#### 05587455 MISSISSIPPI RIVER BELOW GRAFTON, IL

#### WATER-QUALITY RECORDS

LOCATION.--Lat 38°57'04", long 90°22'16", in sec.24, T.6 N., R.11 W., Jersey County, Hydrologic Unit 07110009, 11.3 mi above Lock and Dam 26, 19.0 mi above mouth of Missouri River, and at mile 214.6 upstream from the mouth of the Ohio River.

DRAINAGE AREA.--171,300 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--March 1989 to current year. National stream-quality accounting network station 1989 to 1994.

REMARKS.--Established ambient water-quality monitoring network station November 1992. Sediment records fair.

PERIOD OF DAILY RECORD. --

SUSPENDED-SEDIMENT: October 1989 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD. --

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,910 mg/L, May 23, 1990; minimum daily mean, 1 mg/L, Sept. 10, 1991.

SUSPENDED-SEDIMENT LOADS: Maximum daily, 1,090,000 tons, May 23, 1990; minimum daily, 186 tons, Sept. 10, 1991.

EXTREMES FOR CURRENT YEAR. --

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,000 mg/L, Feb. 22; minimum daily mean, 31 mg/L, Jan. 2.0

SUSPENDED-SEDIMENT LOADS: Maximum daily, 619,000 tons, Feb. 22; minimum daily, 5,190 tons, Jan. 20.

#### WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	TEMPER- ATURE WATER (DEG C) (00010)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (µS/cm) (00095)	OXYGEN, DIS- SOLVED (mg/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TUR- BID- ITY (NTU) (00076)	COLI- FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKA- LINITY WAT DIS FIX END FIELD CaC0 <sub>3</sub> (mg/L) (39036)	ALKA- LINITY WAT DIS TOT IT FIELD (mg/L as CaCO <sub>3</sub> ) (39086)	
OCT													
23	1340	11.5	33700	501	9.9	92	8.44	8.9	110	110			
NOV	1.400	2 2	100000	5.60					0.5	- 4			
27 DEC	1420	3.0	108000	568	13.7	99	7.93	17	K106	54			
03	1015	2.5	68500	561	13.6	98	8.19	12	K131	126			
JAN	1013	2.5	00300	301	15.0	50	0.15		RIJI	120			
07	1040	1.0	74000	650	14.0	96	7.96	7.2	K16	K10	179	181	
FEB													
26	1255	2.0	250000	366	12.1	88	7.32	200	720	2600	108	112	
MAR													
11	1105	6.5	220000	547	9.2	74	7.72	80	110	308	121	123	
APR													
03		10.0	172000	428	12.4	108	7.44	32	K100		159	162	
23	1410	9.0	288000	299	10.8	92	7.89	26	K625	K96	117	117	
MAY													
06	1040	14.5	227000	420	9.3	91	7.63	0.5	208	92	130	133	
JUN													
02	1455	17.0	142000	469	8.7	89	7.74	38	54	K43	146	146	
27	1245	27.5	136000	439	7.4	91	7.56	38	K43	310	150	144	
JUL													
08	1100	27.5	106000	494	7.3	92	8.15	19	108	K56	148	150	
AUG													
05	1115	27.5	104000	453	9.0	113	8.12	14	15	32	303	313	
SEP													
11	1135	23.0	69200	466	7.3	85	7.66	10	K17	K10	150	155	

K--Results based on colony count outside the acceptable range (non-ideal colony count).

