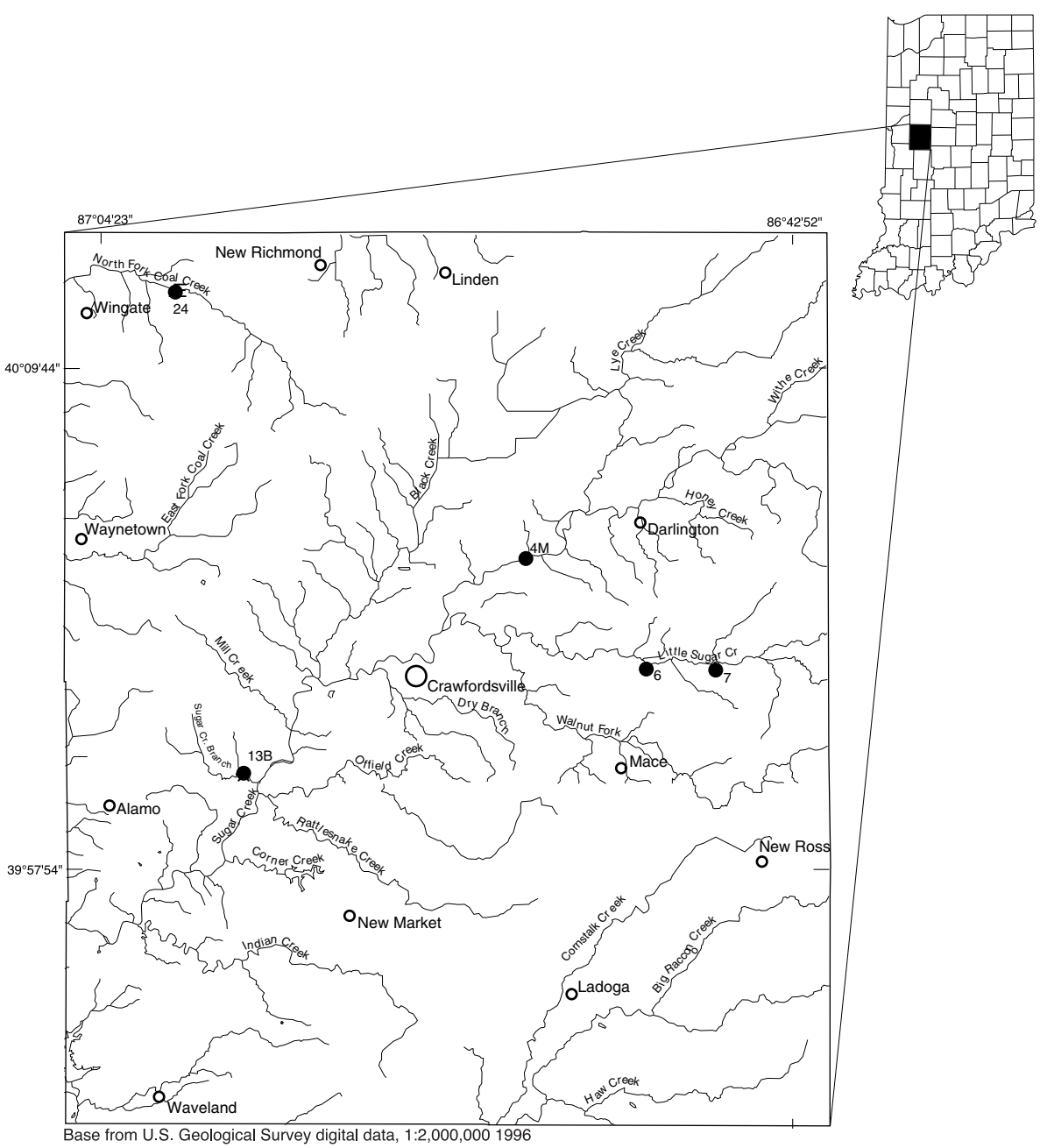


EXPLANATION

● 7M Sampling site and site number

Figure 8.--Water-quality sampling sites for Sugar Creek and other sampling sites in Montgomery County.

MISCELLANEOUS WATER-QUALITY STATION ANALYSES

MISCELLANEOUS STREAMS IN MONTGOMERY COUNTY

Analytical results for samples collected from Sugar Creek and other selected streams in Montgomery County, Indiana, May 2000.

Water-quality data listed below are from water samples collected at various sites on Sugar Creek and other streams in Montgomery County, Indiana. The sampling was conducted through a cooperative agreement between the Montgomery County Commissioners and the U.S. Geological Survey.

Note: Specific conductance, pH, water temperature, and dissolved oxygen measurements were determined in-stream using a multiple-parameter instrument.

STATION NUMBER	SITE NUMBER	DATE	TIME	TEMPER-ATURE WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	OXYGEN, DIS-SOLVED (mg/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	NITRO-GEN, AMMONIA DIS-SOLVED (mg/L AS N) (00608)	NITRO-GEN, NITRITE DIS-SOLVED (mg/L AS N) (00613)	NITRO GEN, NO2+NO3 DIS-SOLVED (mg/L AS N) (00631)
400515086510801	4M	05-10-00	1115	17.2	576	7.0	7.7	0.306	0.174	7.82
400251086472201	6	05-11-00	1000	16.8	585	7.8	7.6	.339	.454	12.8
400247086443801	7	05-11-00	0820	15.8	628	7.4	7.6	.228	.478	16.0
400016087000201	13B	05-10-00	0900	12.3	660	10.1	7.9	.060	.016	1.67
401137087020801	24	05-10-00	1000	16.7	652	10.3	8.0	.156	.104	1.62

STATION NUMBER	SITE NUMBER	DATE	TIME	CALCIUM DIS-SOLVED (mg/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (mg/L AS Mg) (00925)	SODIUM, DIS-SOLVED (mg/L AS Na) (00930)	POTAS-SIUM, DIS-SOLVED (mg/L AS K) (00935)	CHLO-RIDE, DIS-SOLVED (mg/L AS Cl) (00940)	SULFATE DIS SOLVED (mg/L AS SO_4) (00945)
400515086510801	4M	05-10-00	1115	69.0	24.6	13.4	3.6	32.8	51.6
400251086472201	6	05-11-00	1000	71.3	22.0	8.5	3.4	31.1	42.4
400247086443801	7	05-11-00	0820	78.1	23.8	8.3	2.4	33.1	43.6
400016087000201	13B	05-10-00	0900	86.8	30.5	5.4	2.4	10.5	42.9
401137087020801	24	05-10-00	1000	90.4	30.2	7.4	1.5	19.3	83.0

STATION NUMBER	SITE NUMBER	DATE	TIME	FLUO-RIDE, DIS-SOLVED (mg/L AS F) (00950)	SILICA, DIS-SOLVED (mg/L AS SiO_2) (00955)	IRON, DIS-SOLVED (µg/L AS Fe) (01046)	MANGA-NESE, DIS-SOLVED (µg/L AS Mn) (01056)	ALKA-LINITY WAT.DIS FET LAB $CaCO_3$ (mg/L) (29801)	SOLIDS RESIDUE AT 180 DEG. C DIS-SOLVED (mg/L) (70300)
400515086510801	4M	05-10-00	1115	0.2	7.4	20	14	171	367
400251086472201	6	05-11-00	1000	.2	8.3	20	34	166	367
400247086443801	7	05-11-00	0820	.2	8.4	20	35	183	397
400016087000201	13B	05-10-00	0900	.1	13.6	<10	4	299	392
401137087020801	24	05-10-00	1000	.2	8.8	40	58	241	409

MISCELLANEOUS STREAMS IN MONTGOMERY COUNTY

Analytical results for the quality-assurance samples collected from a site in Montgomery County, Indiana, May 2000.

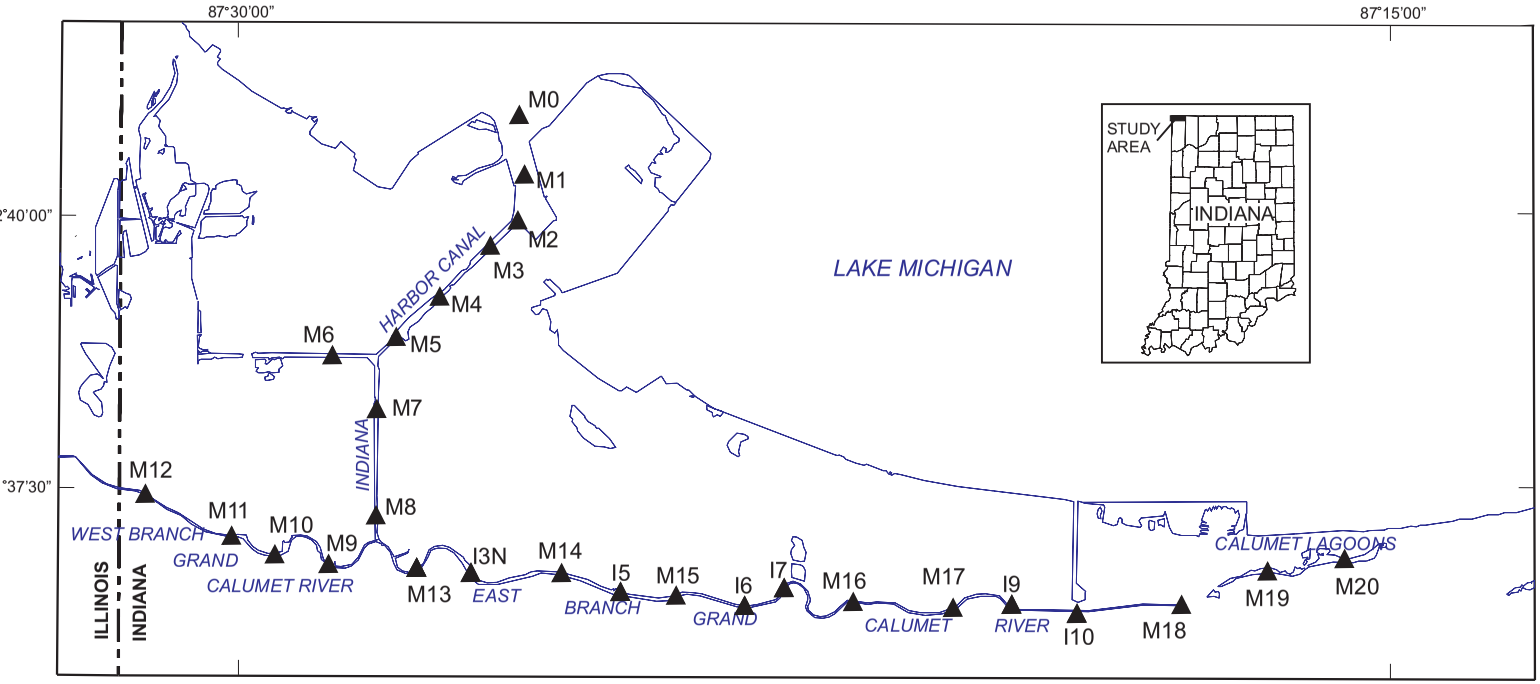
Water-quality data listed below are from a water sample collected at a site in Montgomery County, Indiana. The sampling was conducted through a cooperative agreement between the Montgomery County Commissioners and the U.S. Geological Survey.

Note: Specific conductance, pH, water temperature, and dissolved oxygen measurements were determined in-stream using a multiple-parameter instrument.

