RECEIVED 2442 JAN 1978

FEB 5 1978

Time Collected: 9:30 ~~[illegible]~~ AM

Date Collected: 1/4/78

Lab #

Date Received

SPECIAL ANALYSIS FORM
STATE OF ILLINOIS

US EPA RECORDS CENTER REGION 5
498575

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
KANE	ELGIN / WOODRUFF & EDWARDS	

SOURCE OF SAMPLE: (Exact Location)

FROM BROKEN PLASTIC BAG CONTAINING AIR POLLUTION RESIDUA DUMPED AT FILL FACE, ~~[illegible]~~ CENTRAL PORTION OF SITE.

PHYSICAL OBSERVATIONS, REMARKS: DESIGNATED APR-1

FINE LT. GRAY POWDER FROM AIR POLLUTION CONTROL EQUIPMENT.

TESTS REQUESTED: ACID DIGEST, FOR PARAMETERS LISTED BELOW; AND 48 HR WATER LEACH FOR PARAMETERS LISTED ON ATTACHED SHEET.

COLLECTED BY: KOCH & WENGROW, (DLPC) TRANSPORTED BY: R. Koch DLPC

LABORATORY: Environmental Protection Agency, Division of Laboratory Services, 2121 W. Taylor Street, Chicago, Illinois 60612

RECEIVED BY: N Kay DATE COMPLETED: 2-9-78 DATE FORWARDED: 2-10-78 J Daugherty

ACID DIGEST RESULTS: (reported in mg/gram)

As - 0.041	Hg - cannot be done on acid digest
Cd - 0.08	Ni - 0.08
Ca - 30	(P) cannot be done on acid digest.
Cr^{TOT} - 0.20	K - 20
Cu - 0.41	Se - 0.011
Fe - 93.7	Zn - 6.4
Pb - 6.2	
Mg - 17.5	
Mn - 11.6	

C002442

LPC-8A 4/77 (NOT FOR DATA PROCESSING)

RECEIVED 2454 JAN 5 1978 TN

Time Collected: 10:10 AM FEB 25 1978 Lab #

SPECIAL ANALYSIS FORM

Date Collected: 1/4/78 E.P.A. – D.L.P.C. Date Received

STATE OF ILLINOIS

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
KANE	ELGIN/ WOODRUFF & EDWARDS	08943801

SOURCE OF SAMPLE: (Exact Location)

ACTIVE FILL FACE, E. CENTRAL PORTION OF SITE IMMED. ABOVE FOX RIVER.

PHYSICAL OBSERVATIONS, REMARKS:

VAR. REDDISH, BLACK & GRAY FOUNDRY SANDS.

FS (1)

TESTS REQUESTED: ACID DIGEST, FOR PARAMETERS LISTED BELOW

COLLECTED BY:

TRANSPORTED BY: Environmental Protection Agency Division of Laboratory Services DLPC

LABORATORY 2121 W. Taylor Street Chicago, Illinois 60612 J Daugherty

RECEIVED BY: Nkay DATE COMPLETED: 2/9/78 DATE FORWARDED: 2/10/78

As – 0.002
Ba – 0.19
Cd – 0.00
Cr – 18.5
Cr TOT – 0.04
Cu – 0.03
Fe – 10
Pb – 0.01
Mg – 6.8
Mn – 0.43

Hg – Cannot be done on acid digest
Ni – 0.02
P – cannot be done on acid digest
K – 0.25
Se – 0.00
Ag – 0.00
Zn – 0.025

(results reported in mg/gram)

C002454

LPC-8A 4/77 (NOT FOR DATA PROCESSING)

RECEIVED 2455 JAN 5 '78

FEB 15 1978

Time Collected: 10:25 AM

Date Collected: 1/4/78

Lab #

SPECIAL ANALYSIS FORM
E.P.A. - D.L.P.
STATE OF ILLINOIS

Date Received

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
KANE	ELGIN/WOODRUFF & EDWARDS	08943801

SOURCE OF SAMPLE: (Exact Location)

FILL FACE, E. CENTRAL PORTION; FRESHLY DUMPED FOUNDRY SANDS

PHYSICAL OBSERVATIONS, REMARKS:

VAR. REDDISH, BLACK, GRAY FDRY SAND

FS (2)

TESTS REQUESTED: ACID DIGEST FOR PARAMETERS LISTED BELOW.

COLLECTED BY:

TRANSPORTED BY: DLPC

LABORATORY: Illinois Environmental Protection Agency, Division of Laboratory Services, 2121 W. Taylor Street, Chicago, Illinois 60612

J Daugherty

RECEIVED BY: N Kay

DATE COMPLETED: 2/9/78

DATE FORWARDED: 2/10/78

As - 0.000
Ba 0.03
Cd - 0.00
Ca - 1
Cr TOT - 0.01
Cu - 0.00
Fe - 6.2
Pb - 0.01
Mg - 0.5
Mn - 0.06

Hg - Cannot be done on acid digest
Ni - 0.0
P cannot be done on acid digest
K 0.15
Se - 0.00
Ag - 0.00
Zn - 0.025

(results reported in mg/gram)

C002455

LPC-8A 4/77

(NOT FOR DATA PROCESSING)

RECEIVED

2444 JAN 25 78

FEB 15 1978

E.P.A. - D.L.P.C.

Time Collected: 9:40 AM Lab #

SPECIAL ANALYSIS FORM

Date Collected: 1/4/78 STATE OF ILLINOIS Date Received

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
KANE	ELGIN/WOODRUFF & EDWARDS	

SOURCE OF SAMPLE: (Exact Location)

FROM BROKEN PLASTIC BAG CONTAINING AIR POLLUTION RESIDUALS DUMPED @ FILL FACE, E. CENTRAL PORTION OF SITE

PHYSICAL OBSERVATIONS, REMARKS: FINE DK. GRAY POWDER REMOVED FROM AIR POLLUTION CONTROL EQUIPMENT

DESIGNATED APR #2

TESTS REQUESTED: ACID DIGEST FOR PARAMETERS LISTED BELOW, AND 48 HR. WATER LEACH FOR PARAMETERS LISTED ON ATTACHED SHEET

COLLECTED BY: KOCH & WENGROW (DLPC) TRANSPORTED BY: R. Koch DLPC

LABORATORY: Environmental Protection Agency, Division of Laboratory Services, 2121 W. Taylor Street, Chicago, Illinois 60612

RECEIVED BY: N Kay DATE COMPLETED: 2/9/78 DATE FORWARDED: 2/10/78

ACID DIGEST RESULTS: (reported in mg/gram) J Daughe

As - 0.030	Hg - cannot be done on acid digest
Cd - 0.03	Ni - 0.08
Ca - 25	P cannot be done on acid digest.
Cr^{TOT} 0.15	K - 7.5
Cu 0.29	Se - 0.006
Fe - 75	Zn - 2.5
Pb - 1.3	
Mg - 13	
Mn - 4.2	