#### MISSISSIPPI RIVER MAIN STEM

# 05587455 MISSISSIPPI RIVER BELOW GRAFTON, IL--Continued WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	CAR-BONATE WATER DIS IT FIELD (mg/L as CO <sub>3</sub> ) (00452)	HCO <sub>3</sub> )	NITRO- GEN, TOTAL (mg/L as N) (00600)	NITRO- GEN DIS- SOLVED (mg/L as N) (00602)	NITRO- GEN, ORGANIC TOTAL (mg/L as N) (00605)	NITRO- GEN, ORGANIC DIS- SOLVED (mg/L as N) (00607)	NITRO- GEN, AMMONIA DIS- SOLVED (mg/L as N) (00608)	NITRO- GEN, NITRITE DIS- SOLVED (mg/L as N) (00613)	NITRO- GEN, NITRATE DIS- SOLVED (mg/L as N) (00618)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (mg/L as N) (00623)
OCT 23			2.0		0.85		0.053	0.022	1.08	
NOV 27			3.2		0.80		0.056	<0.010		
DEC 03			3.2		0.64		0.120	0.010	2.39	
JAN 07	0	221	4.8	4.7	0.60	0.50	0.120	0.030	4.09	0.6
FEB 26	0	136	6.1	4.0	2.8	0.72	0.480	0.030	2.77	1.2
MAR 11	0	150	4.9	4.2	1.3	0.59	0.410	0.030	3.17	1.0
APR 03	0	189	3.8	3.2	0.89	0.39	0.080		2.79	0.4
23 MAY	0	143	3.5	3.0	0.89		<0.010	0.030	2.63	0.4
06 JUN	0	162	3.4	2.7	1.1		<0.010	0.020	2.28	0.4
02 27 JUL	0	178 179	4.4 4.1	4.0 3.5	0.92 0.92	0.48 0.34	0.060 0.020	0.070 0.080	3.38	0.5 0.4
08 AUG	0	183	5.3	5.0	0.66		<0.010	0.140	4.51	0.4
05 SEP	0	382	3.5	3.2	0.85		<0.010	0.030	2.64	0.5
11	0	190	1.8	1.6	0.58		<0.010	0.040	1.20	0.4
DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (mg/L as N) (00625)	NITRO- GEN, NO <sub>2</sub> +NO <sub>3</sub> DIS- SOLVED (mg/L as N) (00631)	PHOS- PHATE, ORTHO, DIS- SOLVED (mg/L as PO <sub>4</sub> )	PHOS- PHORUS TOTAL (mg/L as P)	PHOS- PHORUS DIS- SOLVEI (mg/L as P)	(mg/L as P)	DIS- SOLVED (mg/L as C)	SUS-PENDED TOTAL (mg/L as C)	HARD- NESS TOTAL (mg/L as CaCO <sub>3</sub> )	HARD- NESS NONCARB DISSOLV FLD. as CaCO <sub>3</sub> (mg/L) (00904)
OCT	0.0		0 21	0.15	0.00	0 100			100	
23 NOV	0.9	1.1	0.31	0.17	0.09	0.100			190	
27 DEC	0.9	2.3	0.28	0.18	0.10	0.090			200	
03 JAN	0.8	2.4	0.34	0.18	0.11	0.110			200	
07 FEB	0.7	4.1	0.36	0.15	0.15	0.120	5.5	1.9	240	58
26	3.3	2.8	0.43	0.94	0.11	0.140	33	7.0	140	26
MAR 11	1.7	3.2	0.43	0.47	0.12	0.140	5.2	1.9	160	36
APR 03	1.0	2.8	0.36	0.30	0.10	0.120	5.5	1.8	190	31
23		2.7	0.17	0.21	0.04	0.054		4.1	150	35
MAY 06	1.1	2.3	0.16	0.24	0.08	0.053	6.0	0.4	190	59
JUN 02	1.0	3.4	0.23	0.22	0.08	0.074	5.2	2.2	200	57
27 JUL	0.9	3.1	0.32		0.08	0.100	5.0	2.1	200	53
08 AUG	0.7	4.7	0.53	0.25	0.17	0.170	4.7	1.5	210	62
05	0.8	2.7	0.16	0.18	0.04	0.052	6.0	0.9	160	42
SEP 11	0.6	1.2	0.35	0.17	0.12	0.110	5.7	0.3	200	47

