

Saukville
CORRESPONDENCE/MEMORANDUM

STATE OF WISCONSIN

Date: February 23, 1979

File Ref: 3310-1

FEB 26 1979

To: Robert Baumeister

From: Ted Bosch *TB*

Subject: Report of Saukville Water Quality Investigation

A threshold odor test was made of five samples of Saukville water to try to determine the location and extent of the village's water quality problems. Samples were taken from three wells and two locations on the distribution system. Details of the sampling and testing are attached. I took the samples to Milwaukee's Linnwood Purification Plant where the testing was done. Don Stevlingson of the Milwaukee Water Works assisted in the testing. A panel of water testers was assembled; it consisted of Dan Butler of Ruekert and Mielke, and Romulo Diano, Jim Kohl, Dan Wilson and myself of this office. Two of the tested samples had an appreciable odor: the sample from Well No. 2 had a threshold odor number of 64, the sample from the distribution system nearest Well No. 2, had a threshold odor number of two. The best description of the odor was that it was similar to a perfume.

Based on the findings during the testing, I recommend that more testing be done to determine the nature and amount contaminant at Well No. 2. I had an organics test run on water from Well No. 2 on March 24, 1978 which found no organics. This test was done after I had been receiving complaints about organic type odor to the water for approximately one month. I intend to notify the village of Saukville in writing of our test results. In my letter to Saukville, I will request that they only use Well No. 2 when it is necessary to maintain water pressure during periods of high demand. I will also be sending a letter of appreciation to Don Stevlingson because of all of his assistance last Monday.