C002444

LPC-8A 4/77 (NOT FOR DATA PROCESSING)

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

2440 JAN 25 '78

RECEIVED
FEB 22 1978
E.P.A. – D.L.P.C.
STATE OF ILLINOIS

Key for Determining Type of Monitoring Point

(S) Surface Water	(G) Ground Water	(L) Leachate	(X) Special
(1) Upstream	(1) Monitor Well	(1) Flow or seep	(1) Soil
(2) Mid-site	(2) Private well	(2) Pond	(2) Waste
(3) Downstream	(3) Spring	(3) Collection Sys.	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded	(5) Public W S		

Name (Private Well, Stream, Spring, Impounded Water only)

L P C S M 0 1 0 (1)–(8) SITE INVENTORY NUMBER 0 8 9 4 3 8 0 1 (9)–(16)

MONITOR POINT NUMBER X204 (17)–(20) DATE COLLECTED 0 1 0 4 7 8 (21)–(26)

KANE Co. - LPC REGION N (27)

ELGIN (Location) / WOODRUFF & EDWARDS (Responsible Party)

Legal (1); Illegal (2); Indicate One: 1 (28) Board Order (X) (29)

Time Collected 10:10 a.m. p.m. Unable to collect sample (X) (30)

Stick-up (31) . (33) ft. Depth to water (from T.O.C.) (34) . (36) ft.

Sample temp. (37) ° (39) Background (X). . . . (40)

Ground water sampled by (Indicate one): (1) Bailing; (2) Pumping; (3) Other (Specify) (41)

Sample Appearance: FOUNDRY SAND -- VARIES FROM BLACK → GRAY → REDDISH

Collector comments: CONDUCT (WATER LEACH) W-E-4 (FS1)

KOCH-WENGROW Collected by — DLPC Div. or Company

R. Koch Transported by — DLPC Div. or Company

LAB USE ONLY

Lab No. C002440

Date Rec'd 10-5-78

Rec'd by NKay Time 9:15 a.m. p.m.

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed 2-10-78

Date forwarded 2-14-78

J. Daugherty
Supervisor Signature

Name Environmental Protection Agency
Division of Laboratory Services
Addr 2121 W. Taylor Street
of La Chicago, Illinois 60612

LPCSM020 Lab Comments:

(27) (36)

(37) (46)

(47) (56)

(57) (66)

(67) (76)

Private Lab (X)

IEPA Lab (X) (77)

		PARAMETERS+	PPM*
27		Alkalinity[1]	
31		Ammonia as N	
37	X	Arsenic As	0.006
44		Barium Ba	
49		BOD -5	
53		Boron B	
58	X	Cadmium Cd	0.00
64		Calcium Ca	
69		COD	
73	X	Chloride Cl	22

LPCSM040

27	X	Chromium Cr (tot)	0.0
33	X	Chromium Cr^{+6}	0.0
39	X	Copper Cu	0.05
45	X	Cyanide CN	0.00X
52		Fecal Coli (#/100 ml)	
56		Fluoride F	
61		Hardness $CaCO_3$	
65	X	Iron Fe	9.0
70	X	Lead Pb	0.05

LPCSM050

27	X	Magnesium Mg	7.0
32	X	Manganese Mn	0.30
38	X	Mercury Hg	0.0000
46	X	Nickel Ni	0.0
51	X	Nitrate-nitrite N	0.1
56		Oil and Grease	
60	X	pH (Units)	9.3
63	X	Phenolics	0.000
70	X	Phosphorus P	0.40
76	X	Potassium K	0.X

LPCSM060

27		R.O.E. (180°C)	
31	X	Selenium Se	0.001
38		Silver Ag	
44		Sodium Na	
49	X	SC (umhos/cm)	176
53	X	Sulfate SO_4	58.X
58	X	Zinc Zn	0.1
63			

+ Analyses are to be performed on unfiltered samples. *Values exceeding no. of places shown are reported in the lab comments section; tests requested but not run should also be explained in the lab comments section.

[1] Alkalinity is to be determined as ppm of $CaCO_3$ at pH 4.5.

LPC-8 REV. 3/77

-NOT-FOR-COMPUTER-

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

2441

JAN 30 78

LPCSM030

Key for Determining Type of Monitoring Point

(S) Surface Water	(G) Ground Water	(L) Leachate	(X) Special
(1) Upstream	(1) Monitor Well	(1) Flow or seep	(1) Soil
(2) Mid-site	(2) Private well	(2) Pond	(2) Waste
(3) Downstream	(3) Spring	(3) Collection System	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded	(5) Public W S		

FEB 22 1978
D.L.P.C.
STATE OF ILLINOIS

Name (Private Well, Stream, Spring, Impounded Water only)

L P C S M 0 1 0 (1)–(8) SITE INVENTORY NUMBER 0 8 9 4 3 8 0 1 (9)–(16)

MONITOR POINT NUMBER X 2 0 5 (17)–(20) DATE COLLECTED 0 1 0 4 7 8 (21)–(26)

KANE Co. - LPC REGION N (27)

ELGIN (Location) / WOODRUFF & EDWARDS (Responsible Party)

Legal (1); Illegal (2); Indicate One: 1 (28) Board Order (X) (29)

Time Collected 10:25 a.m. ~~p.m.~~ Unable to collect sample (X) (30)

Stick-up ___ . ___ ft. (31) (33) Depth to water ___ . ___ ft. (from T.O.C.) (34) (36)

Sample temp. ___ ° (37) (39) Background (X). . . . (40)

Ground water sampled by (Indicate one): (1) Bailing; (2) Pumping; (3) Other (Specify) _____ (41)

Sample Appearance: FOUNDRY SAND--VARIES FROM BLACK → GRAY → REDDISH

Collector comments: CONDUCT WATER LEACH

W-E-5 FS 2

WENGROW-KOCH — Collected by — DLPC — Div. or Company

R. Koch — Transported by — DLPC — Div. or Company

LAB USE ONLY

Lab No. C002441

Date Rec'd 1-5-78

Rec'd by NKay Time 9:15 a.m. p.m.

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed 2-10-78

Date forwarded 2-14-78

J Daugherty
Supervisor Signature

Name Environmental Protection Agency
Addr ~~Division of Laboratory Services~~
of La 2121 W. Taylor Street
Chicago, Illinois 60612

LPCSM020
Lab Comments:

(27)–(36)

(37)–(46)

(47)–(56)

(57)–(66)

(67)–(76)

Private Lab (X)

IEPA Lab (X) X (77) (78)

		PARAMETERS+	PPM*
27		Alkalinity[1]	
31		Ammonia as N	
37	X	Arsenic As	0.007
44		Barium Ba	
49		BOD -5	
53		Boron B	
58	X	Cadmium Cd	0.00
64		Calcium Ca	
69		COD	
73	X	Chloride Cl	33.

