, EMMET COUNTY, MICHIGAN. :

RESOLUTION

WHEREAS, Wood'n Shed, Inc. has filed with the Water Resources Commission a written statement dated October 24, 1973, for a prospective new use of the waters of the state for disposal of wastes from a furniture and metal stripping operation to be located in Section 15 of Little Traverse Township, Emmet County, Michigan; and

WHEREAS, the said written statement sets forth that Wood'n Shed proposes to dispose of an average of approximately one hundred (100) gallons per day of rinse waters into the ground; and

WHEREAS, the Commission at its meeting on_____, 1974, after giving due consideration to the statement and to investigations by its staff of the factors involved, is of the opinion and has determined that the proposed use of the ground waters may become injurious to the public health and may injuriously affect domestic water supply use, contrary to the provisions of Section 6(a) of Act 245, Public Acts of 1929, as amended; and

WHEREAS, the Commission has determined that unlawful pollution cannot be guarded adequately against by available waste treatment or control measures;

NOW THEREFORE BE IT RESOLVED, that the proposed use be and is hereby denied.

This Resolution adopted this_____day of_____, 1974, by the Commission in accordance with Act 245, Public Acts of 1929, as amended, and shall be final in the absence of a request for hearing filed within fifteen (15) days after receipt hereof, on motion by_____, supported by_____, and unanimously carried.

PRESENT AND VOTING:

Reproduced by the State of Michigan

54/55 GAL. . MS

PURCHASED					SHIPPED			
P.O. DATE	SELLER	QTY	PAID CK #	PAID DT	QTY	DT	PAID CK #	PAID DT
10/31/75	CROSSLAND	3	1103	11/3	3	11/5	1104	11/6
3/29/76	CROSS	3	1270	3/29	3	4/6	1284	4/7
5/30/76	CROSS	3	1359	6/12	3	—	INCL. IN P.O.	
?	CROSS	3	1407	7/17	3	7/12	1398	7/13
8/13/76	CROSS	3	1446	8/25	3	8/16	1437	8/17
8/26/76	CROSS	3	1451	8/31	3	?	1452	8/31
11/15/76	CROSS	1 ASSIST 3 STRIP	1551	12/7	4	11/19	1537	11/22
4/12/77	CROSS	3	1698	4/20	3	?	1696	4/16
6/1/77	GMT CORP. (CROSSLAND)	3	1746	6/2	3	6/3	1755	6/7
7/15/77	MANTEK	1	1812	7/15	?	?	?	
8/9/77	GMT	3	1849	8/13	3	?	1846	8/11
9/22/77	GMT	3	1900	9/28	3	9/26	1894	9/27
?	GMT OR CROSSLAND	3	?		3	12/30	1976	12/27
1/3/78	CHARLEVOIX CHEMICAL	1 LACQUER THINNER	2005	1/16	DEL BY SELLER			
4/10/78	RELIABLE PASTE & CHEM	3	2081	3/27	PICKED UP (WILL CALL ORDER)			
8/3/78	CHAR. CHEM	1 LAC THIN	2230	8/3	DEL BY SELLER			
11/17/78	RELIABLE	3	2363	11/17	PICKED UP (WILL CALL ORDER)			
3/23/79	H.B. ZIMMERMAN KWICK KLEEN	2	2526	3/23	DEL. BY SELLER			
7/19/79	ZIMM. KW. KL.	2	2653	7/19	DEL. BY SELLER			
9/5/79	ZIMM. KW. KL.	2	2720	9/5	DEL BY SELLER			
10/26/79	CHAR. CHEM	1 LAC THIN	2791	10/26	DEL BY SELLER			
11/8/79	KW. KL.	2	2803	11/8	DEL BY SELLER			
2/30/80	KW. KL.	1	2914	2/20	DEL BY SELLER			
3/31/80	KW. KL.	2	2994	5/10	DEL BY SELLER			
6/24/80	RELIABLE	1	3060	6/20	1	6/30	PD CASH	
7/28/80	RELIABLE	2	CERTIFIED CK 3101	7/24	2	7/30	3108	7/25
11/1/80	RELIABLE	2	3209	10/22	2	?	3236	11/5

TOTAL 63 DRUMS ⇒ 3 LAC THIN, 1 ASSIST, 59 STRIPPING CPD

Reproduced by the State of Michigan

54/55 GAL DRUMS -

REMOVED FROM PROPERTY

			BY
7/19/77	31	EMPTY	CHARLEVOIX CHEMICAL
1/3/78	7	EMPTY	CHARLEVOIX CHEM
2/20/80	2	EMPTY	KWICK KLEEN

TOTAL REMOVED 40 EMPTY

DRUMS ON PROPERTY 12/31/81

4 PARTIAL FULL (STRIPPING RESIDUE)

7 EMPTY

11

PURCHASED 63

REMOVED OR LEFT 51

12 UN ACCOUNTED FOR

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SEPTIC SYSTEM

INSTALLED 11/12/75 CLYDE WIKOM-PET CK# 1121

PUMPED	10/10/77	JOE'S SEPTIC	CK# 1910 - VOIDED?
PUMPED	10/19/78	HOFFMAN SEPTIC	CK# 2325
CLEAN SYSTEM?	4/26/79	ROTO ROOTER	CK # 2547
PUMPED	1/4/80	JOE'S SEPTIC	CK # 2871

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