STATION NUMBER	SITE NUMBER	DATE	TIME	TEMPERATURE WATER (DEG C) (00010)	SPECIFIC CONDUCTANCE (µS/cm) (00095)	OXYGEN, DISSOLVED (mg/L) (00300)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	NITROGEN, AMMONIA DISSOLVED (mg/L AS N) (00608)	NITROGEN, NITRITE DISSOLVED (mg/L AS N) (00613)
400247086443801	7	05-11-00	0855	15.8	628	7.4	7.6	0.220	0.465

NITROGEN, NO2+NO3 DISSOLVED (mg/L AS N) (00631)	CALCIUM DISSOLVED (mg/L AS Ca) (00915)	MAGNESIUM, DISSOLVEd (mg/L AS Mg) (00925)	SODIUM, DISSOLVED (mg/L AS Na) (00930)	POTASSIUM, DISSOLVEd (mg/L AS K) (00935)	CHLORIDE, DISSOLVED (mg/L AS Cl) (00940)
15.9	78.6	23.9	8.2	2.3	33.5

SULFATE DISSOLVED (mg/L AS SO_4) (00945)	FLUORIDE, DISSOLVED (mg/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SiO_2) (00955)	IRON, DISSOLVED (µg/L AS Fe) (01046)	MANGANESE, DISSOLVED (µg/L AS Mn) (01056)	ALKALINITY WAT.DIS FET LAB $CaCO_3$ (mg/L) (29801)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (mg/L) (70300)
44.1	0.2	8.4	20	35	179	401



Base from U.S. Geological Survey digital data 1:24,000 Albers Equal Area projection
Standard parallels 29°30' and 45°30', Central meridian -86°

EXPLANATION

▲ M0 Water-quality-sampling site and site designation

Figure 9.--Water-quality-sampling sites for the Grand Calumet River and the Indiana Harbor Canal, in Lake County, Indiana, July 1999.

GRAND CALUMET RIVER AND INDIANA HARBOR CANAL IN LAKE COUNTY

Analytical results for water-quality samples collected at various sites on the Grand Calumet River and the Indiana Harbor Canal in Lake County, Indiana, July, 1999. The sampling was conducted through a cooperative investigation with the US Army Corps of Engineers and the U.S. Geological Survey. Location of water-quality-sampling sites shown on figure 9.

Measurements for dissolved oxygen, pH, specific conductance, water temperature, light intensity, transparency, and turbidity were determined at the site.

Water-quality analysis were done by a Department of Interior approved contractual laboratory.

[Date is in month-day-year; time is in military notation; numbers in parenthesis are U.S. Geological Survey National Water Information System parameter codes; mg/L, milligrams per liter; E, estimated value; --, no data; µS/cm, microsiemens per centimeter at 25 degrees Celsius; deg C, degrees Celsius; µ-Eins/sqm/s, micro Einsteins per square meter per second; m, meter; Ntu, Nephelometric turbidity units; µg/L, micrograms per liter]

STATION NUMBER	SITE NUMBER	DATE	TIME	OXYGEN, DIS-SOLVED (mg/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	TEMPER-ATURE WATER (deg C) (00010)	HARD-NESS TOTAL (mg/L AS $CaCO_3$) (00900)	ALKA-LINITY WAT.DIS FET LAB $CaCO_3$ (mg/L) (29801)	BICAR-BONATE WAT.DIS FET FIELD HCO_3 (mg/L) (29804)	CAR-BONATE WAT.DIS FET FIELD CO3 (mg/L) (29807)
414057087263601	M0	07-28-99	1000	8.2	8.1	368	26.0	150	106	106	<5.0
414023087262301	M1	07-27-99	1630	8.4	8.3	366	26.8	160	107	105	E2.1
414003087263300	M2	07-27-99	1045	6.6	7.9	399	27.1	160	108	108	<5.0
413952087264701	M3	07-26-99	1645	7.3	7.8	392	26.1	160	107	107	<5.0
413919087273201	M4	07-26-99	1520	5.3	7.6	496	29.9	330	108	108	<5.0
413857087280301	M5	07-27-99	1430	7.1	8.0	498	29.7	200	109	109	<5.0
413848087285201	M6	07-28-99	1200	9.9	8.3	497	30.4	200	110	110	<5.0
413822087281601	M7	07-27-99	1100	5.8	7.6	513	28.2	200	110	110	<5.0
413716087281600	M8	07-29-99	1500	7.6	7.9	485	29.4	190	111	14	<5.0
413651087285001	M9	07-27-99	1730	9.2	7.4	1350	29.0	360	159	159	<5.0
413658087292601	M10	07-30-99	0945	5.4	7.0	1300	26.1	360	153	153	<5.0
413707087300300	M11	07-26-99	1530	7.1	7.1	1180	25.9	160	136	149	<5.0
413650087274201	M13	07-28-99	1500	8.2	8.0	453	31.8	200	110	109	E.7
413647087255700	M14	07-29-99	1300	7.0	7.9	418	28.7	200	108	108	<5.0
413636087242601	M15	07-28-99	1600	8.6	8.3	422	31.3	200	106	106	<5.0
413632087221601	M16	07-29-99	1100	7.1	8.3	363	31.9	190	110	108	E1.7
413626087211101	M17	07-28-99	1230	7.6	8.1	375	31.9	180	108	106	E2.4
413630087180401	M18	07-28-99	1000	4.2	7.6	655	28.2	280	115	115	<5.0
413649087171201	M19	07-30-99	1310	--	8.7	615	32.5	230	103	90	13
413655087160601	M20	07-30-99	1400	12.1	8.7	646	32.3	180	109	96	13
413643087263801	I3N	07-29-99	1430	8.0	8.2	432	29.6	--	--	--	--
413637087251301	I5	07-29-99	1500	7.9	8.2	433	30.8	--	--	--	--
04092677	I6	07-29-99	1545	7.4	8.3	408	31.8	--	--	--	--
413641087230801	I7	07-29-99	1630	7.9	8.4	371	32.7	--	--	--	--
413628087201401	I9	07-29-99	0830	7.6	7.9	363	31.1	--	--	--	--
413627087192801	I10	07-29-99	0915	7.2	7.9	464	30.3	--	--	--	--

STATION NUMBER	DATE	HY-DROXIDE WAT.DIS FET FIELD OH (mg/L) (29810)	CHLO-RIDE, WATER UNFLTRD (mg/L AS Cl) (99220)	FLUO-RIDE, TOTAL (mg/L AS F) (00951)	SULFATE TOTAL (mg/L AS SO_4) (00946)	SULFIDE TOTAL (mg/L AS S) (00745)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (mg/L AS N) (00623)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (mg/L AS N) (00625)	NITRO-GEN, AMMONIA TOTAL (mg/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (mg/L AS N) (00608)	NITRO-GEN, NO2+NO3 TOTAL (mg/L AS N) (00630)
414057087263601	07-28-99	<5.0	25.2	E0.4	35.4	<0.05	E0.28	E0.21	E0.06	E0.067	1.4
414023087262301	07-27-99	<5.0	25.4	E.4	34.6	<.05	<.50	1.8	.15	E.098	1.4
414003087263300	07-27-99	<5.0	29.4	E.4	39.9	<.05	E.18	E.23	.20	.20	2.0
413952087264701	07-26-99	<5.0	30.6	E.4	40.3	<.05	.85	E.46	.19	.19	2.1
413919087273201	07-26-99	<5.0	46.4	E.6	48.9	<.05	.78	.94	.30	.27	3.8
413857087280301	07-27-99	<5.0	47.1	E.6	52.2	<.05	.57	.84	.20	.22	3.6
413848087285201	07-28-99	<5.0	46.4	E.6	50.8	<.05	E.44	E.48	E.08	E.089	3.6
413822087281601	07-27-99	<5.0	45.1	E.6	51.7	<.05	.92	.75	.30	.31	3.8
413716087281600	07-29-99	<5.0	48	E.6	48.1	<.05	.65	.63	.52	.41	3.5
413651087285001	07-27-99	<5.0	209	E.8	179	<.05	3.8	3.6	2.60	2.80	6.9
413658087292601	07-30-99	<5.0	189	E.9	178	<.05	6.9	8.4	4.80	5.10	7.4
413707087300300	07-26-99	<5.0	155	E.8	159	.055	1.1	1.5	.25	.22	12.4
05536357	07-27-99	<5.0	188	E.8	162	<.05	1.5	1.9	.45	.51	6.5
413650087274201	07-28-99	<5.0	33.9	E.5	46.3	<.05	E.47	E.44	.17	.17	3.3
413647087255700	07-29-99	<5.0	34.1	E.5	34.9	<.05	E.39	.51	.20	.21	3.2
413636087242601	07-28-99	<5.0	34.6	E.6	35.8	<.05	.59	.51	.16	.16	3.8
413632087221601	07-29-99	<5.0	22.4	E.5	28.8	<.05	.53	.50	.25	.30	2.4
413626087211101	07-28-99	<5.0	21.8	E.5	28.7	<.05	.52	E.45	.28	.26	3.0
413630087180401	07-28-99	<5.0	67.7	E.6	78.3	E.014	1.7	1.7	1.00	1.10	1.9
413649087171201	07-30-99	<5.0	69.9	E.6	72.8	E.016	.73	1.4	.62	.32	1.5
413655087160601	07-30-99	<5.0	111	E.4	21.2	<.05	E.39	2.7	<.10	<.10	<.1
413643087263801	07-29-99	--	--	--	--	--	.69	--	.16	.16	3.9
413637087251301	07-29-99	--	--	--	--	--	.50	--	.17	.17	3.2
04092677	07-29-99	--	--	--	--	--	.52	--	.21	.20	3.2
413641087230801	07-29-99	--	--	--	--	--	.65	--	.24	.23	3.0
413628087201401	07-29-99	--	--	--	--	--	.68	--	.30	.29	2.8
413627087192801	07-29-99	--	--	--	--	--	1.6	--	.83	.92	8.7

MISCELLANEOUS WATER-QUALITY STATION ANALYSES--Continued

GRAND CALUMET RIVER AND INDIANA HARBOR CANAL IN LAKE COUNTY

STATION NUMBER	DATE	PHOS-PHORUS DIS-SOLVED (mg/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (mg/L AS P) (00671)	PHOS-PHORUS ORTHO TOTAL (mg/L AS P) (70507)	PHOS-PHORUS TOTAL (mg/L AS P) (00665)	CARBON, INOR-GANIC, TOTAL (mg/L AS C) (00685)	CARBON, ORGANIC DIS-SOLVED (mg/L AS C) (00681)	CARBON, ORGANIC TOTAL (mg/L AS C) (00680)	OXYGEN DEMAND, BIO-CHEM-ICAL 30 DAY (mg/L) (00349)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (mg/L) (00310)	LIGHT INCID-400-700NM X-S.AVG (µ-Eins /sqm/s) (90200)
414057087263601	07-28-99	E0.031	<0.05	E0.019	0.051	38	2.7	2.3	--	--	--
414023087262301	07-27-99	E.019	E.028	.057	E.021	44	2.3	2.5	--	--	--
414003087263300	07-27-99	E.036	E.028	.084	E.038	45	2.5	2.6	3.8	<2.0	--
413952087264701	07-26-99	E.022	<.05	.078	E.034	43	2.8	2.5	--	--	--
413919087273201	07-26-99	E.026	E.036	.120	.060	44	2.7	3.1	--	--	--
413857087280301	07-27-99	E.026	<.05	E.036	.055	43	3.4	3.2	5.9	<2.0	--
413848087285201	07-28-99	E.037	E.023	E.038	.075	43	3.4	2.3	6.8	2.2	--
413822087281601	07-27-99	<.05	.120	E.049	E.040	45	3.7	3.1	4.8	<2.0	120
413716087281600	07-29-99	.053	E.028	E.040	.064	48	3.3	3.4	--	--	--
413651087285001	07-27-99	.200	.280	.520	.320	67	6.8	7.4	24	<2.0	210
413658087292601	07-30-99	.210	.400	.350	.260	62	7.7	7.5	--	--	--
413707087300300	07-26-99	.240	.400	.990	.490	56	5.7	6.8	--	--	240
05536357	07-27-99	.150	.120	.370	.290	63	7.6	8.1	15	3.0	110
413650087274201	07-28-99	.050	<.05	E.032	.057	39	3.5	3.2	6.4	<2.0	--
413647087255700	07-29-99	.054	E.038	.097	.063	31	3.2	2.9	--	--	--
413636087242601	07-28-99	.077	E.046	.057	.090	38	3.2	4.0	5.8	<2.0	--
413632087221601	07-29-99	E.035	<.05	E.046	E.040	30	2.8	2.7	--	--	--
413626087211101	07-28-99	<.05	<.05	<.05	E.038	41	2.7	2.3	6.2	<2.0	--
413630087180401	07-28-99	E.044	E.028	.200	.069	55	7.2	11	29	4.2	--
413649087171201	07-30-99	E.020	.200	.500	.064	39	7.6	7.4	--	--	--
413655087160601	07-30-99	E.017	.290	.410	.088	16	6.3	6.4	--	2.4	--
413643087263801	07-29-99	E.032	E.034	.059	E.031	40	3.4	4.1	--	<2.0	--
413637087251301	07-29-99	E.029	E.032	E.030	E.036	30	3.7	3.4	--	<2.0	--
04092677	07-29-99	E.024	<.05	E.023	E.023	9.9	3.3	2.8	--	<2.0	--
413641087230801	07-29-99	<.05	<.05	E.021	E.022	12	2.4	2.5	--	<2.0	--
413628087201401	07-29-99	E.031	.067	.180	E.041	57	3.1	2.9	--	<2.0	--
413627087192801	07-29-99	E.030	.084	.150	E.039	26	2.8	4.3	--	<2.0	--

