

LABORATORY REPORT

Client: Lake Papakeechee Home Owners Association
Attn: Ron Kerlin
9485 East 1000 North
Syracuse, IN 46567

Report#: 272993-95
Priority: Standard Written
Status: Final

Project/Site: Same as above

Samples Submitted: Three surface water samples

Copies to: None

Collected: 07-28-97

By: Client

Received: 07-28-97

REPORT SUMMARY

Three surface water samples were submitted for multiple parameter analyses.

Detailed quantitative results are presented on the following pages.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call us at (219) 233-4777.

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REVIEWED BY: 

DATE: 8-15-97

FINALIZED BY: 

DATE: 8-15-97

OIL & GREASE—Surface Water

Lab #	Site Description	Results(mg/L)
272994	Promontory Bay	< 5.0

Analyzed: 08-04-97

Analyst: Ref. Lab(Edglo)

Method: EPA 413.1

Note: Oil & Grease analysis was performed by Edglo Laboratories, Fort Wayne, IN.

FECAL COLIFORM—Surface Water

Lab #	Site Description	Limit	Results(cfu/100mL)	Interpretation
272993	Holiday Harbor	200	10	Satisfactory

Analyzed: 07-29-97

Analyst: KB

Method: SM 9222-D

The presence of fecal coliform is indicative of fecal contamination. Although most fecal coliform bacteria are not pathogenic (i.e. non-disease producing), they are often detected when pathogenic organisms are present. When fecal coliform is not detected, the probability that pathogenic organisms are present is very low.

SEMI-VOLATILE ORGANIC CHEMICALS

Site: South Inlet

Lab #: 272995

Parameter	Tradename	Result (µg/L)
Phthalates		
Butyl benzyl phthalate		ND Ł
Di-n-butyl phthalate		ND Ł
Diethylphthalate		ND Ł
Di(2-ethylhexyl)adipate		< 2.0
Di(2-ethylhexyl)phthalate		< 2.0
Dimethylphthalate		ND Ł
Di-n-octyl phthalate		ND Ł
PCBs		
Chlorobiphenyl		ND Ł
Dichlorobiphenyl		ND Ł
Trichlorobiphenyl		ND Ł
Tetrachlorobiphenyl		ND Ł
Pentachlorobiphenyl		ND Ł
Hexachlorobiphenyl		ND Ł
Heptachlorobiphenyl		ND Ł
Octachlorobiphenyl		ND Ł
Polynuclear Aromatic Hydrocarbons		
Acenaphthylene		ND Ł
Anthracene		ND Ł
Benzo (a) anthracene		ND Ł
Benzo (b) fluoranthene		ND Ł
Benzo (k) fluoranthene		ND Ł
Benzo (g,h,i) perylene		ND Ł
Benzo (a) pyrene		< 2.0
Chrysene		ND Ł
Dibenzo (a,h) anthracene		ND Ł
Fluoranthene		ND Ł
Fluorene		ND Ł
Indeno (1,2,3-cd) pyrene		ND Ł
Phenanthrene		ND Ł
Pyrene		ND Ł
Pesticides/Herbicides		
Acetochlor		ND Ł
Alachlor	Lasso [®]	< 0.2
Aldrin	Aldrite [®]	< 0.2
Ametryn	Gesapax [®]	ND Ł
Anilazine		ND Ł
Aspon	Aspon [®]	ND Ł
Atraton	Gesatamin [®]	ND Ł
Atrazine	AAtrex [®]	0.4
Azinphos-ethyl		ND Ł

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SEMI-VOLATILE ORGANIC CHEMICALS-Continued