### 05587455 MISSISSIPPI RIVER BELOW GRAFTON, IL--Continued WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	HARD- NESS NONCARB DISSOLV LAB as CaCO <sub>3</sub> (mg/L) (00905)	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)	SODIUM AD- SORP- TION RATIO (00931)	SODIUM PERCENT (00932)	POTAS- SIUM, DIS- SOLVED (mg/L as K) (00935)	CHLO- RIDE, DIS- SOLVED (mg/L as C1) (00940)	SULFATE DIS- SOLVED (mg/L as SO <sub>4</sub> ) (00945)	FLUO- RIDE, DIS- SOLVED (mg/L as F) (00950)	SILICA, DIS- SOLVED (mg/L as SiO <sub>2</sub> ) (00955)
OCT		4.0	0.1	0.4	0 0	0.1	2 1	20	4.4	0.0	0.06
23 NOV		42	21	24	0.8	21	3.1	32	44	0.2	0.96
27 DEC		48	19	16	0.5	15	2.8	23	32	0.3	8.3
03 JAN		48	19	15	0.5	14	2.9	22	34	0.2	9.4
07 FEB		59	22	21	0.6	16	2.7	34	42	0.3	10
26		35	12	12	0.4	15	5.6	21	23	0.2	8.2
MAR 11		39	15	19	0.7	20	4.9	32	28	0.2	7.8
APR 03		47	17	11	0.4	11	3.4	19	27	0.2	10
23 MAY		38	14	10	0.4	12	3.1	17	28	0.2	9.8
06 JUN		48	17	10	0.3	10	3.4	15	47	0.2	7.4
02		49	20	13	0.4	12	3.2	22	45	0.2	4.0
27 JUL	50	45	21	15	0.5	14	3.0	24	43	0.3	2.8
08 AUG		52	20	11	0.3	10	3.2	20	31	0.2	8.8
05 SEP		40	14	10	0.4	12	3.4	17	29	0.2	10
11		46	21	15	0.5	14	3.1	22	39	0.2	9.7
DATE	MOLYB- DENUM, DIS- SOLVED (mg/L as Mo) (01060)	NICKEL, DIS- SOLVED (mg/L as Ni) (01065)	SILVER, DIS- SOLVED (mg/L as Ag) (01075)	STRON- TIUM, DIS- SOLVED (mg/L as Sr) (01080)	VANA- DIUM, DIS- SOLVED (mg/L as V) (01085)	ZINC, DIS- SOLVED (mg/L as Zn) (01090)	ANTI- MONY, DIS- SOLVED (mg/L as Sb) (01095)	ALUM- INUM, DIS- SOLVED (mg/L as A1) (01106)	LITHIUM DIS- SOLVED (mg/L as Li) (01130)	SELE- NIUM, DIS- SOLVED (mg/L as Se) (01145)	PROP- CHLOR, WATER, DISS, REC (mg/L) (04024)
OCT	DENUM, DIS- SOLVED (mg/L as Mo) (01060)	DIS- SOLVED (mg/L as Ni) (01065)	DIS- SOLVED (mg/L as Ag) (01075)	TIUM, DIS- SOLVED (mg/L as Sr) (01080)	DIUM, DIS- SOLVED (mg/L as V) (01085)	DIS- SOLVED (mg/L as Zn)	MONY, DIS- SOLVED (mg/L as Sb)	INUM, DIS- SOLVED (mg/L as A1) (01106)	DIS- SOLVED (mg/L as Li) (01130)	NIUM, DIS- SOLVED (mg/L as Se) (01145)	CHLOR, WATER, DISS, REC (mg/L)
	DENUM, DIS- SOLVED (mg/L as Mo)	DIS- SOLVED (mg/L as Ni)	DIS- SOLVED (mg/L as Ag)	TIUM, DIS- SOLVED (mg/L as Sr)	DIUM, DIS- SOLVED (mg/L as V)	DIS- SOLVED (mg/L as Zn)	MONY, DIS- SOLVED (mg/L as Sb)	INUM, DIS- SOLVED (mg/L as Al)	DIS- SOLVED (mg/L as Li)	NIUM, DIS- SOLVED (mg/L as Se)	CHLOR, WATER, DISS, REC (mg/L)
OCT 23 NOV 27	DENUM, DIS- SOLVED (mg/L as Mo) (01060)	DIS- SOLVED (mg/L as Ni) (01065)	DIS- SOLVED (mg/L as Ag) (01075)	TIUM, DIS- SOLVED (mg/L as Sr) (01080)	DIUM, DIS- SOLVED (mg/L as V) (01085)	DIS- SOLVED (mg/L as Zn) (01090)	MONY, DIS- SOLVED (mg/L as Sb) (01095)	INUM, DIS- SOLVED (mg/L as A1) (01106)	DIS- SOLVED (mg/L as Li) (01130)	NIUM, DIS- SOLVED (mg/L as Se) (01145)	CHLOR, WATER, DISS, REC (mg/L) (04024)
OCT 23 NOV 27 DEC 03	DENUM, DIS- SOLVED (mg/L as Mo) (01060)	DIS- SOLVED (mg/L as Ni) (01065)	DIS- SOLVED (mg/L as Ag) (01075)	TIUM, DIS- SOLVED (mg/L as Sr) (01080)	DIUM, DIS- SOLVED (mg/L as V) (01085)	DIS- SOLVED (mg/L as Zn) (01090)	MONY, DIS- SOLVED (mg/L as Sb) (01095)	INUM, DIS- SOLVED (mg/L as A1) (01106)	DIS- SOLVED (mg/L as Li) (01130)	NIUM, DIS- SOLVED (mg/L as Se) (01145)	CHLOR, WATER, DISS, REC (mg/L) (04024)