STATION NUMBER	DATE	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (mg/L) (00530)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (mg/L) (70300)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (mg/L) (00500)	TRANS-PAR-ENCY (SECCHI DISK) (m) (00078)	TUR-BID-ITY (Ntu) (00076)	ALUM-INUM, DIS-SOLVED (µg/L AS Al) (01106)	ALUM-INUM, TOTAL RECOV-ERABLE (µg/L AS Al) (01105)	ARSENIC DIS-SOLVED (µg/L AS As) (01000)	ARSENIC TOTAL (µg/L AS As) (01002)	BARIUM, DIS-SOLVED (µg/L AS Ba) (01005)
414057087263601	07-28-99	5	255	206	2.41	3.1	<100	E43	E1.4	<5	22
414023087262301	07-27-99	4	275	200	1.72	3.0	<100	E41	E1.4	E.94	22
414003087263300	07-27-99	E3	254	220	1.59	4.7	E21	E72	E1.6	E.95	22
413952087264701	07-26-99	5	467	258	1.87	--	E21	E79	E1.6	E2	22
413919087273201	07-26-99	6	314	313	1.26	--	E29	E96	E2.4	E2	23
413857087280301	07-27-99	4	291	307	1.38	3.7	<100	E72	E2.1	<5	22
413848087285201	07-28-99	5	338	295	1.07	4.2	<100	E47	E2.2	<5	23
413822087281601	07-27-99	E3	331	301	--	--	E40	E74	E2.0	<5	22
413716087281600	07-29-99	8	275	300	--	2.6	E46	E51	E1.9	E1	22
413651087285001	07-27-99	5	787	805	--	--	<100	E90	13.1	17	22
413658087292601	07-30-99	<4	785	840	1.02	2.0	<100	<100	15.1	13	18
413707087300300	07-26-99	10	683	775	--	--	E22	E98	10.6	12	20
05536357	07-27-99	8	787	778	--	--	E55	E71	12.0	15	20
413650087274201	07-28-99	E1	287	250	--	3.3	<100	E53	E1.5	<5	22
413647087255700	07-29-99	E1	224	243	--	9.8	E37	E52	E1.3	<5	22
413636087242601	07-28-99	25	262	243	.61	4.6	E26	E59	E1.3	<5	21
413632087221601	07-29-99	E2	199	202	1.80	2.8	E28	E49	E1.2	<5	22
413626087211101	07-28-99	<4	200	197	--	3.4	<100	<100	E1.3	<5	22
413630087180401	07-28-99	32	419	414	--	16	<100	E65	8.3	11	39
413649087171201	07-30-99	39	367	468	.27	33	<100	<100	8.7	11	25
413655087160601	07-30-99	6	354	389	--	6.8	<100	<100	6.2	8	7
413643087263801	07-29-99	E2	--	--	2.04	3.0	--	--	--	--	--
413637087251301	07-29-99	4	--	--	.72	3.2	--	--	--	--	--
04092677	07-29-99	<4	--	--	1.35	3.5	--	--	--	--	--
413641087230801	07-29-99	<4	--	--	1.59	2.7	--	--	--	--	--
413628087201401	07-29-99	E1	--	--	--	--	--	--	--	--	--
413627087192801	07-29-99	E2	--	--	--	1.8	--	--	--	--	--

MISCELLANEOUS WATER-QUALITY STATION ANALYSES--Continued

GRAND CALUMET RIVER AND INDIANA HARBOR CANAL IN LAKE COUNTY

STATION NUMBER	DATE	BARIUM, TOTAL RECOV-ERABLE (µg/L AS Ba) (01007)	CADMIUM DIS-SOLVED (µg/L AS Cd) (01025)	CADMIUM WATER UNFLTRD TOTAL (µg/L AS Cd) (01027)	CHRO-MIUM, DIS-SOLVED (µg/L AS Cr) (01030)	CHRO-MIUM, TOTAL RECOV-ERABLE (µg/L AS Cr) (01034)	COPPER, DIS-SOLVED (µg/L AS Cu) (01040)	COPPER, TOTAL RECOV-ERABLE (µg/L AS Cu) (01042)	IRON, DIS-SOLVED (µg/L AS Fe) (01046)	IRON, TOTAL RECOV-ERABLE (µg/L AS Fe) (01045)	LEAD, DIS-SOLVED (µg/L AS Pb) (01049)
414057087263601	07-28-99	23.2	<1.0	<1.0	3.9	E2	E2	2	E20	140	<1
414023087262301	07-27-99	23.4	<1.0	E.4	3.6	E4	2	4	E30	260	<1
414003087263300	07-27-99	23.4	<1.0	E.087	3.9	5	E2	4	E30	380	<1
413952087264701	07-26-99	25.1	<1.0	E.3	3.6	E3	2	2	E10	320	E.41
413919087273201	07-26-99	23.2	<1.0	E.075	4.7	E4	E1	3	E20	540	E.55
413857087280301	07-27-99	24.2	<1.0	E.092	4.4	6	E2	4	E30	440	E.43
413848087285201	07-28-99	25.5	<1.0	E.056	4.0	E3	E2	2	E60	300	E.35
413822087281601	07-27-99	24.2	<1.0	E.1	5.3	E3	E2	4	E50	400	E.35
413716087281600	07-29-99	23.4	<1.0	E.064	4.6	E3	2	4	E70	330	E.67
413651087285001	07-27-99	27.9	<1.0	E.4	6.2	E4	2	6	E50	660	2
413658087292601	07-30-99	20.8	E.1	E.4	5.3	6	4	5	220	410	11
413707087300300	07-26-99	27.7	E.6	E.6	6.3	6	3	15	E100	780	3
05536357	07-27-99	24.3	<1.0	E.069	5.8	E2	E2	4	180	430	2
413650087274201	07-28-99	22.9	E1.0	<1.0	4.5	E3	2	3	E70	340	<1
413647087255700	07-29-99	23.7	<1.0	<1.0	4.6	E3	2	4	E20	250	<1
413636087242601	07-28-99	21.9	<1.0	<1.0	4.5	E3	3	5	E30	480	<1
413632087221601	07-29-99	22.7	<1.0	<1.0	3.7	E2	2	4	E60	338	<1
413626087211101	07-28-99	20.9	<1.0	E.081	4.3	E2	2	4	E20	180	<1
413630087180401	07-28-99	48.0	<1.0	<1.0	4.0	E2	E.77	E2	E60	930	<1
413649087171201	07-30-99	38.3	<1.0	<1.0	3.9	5	E.77	E.84	E20	690	<1
413655087160601	07-30-99	26.0	<1.0	<1.0	4.7	6	E.50	E.66	E60	400	<1
413643087263801	07-29-99	--	--	--	--	--	--	--	--	--	--
413637087251301	07-29-99	--	--	--	--	--	--	--	--	--	--
04092677	07-29-99	--	--	--	--	--	--	--	--	--	--
413641087230801	07-29-99	--	--	--	--	--	--	--	--	--	--
413628087201401	07-29-99	--	--	--	--	--	--	--	--	--	--
413627087192801	07-29-99	--	--	--	--	--	--	--	--	--	--

STATION NUMBER	DATE	LEAD, TOTAL RECOV-ERABLE (µg/L AS Pb) (01051)	MANGA-NESE, DIS-SOLVED (µg/L AS Mn) (01056)	MANGA-NESE, TOTAL RECOV-ERABLE (µg/L AS Mn) (01055)	NICKEL, DIS-SOLVED (µg/L AS Ni) (01065)	NICKEL, TOTAL RECOV-ERABLE (µg/L AS Ni) (01067)	SELE-NIUM, DIS-SOLVED (µg/L AS Se) (01145)	SELE-NIUM, TOTAL (µg/L AS Se) (01147)	ZINC, DIS-SOLVED (µg/L AS Zn) (01090)	ZINC, TOTAL RECOV-ERABLE (µg/L AS Zn) (01092)	1,2,5,6 -DIBENZ -ANTHRA -CENE TOTAL (µg/L) (34556)
414057087263601	07-28-99	2	E0.96	13	E0.80	E2	<5.0	<5	E5	26	<0.1
414023087262301	07-27-99	4	2	17	E.76	4	<5.0	E.97	E6	25	<.1
414003087263300	07-27-99	4	3	22	E.95	3	<5.0	<5	E6	20	<.1
413952087264701	07-26-99	4	4	22	E.95	E2	<5.0	<5	E7	17	<.1
413919087273201	07-26-99	6	6	32	E2	E2	<5.0	<5	E10	26	<.1
413857087280301	07-27-99	5	6	30	E1	4	<5.0	<5	E7	22	<.1
413848087285201	07-28-99	4	2	25	E2	3	<5.0	<5	E7	16	<.1
413822087281601	07-27-99	4	14	25	E1	3	<5.0	E1	E7	19	<.1
413716087281600	07-29-99	4	14	26	3	8	<5.0	<5	12	22	<.1
413651087285001	07-27-99	14	30	37	8	10	<25.0	<10	44	79	<.1
413658087292601	07-30-99	15	129	134	24	25	<15.0	<17	139	149	<.1
413707087300300	07-26-99	14	15	22	5	6	<25.0	<10	40	86	<.1
05536357	07-27-99	6	24	27	7	9	<25.0	<10	40	48	<.1
413650087274201	07-28-99	3	14	24	E1	4	<5.0	<5	E7	18	<.1
413647087255700	07-29-99	3	10	20	E1	2	<5.0	E1	E5	14	<.1
413636087242601	07-28-99	3	9	24	14	17	<5.0	<5	25	47	<.1
413632087221601	07-29-99	2	6	17	E.41	E1	<5.0	E1	E2	E9	<.1
413626087211101	07-28-99	1	5	13	E.50	2	E.9	E2	E3	E9	<.1
413630087180401	07-28-99	3	78	263	<2	5	<5.0	<5	E2	E8	<.1
413649087171201	07-30-99	2	5	226	<2	E1	<5.0	<5	E2	E4	<.1
413655087160601	07-30-99	2	1	74	E.28	E1	<5.0	<5	E1	E5	<.1
413643087263801	07-29-99	--	--	--	--	--	--	--	--	--	--
413637087251301	07-29-99	--	--	--	--	--	--	--	--	--	--
04092677	07-29-99	--	--	--	--	--	--	--	--	--	--
413641087230801	07-29-99	--	--	--	--	--	--	--	--	--	--
413628087201401	07-29-99	--	--	--	--	--	--	--	--	--	--
413627087192801	07-29-99	--	--	--	--	--	--	--	--	--	--