Site: South Inlet

Lab #: 272995

Parameter	Tradename	Result (µg/L)
Azinphos-methyl	Carfene [®]	ND Ł
Bendiocarb		ND Ł
Benfluralin	Balan [®]	ND Ł
Bolstar	Bolstar [®]	ND Ł
Bromacil	Hyvar [®]	< 0.2
Butachlor	Machete [®]	< 0.1
Butylate	Sutan [®] +	ND Ł
Carbophenothion		ND Ł
Carboxin	Vitavax [®]	ND Ł
Chlordane Components		
alpha-Chlordane	Chlordrite [®]	< 0.2
gamma-Chlordane	Chlordrite [®]	< 0.2
Chlorfevinfos		ND Ł
Chlorobenzilate	Kop-Mite [®]	ND Ł
Chloroneb	Terraneb [®]	ND Ł
Chlorpropham	Chloro IPC [®]	ND Ł
Chloropropylate	Acaralate [®]	ND Ł
Chlorpyrifos	Dursban [®]	ND Ł
Chlorpyrifos methyl		ND Ł
Chlorothalonil	Bravo [®]	ND Ł
Clomazone	Command [®]	ND Ł
Clopyralid		ND Ł
Coumaphos		ND Ł
Crotoxyphos	Ciodrin [®]	ND Ł
Cyanazine	Bladex [®]	< 0.1
Cycloate	Sabet [®]	ND Ł
DCPA	Dacthal [®]	ND Ł
4,4'-DDD	Rothane [®]	ND Ł
4,4'-DDE		ND Ł
4,4'-DDT	Zerdane [®]	ND Ł
Demeton	Systox [®]	ND Ł
Desethylatrazine		ND Ł
Desisopropylatrazine		ND Ł
Diazinon	Spectracide [®]	ND Ł
Dichlobenil	Casoron [®]	ND Ł
Dichlofenthion	VC-13 Nemacide [®]	ND Ł
Dichloran	Botran [®]	ND Ł
Dichlorvos	Cekusan [®]	ND Ł
Dicrotophos		ND Ł
Dieldrin	Panoram D-31 [®]	< 0.2

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SEMI-VOLATILE ORGANIC CHEMICALS-Continued

Site: South Inlet

Lab #: 272995

Parameter	Tradename	Result (µg/L)
Dimethoate		ND ƒ
2,4-Dinitrotoluene		ND ƒ
2,6-Dinitrotoluene		ND ƒ
Dioxathion		ND ƒ
Diphenamid	Dymid [®]	ND ƒ
Disulfoton	Disyston [®]	ND ƒ
Disulfoton sulfone		ND ƒ
Dyfonate	Dyfonate [®]	ND ƒ
Endosulfan I		ND ƒ
Endosulfan II		ND ƒ
Endosulfan sulfate		ND ƒ
Endrin	Hexadrin [®]	< 0.2
Endrin aldehyde		ND ƒ
EPN		ND ƒ
EPTC	Eptam [®]	ND ƒ
Esfenvalerate		ND ƒ
Ethalfuralin	Sonalan [®]	ND ƒ
Ethion	Rhodocide [®]	ND ƒ
Ethoprop	Mocap [®]	ND ƒ
Etridiazole	Terrazole [®]	ND ƒ
Famphur		ND ƒ
Fenamiphos	Nemacur [®]	ND ƒ
Fenitrothion		ND ƒ
Fenoxaprop ethyl		ND ƒ
Fensulfothion	Dasanit [®]	ND ƒ
Fenthion	Baytex [®]	ND ƒ
Fluazifop-butyl	Fusilade [®]	ND ƒ
Fluchloralin	Basalin [®]	ND ƒ
Fluometuron	Meturon [®]	ND ƒ
Fluridone	Sonar [®]	ND ƒ
Heptachlor	Heptamul [®]	< 0.2
Heptachlor epoxide		< 0.2
Hexachlorobenzene	No Bunt [®]	< 0.2
Hexachlorocyclopentadiene		< 0.2
Hexazinone	Velpar [®]	ND ƒ
Iprodione		ND ƒ
Isofenphos		ND ƒ
Isophorone		ND ƒ
Leptophos		ND ƒ

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SEMI-VOLATILE ORGANIC CHEMICALS-Continued