OCT 23 NOV 27 DEC 03 JAN 07	DENUM, DIS- SOLVED (mg/L as Mo) (01060) <10	DIS- SOLVED (mg/L as Ni) (01065)	DIS- SOLVED (mg/L as Ag) (01075)	TIUM, DIS- SOLVED (mg/L as Sr) (01080)	DIUM, DIS- SOLVED (mg/L as V) (01085)	DIS- SOLVED (mg/L as Zn) (01090)	MONY, DIS- SOLVED (mg/L as Sb) (01095)	INUM, DIS- SOLVED (mg/L as Al) (01106)	DIS- SOLVED (mg/L as Li) (01130)	NIUM, DIS- SOLVED (mg/L as Se) (01145)	CHLOR, WATER, DISS, REC (mg/L) (04024)
OCT 23 NOV 27 DEC 03 JAN 07 FEB 26	DENUM, DIS- SOLVED (mg/L as Mo) (01060)	DIS- SOLVED (mg/L as Ni) (01065)	DIS- SOLVED (mg/L as Ag) (01075) <1 <1	TIUM, DIS- SOLVED (mg/L as Sr) (01080) 120	DIUM, DIS- SOLVED (mg/L as V) (01085)	DIS- SOLVED (mg/L as Zn) (01090)	MONY, DIS- SOLVED (mg/L as Sb) (01095)	INUM, DIS- SOLVED (mg/L as Al) (01106)	DIS- SOLVED (mg/L as Li) (01130)	NIUM, DIS- SOLVED (mg/L as Se) (01145)	CHLOR, WATER, DISS, REC (mg/L) (04024)
OCT 23 NOV 27 DEC 03 JAN 07 FEB	DENUM, DIS- SOLVED (mg/L as Mo) (01060) <10 <10 <10	DIS- SOLVED (mg/L as Ni) (01065) 2 1	DIS- SOLVED (mg/L as Ag) (01075) <1 <1 <1	TIUM, DIS- SOLVED (mg/L as Sr) (01080) 120 120  140	DIUM, DIS- SOLVED (mg/L as V) (01085)	DIS- SOLVED (mg/L as Zn) (01090)	MONY, DIS- SOLVED (mg/L as Sb) (01095)	INUM, DIS- SOLVED (mg/L as Al) (01106) 15 12 	DIS- SOLVED (mg/L as Li) (01130) 5 5	NIUM, DIS- SOLVED (mg/L as Se) (01145) <1 <1 <1	CHLOR, WATER, DISS, REC (mg/L) (04024)
OCT 23 NOV 27 DEC 03 JAN 07 FEB 26 MAR 11	DENUM, DIS- SOLVED (mg/L as Mo) (01060)  <10 <10 <10 <10 <10	DIS- SOLVED (mg/L as Ni) (01065)  2  1 1 2	DIS- SOLVED (mg/L as Ag) (01075) <1 <1 <1 <1 <1	TIUM, DIS- SOLVED (mg/L as Sr) (01080) 120 120  140 83	DIUM, DIS- SOLVED (mg/L as V) (01085) <6 <6  <6 <6	DIS- SOLVED (mg/L as Zn) (01090)	MONY, DIS- SOLVED (mg/L as Sb) (01095)	INUM, DIS- SOLVED (mg/L as Al) (01106) 15 12  13.8 <5.0	DIS- SOLVED (mg/L as Li) (01130) 5 5  5 <4 <4	NIUM, DIS- SOLVED (mg/L as Se) (01145) <1 <1 < <1 <1 <1	CHLOR, WATER, DISS, REC (mg/L) (04024)
OCT 23 NOV 27 DEC 03 JAN 07 FEB 26 MAR 11 APR 03 23	DENUM, DIS- SOLVED (mg/L as Mo) (01060)  <10 <10 <10 <10	DIS- SOLVED (mg/L as Ni) (01065)	DIS- SOLVED (mg/L as Ag) (01075) <1 <1  <1	TIUM, DIS- SOLVED (mg/L as Sr) (01080)  120  120  140 83	DIUM, DIS- SOLVED (mg/L as V) (01085) <6 <6  <6	DIS- SOLVED (mg/L as Zn) (01090)	MONY, DIS- SOLVED (mg/L as Sb) (01095)	INUM, DIS- SOLVED (mg/L as Al) (01106) 15 12  13.8 <5.0	DIS- SOLVED (mg/L as Li) (01130) 5 5  5 <4	NIUM, DIS- SOLVED (mg/L as Se) (01145) <1 <1  <1	CHLOR, WATER, DISS, REC (mg/L) (04024)
OCT 23 NOV 27 DEC 03 JAN 07 FEB 26 MAR 11 APR 03 23 MAY 06	DENUM, DIS- SOLVED (mg/L as Mo) (01060)  <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10	DIS- SOLVED (mg/L as Ni) (01065) 2 1  1 2 2	DIS- SOLVED (mg/L as Ag) (01075) <1 <1 <1 <1 <1 <1	TIUM, DIS- SOLVED (mg/L as Sr) (01080)  120  120  140  83  93  100	DIUM, DIS- SOLVED (mg/L as V) (01085) <6 <6 <6 <6 <6	DIS- SOLVED (mg/L as Zn) (01090)	MONY, DIS- SOLVED (mg/L as Sb) (01095)	INUM, DIS- SOLVED (mg/L as A1) (01106)  15  12  13.8  <5.0  <5.0 26.1	DIS- SOLVED (mg/L as Li) (01130) 5 5  5 <4 <4	NIUM, DIS- SOLVED (mg/L as Se) (01145) <1 <1 <1 <1 <1 <1	CHLOR, WATER, DISS, REC (mg/L) (04024)  <0.007 <0.007