MISCELLANEOUS WATER-QUALITY STATION ANALYSES--Continued

GRAND CALUMET RIVER AND INDIANA HARBOR CANAL IN LAKE COUNTY

STATION NUMBER	DATE	ACE-NAPHTH-ENE TOTAL (µg/L) (34205)	ACE-NAPHTH-YLENE TOTAL (µg/L) (34200)	ALDRIN, TOTAL (µg/L) (39330)	ALPHA BHC TOTAL (µg/L) (39337)	ANTHRA-CENE TOTAL (µg/L) (34220)	AROCLOR 1016 PCB TOTAL (µg/L) (34671)	AROCLOR 1221 PCB TOTAL (µg/L) (39488)	AROCLOR 1232 PCB TOTAL (µg/L) (39492)	AROCLOR 1242 PCB TOTAL (µg/L) (39496)	AROCLOR 1248 PCB TOTAL (µg/L) (39500)
414057087263601	07-28-99	<1	<1	<0.05	<0.5	<2	<1.0	<2	<1.0	<1.0	<1.0
414023087262301	07-27-99	<1	<1	<.05	<.5	<2	<1.0	<2	<1.0	<1.0	<1.0
414003087263300	07-27-99	<1	<1	<.05	<.5	<2	<1.0	<2	<1.0	<1.0	<1.0
413952087264701	07-26-99	<1	<1	<.05	<.5	<2	<1.0	<2	<1.0	<1.0	<1.0
413919087273201	07-26-99	<1	<1	<.05	<.5	<2	<1.0	<2	<1.0	<1.0	<1.0
413857087280301	07-27-99	<1	<1	<.05	<.5	<2	<1.0	<2	<1.0	<1.0	<1.0
413848087285201	07-28-99	<1	<1	<.05	<.5	<2	<1.0	<2	<1.0	<1.0	<1.0
413822087281601	07-27-99	<1	<1	<.05	<.5	<2	<1.0	<2	<1.0	<1.0	<1.0
413716087281600	07-29-99	<1	<1	<.05	<.5	<2	<1.0	<2	<1.0	<1.0	<1.0
413651087285001	07-27-99	<1	<1	<.05	<.5	<2	<1.0	<2	<1.0	<1.0	<1.0
413658087292601	07-30-99	<1	<1	<.05	<.5	<2	<1.0	<2	<1.0	<1.0	<1.0
413707087300300	07-26-99	<1	<1	<.05	<.5	<2	<1.0	<2	<1.0	<1.0	<1.0
05536357	07-27-99	<1	<1	<.05	<.5	<2	<1.0	<2	<1.0	<1.0	<1.0
413650087274201	07-28-99	<1	<1	<.05	<.5	<2	<1.0	<2	<1.0	<1.0	<1.0
413647087255700	07-29-99	<1	<1	<.05	<.5	<2	<1.0	<2	<1.0	<1.0	<1.0
413636087242601	07-28-99	<1	<1	<.05	<.5	<2	<1.0	<2	<1.0	<1.0	<1.0
413632087221601	07-29-99	<1	<1	<.05	<.5	<2	<1.0	<2	<1.0	<1.0	<1.0
413626087211101	07-28-99	<1	<1	<.05	<.5	<2	<1.0	<2	<1.0	<1.0	<1.0
413630087180401	07-28-99	<1	<1	<.05	<.5	<2	<1.0	<2	<1.0	<1.0	<1.0
413649087171201	07-30-99	<1	<1	<.05	<.5	<2	<1.0	<2	<1.0	<1.0	<1.0
413655087160601	07-30-99	<1	<1	<.05	<.5	<2	<1.0	<2	<1.0	<1.0	<1.0
413643087263801	07-29-99	--	--	--	--	--	--	--	--	--	--
413637087251301	07-29-99	--	--	--	--	--	--	--	--	--	--
04092677	07-29-99	--	--	--	--	--	--	--	--	--	--
413641087230801	07-29-99	--	--	--	--	--	--	--	--	--	--
413628087201401	07-29-99	--	--	--	--	--	--	--	--	--	--
413627087192801	07-29-99	--	--	--	--	--	--	--	--	--	--

STATION NUMBER	DATE	AROCLOR 1254 PCB TOTAL (µg/L) (39504)	AROCLOR 1260 PCB TOTAL (µg/L) (39508)	BENZO-A-PYRENE TOTAL (µg/L) (34247)	BENZO B FLUOR-AN-THENE TOTAL (µg/L) (34230)	BENZO K FLUOR-AN-THENE TOTAL (µg/L) (34242)	BENZ(A) ANTHRA-CENE WATER UNFLTRD REC (µg/L) (34526)	BENZO-[GHI]-PERY-LENE TOTAL (µg/L) (34521)	BETA BENZENE HEXA-CHLOR-IDE TOTAL (µg/L) (39338)	CHLOR-DANE, TECH-NICAL TOTAL (µg/L) (39350)	CHRY-SENE TOTAL (µg/L) (34320)
414057087263601	07-28-99	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.05	<0.5	<0.10
414023087262301	07-27-99	<1.0	<1.0	<.10	<.10	<.10	<.10	<.10	<.05	<.5	<.10
414003087263300	07-27-99	<1.0	<1.0	<.10	<.10	<.10	<.10	<.10	<.05	<.5	<.10
413952087264701	07-26-99	<1.0	<1.0	<.10	<.10	<.10	<.10	<.10	<.05	<.5	<.10
413919087273201	07-26-99	<1.0	<1.0	<.10	.11	<.10	<.10	<.10	<.05	<.5	<.10
413857087280301	07-27-99	<1.0	<1.0	<.10	<.10	<.10	<.10	<.10	<.05	<.5	<.10
413848087285201	07-28-99	<1.0	<1.0	<.10	<.10	<.10	<.10	<.10	<.05	<.5	<.10
413822087281601	07-27-99	<1.0	<1.0	<.10	<.10	<.10	<.10	<.10	<.05	<.5	<.10
413716087281600	07-29-99	<1.0	<1.0	<.10	<.10	<.10	<.10	<.10	<.05	<.5	E.96
413651087285001	07-27-99	<1.0	<1.0	<.10	<.10	<.10	<.10	<.10	<.05	<.5	<.10
413658087292601	07-30-99	<1.0	<1.0	<.10	<.10	<.10	<.10	<.10	<.05	<.5	<.10
413707087300300	07-26-99	<1.0	<1.0	.13	<.10	<.10	E.091	<.10	<.05	<.5	.16
05536357	07-27-99	<1.0	<1.0	<.10	<.10	<.10	<.10	<.10	<.05	<.5	<.10
413650087274201	07-28-99	<1.0	<1.0	E.091	<.10	<.10	<.10	<.10	<.05	<.5	<.10
413647087255700	07-29-99	<1.0	<1.0	<.10	<.10	<.10	<.10	<.10	<.05	<.5	<.10
413636087242601	07-28-99	<1.0	<1.0	<.10	<.10	<.10	<.10	<.10	<.05	<.5	<.10
413632087221601	07-29-99	<1.0	<1.0	<.10	<.10	<.10	<.10	<.10	<.05	<.5	<.10
413626087211101	07-28-99	<1.0	<1.0	.15	.14	E.055	<.10	<.10	<.05	<.5	.11
413630087180401	07-28-99	<1.0	<1.0	.16	.17	E.590	.11	<.10	<.05	<.5	<.10
413649087171201	07-30-99	<1.0	<1.0	<.10	<.10	<.10	<.10	<.10	<.05	<.5	<.10
413655087160601	07-30-99	<1.0	<1.0	<.10	<.10	<.10	<.10	<.10	<.05	<.5	<.10
413643087263801	07-29-99	--	--	--	--	--	--	--	--	--	--
413637087251301	07-29-99	--	--	--	--	--	--	--	--	--	--
04092677	07-29-99	--	--	--	--	--	--	--	--	--	--
413641087230801	07-29-99	--	--	--	--	--	--	--	--	--	--
413628087201401	07-29-99	--	--	--	--	--	--	--	--	--	--
413627087192801	07-29-99	--	--	--	--	--	--	--	--	--	--

MISCELLANEOUS WATER-QUALITY STATION ANALYSES--Continued

GRAND CALUMET RIVER AND INDIANA HARBOR CANAL IN LAKE COUNTY

STATION NUMBER	DATE	DELTA BENZENE HEXA-CHLOR-IDE TOTAL (µg/L) (34259)	DI-ELDRIN TOTAL (µg/L) (39380)	ENDO-SULFAN I TOTAL (µg/L) (39388)	ENDO-SULFAN-II WATER WHOLE TOT.REC (µg/L) (82624)	ENDO-SULFAN SULFATE TOTAL (µg/L) (34351)	ENDRIN ALDE-HYDE TOTAL (µg/L) (34366)	ENDRIN KETONE WATER WHOLE TOTAL (µg/L) (78008)	ENDRIN WATER UNFLTRD REC (µg/L) (39390)	FLUOR-ANTHENE TOTAL (µg/L) (34376)
414057087263601	07-28-99	<0.05	<0.10	<0.05	<0.1	<0.1	<0.1	<0.10	<0.10	<0.10
414023087262301	07-27-99	<.05	<.10	<.05	<.1	<.1	<.1	<.10	<.10	<.10
414003087263300	07-27-99	<.05	<.10	<.05	<.1	<.1	<.1	<.10	<.10	<.10
413952087264701	07-26-99	<.05	<.10	<.05	<.1	<.1	<.1	<.10	<.10	<.10
413919087273201	07-26-99	<.05	<.10	<.05	<.1	<.1	<.1	<.10	<.10	.29
413857087280301	07-27-99	<.05	<.10	<.05	<.1	<.1	<.1	<.10	<.10	<.10
413848087285201	07-28-99	<.05	<.10	<.05	<.1	<.1	<.1	<.10	<.10	<.10
413822087281601	07-27-99	<.05	<.10	<.05	<.1	<.1	<.1	<.10	<.10	.59
413716087281600	07-29-99	<.05	<.10	<.05	<.1	<.1	<.1	<.10	<.10	.34
413651087285001	07-27-99	<.05	<.10	<.05	<.1	<.1	<.1	<.10	<.10	<.10
413658087292601	07-30-99	<.05	<.10	<.05	<.1	<.1	<.1	<.10	<.10	<.10
413707087300300	07-26-99	<.05	<.10	<.05	<.1	<.1	<.1	<.10	<.10	<.10
05536357	07-27-99	<.05	<.10	<.05	<.1	<.1	<.1	<.10	<.10	<.10
413650087274201	07-28-99	<.05	<.10	<.05	<.1	<.1	<.1	<.10	<.10	<.10
413647087255700	07-29-99	<.05	<.10	<.05	<.1	<.1	<.1	<.10	<.10	.34
413636087242601	07-28-99	<.05	<.10	<.05	<.1	<.1	<.1	<.10	<.10	.33
413632087221601	07-29-99	<.05	<.10	<.05	<.1	<.1	<.1	<.10	<.10	.40
413626087211101	07-28-99	<.05	<.10	<.05	<.1	<.1	<.1	<.10	<.10	.40
413630087180401	07-28-99	<.05	<.10	<.05	<.1	<.1	<.1	<.10	<.10	.79
413649087171201	07-30-99	<.05	<.10	<.05	<.1	<.1	<.1	<.10	<.10	<.10
413655087160601	07-30-99	<.05	<.10	<.05	<.1	<.1	<.1	<.10	<.10	<.10
413643087263801	07-29-99	--	--	--	--	--	--	--	--	--
413637087251301	07-29-99	--	--	--	--	--	--	--	--	--
04092677	07-29-99	--	--	--	--	--	--	--	--	--
413641087230801	07-29-99	--	--	--	--	--	--	--	--	--
413628087201401	07-29-99	--	--	--	--	--	--	--	--	--
413627087192801	07-29-99	--	--	--	--	--	--	--	--	--