Site: South Inlet

Lab #: 272995

Parameter	Tradename	Result (µg/L)
Lindane Components		
alpha-BHC		ND Ł
beta-BHC		ND Ł
delta-BHC		ND Ł
gamma-BHC	Gammexane®	ND Ł
Malathion	AcimaI®	ND Ł
Merphos	Folex® 6EC	ND Ł
Metalaxyl		ND Ł
Methoxychlor	Marlate®	< 0.2
1-Methyl Napthalene		ND Ł
2-Methyl Napthalene		ND Ł
Methyl Paraoxon		ND Ł
Methyl Parathion	Bladan®	ND Ł
Metolachlor	Dual®	0.2
Metribuzin	Lexone®	< 0.1
Metsulfuron methyl		ND Ł
Mevinphos	Phosdrin®	ND Ł
MGK-264	Octacide 264®	ND Ł
MGK-326		ND Ł
Mirex		ND Ł
Molinate	Ordram®	ND Ł
Monocrotophos		ND Ł
Naled		ND Ł
Napthalene		ND Ł
Napropamide	Devrinol®	ND Ł
Nonachlor, trans		< 0.2
Norflurazon	Solicam®	ND Ł
Oryzalin		ND Ł
Oxadiazon	Chipco®	ND Ł
Oxyfluorfen		ND Ł
Parathion		ND Ł
Pebulate	Tillam®	ND Ł
Pendimethalin	Prowl®	ND Ł
Pentachlorobenzene		ND Ł
Pentachlorophenol	Pentacon®	< 0.04
Permethrin, cis-	Ambush®	ND Ł
Permethrin, trans-	Ambush®	ND Ł
Phorate	Rampart®	ND Ł
Phosmet	Imidan®	ND Ł
Phosphamidon		ND Ł

Continued on the following page

SEMI-VOLATILE ORGANIC CHEMICALS-Continued

Site: South Inlet

Lab #: 272995

Parameter	Tradename	Result (µg/L)
Profluralin	Tolban [®]	ND Ł
Prometon	Pramitol [®]	< 0.1
Prometryn	Caparol [®]	ND Ł
Pronamide	Kerb [®]	ND Ł
Propachlor	Ramrod [®]	< 0.1
Propanil	Prop-Job [®]	ND Ł
Propazine	Milogard [®]	ND Ł
Propiconazole	Tilt [®]	ND Ł
Prothiofos	Tokuthion [®]	ND Ł
Simazine	Princep [®]	< 0.2
Simetryn	Gy-bon [®]	ND Ł
Stirofos	Gardona [®]	ND Ł
Sulfotep		ND Ł
TEPP		ND Ł
Terbacil	Sinbar [®]	ND Ł
Terbufos	Counter [®]	ND Ł
Terbutryn	Prebane [®]	ND Ł
1,2,4,5-Tetrachlorobenzene		ND Ł
Thiabendazole		ND Ł
Thiobencarb		ND Ł
Thionazin		ND Ł
Triadimefon	Bayleton [®]	ND Ł
Tribufos (DEF)	DEF 6 [®]	ND Ł
Trichlorfon	Metrifonate [®]	ND Ł
Trichloronate		ND Ł
Trifluralin	Treflan [®]	< 0.1
Vernolate	Vernam [®]	ND Ł
Vinclozolin	Vinclozoline [®]	ND Ł

ND Ł = Not Detected - Semi-quantitative analysis only. If this parameter is present in the sample, the concentration is estimated by the ratio of the peak area to that of the internal standard. The compounds listed can be routinely detected down to levels of 0.1 - 1.0 µg/L.

* The MCL presented is for total chlordane.

NA = Not Applicable

Surrogate Standards	Limits (%)	% Recovery
		Undil
2,4,5,6-Tetrachloro-m-xylene	70-130	85
Pentachloronitrobenzene	70-130	105
4,4'-Dichlorobiphenyl	70-130	91
Triphenylphosphate	70-130	109

Analyzed: 07-30-97

Analyst: CW

Method: 525.2

REFERENCES AND DEFINITIONS OF TERMS

General Chemistry

References: 1. EPA-600/4-79-020 (rev. March 1983)
Methods for Chemical Analysis of Water and Wastes.
2. Standard Methods for the Examination of Water and Wastewater,
Vol. 17, 1989.