OCT 23 NOV 27 DEC 03 JAN 07 FEB 26 MAR 11 APR 03 23 MAY 06 JUN 02	DENUM, DIS- SOLVYED (mg/L as Mo) (01060)  <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10	DIS- SOLVED (mg/L as Ni) (01065)  2  1 1 2 2 1 <1 1	DIS- SOLVED (mg/L as Ag) (01075) <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	TIUM, DIS- SOLVED (mg/L as Sr) (01080)  120  120  140  83  93  100  90  130	DIUM, DIS- SOLVED (mg/L as V) (01085) <6 <6 <6 <6 <6 <6 <6 <6 <6 <6 <6 <6 <6 <6	DIS- SOLVED (mg/L as Zn) (01090)	MONY, DIS- SOLVED (mg/L as Sb) (01095)	INUM, DIS- SOLVED (mg/L as A1) (01106)  15  12  13.8  <5.0  <5.0 26.1 107  35.2	DIS- SOLVED (mg/L as Li) (01130) 5 5  5 <4 <4  8	NIUM, DIS- SOLVED (mg/L as Se) (01145) <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	CHLOR, WATER, DISS, REC (mg/L) (04024)  <
OCT 23 NOV 27 DEC 03 JAN 07 FEB 26 MAR 11 APR 03 23 MAY 06 JUN	DENUM, DIS- SOLVED (mg/L as Mo) (01060)  <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10	DIS- SOLVED (mg/L as Ni) (01065)  2  1 1 2 2 1 1 1	DIS- SOLVED (mg/L as Ag) (01075) <1 <1 <1 <1 <1 <1 <1 <1	TIUM, DIS- SOLVED (mg/L as Sr) (01080)  120 120 140 83 93 100 90	DIUM, DIS- SOLVED (mg/L as V) (01085) <6 <6 <6 <6 <6 <6 <6 <6 <6	DIS- SOLVED (mg/L as Zn) (01090)	MONY, DIS- SOLVED (mg/L as Sb) (01095)	INUM, DIS- SOLVED (mg/L as A1) (01106)  15  12  13.8  <5.0  <5.0  26.1 107	DIS- SOLVED (mg/L as Li) (01130) 5 5  5 <4 <4 	NIUM, DIS- SOLVED (mg/L as Se) (01145) <1 <1 < <1 <1 <1 <1 <1 <	CHLOR, WATER, DISS, REC (mg/L) (04024)
OCT 23 NOV 27 DEC 03 JAN 07 FEB 26 MAR 11 APR 03 23 MAY 06 JUN 02 27 JUL 08	DENUM, DIS- SOLVYED (mg/L as Mo) (01060)  <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10	DIS- SOLVED (mg/L as Ni) (01065)  2  1 1 2 2 1 <1 1	DIS- SOLVED (mg/L as Ag) (01075) <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	TIUM, DIS- SOLVED (mg/L as Sr) (01080)  120  120  140  83  93  100  90  130	DIUM, DIS- SOLVED (mg/L as V) (01085) <6 <6 <6 <6 <6 <6 <6 <6 <6 <6 <6 <6 <6 <6	DIS- SOLVED (mg/L as Zn) (01090)	MONY, DIS- SOLVED (mg/L as Sb) (01095)	INUM, DIS- SOLVED (mg/L as A1) (01106)  15  12  13.8  <5.0  <5.0 26.1 107  35.2	DIS- SOLVED (mg/L as Li) (01130) 5 5  5 <4 <4  8	NIUM, DIS- SOLVED (mg/L as Se) (01145) <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	CHLOR, WATER, DISS, REC (mg/L) (04024)  <
OCT 23 NOV 27 DEC 03 JAN 07 FEB 26 MAR 11 APR 03 23 MAY 06 JUN 02 27 JUL	DENUM, DIS- SOLVED (mg/L as Mo) (01060)  <10 <10 < <10 <10 <10 <10 <10 <10 <10 <10 <10 <10	DIS- SOLVED (mg/L as Ni) (01065)  2  1 1 2 2 1 1 2 2	DIS- SOLVED (mg/L as Ag) (01075) <1 <1 < <1 <1 <1 <1 < <1 <1 <1	TIUM, DIS- SOLVED (mg/L as Sr) (01080)  120 140 83 93 100 90 130 130	DIUM, DIS- SOLVED (mg/L as V) (01085) <6 <6 <6 <6 <6 <6 <6 <6 <6	DIS- SOLVED (mg/L as Zn) (01090)	MONY, DIS- SOLVED (mg/L as Sb) (01095)	INUM, DIS- SOLVED (mg/L as Al) (01106)  15  12  13.8  <5.0  <5.0  26.1 107  35.2 16	DIS- SOLVED (mg/L as Li) (01130) 5 5  5 <4 <4  8 6	NIUM, DIS- SOLVED (mg/L as Se) (01145) <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	CHLOR, WATER, DISS, REC (mg/L) (04024)  <0.007 <0.007 <0.007 <0.007 <0.007  E0.004 <0.007

