

OCT 30 1989

Waste Management of North  
America, Inc.  
Midwest Region  
ATTN: Michael W. Reardon  
22200 W. Nine Mile Road  
Southfield, MI 48034

Continued

Thank you for your letter of October 2, 1989, regarding sampling to be conducted at your Kawkawlin, Michigan site on October 31 through November 2, 1989. Mr. Keith Andre and possibly another representative of this office will be present to split samples with you and the Michigan Department of Public Health.

Attached are the results of samples collected by the NRC in 1988. The analyses performed included gross alpha, gross beta, gamma scan, and isotopic thorium and radium for samples exceeding 5 pCi/liter.

Please call me (312) 790-5514 if you have any questions.

Sincerely,

M. Schumacher, Chief  
Radiological Controls and  
Chemistry Section

Attachments:

1. Description of Sampling Locations
2. Map of Sampling Locations
3. Results of November 3, 1988, sampling.

bcc w/attachments:

D. Sreniawski, RIII  
R. Lickus, RIII  
L. Greger, RIII  
J. Swift, NMSS

RIII

Part for

Schumacher/sm

9301110232 920526  
PDR FOIA  
MAYFIEL92-128 PDR

Als

## ATTACHMENT 1

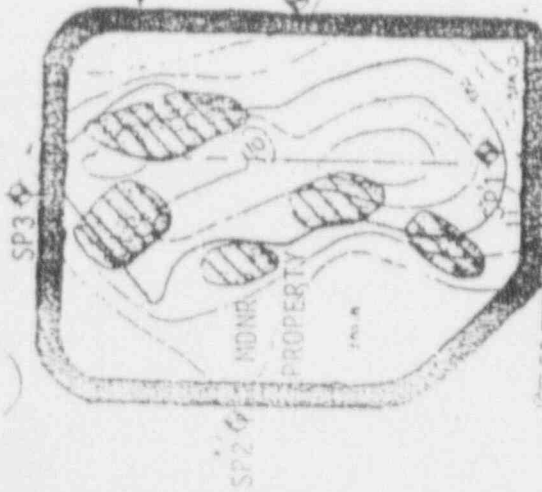
### Description of Water Sampling Locations

<u>Location*</u>	<u>Description</u>
SP-1	Well inside DNR slurry wall
SP-2	Well outside (west) DNR slurry wall
SP-3	Well outside (north) DNR slurry wall
SP-4	Well outside (east) DNR slurry wall
MW-5	Well outside (east) DNR slurry wall
MW-6	Well outside (north) DNR slurry wall
MW-43	Well between DNR and SCA slurry walls
MW-12	Well near boundary between DNR and SCA sites
INS-1	Well inside SCA slurry wall (south)
UP-1	Well outside SCA slurry wall (south)
INS-2	Well inside SCA slurry wall (west)
DWN-3	Well outside SCA slurry wall (west)
INS-3	Well inside SCA slurry wall (north)
DWN-2	Well outside SCA slurry wall (north)
MW-15	Well outside and west of SCA slurry wall
MW-18	Well outside and east of SCA slurry wall
L1	Surface water from lagoon north of DNR slurry wall
L2	Surface water from lagoon between DNR and SCA slurry walls
SW-17	Surface water from lagoon south of SCA slurry wall
L3	Surface water from lagoon near Beaver Road