LPCSM040

27	X	Chromium Cr (tot)	0.00
33	X	Chromium Cr^{+6}	0.00
39	X	Copper Cu	0.04
45	X	Cyanide CN	0.001
52		Fecal Coli (#/100 ml)	
56		Fluoride F	
61		Hardness $CaCO_3$	
65	X	Iron Fe	11.0
70	X	Lead Pb	0.04

LPCSM050

27	X	Magnesium Mg	8.0
32	X	Manganese Mn	0.31
38	X	Mercury Hg	0.0002
46	X	Nickel Ni	0.0
51	X	Nitrate-nitrite N	0.2
56		Oil and Grease	
60	X	pH (Units)	8.5
63	X	Phenolics	0.000
70	X	Phosphorus P	0.48
76	X	Potassium K	0.1

LPCSM060

27		R.O.E. (180°C)	
31	X	Selenium Se	0.00
38		Silver Ag	
44		Sodium Na	
49	X	SC (umhos/cm)	183.
53	X	Sulfate SO_4	78.1
58	X	Zinc Zn	0.1
63			

+ Analyses are to be performed on unfiltered samples. *Values exceeding no. of places shown are reported in the lab comments section; tests requested but not run should also be explained in the lab comments section.

[1] Alkalinity is to be determined as ppm of $CaCO_3$ at pH 4.5.

LPC-8 REV. 3/77

-NOT FOR COMPUTER

2447 JAN 15 78

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

Key for Determining Type of Monitoring Point

(S) Surface Water	(G) Ground Water	(L) Leachate	(X) Special
(1) Upstream	(1) Monitor Well	(1) Flow or seep	(1) Soil
(2) Mid-site	(2) Private well	(2) Pond	(2) Waste
(3) Downstream	(3) Spring	(3) Collection System	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded	(5) Public W S		

RECEIVED FEB 15 1978 E.P.A.-DIPC STATE OF ILLINOIS

Name (Private Well, Stream, Spring, Impounded Water only)

L P C S M 0 1 0 (1)–(8) SITE INVENTORY NUMBER 089 (9)–(16)

MONITOR POINT NUMBER X203 (17)–(20) DATE COLLECTED 010478 (21)–(26)

KANE Co. - LPC REGION N (27)

ELGIN (Location) / WOODRUFF & EDWARDS (Responsible Party)

Legal (1); Illegal (2); Indicate One: 1 (28) Board Order (X) (29)

Time Collected 9:50 a.m. ~~p.m.~~ Unable to collect sample (X) (30)

Stick-up ___ . ___ ft. (31) (33) Depth to water ___ . ___ ft. (from T.O.C.) (34) (36)

Sample temp. ___ ° (37) (39) Background (X). . . . (40)

Ground water sampled by (Indicate one): (1) Bailing; (2) Pumping; (3) Other (Specify) _____ (41)

Sample Appearance: TAN DUST - AIR POLLUTION CONTROL RESIDUAL

Collector comments: CONDUCT WATER LEACH

(W-E-3)

WENDROW-KOCK — Collected by; DLPC — Div. or Company

R. KOCH — Transported by; DLPC — Div. or Company

LAB USE ONLY

Lab No. C002447

Date Rec'd 1-5-78

Rec'd by NKay Time 9:15 a.m. ~~p.m.~~

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed 2-9-78

Date forwarded 2-10-78

J Daugherty — Supervisor Signature

Name Environmental Protection Agency

Address of Lab Division of Laboratory Services, 2121 W. Taylor Street, Chicago, Illinois 60612

LPCSM020

Lab Comments:

* CR+6 CAN (27)–(36)

Not be (37)–(46)

done (47)–(56)

(57)–(66)

(67)–(76)

Private Lab (X)

IEPA Lab (X) (X) (77)

LPCSM030

		PARAMETERS+	PPM*
27		Alkalinity[1]	
31		Ammonia as N	
37	X	Arsenic As	0.001
44		Barium Ba	
49		BOD -5	
53		Boron B	
58	X	Cadmium Cd	4.20
64		Calcium Ca	
69		COD	
73	X	Chloride Cl	400

LPCSM040

27	X	Chromium Cr (tot)	0.30
33	X	Chromium Cr^{+6}	X.XX
39	X	Copper Cu	0.02
45	X	Cyanide CN	0.001
52		Fecal Coli (#/100 ml)	
56		Fluoride F	
61		Hardness $CaCO_3$	
65	X	Iron Fe	70.X
70	X	Lead Pb	2.8X

LPCSM050

27	X	Magnesium Mg	3.0
32	X	Manganese Mn	220.XX
38	X	Mercury Hg	0.2000
46	X	Nickel Ni	0.7
51	X	Nitrate-nitrite N	0.2
56		Oil and Grease	
60	X	pH (Units)	5.3
63	X	Phenolics	0.047
70	X	Phosphorus P	0.00
76	X	Potassium K	220.X

LPCSM060

27		R.O.E. (180°C)	
31	X	Selenium Se	0.006
38		Silver Ag	
44		Sodium Na	
49	X	SC (umhos/cm)	4853
53	X	Sulfate SO_4	660.X
58	X	Zinc Zn	295.X
63			

+ Analyses are to be performed on unfiltered samples. *Values exceeding no. of places shown are reported in the lab comments section; tests requested but not run should also be explained in the lab comments section.

[1] Alkalinity is to be determined as ppm of $CaCO_3$ at pH 4.5.

X

LPC-8 REV. 3/77

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

-NOT FOR COMPUTER- T IN

2445 LPCSM030 JAN 25 78

RECEIVED FEB 15 1978 EPA - D.L.P.C. STATE OF ILLINOIS

Key for Determining Type of Monitoring Point

(S) Surface Water	(G) Ground Water	(L) Leachate	(X) Special
(1) Upstream	(1) Monitor Well	(1) Flow or Seep	(1) Soil
(2) Mid-site	(2) Private well	(2) Pond	(2) Waste
(3) Downstream	(3) Spring	(3) Collection System	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded	(5) Public W S		

Name (Private Well, Stream, Spring, Impounded Water only)

(1) L P C S M 0 1 0 (8) SITE INVENTORY NUMBER (9) 0 S 9 (16)

MONITOR POINT NUMBER (17) X 2 0 2 (20) DATE COLLECTED (21) 0 1 0 4 7 8 (26)

KANE Co. - LPC REGION N (27)

ELGIN (Location) / WOODRUFF & EDWARDS (Responsible Party)

Legal (1); Illegal (2); Indicate One: 1 (28) Board Order (X) (29)

Time Collected 9:40 a.m. ~~p.m.~~ Unable to collect sample (X) (30)

Stick-up (31) . (33) ft. Depth to water (from T.O.C.) (34) . (36) ft.