E--Laboratory estimated value.

#### MISSISSIPPI RIVER MAIN STEM

# 05587455 MISSISSIPPI RIVER BELOW GRAFTON, IL--Continued WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	BUTYL- ATE, WATER, DISS, REC (µg/L) (04028)	SI- MAZINE, WATER, DISS, REC (µg/L) (04035)	PRO- METON, WATER, DISS, REC (µg/L) (04037)	DEETHYL ATRA- ZINE, WATER, DISS, REC (µg/L) (04040)	CYANA- ZINE, WATER, DISS, REC (µg/L) (04041)	FONOFOS WATER DISS REC (µg/L) (04095)	URANIUM NATURAL DIS- SOLVED (mg/L as U) (22703)	ALPHA BHC DIS- SOLVED (µg/L) (34253)	P,P' DDE DISSOLV (µg/L) (34653)	CHLOR- PYRIFOS DIS- SOLVED (µg/L) (38933)	LINDANE DIS- SOLVED (µg/L) (39341)
JAN											
07 FEB	<0.002	E0.004	E0.010	E0.006	<0.004	<0.003		<0.002	<0.006	<0.004	<0.004
26 MAR	<0.002	0.010	E0.006	E0.043	0.085	<0.003		<0.002	<0.006	<0.004	<0.004
11	<0.002	0.008	E0.010	E0.091	0.072	<0.003		<0.002	<0.006	<0.004	<0.004
03	<0.002	0.005	E0.002	E0.021	0.013	<0.003		<0.002	<0.006	<0.004	<0.004
23	<0.002	0.005	E0.003	E0.015	0.018	<0.003		<0.002	<0.006	<0.001	<0.001
MAY											
06 JUN	<0.002	0.008	E0.004	E0.004	0.052	<0.003		<0.002	<0.006	<0.004	<0.004
02	<0.002	0.048	E0.010	E0.141	1.26	<0.003		<0.002	<0.006		<0.004
27 JUL	<0.002	0.048	0.019	E0.061	0.285	<0.003	2	<0.002	<0.006	E0.004	<0.004
08 AUG	<0.002	0.036	E0.015	E0.108	0.330	<0.003		<0.002	<0.006	<0.004	<0.004
05 SEP	<0.002	0.009	E0.016	E0.020	0.039	<0.003		<0.002	<0.006	<0.004	<0.004
11	<0.002	0.008	E0.017	E0.025	0.036	<0.003		<0.002	<0.006	<0.004	<0.004
DATE	DI- ELDRIN DIS- SOLVED (µg/L) (39381)	METO- LACHLOR WATER DISSOLV (µg/L) (39415)	MALA- THION, DIS- SOLVED (µg/L) (39532)	PARA- THION, DIS- SOLVED (µg/L) (39542)	DI- AZINON, DIS- SOLVED (µg/L) (39572)	ATRA- ZINE, WATER, DISS, REC (µg/L) (39632)	ALA- CHLOR, WATER, DISS, REC, (µg/L) (46342)	ACETO- CHLOR, WATER FLTRD REC (µg/L) (49260)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (mg/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (mg/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)
OCT 23									284	258	25800
NOV 27									273	284	79600
DEC											
03 JAN									267	266	49400
07 FEB	<0.001	0.086	<0.005	<0.004	0.005	0.093	0.015	0.013	338	319	67500
26 MAR	<0.001	0.328	<0.005	<0.004	<0.002	0.238	0.019	0.100	217	197	146000
11 APR	<0.001	0.460	<0.005	<0.004	<0.002	0.296	0.022	0.158	238	235	141000
03											
23	< 0.001	0.537	<0.005	< 0.004	<0.002	0.108	0.007	0.017	254	240	118000
	<0.001 <0.001	0.537 0.192	<0.005 <0.005	<0.004 <0.004	<0.002 <0.002	0.108 0.140	0.007 0.005	0.017 0.031	254 223	240 203	118000 173000
MAY 06											
06 JUN	<0.001	0.192	<0.005	<0.004	<0.002	0.140	0.005	0.031	223	203	173000 159000
06 JUN 02	<0.001 <0.001 <0.001	0.192 0.514 2.08	<0.005 <0.005 <0.005	<0.004 <0.004 <0.004	<0.002 <0.002 0.005	0.140 0.626 5.07	0.005 0.019 0.122	0.031 0.163 0.870	223 259 286	203 239 260	173000 159000 110000
06 JUN 02 27 JUL	<0.001 <0.001 <0.001 <0.001	0.192 0.514 2.08 0.664	<0.005 <0.005 <0.005 <0.005	<0.004 <0.004 <0.004 <0.004	<0.002 <0.002 0.005 0.006	0.140 0.626 5.07 2.31	0.005 0.019 0.122 0.034	0.031 0.163 0.870 0.251	223 259 286 263	203 239 260 257	173000 159000 110000 137000
06 JUN 02 27 JUL 08 AUG	<0.001 <0.001 <0.001 <0.001 <0.001	0.192 0.514 2.08 0.664 0.825	<0.005 <0.005 <0.005 <0.005 <0.005	<0.004 <0.004 <0.004 <0.004 <0.004	<0.002 <0.002 0.005 0.006 <0.002	0.140 0.626 5.07 2.31 2.67	0.005 0.019 0.122 0.034 0.025	0.031 0.163 0.870 0.251 0.143	223 259 286 263 321	203 239 260 257 257	173000 159000 110000 137000 91900
06 JUN 02 27 JUL 08	<0.001 <0.001 <0.001 <0.001	0.192 0.514 2.08 0.664	<0.005 <0.005 <0.005 <0.005	<0.004 <0.004 <0.004 <0.004	<0.002 <0.002 0.005 0.006	0.140 0.626 5.07 2.31	0.005 0.019 0.122 0.034	0.031 0.163 0.870 0.251	223 259 286 263	203 239 260 257	173000 159000 110000 137000