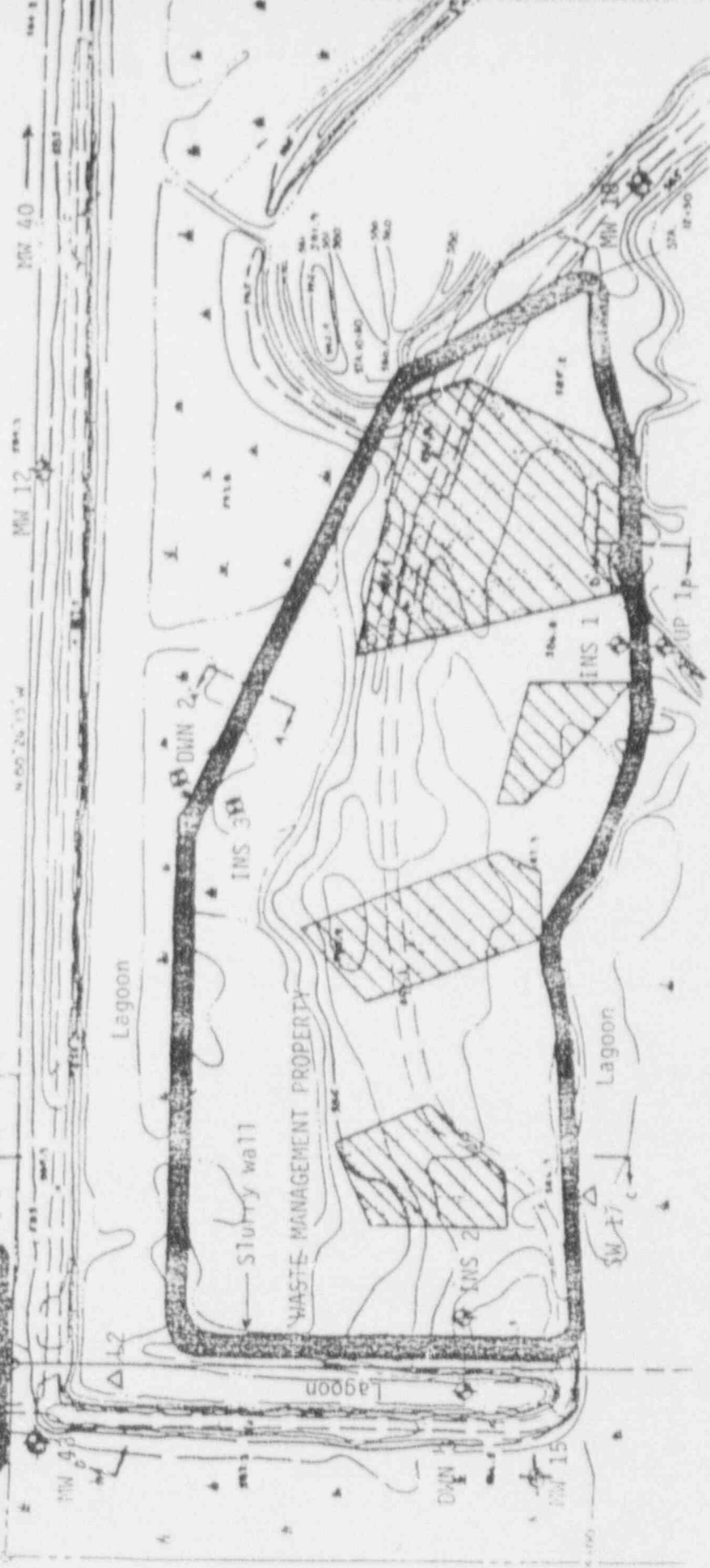
\*Location designations except L1, L2, and L3, are those used by WMI and DNR.

Lagoon MW 6

LI



Reference: N. Lin Cor. Sec. 25, 26, 27, & 28  
Survey by Edwards Engineering  
March 9, 1978



L3 at Beaver Rd.

ATTACHMENT 2. SELECTED MONITORING LOCATIONS

WASTE MANAGEMENT-MWR SITES, KAWKAWULIN, MI.



# ATTACHMENT 3

WMI/MDNR Sites - Kawkawlin, MI  
 Water Samples of November 3, 1989  
 Results in pCi/Liter; Uncertainty One Standard Deviation

Location	Sample No.	Gross Activity		Isotopic Thorium			Isotopic Radium	
		Alpha	Beta	Th 232	Th 230	Th 228	Ra 226	Ra 228
MDNR Well SP1	88-978	1.3 ± 0.7	90 ± 20					
MDNR Well SP2	88-977	4.6 ± 1.3	-10 ± 15					
MDNR Well SP3	88-976	2.8 ± 1.2	19 ± 16					
MDNR Well SP4	88-979	11 ± 2	2 ± 15	-0.012 ± .033	-0.06 ± .07	.05 ± .03	.18 ± .06	.08 ± 1.1
SCA Well UP1	88-973	3.1 ± 1.0	19 ± 8					
SCA Well INS1	88-972	4.4 ± 1.2	770 ± 40					
SCA Well INS2	88-967	2.9 ± 0.6	6 ± 6					
SCA Well INS3	88-970	1.8 ± 0.8	0 ± 15					
SCA Well DWN2	88-971	32 ± 5	30 ± 30	.5 ± .6	.2 ± .8	1.09 ± 0.08	1.9 ± 0.1	-0.1 ± 1.4
SCA Well DWN3	88-969	3 ± 1	-18 ± 14					
SCA Well MW5*	DRY							
SCA Well MW6*	88-975	2.0 ± 0.4	1.0 ± 1.4					
SCA Well MW12	88-962	.8 ± .5	18 ± 7					
SCA Well MW15	DRY							
SCA Well MW18	88-963	1.3 ± 0.4	5 ± 6					
SCA Well MW40*	88-964	1.3 ± 2.0	10 ± 30					

\*Sampling Location Not on Original List

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WMI/MDNR Sites - Kawkawlin, MI  
Water Samples of November 3, 1989

Results in pCi/Liter; Uncertainty One Standard Deviation

Location	Sample No.	Gross Activity		Isotopic Thorium			Isotopic Radium	
		Alpha	Beta	Th 232	Th 228	Th 230	Ra 226	Ra 228
SCA Well MW43	88-965	28 ± 4	-1 ± 1.6	.04 ± .04	.27 ± .05	-.14 ± .08	.51 ± .10	-1.5 ± 1.4
Surface H <sub>2</sub> O L1	88-974	.11 ± .27	4 ± 6					
Surface H <sub>2</sub> O L2	88-966	.6 ± .8	-23 ± 14					
Surface H <sub>2</sub> O L3	88-980	1.6 ± 0.4	20 ± 7					
Surface H <sub>2</sub> O SW17	88-968	.7 ± .3	17 ± 7					