Sample temp. (37) ° (39) Background (X). . . . (40)

Ground water sampled by (Indicate one): (1) Bailing; (2) Pumping; (3) Other (Specify) (41)

Sample Appearance: DARK GRAY DUST - AIR POLLUTION CONTROL RESIDUAL

~~Collector comments~~: CONDUCT (WATER LEACH) W-E-2

KOCH-WENGROW Collected by — DLPC Div. or Company

Z. KOCH Transported by — DLPC Div. or Company

LAB USE ONLY

Lab No. C002445

Date Rec'd 1-5-78

Rec'd by Hay Time 9:15 a.m. ~~p.m.~~

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed 2-9-78

Date forwarded 2-10-78

J Daugherty
Supervisor Signature

Name ~~Environmental Protection Agency~~
Address ~~Division of Laboratory Services~~
of Lab ~~2121 W. Taylor Street~~
~~Chicago, Illinois 60612~~

LPCSM020 Lab Comments:

(27) — (36)

(37) — (46)

(47) — (56)

(57) — (66)

(67) — (76)

Private Lab (X)

IEPA Lab (X) (X) (77) (78)

		PARAMETERS+	PPM*
27		Alkalinity[1]	
31		Ammonia as N	
37	X	Arsenic As	0.003
44		Barium Ba	
49		BOD -5	
53		Boron B	
58	X	Cadmium Cd	0.02
64		Calcium Ca	
69		COD	
73	X	Chloride Cl	220
		LPCSM040	
27	X	Chromium Cr (tot)	0.00
33	X	Chromium Cr^{+6}	0.00
39	X	Copper Cu	0.02
45	X	Cyanide CN	0.10
52		Fecal Coli (#/100 ml)	
56		Fluoride F	
61		Hardness $CaCO_3$	
65	X	Iron Fe	70.X
70	X	Lead Pb	0.00
		LPCSM050	
27	X	Magnesium Mg	9.X
32	X	Manganese Mn	111.XX
38	X	Mercury Hg	0.000 0
46	X	Nickel Ni	0.5
51	X	Nitrate-nitrite N	0.1
56		Oil and Grease	
60	X	pH (Units)	5.3
63	X	Phenolics	0.129
70	X	Phosphorus P	0.00
76	X	Potassium K	160
		LPCSM060	
27		R.O.E. (180°C)	
31	X	Selenium Se	0.00X
38		Silver Ag	
44		Sodium Na	
49	X	SC (umhos/cm)	2222
53	X	Sulfate SO_4	120.X
58	X	Zinc Zn	16.X
63			

+ Analyses are to be performed on unfiltered samples. *Values exceeding no. of places shown are reported in the lab comments section; tests requested but not run should also be explained in the lab comments section.

[1] Alkalinity is to be determined as ppm of $CaCO_3$ at pH 4.5.

LPC-8 REV. 3/77

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

NOT FOR COMPUTER

2443 JAN 25 78

RECEIVED FEB 15 1978 E.P.A. - D.L.P.C. STATE OF ILLINOIS

Key for Determining Type of Monitoring Point

(S) Surface Water	(G) Ground Water	(L) Leachate	(X) Special
(1) Upstream	(1) Monitor Well	(1) Flow or Seep	(1) Soil
(2) Mid-site	(2) Private well	(2) Pond	(2) Waste
(3) Downstream	(3) Spring	(3) Collection System	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded	(5) Public W S		

Name (Private Well, Stream, Spring, Impounded Water only)

L P C S M 0 1 0 (1)–(8) SITE INVENTORY NUMBER 089 (9)–(16)

MONITOR POINT NUMBER X201 (17)–(20) DATE COLLECTED 010478 (21)–(26)

KANE Co. - LPC REGION N (27)

ELGIN (Location) / WOODRUFF & EDWARDS (Responsible Party)

Legal (1); Illegal (2); Indicate One: 1 (28) Board Order (X) (29)

Time Collected 9:30 a.m. p.m. Unable to collect sample (X) (30)

Stick-up ___ . ___ ft. (31) (33) Depth to water ___ . ___ ft. (from T.O.C.) (34) (36)

Sample temp. ___ ° (37) (39) Background (X). . . . (40)

Ground water sampled by (Indicate one): (1) Bailing; (2) Pumping; (3) Other (Specify) (41)

Sample Appearance: LIGHT GRAY DUST - - AIR POLLUTION CONTROL RESIDUAL

Collector comments: CONDUCT (WATER LEACH) W-E-1

WENGROW-KOCH Collected by — DLPC Div. or Company

R. KOCH Transported by — DLPC Div. or Company

LAB USE ONLY

Lab No. C002443

Date Rec'd 1-5-78

Rec'd by NKay Time 9:15 a.m. p.m.

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed 2-9-78

Date forwarded 2-10-78

J Daugherty
Supervisor Signature

Name Environmental Protection Agency Division of Laboratory Services

Address of Lab 2121 W. Taylor Street Chicago, Illinois 60612

LPCSM020 Lab Comments:

(27)–(36)

(37)–(46)

(47)–(56)

(57)–(66)

(67)–(76)

Private Lab (X)

IEPA Lab (X) (X) (77) (78)

LPCSM030

		PARAMETERS+	PPM*
27		Alkalinity[1]	
31		Ammonia as N	
37	X	Arsenic As	0.002
44		Barium Ba	
49		BOD -5	
53		Boron B	
58	X	Cadmium Cd	0.57
64		Calcium Ca	
69		COD	
73	X	Chloride Cl	220

LPCSM040

27	X	Chromium Cr (tot)	0.05
33	X	Chromium Cr^{+6}	XXX
39	X	Copper Cu	0.01
45	X	Cyanide CN	0.01X
52		Fecal Coli (#/100 ml)	
56		Fluoride F	
61		Hardness $CaCO_3$	
65	X	Iron Fe	130.X
70	X	Lead Pb	0.03

LPCSM050

27	X	Magnesium Mg	6.0
32	X	Manganese Mn	126XX
38	X	Mercury Hg	0.0000
46	X	Nickel Ni	0.5
51	X	Nitrate-nitrite N	0.1
56		Oil and Grease	
60	X	pH (Units)	5.2
63	X	Phenolics	0.053
70	X	Phosphorus P	0.00
76	X	Potassium K	160.1

LPCSM060

27		R.O.E. (180°C)	
31	X	Selenium Se	0.00X
38		Silver Ag	
44		Sodium Na	
49	X	SC (umhos/cm)	2784.
53	X	Sulfate SO_4	385.
58	X	Zinc Zn	62.0
63			

+ Analyses are to be performed on unfiltered samples. *Values exceeding no. of places shown are reported in the lab comments section; tests requested but not run should also be explained in the lab comments section.