 ${\tt E--Laboratory\ estimated\ value.}$ 

## 05587455 MISSISSIPPI RIVER BELOW GRAFTON, IL--Continued

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 mm (70331)	NITRO- GEN, AMMONIA DIS- SOLVED (mg/L as NH <sub>4</sub> ) (71846)	NITRO- GEN, NITRATE DIS- SOLVED (mg/L as NO <sub>3</sub> ) (71851)	NITRO- GEN, NITRITE DIS- SOLVED (mg/L as NO <sub>2</sub> ) (71856)	SEDI- MENT, SUS- PENDED (mg/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	METRI- BUZIN SENCOR WATER DISSOLV (µg/L) (82630)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 µ GF, REC (µg/L) (82660)	TRI- FLUR- ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82661)	ETHAL- FLUR- ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82663)	PHORATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82664)
OCT		0.07	4.8	0.07							
23 NOV				0.07							
27 DEC	90	0.07			132	38500					
03 JAN	88	0.15	11	0.03	98	18100					
07 FEB	99	0.16	18	0.09	74	14800	<0.004	<0.003	<0.002	<0.004	<0.002
26 MAR	93	0.62	12	0.10	590	398000	<0.010	<0.003	<0.002	<0.004	<0.002
11 APR	87	0.53	14	0.10	291	173000	<0.010	<0.003	<0.002	<0.004	<0.002
03	88	0.10	12	0.11	152	70600	<0.004	<0.003	<0.002	<0.004	<0.002
23	82		12	0.09	139	108000	0.008	<0.003	<0.002	<0.004	<0.002
MAY 06	78		10	0.07	235	144000	0.006	<0.003	<0.002	<0.004	<0.002
JUN 02	98	0.08	15	0.22	155	59400	0.073	<0.003	0.005	<0.004	<0.002
27	70	0.02	13	0.22	631	329000	<0.004	<0.003	<0.003	<0.004	<0.002
JUL											
08 AUG			20	0.47			<0.004	<0.003	<0.002	<0.004	<0.002
05 SEP	91		12	0.09	109	84200	<0.004	<0.003	<0.002	<0.004	<0.002
11	91		5.3	0.14	99	18500	<0.004	<0.003	<0.002	<0.004	<0.002
DATE	TER-BACIL WATER FLTRD 0.7 µ GF, REC (µg/L) (82665)	METHYL PARA- THION WAT FLT 0.7 µ GF, REC (µg/L) (82667)	EPTC WATER FLTRD 0.7 µ GF, REC (µg/L) (82668)	PEB- ULATE WATER FILTRD 0.7 µ GF, REC (µg/L) (82669)	TEBU- THIURON WATER FLTRD 0.7 µ GF, REC (µg/L) (82670)	MOL- INATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82671)	ETHO- PROP WATER FLTRD 0.7 µ GF, REC (µg/L) (82672)	BEN- FLUR- ALIN WAT FLD 0.7 µ GF, REC (µg/L) (82673)	CARBO- FURAN WATER FLTRD 0.7 µ GF, REC (µg/L) (82674)	TER- BUFOS WATER FLTRD 0.7 µ GF, REC (µg/L) (82675)	PRON- AMIDE WATER FLITRD 0.7 µ GF, REC (µg/L) (82676)
JAN 07	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
FEB 26	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.010	<0.013	<0.003
MAR 11	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
APR				0 004	0.010	0.004				0 010	
03 23	<0.007 <0.007	<0.006 <0.006	<0.002 <0.002	<0.004 <0.004	<0.010 <0.010	<0.004 <0.004	<0.003 <0.003	<0.002 <0.002	<0.003 <0.003	<0.013 <0.013	<0.003 <0.003
MAY	VO.007	VO.000	V0.002	10.004	V0.010	10.001	VO.003	V0.002	<0.003	VO.013	<b>10.003</b>
06 JUN	<0.007	<0.006	E0.003	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
02	<0.007	<0.006	0.005	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
27 JUL	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
08 AUG	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.010	<0.013	<0.003
05 SEP	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
11	<0.007	<0.006	<0.002	<0.004	E0.005	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003

E--Laboratory estimated value.

### 05587455 MISSISSIPPI RIVER BELOW GRAFTON, IL--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	DISUL- FOTON WATER FLTRD 0.7 µ GF, REC (µg/L) (82677)	TRIAL- LATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82678)	PRO- PANIL WATER FLTRD 0.7 µ GF, REC (µg/L) (82679)	CAR- BARYL WATER FLTRD 0.7 µ GF, REC (µg/L) (82680)	THIO- BENCARB WATER FLTRD 0.7 µ GF, REC (µg/L) (82681)	DCPA WATER FLTRD 0.7 µ GF, REC (µg/L) (82682)	PENDI- METH- ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82683)	NAPROP- AMIDE WATER FLTRD 0.7 µ GF, REC (µg/L) (82684)	PRO- PARGITE WATER FLTRD 0.7 µ GF, REC (µg/L) (82685)	METHYL AZIN- PHOS WAT FLT 0.7 μ GF, REC (μg/L) (82686)	PER- METHRIN CIS WAT FLT 0.7 µ GF, REC (µg/L) (82687)
JAN	0 015	0 001					0.004		0.010	0 001	0.005
07 FEB	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
26	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
MAR											
11	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
APR 03	<0.017	<0.001	<0.004	<0.003	<0.002	E0.001	<0.004	<0.003	<0.013	<0.001	<0.005
23	<0.017	<0.001	<0.004	<0.003	<0.002	<0.001	<0.004	<0.003	<0.013	<0.001	<0.005
MAY											
06	<0.017	<0.001	<0.004	<0.003	<0.002	E0.001	<0.004	<0.003	<0.013	<0.001	<0.005
JUN	0 015	0 001							0 010	0 001	0 005
02 27	<0.017 <0.017	<0.001 <0.001	<0.004 <0.004	<0.003 <0.003	<0.002 <0.002	E0.001 E0.001	<0.004 <0.004	<0.003	<0.013 <0.013	<0.001 <0.001	<0.005 <0.005
JUL	<0.017	VU.001	<0.004	<0.003	<0.002	E0.001	<0.004	0.022	<0.013	<0.001	<0.003
08	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
SEP											
11	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
Г	ATE	ALKA- LINITY WAT WH TOT FET FIELD (mg/L as CaCO <sub>2</sub> )	BICAR- BONATE WATER WH IT FIELD (mg/L as HCO <sub>2</sub> )	CAR- BONATE WATER WH IT FIELD (mg/L as							

