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1409 EMIL STREET, P.O. BOX 9538, MADISON, WIS. 53715 • TEL. (608) 257-4848

AUG 16 1980
DNR La Crosse Area

August 11, 1980
C 7606 W

Mr. Carl Pedretti, Chairman
Town of Onalaska LF LaXG
Town Hall
Route 2
Onalaska, WI 54650

Dear Mr. Pedreptti:

Please find attached second quarter analytical laboratory results for Onalaska Sanitary Landfill. Samples were obtained from all on-site monitoring wells, the Miller Home and Garden wells and the Sportsman's Club. Sampling was conducted on June 17, 1980. Conductivity is not reported with the laboratory results due to apparent instrument malfunction in the field.

Groundwater elevations increased in all monitoring wells compared to the previous sampling (March 12, 1980). The increases ranged from between 1.75 feet at Monitoring Well B4 and 2.88 feet at Monitoring Well B2A. Groundwater flow appears to be somewhat different from past observations in that groundwater is now discharged into the Black River. There appears to be a groundwater high at the center of the landfill area. Flow appears to be primarily towards the west with some components of flow towards the northwest and the southwest. There remains an upward gradient at the piezometer (Monitoring Wells B2 and B2A).

The water quality at depth under the landfill, indicated by Monitoring Well B2A, shows significant increases in all parameters except pH, when comparisons are made to the previous quarter's (March 12, 1980) data. For this well, COD, chloride and total hardness were at the highest levels noted in our records. The shallower Monitoring Well, B2, showed decreases for most parameters from the previous quarter. Total hardness for Well B2 was at the lowest level detected to date.

The change in flow direction noted above, appears to be changing the character of the water at Monitoring Well B5. During previous quarters, Monitoring Well B5 had been considered an upgradient well (removed from contamination from the landfill). This quarter, the analyses from Monitoring Well B5 are significantly higher than background Monitoring Well B1 and the Sportsman Club. COD and total hardness reached the highest detected levels to date.

Monitoring Well B4 showed decreases for all parameters analyzed. This quarter, COD and dissolved iron reached the lowest levels in our monitoring period.

With the exception of a slightly lower pH at the Miller home well, the Miller home and garden wells are within previously established ranges for all parameters tested.

Hydrogeologic conditions appear to be somewhat changed at Onalaska Sanitary Landfill. Groundwater flow direction has changed to more of a radial pattern away from the landfill than noted previously. As a result of this apparent change in flow direction, Monitoring Well B5 is no longer upgradient from the landfill. The analysis for Monitoring Well B2A indicates a significant increase in concentrations of analyzed parameters has occurred in the groundwater system at depth. All of the above observation are the result of this quarter's groundwater monitoring only. Monitoring results from future quarters are needed to discern if the trends noted above are permanent changes in the hydrogeologic conditions in and around Onalaska Sanitary Landfill.

If you have any questions concerning this report, please feel free to contact us.

Very truly yours,

WARZYN ENGINEERING INC.

Robert J. Karnauskas
Hydrogeologist

Roger C. Cooley/dkp

Roger C. Cooley
Project Manager

RJK/RCC/dkp

Encl: Analytical Laboratory Results 6/17/80
Groundwater Map 6/17/80

cc: Mr. Chuck Goechel (with enclosures)
DNR
101 South Webster Street
Madison, WI 53703

Mr. Gene Mitchell (with enclosures)
DNR
101 South Webster Street
Madison, WI 53703

Mr. Jim Boettcher (with enclosures)
DNR
3550 Mormon Coule Road
State Office Building
La Crosse, WI 54601

Mr. Jeff Miller (with enclosures)
DNR
Westcentral District
1300 W. Clairemont Avenue
Eau Claire, WI 54701

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ANALYTICAL LABORATORY RESULTS

Project Town of Onalaska Sanitary Landfill

Location Onalaska, Wisconsin

Date Received: 6/17/80
Project No: C 7606W
Sheet 1 of 1
Ckd JC App'd RJK
Date Issued: 7/24/80