[1] Alkalinity is to be determined as ppm of $CaCO_3$ at pH 4.5.

LPC-8 REV. 3/77

Northern

RECEIVED

2444 JAN 25 78

FEB 15 1978

E.P.A. - D.L.P.C.

Time Collected: 9:40 AM Lab #

SPECIAL ANALYSIS FORM

Date Collected: 1/4/78 STATE OF ILLINOIS Date Received

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
KANE	ELGIN/WOODRUFF & EDWARDS	

SOURCE OF SAMPLE: (Exact Location)

FROM BROKEN PLASTIC BAG CONTAINING AIR POLLUTION RESIDUALS DUMPED @ FILL FACE, E. CENTRAL PORTION OF SITE

PHYSICAL OBSERVATIONS, REMARKS: FINE DK. GRAY POWDER REMOVED FROM AIR POLLUTION CONTROL EQUIPMENT

DESIGNATED APR #2

TESTS REQUESTED: ACID DIGEST FOR PARAMETERS LISTED BELOW, AND 48 HR. WATER LEACH FOR PARAMETERS LISTED ON ATTACHED SHEET

COLLECTED BY: KOCH & WENGROW (DLPC) TRANSPORTED BY: R. Koch DLPC

LABORATORY: Environmental Protection Agency, Division of Laboratory Services, 2121 W. Taylor Street, Chicago, Illinois 60612

RECEIVED BY: Kay DATE COMPLETED: 2/9/78 DATE FORWARDED: 2/10/78

ACID DIGEST RESULTS: (reported in mg/gram) Douglas

As - 0.030
Cd - 0.03
Ca - 25
Cr^{TOT} 0.15
Cu 0.29
Fe - 75
Pb - 1.3
Mg - 13
Mn - 4.2

~~Hg~~ - cannot be done on acid digest
Ni - 0.08
(P) cannot be done on acid digest.
K - 7.5
Se - 0.016
Zn - 2.5

RECEIVED
FEB 21 1978
ILL. E.P.A. - D.L.P.C.
STATE OF ILLINOIS

C002444

LPC-8A 4/77 (NOT FOR DATA PROCESSING)

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

-NOT FOR COMPUTER- Northern

2445 LPCSM030 JAN 25 1978

Key for Determining Type of Monitoring Point

(S) Surface Water	(G) Ground Water	(L) Leachate	(X) Special
(1) Upstream	(1) Monitor Well	(1) Flow or Seep	(1) Soil
(2) Mid-site	(2) Private well	(2) Pond	(2) Waste
(3) Downstream	(3) Spring	(3) Collection System	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded	(5) Public W S		

RECEIVED FEB 15 1978 E.P.A. - D.L.P.C. STATE OF ILLINOIS

Name (Private Well, Stream, Spring, Impounded Water only)

L P C S M 0 1 0 (1)–(8) SITE INVENTORY NUMBER 0 8 9 (9)–(16)

MONITOR POINT NUMBER X 2 0 2 (17)–(20) DATE COLLECTED 0 1 0 4 7 8 (21)–(26)

KANE Co. - LPC REGION N (27)

ELGIN (Location) / WOODRUFF & EDWARDS (Responsible Party)

Legal (1); Illegal (2); Indicate One: 1 (28) Board Order (X) (29)

Time Collected 9:40 a.m. Unable to collect sample (X) (30)

Stick-up (31) . (33) ft. Depth to water (34) . (36) ft. (from T.O.C.)

Sample temp. (37) ° (39) Background (X). . . . (40)

Ground water sampled by (Indicate one): (1) Bailing; (2) Pumping; (3) Other (Specify) (41)

Sample Appearance: DARK GRAY DUST - AIR POLLUTION CONTROL RESIDUAL

Collector comments: CONDUCT WATER LEACH W-E-2

KOCH-WENGROW Collected by — DLPC Div. or Company

R. KOCH Transported by — DLPC Div. or Company

LAB USE ONLY

Lab No. C002445

Date Rec'd 1-5-78

Rec'd by Hay Time 9:15 a.m.

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed 2-9-78

Date forwarded 2-10-78

J Daugherty Supervisor Signature

Name Environmental Protection Agency Division of Laboratory Services

Address of Lab 2121 W. Taylor Street Chicago, Illinois 60612

LPCSM020 Lab Comments:

(27)–(36)

RECEIVED FEB 21 1978 ILL. E.P.A. - D.L.P.C. STATE OF ILLINOIS

(37)–(46)

(47)–(56)

(57)–(66)

(67)–(76)

Private Lab (X)

IEPA Lab (X) (X) (77) (78)

		PARAMETERS+	PPM*
27		Alkalinity[1]	
31		Ammonia as N	
37	X	Arsenic As	0.003
44		Barium Ba	
49		BOD -5	
53		Boron B	
58	X	Cadmium Cd	0.02
64		Calcium Ca	
69		COD	
73	X	Chloride Cl	220.
		LPCSM040	
27	X	Chromium Cr (tot)	0.00
33	X	Chromium Cr^{+6}	0.00
39	X	Copper Cu	0.02
45	X	Cyanide CN	0.10
52		Fecal Coli (#/100 ml)	
56		Fluoride F	
61		Hardness $CaCO_3$	
65	X	Iron Fe	70.X
70	X	Lead Pb	0.00
		LPCSM050	
27	X	Magnesium Mg	9.X
32	X	Manganese Mn	111.XX
38	X	Mercury Hg	0.0000
46	X	Nickel Ni	0.5
51	X	Nitrate-nitrite N	0.1
56		Oil and Grease	
60	X	pH (Units)	5.3
63	X	Phenolics	0.129
70	X	Phosphorus P	0.00
76	X	Potassium K	160
		LPCSM060	
27		R.O.E. (180°C)	
31	X	Selenium Se	0.007
38		Silver Ag	
44		Sodium Na	
49	X	SC (umhos/cm)	2272.
53	X	Sulfate SO_4	120.X
58	X	Zinc Zn	16X
63			

+ Analyses are to be performed on unfiltered samples. *Values exceeding no. of places shown are reported in the lab comments section; tests requested but not run should also be explained in the lab comments section.

[1] Alkalinity is to be determined as ppm of $CaCO_3$ at pH 4.5.

Northern
2446 JAN 5 '78

RECEIVED
FEB 15 1978
ILL. E.P.A. - D.L.P.C.