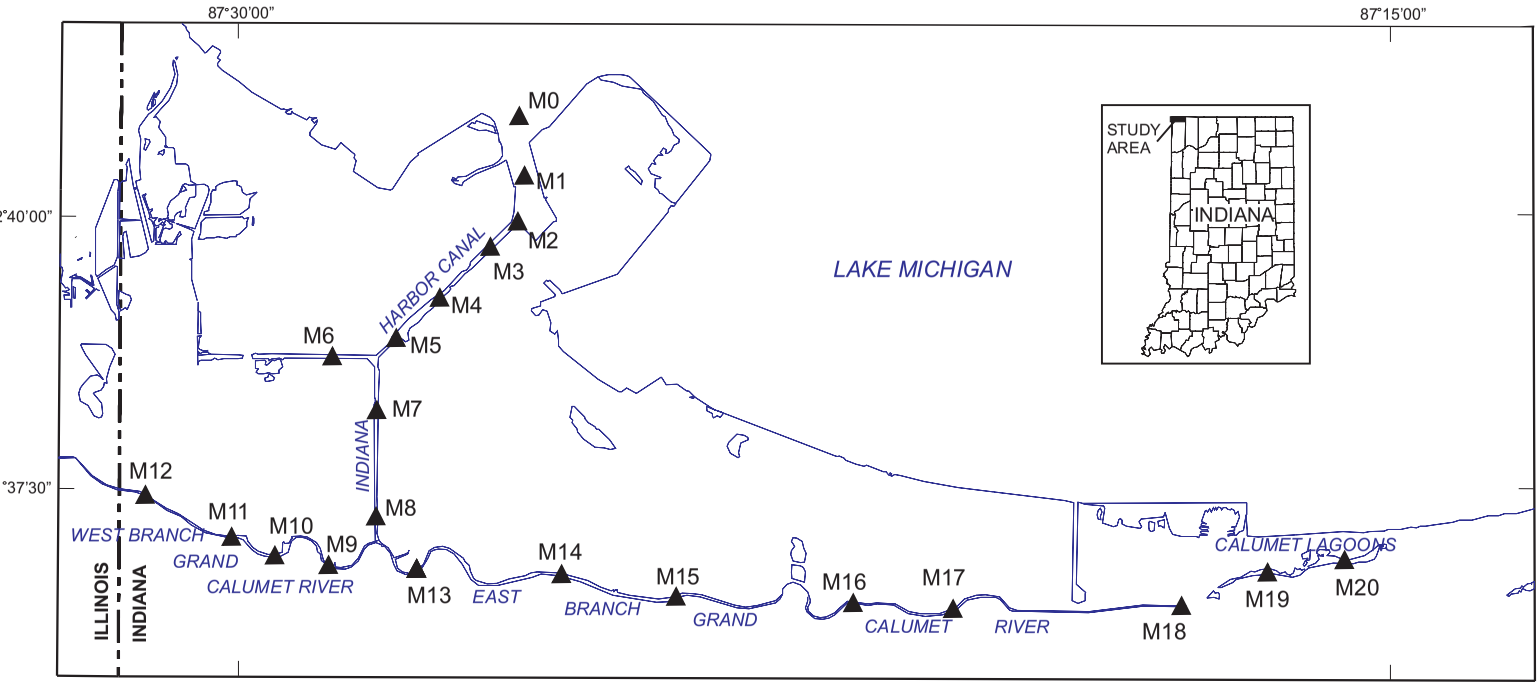
STATION NUMBER	DATE	FLUOR-ENE TOTAL (µg/L) (34381)	HEPTA-CHLOR EPOXIDE TOTAL (µg/L) (39420)	HEPTA-CHLOR, TOTAL (µg/L) (39410)	INDENO (1,2,3-CD) PYRENE TOTAL (µg/L) (34403)	LINDANE TOTAL (µg/L) (39340)	METH-OXY-CHLOR, TOTAL (µg/L) (39480)	O,P' DDD, TOTAL (µg/L) (39315)	O,P' DDE TOTAL (µg/L) (39327)	O,P' DDT, TOTAL (µg/L) (39305)	OIL AND GREASE, TOTAL RECOV. GRAVI-METRIC (mg/L) (00556)
414057087263601	07-28-99	<1	<0.05	<0.05	<0.10	<0.05	<0.50	<0.10	<0.10	<0.10	9
414023087262301	07-27-99	<1	<.05	<.05	<.10	<.05	<.50	<.10	<.10	<.10	E.65
414003087263300	07-27-99	<1	<.05	<.05	<.10	<.05	<.50	<.10	<.10	<.10	E.69
413952087264701	07-26-99	<1	<.05	<.05	<.10	<.05	<.50	<.10	<.10	<.10	E.96
413919087273201	07-26-99	<1	<.05	<.05	<.10	<.05	<.50	<.10	<.10	<.10	1
413857087280301	07-27-99	<1	<.05	<.05	<.10	<.05	<.50	<.10	<.10	<.10	10
413848087285201	07-28-99	<1	<.05	<.05	<.10	<.05	<.50	<.10	<.10	<.10	13
413822087281601	07-27-99	<1	<.05	<.05	<.10	<.05	<.50	<.10	<.10	<.10	<1
413716087281600	07-29-99	<1	<.05	<.05	<.10	<.05	<.50	<.10	<.10	<.10	19
413651087285001	07-27-99	<1	<.05	<.05	<.10	<.05	<.50	<.10	<.10	<.10	27
413658087292601	07-30-99	<1	<.05	<.05	<.10	<.05	<.50	<.10	<.10	<.10	2
413707087300300	07-26-99	<1	<.05	<.05	<.10	<.05	<.50	<.10	<.10	<.10	2
05536357	07-27-99	<1	<.05	<.05	<.10	<.05	<.50	<.10	<.10	<.10	4
413650087274201	07-28-99	<1	<.05	<.05	<.10	<.05	<.50	<.10	<.10	<.10	21
413647087255700	07-29-99	<1	<.05	<.05	<.10	<.05	<.50	<.10	<.10	<.10	2
413636087242601	07-28-99	<1	<.05	<.05	<.10	<.05	<.50	<.10	<.10	<.10	13
413632087221601	07-29-99	<1	<.05	<.05	<.10	<.05	<.50	<.10	<.10	<.10	42
413626087211101	07-28-99	<1	<.05	<.05	.11	<.05	<.50	<.10	<.10	<.10	16
413630087180401	07-28-99	<1	<.05	<.05	.12	<.05	<.50	<.10	<.10	<.10	25
413649087171201	07-30-99	<1	<.05	<.05	<.10	<.05	<.50	<.10	<.10	<.10	E.89
413655087160601	07-30-99	<1	<.05	<.05	<.10	<.05	<.50	<.10	<.10	<.10	3
413643087263801	07-29-99	--	--	--	--	--	--	--	--	--	--
413637087251301	07-29-99	--	--	--	--	--	--	--	--	--	--
04092677	07-29-99	--	--	--	--	--	--	--	--	--	--
413641087230801	07-29-99	--	--	--	--	--	--	--	--	--	--
413628087201401	07-29-99	--	--	--	--	--	--	--	--	--	--
413627087192801	07-29-99	--	--	--	--	--	--	--	--	--	--

MISCELLANEOUS WATER-QUALITY STATION ANALYSES--Continued

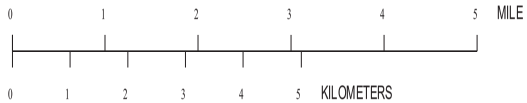
GRAND CALUMET RIVER AND INDIANA HARBOR CANAL IN LAKE COUNTY

STATION NUMBER	DATE	DDD, TOTAL (µg/L) (39310)	DDE, TOTAL (µg/L) (39320)	P,P' DDT, TOTAL (µg/L) (39300)	P,P' THRENE TOTAL (µg/L) (34461)	P,P' PHENOLS TOTAL (µg/L) (32730)	PHENAN-PYRENE TOTAL (µg/L) (34469)	TOX-APHENE, TOTAL (µg/L) (39400)	NAPHTH-ALENE TOTAL (µg/L) (34696)	CYANIDE UNFLTRD TOT REC EPA-CON-TRACT (mg/L) (99896)	CYANIDE AMEN-ABLE TO CHLOR-INATION UNFLTRD (mg/L) (00722)
414057087263601	07-28-99	<0.1	<0.1	<0.1	<1	<0.02	<0.1	<5	<1	0.00084	0.00161
414023087262301	07-27-99	<.1	<.1	<.1	<1	<.02	<.1	<5	<1	.00128	.00193
414003087263300	07-27-99	<.1	<.1	<.1	<1	<.02	.16	<5	<1	.00249	.00281
413952087264701	07-26-99	<.1	<.1	<.1	<1	<.02	.22	<5	<1	.00198	.00233
413919087273201	07-26-99	<.1	<.1	<.1	<1	<.02	.44	<5	<1	.00412	.00407
413857087280301	07-27-99	<.1	<.1	<.1	<1	<.02	.31	<5	<1	.00319	.00408
413848087285201	07-28-99	<.1	<.1	<.1	<1	<.02	.17	<5	<1	.00182	.00287
413822087281601	07-27-99	<.1	<.1	<.1	<1	<.02	.43	<5	<1	.00365	.00398
413716087281600	07-29-99	--	<.1	<.1	<1	.022	.33	<5	<1	.00305	.00362
413651087285001	07-27-99	<.1	<.1	<.1	<1	<.02	<.23	<5	<1	.0071	.00746
413658087292601	07-30-99	<.1	<.1	<.1	<1	<.02	.13	<5	<1	.00873	.00868
413707087300300	07-26-99	<.1	<.1	<.1	<1	<.02	.25	<5	<1	.02095	.01918
05536357	07-27-99	<.1	<.1	<.1	<1	<.02	.13	<5	<1	.00494	.00752
413650087274201	07-28-99	<.1	<.1	<.1	<1	<.02	.28	<5	<1	.00287	.00368
413647087255700	07-29-99	<.1	<.1	<.1	<1	<.02	.24	<5	<1	.00236	.00219
413636087242601	07-28-99	<.1	<.1	<.1	<1	<.02	.22	<5	<1	.00173	.00184
413632087221601	07-29-99	<.1	<.1	<.1	<1	<.02	.27	<5	<1	.00213	.00198
413626087211101	07-28-99	<.1	<.1	<.1	<1	<.02	.27	<5	<1	.00147	.00154
413630087180401	07-28-99	<.1	<.1	<.1	<1	<.02	.53	<5	<1	.01254	.00974
413649087171201	07-30-99	<.1	<.1	<.1	<1	<.02	<.1	<5	<1	.00494	.00553
413655087160601	07-30-99	<.1	<.1	<.1	<1	<.02	<.1	<5	<1	.0028	.00282
413643087263801	07-29-99	--	--	--	--	--	--	--	--	--	--
413637087251301	07-29-99	--	--	--	--	--	--	--	--	--	--
04092677	07-29-99	--	--	--	--	--	--	--	--	--	--
413641087230801	07-29-99	--	--	--	--	--	--	--	--	--	--
413628087201401	07-29-99	--	--	--	--	--	--	--	--	--	--
413627087192801	07-29-99	--	--	--	--	--	--	--	--	--	--