Fecal Coliform

Analytical technique: Membrane Filtration
Reference: Standard Methods For Examination of Water and Wastewater
Vol. 17, 1989

Semi-Volatile Organic Chemical (SOC) Drinking Water Analysis

Analytical Technique: Capillary Gas Chromatography - Mass Spectrometry (GC/MS)
Reference: EPA/600/4-88/039
Methods for the Determination of Organic Compounds in Drinking
Water, December 1988 (rev. July 1991).

Semi-Volatile Organic Chemicals (SOCs) are chemicals used in the manufacture of a wide range of products. These include chemicals used in the production of wood preservatives, hydraulic and electrical transformer oils, plastics, tars, creosotes, and other types of pesticide formulations. SOC's are usually categorized into the following groups: Phenols, Pesticides, PCBs, Phthalates, Polynuclear Aromatics, and other miscellaneous chemicals commonly referred to as Base Neutrals. The presence of these chemicals in water usually results from exposure of the water to waste materials or soils containing these materials or from an accidental spill.

MCL (Maximum Contaminant Levels) are the maximum allowable concentrations of "regulated" chemicals in public drinking water supplies. Note that monitoring requirements for public supplies are not currently applicable to private water systems.

Practical Quantitation Limits (PQL's) represent the lower limit at which the compounds of interest can be accurately measured, at a 95% confidence level, and reported for a sample exhibiting minimal chemical background interference under the conditions employed in the analytical procedure. PQL's are by definition a function of the instrument performance for an ideal sample and thus are not adjusted for sample dilutions used to calculate results.

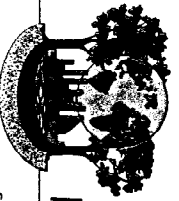
Results: Values presented in the result column represent the lowest reportable value for a parameter after correcting for all sample dilutions.

"<" means "less than". The number given is the lowest reportable value by the procedure used for analysis.

1 mg/L = 1 milligram per liter (mg/L) = 1 part per million (ppm)

1 µg/L = 1 microgram per liter (µg/L) = 1 part per billion (ppb)

1 cfu = 1 Coliform Forming Unit = a bacteria colony presumed to have originated from a single bacterium present in the sample



Please see the back for instructions

SHADED AREA FOR LAB USE ONLY

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

CLIENT/COMPANY ORDERING TEST PAPER RESERVE PROTECTIVE ASSN.	LOCATION/ADDRESS 9485 E 1000 N	SYRACUSE, IN 46767	FWS ID #	PO # 25158	# OF CONTAINERS	MATRIX CODE	TESTS REQUESTED (✓)	OTHER SAMPLE RELATED REMARKS	CONTAMINATION LEVELS	TURNAROUND TIME	CUSTODY SEAL
SAMPLER (Signature) Ron Kerlan							FERAL COLIFORM OIL & GREASE PESTICIDES				
RELINQUISHED BY (Signature) Ron Kerlan	DATE 7-28	TIME 0830	CARRIER	AIRBILL NO.	COOLER NO.	DATE SHIPPED					

LAB RESERVES THE RIGHT TO RETURN UNUSED PORTIONS OF NON-AQUEOUS SAMPLES TO CLIENT.

RELINQUISHED BY (Signature) <i>Ronald Kerlan</i>	DATE 7/28	TIME 1400	RECEIVED BY (Signature) <i>Amato</i>	DATE 7/28	TIME 1400
MATRIX CODES: RW = REAGENT WATER WW = WASTEWATER DW = DRINKING WATER PW = POOL WATER GW = GROUNDWATER O = OTHER SW = SURFACE WATER SO = SOIL			CONTAMINATION LEVEL L = LOW (NO ODOR) H = HIGH M = MEDIUM U = UNKNOWN		
TURN-AROUND-TIME (TAT) - SURCHARGES SW = STANDARD (10-15 WORKING DAYS) WRITTEN 0% RV = RUSH (3-5 WORKING DAYS) VERBAL 50% RW = RUSH (3-5 WORKING DAYS) WRITTEN 75%			IV = IMMEDIATE (48-72 HOURS) VERBAL 100% IW = IMMEDIATE (48-72 HOURS) WRITTEN 125% SP = WEEKEND, HOLIDAY OR STAT Call		