Time Collected: 9:50

Lab #

SPECIAL ANALYSIS FORM
STATE OF ILLINOIS

Date Collected: 1/4/77

Date Received

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
KANE	ELGIN/WOODRUFF & EDWARDS	

SOURCE OF SAMPLE: (Exact Location)

FROM BROKEN PLASTIC BAG CONTAINING AIR POLLUTION ~~CONT~~ RESIDUALS DUMPED @ FILL FACE, W. CENTRAL PORTION OF SI

PHYSICAL OBSERVATIONS, REMARKS: FINE TAN POWDER

DESIGNATED APR-3

TESTS REQUESTED: ACID DIGEST FOR PARAMETERS LISTED BELOW; AND 48 HR WATER LEACH FOR PARAMETERS LISTED ON ATTACHED SHEET

COLLECTED BY: KOCH & WENGROW DLPC TRANSPORTED BY: Illinois Protection Agency DLPC

LABORATORY: Division of Laboratory Services
2121 W. Taylor Street
Chicago, Illinois 60612

RECEIVED BY: N Kay

DATE COMPLETED: 2/9/78

DATE FORWARDED: 2/10/78
J Daugherty

As - 0.024
Cd - 0.12
Ca - 40
Cr^{TOT} - 0.19
Cu - 0.38
Fe - 80
Pb - 15.8
Mg - 24
Mn - 15.5
~~Hg~~ - cannot be done on acid digest

Ni 0.06
(Q) - cannot be done on acid digest
K - 25
Se - 0.010
Zn - 16

RECEIVED
FEB 21 1978
ILL. E.P.A. - D.L.P.C.
STATE OF ILLINOIS

(results reported in mg/gram)

C002446

LEC-8A 4/77

(NOT FOR DATA PROCESSING)

-NOT FOR COMPUTER- Mathews

2447 JAN 15 78

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

Key for Determining Type of Monitoring Point

(S) Surface Water	(G) Ground Water	(L) Leachate	(X) Special
(1) Upstream	(1) Monitor Well	(1) Flow or seep	(1) Soil
(2) Mid-site	(2) Private well	(2) Pond	(2) Waste
(3) Downstream	(3) Spring	(3) Collection System	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded	(5) Public W S		

RECEIVED FEB 15 1978 E.P.A.-DIPC STATE OF ILLINOIS

Name (Private Well, Stream, Spring, Impounded Water only)

L P C S M 0 1 0 (1)–(8) SITE INVENTORY NUMBER 089 (9)–(16)

MONITOR POINT NUMBER X203 (17)–(20) DATE COLLECTED 010478 (21)–(26)

KANE Co. - LPC REGION N (27)

ELGIN (Location) / WOODRUFF & EDWARDS (Responsible Party)

Legal (1); Illegal (2); Indicate One: 1 (28) Board Order (X) (29)

Time Collected 9:50 a.m. ~~p.m.~~ Unable to collect sample (X) (30)

Stick-up ___ . ___ ft. (31) (33) Depth to water ___ . ___ ft. (from T.O.C.) (34) (36)

Sample temp. ___ ° (37) (39) Background (X). . . . (40)

Ground water sampled by (Indicate one): (1) Bailing; (2) Pumping; (3) Other (Specify) _____ (41)

Sample Appearance: TAN DUST - AIR POLLUTION CONTROL RESIDUAL

Collector comments: CONDUCT WATER LEACH

W-E-3

WENDROW - KOCK — Collected by
DLPC — Div. or Company
R. KOCH — Transported by
DLPC — Div. or Company

LAB USE ONLY

Lab No. C002447

Date Rec'd 1-5-78

Rec'd by NKay Time 9:15 a.m. ~~p.m.~~

Sample temp. acceptable YES NO
Sample properly preserved YES NO
Date completed 2-9-78
Date forwarded 2-16-78

J Daugherty
Supervisor Signature

Name Environmental Protection Agency
Address of Lab Division of Laboratory Services, 2121 W. Taylor Street, Chicago, Illinois 60612

LPCSM020
Lab Comments:

(27) Cr^{+6} CAN (36)

(37) Not be (46)

(47) DONE (56)

(57) (66)

(67) (76)

Private Lab (X) (77)

IEPA Lab (X) (X) (78)

RECEIVED FEB 21 1978 ILL. E.P.A. - D.L.P.C. STATE OF ILLINOIS

		PARAMETERS+	PPM*
		LPCSM030	
27		Alkalinity[1]	
31		Ammonia as N	
37	X	Arsenic As	0.001
44		Barium Ba	
49		BOD -5	
53		Boron B	
58	X	Cadmium Cd	4.20
64		Calcium Ca	
69		COD	
73	X	Chloride Cl	400.
		LPCSM040	
27	X	Chromium Cr (tot)	0.30
33	X	Chromium Cr^{+6}	X.XX
39	X	Copper Cu	0.02
45	X	Cyanide CN	0.001
52		Fecal Coli (#/100 ml)	
56		Fluoride F	
61		Hardness $CaCO_3$	
65	X	Iron Fe	20.X
70	X	Lead Pb	2.8X
		LPCSM050	
27	X	Magnesium Mg	3.0
32	X	Manganese Mn	220.XX
38	X	Mercury Hg	0.2000
46	X	Nickel Ni	0.7
51	X	Nitrate-nitrite N	0.2
56		Oil and Grease	
60	X	pH (Units)	5.3
63	X	Phenolics	0.047
70	X	Phosphorus P	0.00
76	X	Potassium K	270.X
		LPCSM060	
37		R.O.E. (180°C)	
31	X	Selenium Se	0.006
38		Silver Ag	
44		Sodium Na	
56	X	SC (umhos/cm)	4853.
53	X	Sulfate SO_4	660.X
58	X	Zinc Zn	295.X
63			

+ Analyses are to be performed on unfiltered samples. *Values exceeding no. of places shown are reported in the lab comments section; tests requested but not run should also be explained in the lab comments section.

[1] Alkalinity is to be determined as ppm of $CaCO_3$ at pH 4.5.

LPC-8 REV. 3/77

Northern

RECEIVED 2454 JAN 05 78

Time Collected: 10:10 AM FEB 15 1978 Lab #

SPECIAL ANALYSIS FORM

Date Collected: 1/4/78 E.P.A. – D.L.P.C. Date Received

STATE OF ILLINOIS

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
KANE	ELGIN/ WOODRUFF & EDWARDS	08943801

SOURCE OF SAMPLE: (Exact Location)

ACTIVE FILL FACE, E. CENTRAL PORTION OF SITE IMMED. ABOVE FOX RIVER.

PHYSICAL OBSERVATIONS, REMARKS:

VAR. REDDISH, BLACK & GRAY FOUNDRY SANDS.