STATION NUMBER	DATE	CHRO-MIUM, HEXA-VALENT, DIS. (µg/L AS Cr) (01032)	MERCURY WATER, UNFLTRD (ng/L) (50286)	NITRO-GEN, ORGANIC TOTAL (mg/L AS N) (00605)	NITRO-GEN, ORGANIC DIS-SOLVED (mg/L AS N) (00607)	NITROGN ORGANIC SEDIMNT SUSP TOTAL AS N (mg/L) (00606)	PHOS-PHORUS ORGANIC TOTAL (mg/L AS P) (00670)	PHOS-PHORUS ORGANIC DIS-SOLVED (mg/L AS P) (00673)	PHOS ORGANIC SEDIMNT SUSP TOTAL AS P (mg/L) (00676)	PHOS ORTHO SEDIMNT SUSP TOTAL AS P (mg/L) (00674)	CARBON, ORGANIC PARTIC-ULATE TOTAL (mg/L AS C) (00689)
414057087263601	07-28-99	--	--	E0.149	E0.213	<0.5	E0.032	<0.1	<0.1	<0.05	<0.5
414023087262301	07-27-99	--	--	1.65	<.5	<1.15	<.05	<.1	<.1	E.029	.2
414003087263300	07-27-99	.756	3.11	E.03	<.5	<.5	<.05	E.008	<.1	E.056	.1
413952087264701	07-26-99	--	--	E.27	.660	<.5	<.05	<.1	<.1	<.05	<.5
413919087273201	07-26-99	--	--	.640	.510	.13	<.05	<.1	<.1	E.084	.4
413857087280301	07-27-99	.504	4	.640	.350	.29	E.019	<.1	<.1	<.05	<.5
413848087285201	07-28-99	6.8	2.06	E.399	E.351	E.048	E.037	E.014	E.023	E.015	<.5
413822087281601	07-27-99	<.5	5.18	.450	.610	<.5	<.05	<.1	<.1	<.05	<.5
413716087281600	07-29-99	--	--	.110	.240	<.5	E.024	E.025	<.1	E.012	.1
413651087285001	07-27-99	.504	18.98	1.000	1.000	<.5	<.05	<.1	<.1	.24	.6
413658087292601	07-30-99	--	--	3.600	1.800	1.8	<.05	<.1	<.1	<.05	<.5
413707087300300	07-26-99	--	--	1.250	.880	.37	<.05	<.1	<.1	.59	1.1
05536357	07-27-99	.504	6.23	1.450	.990	.46	<.05	.03	<.1	.25	.5
413650087274201	07-28-99	--	3.31	E.27	E.3	<.5	E.025	<.1	<.1	<.05	<.5
413647087255700	07-29-99	--	--	.310	E.28	.03	<.05	E.016	<.1	E.059	<.5
413636087242601	07-28-99	3.28	1.54	.350	.430	<.5	.033	E.031	E.003	E.011	.8
413632087221601	07-29-99	--	--	.250	.230	.02	<.05	<.1	<.1	<.05	<.5
413626087211101	07-28-99	1.01	2	E.17	.260	<.5	<.05	<.1	<.1	<.05	<.5
413630087180401	07-28-99	3.28	7.39	.700	.600	.1	<.05	E.016	<.1	E.172	3.8
413649087171201	07-30-99	--	--	.780	.410	.37	<.05	<.1	<.1	.3	<.5
413655087160601	07-30-99	--	--	<2.6	<.5	<2.1	<.05	<.1	<.1	.12	.1
413643087263801	07-29-99	--	--	--	.530	--	--	--	--	--	--
413637087251301	07-29-99	--	--	--	.330	--	--	--	--	--	--
04092677	07-29-99	--	--	--	.320	--	--	--	--	--	--
413641087230801	07-29-99	--	--	--	.420	--	--	--	--	--	--
413628087201401	07-29-99	--	--	--	.390	--	--	--	--	--	--
413627087192801	07-29-99	--	--	--	.680	--	--	--	--	--	--



Base from U.S. Geological Survey digital data 1:24,000 Albers Equal Area projection
Standard parallels 29°30' and 45°30', Central meridian -86°



EXPLANATION

▲ M0 Water-quality-sampling site and site designation

Figure 10.--Water-quality-sampling sites for the Grand Calumet River and the Indiana Harbor Canal, in Lake County, Indiana, April 2000.

GRAND CALUMET RIVER AND INDIANA HARBOR CANAL IN LAKE COUNTY

Analytical results for water-quality samples collected at various sites on the Grand Calumet River and the Indiana Harbor Canal in Lake County, Indiana, April, 2000. The sampling was conducted through a cooperative investigation with the US Army Corps of Engineers and the U.S. Geological Survey. Location of water-quality- sampling sites shown on figure 9.

Measurements for dissolved oxygen, pH, specific conductance, water temperature, light intensity, oxidation-reduction potential, transparency, and turbidity were determined at the site.

Water-quality analysis were done by a Department of Interior approved contractual laboratory.

Date is in month-day-year; time is in military notation; numbers in parenthesis are U.S. Geological Survey National Water Information System parameter codes; mg/L, milligrams per liter; E, estimated value; --, no data; µS/cm, microsiemens per centimeter at 25 degrees Celsius; deg C, degrees Celsius; µ-Eins/sqm/s, micro Einsteins per square meter per second; mv, millivolts; m, meter; Ntu, Nephelometric turbidity units; µg/L, micrograms per liter

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

STATION NUMBER	SITE NUMBER	DATE	TIME	OXYGEN, DIS-SOLVED (mg/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (mg/L AS $CaCO_3$) (00900)	ALKA-LINITY WAT.DIS FET LAB $CaCO_3$ (mg/L) (29801)	BICAR-BONATE WAT.DIS FET FIELD HCO_3 (mg/L) (29804)	CAR-BONATE WAT.DIS FET FIELD CO_3 (mg/L) (29807)	HY-DROXIDE WAT.DIS FET FIELD OH (mg/L) (29810)
414057087263601	M1	04-27-00	0840	9.5	8.0	446	12.8	230	112	112	<5.0	<5.0
414023087262301	M2	04-27-00	0930	8.6	7.9	492	14.3	170	118	118	<5.0	<5.0
414003087263300	M3	04-25-00	0930	7.8	7.7	578	15.7	230	115	115	<5.0	<5.0
413952087264701	M4	04-24-00	1630	7.8	7.6	539	15.6	210	112	112	<5.0	<5.0
413919087273201	M5	04-24-00	1500	7.0	7.5	619	15.9	220	120	120	<5.0	<5.0
413857087280301	M5	04-25-00	1300	7.4	7.8	643	17.1	210	110	110	<5.0	<5.0
413848087285201	M6	04-25-00	1430	7.8	7.7	652	16.3	190	117	117	<5.0	<5.0
413822087281601	M7	04-25-00	1200	7.5	8.0	569	16.2	250	117	117	<5.0	<5.0
413716087281600	M8	04-27-00	0930	7.6	7.9	609	16.7	200	115	115	<5.0	<5.0
413651087285001	M9	04-25-00	1500	12.0	7.7	1210	17.3	420	156	156	<5.0	<5.0
413658087292601	M10	04-27-00	1330	9.5	7.2	1560	16.2	460	140	140	<5.0	<5.0
413707087300300	M11	04-26-00	1100	9.8	7.5	1310	16.0	420	158	158	<5.0	<5.0
05536357	M12	04-26-00	0930	4.6	7.3	1240	11.8	410	173	173	<5.0	<5.0
413650087274201	M13	04-26-00	1345	8.5	8.1	515	18.4	180	110	110	<5.0	<5.0
413647087255700	M14	04-27-00	1230	8.4	8.2	480	18.4	170	111	111	<5.0	<5.0
413636087242601	M15	04-26-00	1430	9.4	8.1	513	19.0	180	110	110	<5.0	<5.0
413632087221601	M16	04-24-00	1430	9.5	8.3	400	18.6	170	110	110	<5.0	<5.0
413626087211101	M17	04-24-00	1600	9.3	8.3	394	18.8	170	107	107	<5.0	<5.0
413630087180401	M18	04-25-00	0900	3.5	7.9	809	13.4	450	232	232	<5.0	<5.0
413649087171201	M19	04-26-00	0900	10.2	8.1	767	13.2	350	212	212	<5.0	<5.0
413656087160701	M20	04-26-00	1030	13.4	8.7	634	13.9	170	107	107	<5.0	<5.0

STATION NUMBER	DATE	CHLOR-IDE WATER UNFLTRD (mg/L) (99220)	FLUO-RIDE, TOTAL (mg/L AS F) (00951)	SULFATE (mg/L AS SO_4) (00946)	SULFIDE TOTAL (mg/L AS S) (00745)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (mg/L AS N) (00623)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (mg/L AS N) (00625)	NITRO-GEN, AMMONIA TOTAL (mg/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (mg/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (mg/L AS N) (00607)
414057087263601	04-27-00	35.7	E0.40	44.9	<0.05	<0.50	1.0	0.26	0.27	<0.50
414023087262301	04-27-00	48.1	E.58	48.0	<.05	.57	1.4	.49	.43	.14
414003087263300	04-25-00	47.5	E.49	52.4	<.05	E.18	E.32	.34	.37	<.50
413952087264701	04-24-00	51.0	E.49	59.9	<.05	E.33	<.50	.34	.37	<.50
413919087273201	04-24-00	63.7	E.53	69.1	<.05	E.27	E.10	.43	.42	<.50
413857087280301	04-25-00	72.7	E.73	70.7	<.05	E.18	E.38	.19	.37	<.50
413848087285201	04-25-00	62.2	E.55	66.7	<.05	.50	E.48	.40	.45	.05
413822087281601	04-25-00	54.7	E.54	65.8	E.01	E.11	.61	.37	.42	<.50
413716087281600	04-27-00	60.0	E.52	64.1	E.02	1.2	.80	.45	.45	.75
413651087285001	04-25-00	209	E.74	216	E.03	.70	1.1	.19	.10	.60
413658087292601	04-27-00	249	E.86	183	<.05	.73	.97	.31	.37	.36
413707087300300	04-26-00	191	E.74	182	.08	.73	1.1	.21	.12	.61
05536357	04-26-00	186	E.74	179	<.05	.94	1.2	.25	.23	.71
413650087274201	04-26-00	42.5	E.47	53.4	<.05	.69	.69	.44	.40	.29
413647087255700	04-27-00	44.7	E.54	39.5	E.01	E.36	.76	.30	.31	E.05
413636087242601	04-26-00	47.8	E.49	42.7	<.05	.64	.62	.42	.31	.33
413632087221601	04-24-00	26.8	E.57	30.2	<.05	<.50	E.17	.48	.48	<.50
413626087211101	04-24-00	25.6	E.51	29.7	<.05	E.12	<.50	.52	.50	<.50
413630087180401	04-25-00	50.3	E.63	108	E.02	9.6	8.2	7.2	9.5	.10
413649087171201	04-26-00	45.5	E.52	78.1	<.05	4.9	5.2	4.9	4.5	.40
413656087160701	04-26-00	98.7	E.35	32.6	<.05	E.33	E.28	.57	<.10	E.33