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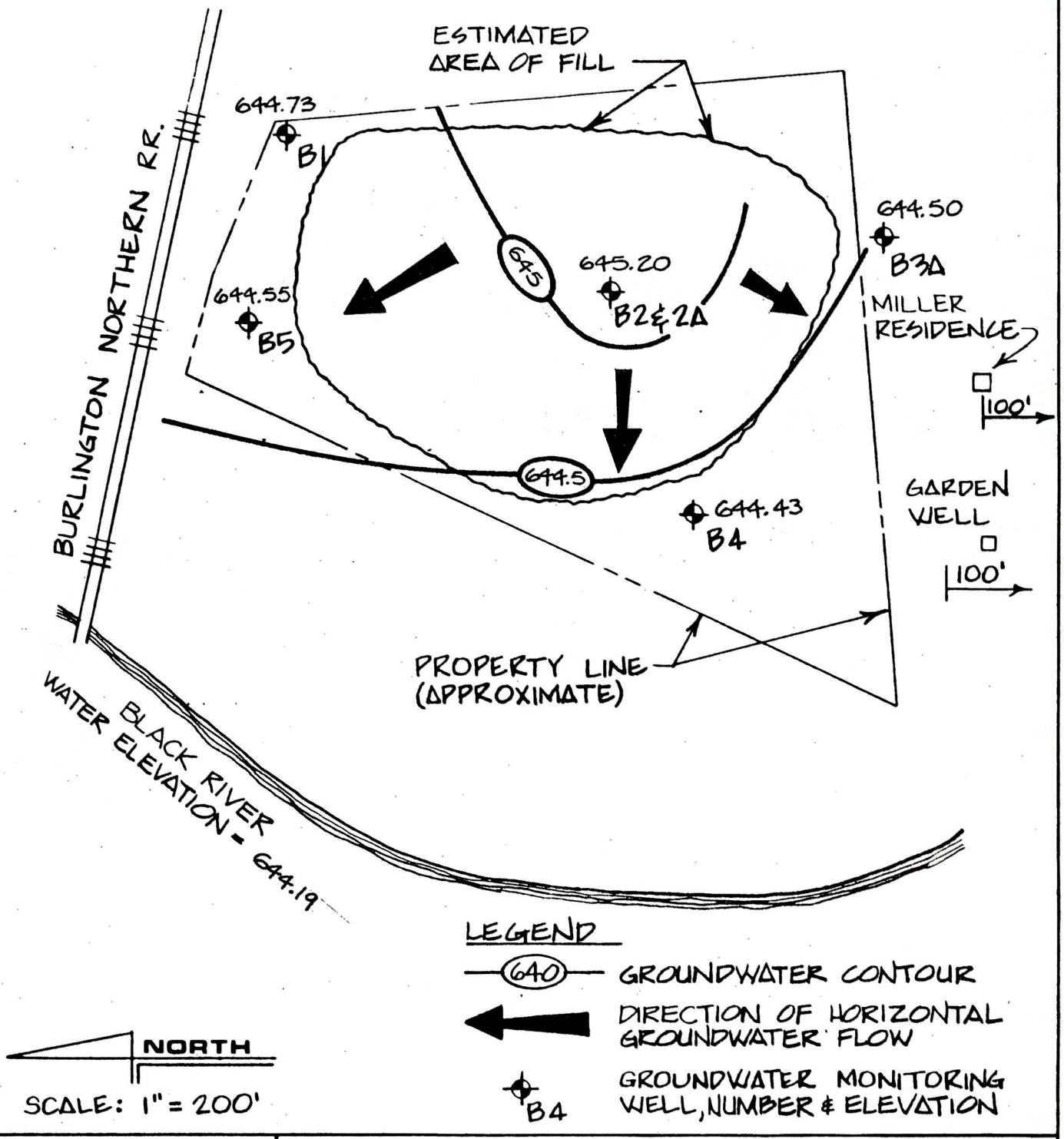
Sample No.	Groundwater Elevation	pH Units	Conductivity @ 25°F umhos/cm	Chemical Oxygen Demand	Chloride	Total Hardness	Dissolved Iron
B-1	644.73'	6.4	Not Reported Due to Instrument Malfunction	<10	<5	150	0.14
B-2	645.20'	6.8		50	45	270	<0.05
B-2A	645.41'	6.7		770	130	730	0.82
B-3A	644.50'	6.7		38	45	370	<0.05
B-4	644.43'	6.7		50	6	200	<0.05
B-5	644.55'	7.0		190	9	270	0.22
Miller Home	-	6.8		28	92	380	0.76
Miller Garden	-	7.5		66	7	96	0.34
Sportsman Club	-	7.2		<10	<5	120	0.20

All parameters are mg/l unless otherwise stated.



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GROUNDWATER CONTOUR MAP

6-17-80 DATA

TOWN OF ONALASKA SANITARY LANDFILL
ONALASKA, WISCONSIN

DWN TDH	CHK'D CGK	APP'D Robert Kammerud	DATE 8/11/80	C7606-A23