FS (1)

TESTS REQUESTED: ACID DIGEST, FOR PARAMETERS LISTED BELOW

COLLECTED BY: TRANSPORTED BY: SLK

Environmental Protection Agency
Division of Laboratory Services
LABORATORY 2121 W. Taylor Street
Chicago, Illinois 60612

J Daugherty

RECEIVED BY: Nbay DATE COMPLETED: 2/9/78 DATE FORWARDED: 2/10/78

As – 0.002
Ba – 0.19
Cd – 0.00
Ca – 18.5
Cr TOT – 0.04
Cu – 0.03
Fe – 10
Pb – 0.01
Mg – 6.8
Mn – 0.43

Hg – Cannot be done on acid digest
Ni – 0.02
P – cannot be done on acid digest
K – 0.25
Se – 0.00
Ag – 0.00
Zn – 0.025

RECEIVED FEB 21 1978 ILL. E.P.A. – D.L.P.C. STATE OF ILLINOIS

(results reported in mg/gram)

C002454

LPC-8A 4/77 (NOT FOR DATA PROCESSING)

—NOT FOR COMPUTER

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

2440 JAN 15 '78

Key for Determining Type of Monitoring Point

(S) Surface Water	(G) Ground Water	(L) Leachate	(X) Special
(1) Upstream	(1) Monitor Well	(1) Flow or seep	(1) Soil
(2) Mid-site	(2) Private well	(2) Pond	(2) Waste
(3) Downstream	(3) Spring	(3) Collection System	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded	(5) Public W S		

RECEIVED FEB 22 1978 E.P.A. – D.L.P.C. STATE OF ILLINOIS

Name (Private Well, Stream, Spring, Impounded Water only)

L P C S M 0 1 0 (1)–(8) SITE INVENTORY NUMBER 0 8 9 4 3 8 0 1 (9)–(16)

MONITOR POINT NUMBER X204 (17)–(20) DATE COLLECTED 0 1 0 4 7 8 (21)–(26)

KANE Co. - LPC REGION N (27)

ELGIN (Location) / WOODRUFF & EDWARDS (Responsible Party)

Legal (1); Illegal (2); Indicate One: 1 (28) Board Order (X) (29)

Time Collected 10:10 a.m. ~~p.m.~~ Unable to collect sample (X) (30)

Stick-up (31) . (33) ft. Depth to water (from T.O.C.) (34) . (36) ft.

Sample temp. (37) ° (39) Background (X). . . . (40)

Ground water sampled by (Indicate one): (1) Bailing; (2) Pumping; (3) Other (Specify) _____ (41)

Sample Appearance: FOUNDRY SAND --VARIES FROM BLACK→GRAY→REDDISH

Collector comments: CONDUCT (WATER LEACH) W-E-4 (FS1)

KOCH-WENGROW Collected by — DLPC Div. or Company

R. Koch Transported by — DLPC Div. or Company

LAB USE ONLY

Lab No. C002440

Date Rec'd 10-5-78

Rec'd by NC Time 9:15 a.m. ~~p.m.~~

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed 2-10-78

Date forwarded 2-14-78

J Dougherty

Supervisor Signature

Name Environmental Protection Agency Division of Laboratory Services

Address of Lab 2131 W. Taylor Street Chicago, Illinois 60612

LPCSM020 Lab Comments:

(27) (36)

(37) (46)

(47) (56)

(57) (66)

(67) (76)

Private Lab (X) (77)

IEPA Lab (X) X (78)

RECEIVED FEB 23 1978 ILL. E.P.A. – D.L.P.C. STATE OF ILLINOIS

		PARAMETERS+	PPM*
27		Alkalinity[1]	
31		Ammonia as N	
37	X	Arsenic As	0.006
44		Barium Ba	
49		BOD -5	
53		Boron B	
58	X	Cadmium Cd	0.00
64		Calcium Ca	
69		COD	
73	X	Chloride Cl	22.
		LPCSM040	
27	X	Chromium Cr (tot)	0.0
33	X	Chromium Cr^{+6}	0.00
39	X	Copper Cu	0.05
45	X	Cyanide CN	0.00X
52		Fecal Coli (#/100 ml)	
56		Fluoride F	
61		Hardness $CaCO_3$	
65	X	Iron Fe	9.0
70	X	Lead Pb	0.05
		LPCSM050	
27	X	Magnesium Mg	7.0
32	X	Manganese Mn	0.30
38	X	Mercury Hg	0.000B
46	X	Nickel Ni	0.0
51	X	Nitrate-nitrite N	0.1
56		Oil and Grease	
60	X	pH (Units)	9.3
63	X	Phenolics *	0.000
70	X	Phosphorus P	0.40
76	X	Potassium K	0.X
		LPCSM060	
27		R.O.E. (180°C)	
31	X	Selenium Se	0.001
38		Silver Ag	
44		Sodium Na	
49	X	SC (umhos/cm)	176.
53	X	Sulfate SO_4	58.X
58	X	Zinc Zn	0.1
63			

+ Analyses are to be performed on unfiltered samples. *Values exceeding no. of places shown are reported in the lab comments section; tests requested but not run should also be explained in the lab comments section.

[1] Alkalinity is to be determined as ppm of $CaCO_3$ at pH 4.5.

Northern 2455 JAN 15 '78

RECEIVED

FEB 15 1978

Time Collected: 10:25 AM

Date Collected: 1/4/78

Lab #

SPECIAL ANALYSIS FORM

E.P.A.

STATE OF ILLINOIS

Date Received

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
KANE	ELGIN/WOODRUFF & EDWARDS	08943801

SOURCE OF SAMPLE: (Exact Location)

FILL FACE, E. CENTRAL PORTION; FRESHLY DUMPED FOUNDRY SANDS

PHYSICAL OBSERVATIONS, REMARKS:

VAR. REDDISH, BLACK, GRAY FDRY SAND

FS (2)

TESTS REQUESTED: ACID DIGEST FOR PARAMETERS LISTED BELOW

COLLECTED BY:

TRANSPORTED BY: DLPC

LABORATORY: Illinois Environmental Protection Agency, Division of Laboratory Services, 2121 W. Taylor Street, Chicago, Illinois 60612

J Daugherty

RECEIVED BY: N Kay

DATE COMPLETED: 2/9/78

DATE FORWARDED: 2/10/78

As - 0.000
Ba 0.03
Cd - 0.00
Ca - 1
Cr TOT - 0.01
Cu - 0.00
Fe - 6.2
Pb - 0.01
Mg - 0.5
Mn - 0.06

Hg - Cannot be done on acid digest
Ni - 0.0
P cannot be done on acid digest
K 0.15
Se - 0.00
Ag - 0.00
Zn - 0.025

RECEIVED
FEB 21 1978
ILL. E.P.A. - D.L.P.C.
STATE OF ILLINOIS

(results reported in mg/gram)

C002455

LPC-8A 4/77

(NOT FOR DATA PROCESSING)

-NOT-FOR-COMPUTER-

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

2441

RECEIVED FEB 22 1978 E.P.A. - D.L.P.C. STATE OF ILLINOIS

JAN 30 78

Key for Determining Type of Monitoring Point

(S) Surface Water	(G) Ground Water	(L) Leachate	(X) Special
(1) Upstream	(1) Monitor Well	(1) Flowbor seep	(1) Soil
(2) Mid-site	(2) Private well	(2) Pond	(2) Waste
(3) Downstream	(3) Spring	(3) Collection System	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded	(5) Public W S		