CaCO<sub>3</sub>) HCO<sub>3</sub>) CO<sub>3</sub>) (00410) (00450) (00447) OCT
23... 164 173 0

NOV
27... 204 252 0

DEC
03... 169 212 0

E--Laboratory estimated value.

05587455 MISSISSIPPI RIVER BELOW GRAFTON, IL--Continued SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)		
		OCTOBER		I	NOVEMBER		DE	DECEMBER			
1 2 3 4 5	58800 56000 52900 64200 65600	111 107 100 105 99	18400 16200 14300 18300 17500	70300 75400 93200 85500 79400	108 90 96 71 68	20600 18300 24200 16400 14700	76600 80200 74800 83900 85000	76 86 92 74 58	15800 18600 18500 16800 13400		
6 7 8 9 10	58300 50100 41700 48700 46700	92 86 73 100 91	14400 11600 8230 13200 11400	73500 84000 79700 74600 80500	69 73 81 92 95	13700 16600 17400 18600 20500	90600 94600 84600 85000 93700	48 52 56 53 47	11700 13200 12700 12300 11900		
11 12 13 14 15	50700 48000 46000 43500 41900	83 66 90 69	11300 8510 11200 8120 7740	79900 83000 86700 79300 80000	82 75 68 62 87	17600 16900 15900 13300 18800	85500 85000 86700 85800 86100	38 38 42 42 44	8810 8690 9900 9680 10200		
16 17 18 19 20	44400 43100 45300 47900 54400	61 60 76 142 135	7310 6980 9300 18700 19700	71900 67800 59000 68700 80600	85 71 59 53 46	16400 13000 9440 9770 10100	89400 88000 84600 71700 60600	48 52 51 54 61	11500 12300 11600 10400 10000		
21 22 23 24 25	63100 63300 43000 47200 61600	88 98 86 73 63	15000 16800 9980 9280 10600	91000 99400 103000 103000 105000	65 75 78 89 119	16200 20300 21600 24500 34000	66300 57600 56300 56000 55700	48 48 49 51 49	8540 7560 7450 7710 7300		
26 27 28 29 30 31	75000 68000 59900 55300 52800 57500	68 93 86 70 67 98	13600 17200 14000 10500 9550 15400	108000 107000 108000 102000 89300	111 117 106 95 82	32400 33600 31100 26300 19700	63600 62900 66700 65100 73600 78800	45 43 44 44 42 43	7790 7290 7840 7690 8340 9260		
		JANUARY		1	FEBRUARY			MARCH			
1 2 3 4 5	77300 75900 78800 73600 68100	45 36 40 55 53	9450 7400 8530 10900 9740	79500 77500 78000 79000 80000	57   	12200 11100 11600 15100 20500	304000 296000 277000 262000 261000	472 440 585 536 429	387000 351000 436000 380000 303000		
6 7 8 9 10	67700 72400 68100 63200 60500	45 63 73 	8170 12100 13600 12400 11600	83000 85000 86000 85000 84000	166 196 197 181	28200 38100 45500 45200 41100	256000 246000 230000 223000 224000	413 426 456 485 468	285000 282000 283000 292000 283000		
11 12 13 14 15	60000 59500 59500 59000 59500		11300 11200 11100 10000 9000	83100 81300 82000 80900 77900	161 104 105 141 138	36100 22800 23400 30800 29000	221000 216000 219000 225000 223000	295 301 299 303 270	176000 176000 177000 184000 163000		
16 17 18 19 20	60000 60000 60500 61000 62000	51 44 39 34 31	8260 7120 6370 5600 5190	72900 75200 67500 69800 89300	121 125 105 97 75	23900 25300 19200 18200 18000	219000 218000 216000 208000 194000	249 234 207 189 199	147000 138000 121000 106000 104000		
21 22 23 24 25	62000 62500 64000 67000 68000	40 41 48 46 43	6700 6920 8290 8320 7890	152000 226000 229000 231000 240000	414 1000 947 782 679	204000 619000 585000 487000 440000	199000 203000 197000 184000 182000	218 236 230 195 175	118000 129000 122000 96700 86300		
26 27 28 29 30 31	67000 70000 76000 79000 80000 80000	48 56 63 41 55 83	8680 10600 12900 8750 11900 17900	250000 268000 292000 	610 619 558 	412000 448000 440000  	186000 172000 160000 168000 176000 175000	197 204 169 158 175 172	98700 94700 72800 72000 83200 79500		

## 05587455 MISSISSIPPI RIVER BELOW GRAFTON, IL--Continued SEDIMENT DISCHARGE. SUSPENDED (TONS/DAY). WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997