GRAND CALUMET RIVER AND INDIANA HARBOR CANAL IN LAKE COUNTY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

STATION NUMBER	DATE	NITRO-GEN, NO2+NO3 TOTAL (mg/L AS N) (00630)	NITROGN ORGANIC SEDIMNT SUSP TOTAL AS N (mg/L) (00606)	NITRO-GEN, ORGANIC TOTAL (mg/L AS N) (00605)	PHOS-PHORUS DIS-SOLVED (mg/L AS P) (00666)	PHOS-PHORUS ORGANIC DIS-SOLVED (mg/L AS P) (00673)	PHOS-PHORUS ORGANIC TOTAL (mg/L AS P) (00670)	PHOS-PHORUS ORTHO, DIS-SOLVED (mg/L AS P) (00671)	PHOS-PHORUS ORTHO TOTAL (mg/L AS P) (70507)	PHOS-PHORUS TOTAL (mg/L AS P) (00665)
414057087263601	04-27-00	2.0	0.74	0.74	<0.05	<0.10	E0.04	<0.10	<0.10	E0.04
414023087262301	04-27-00	2.2	.83	.97	E.02	<.10	<.05	<.05	<.05	E.04
414003087263300	04-25-00	3.4	<.50	<.50	E.03	.03	<.05	<.05	E.05	E.04
413952087264701	04-24-00	3.3	<.50	<.50	.05	.03	<.05	E.03	.08	.07
413919087273201	04-24-00	4.0	<.50	<.50	.05	E.02	.23	E.04	.06	.09
413857087280301	04-25-00	2.3	E.19	E.19	E.05	E.05	.07	<.05	<.05	.07
413848087285201	04-25-00	4.3	E.03	E.08	E.03	E.03	E.03	<.05	E.02	E.05
413822087281601	04-25-00	4.1	.24	.24	E.03	E.03	E.01	<.05	E.05	.06
413716087281600	04-27-00	5.1	<.50	.35	E.02	E.02	E.04	<.05	<.05	E.04
413651087285001	04-25-00	11.8	.31	.91	.19	<.10	.05	.21	.23	.28
413658087292601	04-27-00	15.2	.30	.66	.12	E.10	.14	E.02	<.10	.14
413707087300300	04-26-00	12.3	<.28	.89	.15	<.15	.34	<.10	<.10	.34
05536357	04-26-00	11.4	.24	.95	.08	.08	E.25	<.05	E.03	.28
413650087274201	04-26-00	3.8	<.50	.25	E.03	.01	E.03	E.02	<.05	E.03
413647087255700	04-27-00	4.4	E.41	.46	E.02	E.02	E.03	<.05	<.05	E.03
413636087242601	04-26-00	4.4	<.50	.20	<.05	<.10	E.04	<.05	<.05	E.04
413632087221601	04-24-00	3.6	<.50	<.50	.05	E.02	E.03	E.03	E.03	.06
413626087211101	04-24-00	3.6	<.50	<.50	.05	E.03	E.03	E.02	E.03	.06
413630087180401	04-25-00	1.5	.90	1.0	E.02	E.02	E.05	<.05	E.02	.07
413649087171201	04-26-00	2.3	<.50	.30	E.02	E.02	E.03	<.05	<.10	E.03
413656087160701	04-26-00	E.05	<.50	<.50	.01	E.01	E.05	<.05	<.05	E.05

STATION NUMBER	DATE	PHOS ORGANIC SEDIMNT SUSP TOTAL AS P (mg/L) (00676)	PHOS ORTHO SEDIMNT SUSP TOTAL AS P (mg/L) (00674)	CARBON, INOR-GANIC, TOTAL (mg/L AS C) (00685)	CARBON, ORGANIC DIS-SOLVED (mg/L AS C) (00681)	CARBON, ORGANIC PARTIC-ULATE TOTAL (mg/L AS C) (00689)	CARBON, ORGANIC TOTAL (mg/L AS C) (00680)	OXYGEN DEMAND, BIO-CHEM-ICAL 30 DAY (mg/L) (00349)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (mg/L) (00310)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (mg/L) (00340)
414057087263601	04-27-00	E0.04	<0.10	24.8	2.7	<0.5	2.3	--	E1.4	E11.2
414023087262301	04-27-00	<.05	<.05	26.0	2.7	<.5	2.4	--	<2.0	E3.2
414003087263300	04-25-00	<.10	E.05	28.6	2.0	.4	2.4	17.4	E1.9	E16.9
413952087264701	04-24-00	<.10	E.05	27.1	2.0	.4	3.2	--	2.5	<20.0
413919087273201	04-24-00	E.01	E.03	28.4	2.1	.9	3.0	--	<2.0	E10.2
413857087280301	04-25-00	E.02	<.05	27.1	3.0	.3	3.3	7.0	4.2	25.6
413848087285201	04-25-00	E.01	E.02	29.6	3.0	<.5	2.8	20.0	2.0	<20.0
413822087281601	04-25-00	<.10	E.05	26.1	2.5	<.5	2.2	21.2	E1.8	E17.5
413716087281600	04-27-00	E.02	<.05	25.8	3.8	<.5	3.0	--	2.9	E16.9
413651087285001	04-25-00	.05	.02	37.9	6.0	.5	6.5	21.3	E1.8	36.6
413658087292601	04-27-00	E.04	<.05	32.2	7.6	<.5	7.4	--	3.4	30.6
413707087300300	04-26-00	<.19	<.05	40.0	7.0	.8	7.8	--	3.1	29.9
05536357	04-26-00	E.17	E.03	42.5	6.7	.7	7.4	21.3	5.6	34.6
413650087274201	04-26-00	E.02	<.05	26.9	1.9	1.7	3.6	25.0	6.2	E8.5
413647087255700	04-27-00	E.01	<.05	25.0	3.0	<.5	2.8	--	2.8	10.5
413636087242601	04-26-00	E.04	<.05	24.7	2.2	.2	2.4	11.8	2.3	E11.2
413632087221601	04-24-00	E.01	<.05	25.8	1.4	.3	1.7	--	4.6	<20.0
413626087211101	04-24-00	<.10	E.01	25.6	1.3	.2	1.5	--	3.4	E4.5
413630087180401	04-25-00	E.03	E.02	56.6	6.3	.2	6.5	48.6	7.9	31.6
413649087171201	04-26-00	E.01	<.05	49.9	4.7	.4	5.1	--	3.6	E14.9
413656087160701	04-26-00	E.03	<.05	25.6	4.7	1.3	6.0	29.2	6.2	29.2

GRAND CALUMET RIVER AND INDIANA HARBOR CANAL IN LAKE COUNTY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

STATION NUMBER	DATE	NITRO- LIGHT INCID. 400- 700NM X-S.AVG (µ-Eins /sqm/s) (90200)	NITROGN ORGANIC OXID- ATION RED- UCTION POTEN- TIAL (mv) (00090)	NITRO- RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (mg/L) (00530)	PHOS- RESIDUE VOLA- TILE, DIS- SOLVED (mg/L) (00520)	PHOS- PHORUS RESIDUE VOLA- TILE, SUS- PENDED (mg/L) (00535)	PHOS- SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (mg/L) (70300)	PHOS- PHORUS SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (mg/L) (00500)	PHOS- TRANS- PAR- ENCY (SECCHI DISK) (m) (00078)	TUR- BID- ITY FIELD WATER UNFLTRD (Ntu) (61028)
414057087263601	04-27-00	--	--	9.6	5.2	48	271	261	0.79	14
414023087262301	04-27-00	--	--	7.6	E.8	53	265	302	.76	12
414003087263300	04-25-00	--	--	5.2	E2.4	185	361	389	.91	10
413952087264701	04-24-00	--	521	8.0	E4.4	27	330	296	.91	11
413919087273201	04-24-00	--	526	10.8	1.6	36	376	338	.82	12
413857087280301	04-25-00	--	--	E3.2	E1.2	130	414	412	.88	8
413848087285201	04-25-00	--	--	4.4	E2.4	155	437	409	1.10	9
413822087281601	04-25-00	15.5	428	12.0	E2.4	174	391	399	--	15
413716087281600	04-27-00	--	366	20.4	4.8	108	374	364	--	18
413651087285001	04-25-00	3000	407	E3.6	E1.2	285	906	878	--	3
413658087292601	04-27-00	--	--	E1.6	E1.6	225	955	953	.79	2
413707087300300	04-26-00	3000	292	18.4	6.4	261	880	967	--	11
05536357	04-26-00	4700	335	10.0	E3.6	189	837	894	--	8.83
413650087274201	04-26-00	225	319	24.8	E3.2	153	317	353	--	16
413647087255700	04-27-00	--	346	20.8	E1.2	60	303	286	--	22
413636087242601	04-26-00	--	--	8.0	E2.4	96	306	338	.64	14
413632087221601	04-24-00	350	363	11.2	E2.4	31	249	213	--	17
413626087211101	04-24-00	140	362	14.4	E3.6	28	243	213	--	17
413630087180401	04-25-00	58.0	450	18.0	8.0	170	546	562	--	17
413649087171201	04-26-00	--	--	10.8	E2.8	164	521	493	.79	9
413656087160701	04-26-00	--	--	24.8	7.6	123	382	347	.85	6

STATION NUMBER	DATE	ALUM- INUM, DIS- SOLVED (µg/L AS Al) (01106)	ALUM- INUM, TOTAL RECOV- ERABLE (µg/L AS Al) (01105)	ARSENIC DIS- SOLVED (µg/L AS As) (01000)	ARSENIC TOTAL (µg/L AS As) (01002)	BARIUM, DIS- SOLVED (µg/L AS Ba) (01005)	BARIUM, TOTAL RECOV- ERABLE (µg/L AS Ba) (01007)	CADMIUM DIS- SOLVED (µg/L AS Cd) (01025)	CADMIUM WATER UNFLTRD TOTAL (µg/L AS Cd) (01027)	CHRO- MIUM, DIS- SOLVED (µg/L AS Cr) (01030)
414057087263601	04-27-00	--	--	--	--	--	--	--	--	--
414023087262301	04-27-00	--	--	--	--	--	--	--	--	--
414003087263300	04-25-00	E40.8	179	E1.7	E1.4	22.6	25.1	<1.0	E0.06	5.9
413952087264701	04-24-00	--	--	--	--	--	--	--	--	--
413919087273201	04-24-00	--	--	--	--	--	--	--	--	--
413857087280301	04-25-00	E47.9	222	E1.7	E1.2	22.3	25.7	<1.0	E.09	5.4
413848087285201	04-25-00	<100	151	E1.8	<5.0	22.9	26.6	<1.0	E.07	6.2
413822087281601	04-25-00	E34.2	324	E2.1	E1.5	21.7	25.4	<1.0	E.14	7.0
413716087281600	04-27-00	--	--	--	--	--	--	--	--	--
413651087285001	04-25-00	<100	105	10.1	13.8	17.8	21.1	<1.0	E.35	9.8
413658087292601	04-27-00	--	--	--	--	--	--	--	--	--
413707087300300	04-26-00	--	--	--	--	--	--	--	--	--
05536357	04-26-00	E37.2	232	9.7	14.1	18.3	26.5	<1.0	E.23	6.3
413650087274201	04-26-00	E66.2	502	E1.1	E1.6	21.9	26.1	<1.0	E.13	4.7
413647087255700	04-27-00	--	--	--	--	--	--	--	--	--
413636087242601	04-26-00	E72.1	326	E.98	<5.0	21.1	23.4	<1.0	E.05	4.6
413632087221601	04-24-00	--	--	--	--	--	--	--	--	--
413626087211101	04-24-00	--	--	--	--	--	--	--	--	--
413630087180401	04-25-00	<100	E82.0	5.5	11.2	60.0	69.0	<1.0	<1.0	13.9
413649087171201	04-26-00	--	--	--	--	--	--	--	--	--
413656087160701	04-26-00	E42.6	E69.3	E2.4	E4.0	33.6	39.8	<1.0	<1.0	3.6