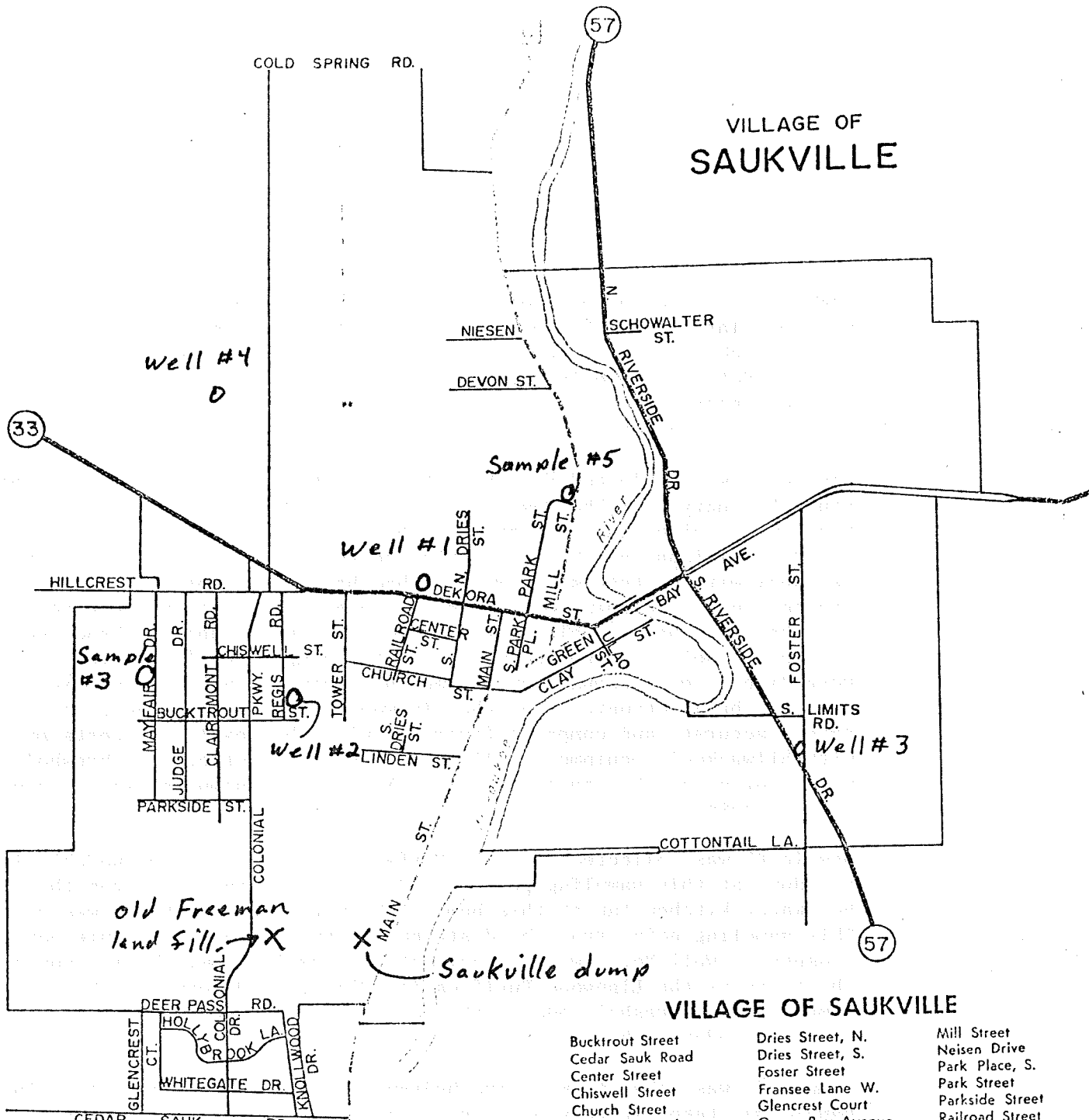
TJB:ljl

Attach.

2/28 - Bosch will follow thru with Lueschow on add. testing.

TB

VILLAGE OF SAUKVILLE



VILLAGE OF SAUKVILLE

- | | | |
|------------------|------------------|---------------------|
| Bucktrout Street | Dries Street, N. | Mill Street |
| Cedar Sauk Road | Dries Street, S. | Neisen Drive |
| Center Street | Foster Street | Park Place, S. |
| Chiswell Street | Fransee Lane W. | Park Street |
| Church Street | Glencrest Court | Parkside Street |
| Clairmont Road | Green Bay Avenue | Railroad Street |
| Clay Street | Hillcrest Road | Regis Road |
| Colonial Drive | Hollybrook Lane | Riverside Drive, N. |
| Colonial Parkway | Judge Drive | Riverside Drive, S. |
| Cottontail Lane | Knollwood Drive | Schwalter Street |
| Deer Pass Road | Linden Street | South Limits Road |
| Dekora Street | Main Street | Tower Street |
| Dries Court, W. | Mayfair Drive | Ulao Street |
| | | Whitegate Drive |

SAMPLE RECORD

I collected five samples from the Saukville Water System on February 19, 1979, between 8:30 a.m. and 10:00 a.m. I immediately drove the samples to the Linnwood Purification Plant where we tested all samples to determine their threshold odor number. The testing was done following procedures in the EPA Technology Transfer Methods for Chemical Analysis of Water and Wastes. Any chlorine which was in the samples was neutralized with the addition of arsenite.

Sample #1 was collected from Well No. 1. It was one week since this well was last run. The well was pumped for approximately five minutes with the chlorinator turned on. The water was very turbid. I did not detect a chlorine residual at this location and the chlorinator did not appear to be properly functioning. No odor was recorded in this sample by any of the observers.

Sample #2 was collected from Well No. 2. This well had not been pumped since February 16. The sample was clear. I detected no odor at the pump-house when collecting the sample. The operator detected a 0.5 total chlorine residual and 0.3 free chlorine residual. I detected no chlorine residual with my test kit. We both had Hach CN-66 test kits. The best explanation I can think of for the difference in chlorine test results was that Gene had trouble starting the chlorinator and his hands were in a chlorine solution when he worked on the pump. Gene's chemical pillows were discolored. Comparison between his chemical pillows and mine was made on the Spectronic 20 at the Linnwood Purification Plant, both were rather accurate and compared favorably with the results of tests made with Milwaukee's equipment. All five observers detected a threshold number of 64 on the sample from Well No. 2. The sampling was stopped at this point.

Sample #3 was collected from 133 Mayfair Road. I detected no chlorine residual at this sampling point. I detected a faint odor from the hot water kitchen tap at this home. The water in this house was softened. This sampling point from the distribution system was the sample point closest to Well No. 2 which I collected a sample from. While running the tests at the Linnwood Purification Plant, we determined that this sample had a threshold odor number of two. Two observers detected a threshold odor number of four.

Sample #4 was taken from a fire hydrant outside of pumphouse #3. The sample was taken at this point so I could get uniformly chlorinated samples. There is no sample point after the chlorinator in Well House No. 3. Well No. 3 is the only well on the east side of the Milwaukee River. None of the observers detected any odor in the sample from Well No. 3.

Sample #5 was collected from 491 North Mill Road. I detected a trace of chlorine at this location with my chlorine test kit. The cold water in this home was hard and the hot water was soft. I detected no odor in the water at this home, and in the laboratory none of the testers detected any odor in this sample either.