GRAND CALUMET RIVER AND INDIANA HARBOR CANAL IN LAKE COUNTY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

STATION NUMBER	DATE	CHRO-MIUM, HEXA-VALENT, DIS. (µg/L AS Cr) (01032)	CHRO-MIUM, TOTAL RECOV-ERABLE (µg/L AS Cr) (01034)	COPPER, DIS-SOLVED (µg/L AS Cu) (01040)	COPPER, TOTAL RECOV-ERABLE (µg/L AS Cu) (01042)	CYANIDE AMEN-ABLE TO CHLOR-INATION UNFLTRD (mg/L) (00722)	IRON, DIS-SOLVED (µg/L AS Fe) (01046)	IRON, TOTAL RECOV-ERABLE (µg/L AS Fe) (01045)	LEAD, DIS-SOLVED (µg/L AS Pb) (01049)	LEAD, TOTAL RECOV-ERABLE (µg/L AS Pb) (01051)
414057087263601	04-27-00	--	--	E1.8	3.5	0.033	<40.0	618	<1.0	2.8
414023087262301	04-27-00	--	--	2.9	5.8	.412	E12.5	673	<1.0	3.3
414003087263300	04-25-00	0.55	2.9	E1.3	3.3	.004	E20.6	669	<1.0	3.5
413952087264701	04-24-00	--	--	E1.7	4.7	.002	E21.7	871	<1.0	8.7
413919087273201	04-24-00	--	--	1.4	E3.1	.002	23.1	E1100	.72	E5.8
413857087280301	04-25-00	<.5	9.4	E1.3	4.5	.003	E14.2	947	<1.0	4.0
413848087285201	04-25-00	<.5	4.2	E1.5	2.9	.003	E12.1	579	<1.0	3.5
413822087281601	04-25-00	<.5	5.3	E1.5	4.3	.004	<40.0	1870	<1.0	11.3
413716087281600	04-27-00	--	--	E1.5	6.9	.005	<40.0	3310	<1.0	11.9
413651087285001	04-25-00	<.5	5.1	E1.9	4.9	.012	56.6	670	E.64	7.3
413658087292601	04-27-00	--	--	E1.7	2.7	.007	E36.8	69	E.50	1.3
413707087300300	04-26-00	--	--	E1.4	26.6	.011	139	1180	E.60	14.0
05536357	04-26-00	<.5	4.4	E1.3	19.3	.008	229	1180	E.60	11.1
413650087274201	04-26-00	<.5	7.3	E1.7	6.2	.003	<40.0	3610	<1.0	11.7
413647087255700	04-27-00	--	--	E1.8	7.4	.004	E23.7	2220	<1.0	7.0
413636087242601	04-26-00	<.5	2.2	2.1	4.2	.003	<40.0	1270	<1.0	3.9
413632087221601	04-24-00	--	--	1.8	E3.2	.002	40.0	910	3.7	2.4
413626087211101	04-24-00	--	--	E1.2	3.4	.003	<40.0	546	<1.0	2.5
413630087180401	04-25-00	<.5	2.5	E.64	E1.7	.004	122	1350	<1.0	2.4
413649087171201	04-26-00	--	--	E.62	E1.4	.003	98.0	571	<1.0	2.3
413656087160701	04-26-00	<.5	<2.0	E.30	E1.0	.002	51.3	491	<1.0	1.8

STATION NUMBER	DATE	MANGA-NESE, DIS-SOLVED (µg/L AS Mn) (01056)	MANGA-NESE, TOTAL RECOV-ERABLE (µg/L AS Mn) (01055)	NICKEL, DIS-SOLVED (µg/L AS Ni) (01065)	NICKEL, TOTAL RECOV-ERABLE (µg/L AS Ni) (01067)	SELE-NIUM, DIS-SOLVED (µg/L AS Se) (01145)	SELE-NIUM, TOTAL (µg/L AS Se) (01147)	ZINC, DIS-SOLVED (µg/L AS Zn) (01090)	ZINC, TOTAL RECOV-ERABLE (µg/L AS Zn) (01092)	1,2,5,6 -DIBENZ -ANTHRA -CENE TOTAL (µg/L) (34556)
414057087263601	04-27-00	--	--	--	--	--	--	--	--	<0.1
414023087262301	04-27-00	--	--	--	--	--	--	--	--	<.1
414003087263300	04-25-00	28.6	43.0	E1.8	3.0	<3.0	<3.0	E10.4	23.4	<.1
413952087264701	04-24-00	--	--	--	--	--	--	--	--	<.1
413919087273201	04-24-00	--	--	--	--	--	--	--	--	<.1
413857087280301	04-25-00	32.5	47.7	E1.8	3.9	<3.0	<3.0	E5.8	E18.5	<.1
413848087285201	04-25-00	34.9	50.5	E1.7	3.3	<3.0	E.99	E9.9	E16.3	<.1
413822087281601	04-25-00	28.8	50.3	E1.8	3.6	<3.0	E1.3	E15.5	37.1	<.1
413716087281600	04-27-00	--	--	--	--	--	--	--	--	<.1
413651087285001	04-25-00	19.0	23.0	4.1	5.7	<20.0	5.7	41.0	65.3	<.1
413658087292601	04-27-00	--	--	--	--	--	--	--	--	<.1
413707087300300	04-26-00	--	--	--	--	--	--	--	--	<.1
05536357	04-26-00	58.2	65.1	3.9	6.8	<20.0	5.3	32.0	72.8	<.1
413650087274201	04-26-00	19.8	65.9	E1.6	4.3	<3.0	E1.6	E9.2	60.0	<.1
413647087255700	04-27-00	--	--	--	--	--	--	--	--	<.1
413636087242601	04-26-00	11.9	35.1	E1.7	3.7	E.97	E1.6	E7.5	23.5	<.1
413632087221601	04-24-00	--	--	--	--	--	--	--	--	<.1
413626087211101	04-24-00	--	--	--	--	--	--	--	--	<.1
413630087180401	04-25-00	231	354	<2.0	E1.3	<3.0	<3.0	<20.0	E9.3	<.1
413649087171201	04-26-00	--	--	--	--	--	--	--	--	<.1
413656087160701	04-26-00	1.1	43.4	E.16	E1.4	<3.0	E1.0	<20.0	<20.0	<.1

GRAND CALUMET RIVER AND INDIANA HARBOR CANAL IN LAKE COUNTY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

STATION NUMBER	DATE	ACE-NAPHTH-ENE TOTAL (µg/L) (34205)	ACE-NAPHTH-YLENE TOTAL (µg/L) (34200)	ANTHRA-CENE TOTAL (µg/L) (34220)	BENZO-A-PYRENE TOTAL (µg/L) (34247)	BENZO B FLUOR-AN-THENE TOTAL (µg/L) (34230)	BENZO K FLUOR-AN-THENE TOTAL (µg/L) (34242)	BENZ(A) ANTHRA-CENE WATER UNFLTRD REC (µg/L) (34526)	BENZO-[GHI]-PERY-LENE TOTAL (µg/L) (34521)	CHRY-SENE TOTAL (µg/L) (34320)
414057087263601	04-27-00	<1.0	<1.0	<0.50	<0.10	E0.04	<0.05	<0.10	<0.10	<0.10
414023087262301	04-27-00	<1.0	<1.0	<.50	E.02	E.05	<.05	E.02	<.10	E.03
414003087263300	04-25-00	<1.0	E.05	<.50	E.04	E.06	<.05	<.10	<.10	E.03
413952087264701	04-24-00	<1.0	.04	<.50	E.04	<.10	E.02	<.10	E.04	E.04
413919087273201	04-24-00	<1.0	<1.0	<.50	E.05	<.10	E.03	<.10	E.06	E.06
413857087280301	04-25-00	<1.0	<1.0	<.50	<.10	E.06	<.05	<.10	<.10	E.03
413848087285201	04-25-00	<1.0	<1.0	<.50	<.10	E.07	<.05	<.10	E.03	E.02
413822087281601	04-25-00	E.15	<1.0	E.06	.14	.16	.06	.13	.11	.22
413716087281600	04-27-00	<1.0	<1.0	E.10	.45	.54	.20	.37	.46	.64
413651087285001	04-25-00	E.30	E.18	E.02	E.03	E.09	<.05	E.07	<.10	.15
413658087292601	04-27-00	<1.0	<1.0	<.50	<.10	<.10	<.05	<.10	<.10	<.10
413707087300300	04-26-00	<1.0	<1.0	<.50	E.07	.12	.06	E.06	E.09	.15
05536357	04-26-00	E.15	<1.0	<.50	E.08	.12	.05	E.07	.10	.12
413650087274201	04-26-00	<1.0	E.10	E.02	.13	.15	.06	.10	.11	.15
413647087255700	04-27-00	E.48	E.08	E.04	.12	.16	.07	.11	.10	.14
413636087242601	04-26-00	E.16	E.07	E.03	E.10	.10	E.04	E.08	E.09	E.09
413632087221601	04-24-00	E.30	E.16	E.05	.13	.14	.06	.12	.12	.13
413626087211101	04-24-00	E.25	E.18	E.03	E.08	E.09	E.03	E.07	E.07	E.07
413630087180401	04-25-00	<1.0	E.31	E.04	.14	.17	.06	.11	.15	.13
413649087171201	04-26-00	<1.0	<1.0	<.50	E.04	E.07	<.05	E.02	E.05	E.03
413656087160701	04-26-00	<1.0	E.48	<.50	<.10	<.10	<.05	<.10	<.10	<.10

STATION NUMBER	DATE	FLUOR-ANTHENE TOTAL (µg/L) (34376)	FLUOR-ENE TOTAL (µg/L) (34381)	INDENO (1,2,3-CD) PYRENE TOTAL (µg/L) (34403)	OIL AND GREASE, TOTAL RECOV. GRAVI-METRIC (mg/L) (00556)	PHENAN-THRENE TOTAL (µg/L) (34461)	PHENOLS TOTAL (µg/L) (32730)	PYRENE TOTAL (µg/L) (34469)	NAPHTH-ALENE TOTAL (µg/L) (34696)	CYANIDE UNFLTRD TOT REC EPA-CON-TRACT (mg/L) (99896)
414057087263601	04-27-00	E0.04	<1.0	<0.10	<5.0	<1.0	<20	E0.09	<1.0	0.032
414023087262301	04-27-00	E.07	<1.0	<.10	<5.0	<1.0	<20	E.15	<1.0	.465
414003087263300	04-25-00	E.05	<1.0	<.10	<5.0	<1.0	<20	E.15	<1.0	.005
413952087264701	04-24-00	.11	E.01	E.02	<5.0	E.05	<20	E.19	<1.0	.003
413919087273201	04-24-00	.14	<1.0	E.03	<5.0	<1.0	<20	E.27	<1.0	.003
413857087280301	04-25-00	.13	<1.0	<.10	E2.3	E.07	<20	E.17	<1.0	.004
413848087285201	04-25-00	E.09	<1.0	<.10	<5.0	E.04	<20	E.23	<1.0	.002
413822087281601	04-25-00	.33	E.04	E.08	E2.7	E.12	<20	E.22	<1.0	.004
413716087281600	04-27-00	.55	E.08	.29	<5.0	E.27	<20	E.71	E.10	.007
413651087285001	04-25-00	.23	E.12	<.10	E2.8	E.24	<20	E.34	E.48	.009
413658087292601	04-27-00	E.07	<1.0	<.10	E3.5	E.04	<20	<1.0	<1.0	.005
413707087300300	04-26-00	.17	<1.0	E.05	9.7	E.11	<20	E.22	<1.0	.014
05536357	04-26-00	.32	E.04	E.06	E2.4	E.21	<20	E.25	E.13	.009
413650087274201	04-26-00	.39	E.04	E.07	<5.0	E.09	<20	E.32	E.08	.003
413647087255700	04-27-00	.51	E.13	E.08	1.9	E.13	<20	E.35	E.12	.003
413636087242601	04-26-00	.37	E.06	E.05	<5.0	E.09	<20	E.23	<1.0	.002
413632087221601	04-24-00	.40	E.17	E.08	<5.0	E.15	<20	E.28	<1.0	.003
413626087211101	04-24-00	.29	E.16	E.04	<5.0	E.11	47	E.21	<1.0	.003
413630087180401	04-25-00	.49	E.13	E.08	<5.0	E.24	<20	E.44	E.53	.011
413649087171201	04-26-00	.13	<1.0	E.03	<5.0	E.03	<20	E.09	<1.0	.001
413656087160701	04-26-00	E.04	<1.0	<.10	5.4	E.03	<20	<1.0	<1.0	.001

E Estimated