Name (Private Well, Stream, Spring, Impounded Water only)

L P C S M 0 1 0 (1)(8) SITE INVENTORY NUMBER 0 8 9 4 3 8 0 1 (9)(16)

MONITOR POINT NUMBER X 2 0 5 (17)(20) DATE COLLECTED 0 1 0 4 7 8 (21)(26)

KANE Co. - LPC REGION N (27)

ELGIN (Location) / WOODRUFF & EDWARDS (Responsible Party)

Legal (1); Illegal (2); Indicate One: 1 (28) Board Order (X) (29)

Time Collected 10:25 a.m. ~~p.m.~~ Unable to collect sample (X) (30)

Stick-up ___ . ___ ft. (31)(33) Depth to water ___ . ___ ft. (from T.O.C.) (34)(36)

Sample temp. ___ ° (37)(39) Background (X). . . . (40)

Ground water sampled by (Indicate one): (1) Bailing; (2) Pumping; (3) Other (Specify) _____ (41)

Sample Appearance: FOUNDRY SAND--VARIES FROM BLACK → GRAY → REDDISH

Collector comments: CONDUCT WATER LEACH W-2-5 FS 2

WENGROW - KOCH Collected by — DLPC Div. or Company

R. Koch Transported by — DLPC Div. or Company

LAB USE ONLY

Lab No. C002441

Date Rec'd 1-5-78

Rec'd by NKay Time 9:15 a.m. p.m.

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed 2-10-78

Date forwarded 2-14-78

J. Daugherty Supervisor Signature

Name Environmental Protection Agency
Addr Division of Laboratory Services
of La 2121 W. Taylor Street
Chicago, Illinois 60612

LPCSM020
Lab Comments:

(27) ___ (36)
(37) ___ (46)
(47) ___ (56)
(57) ___ (66)
(67) ___ (76)

RECEIVED FEB 23 1978 ILL. E.P.A. + D.L.P.C. STATE OF ILLINOIS

Private Lab (X)

IEPA Lab (X) (N) (77) (78)

LPCSM030

		PARAMETERS+	PPM*
27		Alkalinity[1]	
31		Ammonia as N	
37	X	Arsenic As	0.007
44		Barium Ba	
49		BOD -5	
53		Boron B	
58	X	Cadmium Cd	0.00
64		Calcium Ca	
69		COD	
73	X	Chloride Cl	33.

LPCSM040

27	X	Chromium Cr (tot)	0.0
33	X	Chromium Cr^{+6}	0.0
39	X	Copper Cu	0.04
45	X	Cyanide CN	0.001
52		Fecal Coli (#/100 ml)	
56		Fluoride F	
61		Hardness $CaCO_3$	
65	X	Iron Fe	11.0
70	X	Lead Pb	0.04

LPCSM050

27	X	Magnesium Mg	8.0
32	X	Manganese Mn	0.31
38	X	Mercury Hg	0.0000
46	X	Nickel Ni	0.0
51	X	Nitrate-nitrite N	0.2
56		Oil and Grease	
60	X	pH (Units)	8.5
63	X	Phenolics	0.000
70	X	Phosphorus P	0.42
76	X	Potassium K	0.1

LPCSM060

27		R.O.E. (180°C)	
31	X	Selenium Se	0.0
38		Silver Ag	
44		Sodium Na	
49	X	SC (umhos/cm)	183.
53	X	Sulfate SO_4	78.X
58	X	Zinc Zn	0.1
63			

+ Analyses are to be performed on unfiltered samples. *Values exceeding no. of places shown are reported in the lab comments section; tests requested but not run should also be explained in the lab comments section.

[1] Alkalinity is to be determined as ppm of $CaCO_3$ at pH 4.5.

LPC-8 REV. 3/77

odr1

01998 ~~SEP30~~

Time Collected: 10 LSA - 11 CSA

Lab #

SPECIAL ANALYSIS FORM

Date Collected: 9-25-81

Date Received 10.1.81

X203 (2 bottles)

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
KANE	Elgin / Woodruff + Edwards	08943801

SOURCE OF SAMPLE: (Exact Location)

From fill face truck approach area at northern portion of site

PHYSICAL OBSERVATIONS, REMARKS:

Blackish powdery substance

TESTS REQUESTED: Acid digest for parameters listed below; pH

COLLECTED BY: Rick Peterson TRANSPORTED BY: Craig J Fisher

LABORATORY

RECEIVED BY: M. J. [illegible] DATE COMPLETED: DATE FORWARDED DEC -4 1981

Results expressed in mg/Kg (ppm) dry wt. J Daugherty

As - 0.8
Cd - <2.5
Cr tot - 3.5
Cu - 6.0
Fe - 2713
Pb - 12.0
Mg - 400
Mn - 48
Ni - <25
Se - <0.3
Zn - 22 ~~mg/Kg~~

~~pH~~

IL 532-0314
LPC 8A 4/77

Environmental Protection Agency
Division of Laboratory Services
2121 W. Taylor Street
Chicago, Illinois 60612

(NOT FOR DATA PROCESSING)

C001998

HAZ WASTE

OCT

Time Collected: 10[15A] - 11[00A]

Lab # 01997 ~~SEP30~~

SPECIAL ANALYSIS FORM

Date Collected: 9-25-81

Date Received 10-1-81

X202 (2 bottles)

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
KANE	Elgin / Woodruff + Edwards	08943801

SOURCE OF SAMPLE: (Exact Location)

From fill face at northern portion of site.

PHYSICAL OBSERVATIONS, REMARKS:

Reddish-orangish sand like material

TESTS REQUESTED: Acid digest for parameters listed below; pH

COLLECTED BY: Rick Peterson

TRANSPORTED BY: Craig J. Lobo

LABORATORY

RECEIVED BY: N. Tuttle

DATE COMPLETED:

DATE FORWARDED: 11/30/81

Results expressed in mg/Kg (ppm) dry wt.

J Daugherty

As - 0.8
Cd - <2.5
Cr^{tot} - 5.0
Cu - 7.5
Fe - 3038
Pb - 11.0
Mg - 575
Mn - 66
Ni - 25.0
Se - 0.3
Zn - 31

pH

IL 532-0314
LPC 8A 4/7

Environmental Protection Agency
Division of Laboratory Services
2121 W. Taylor Street
Chicago, Illinois 60612

(NOT FOR DATA PROCESSING)

C001997

HAZ WASTE

1997 OVI

Time Collected: 10^15A - 11^00A

Lab #

SPECIAL ANALYSIS FORM

Date Collected: 9-25-81

Date Received 10.1.81

X202 (2 bottles)

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
KANE	Elgin / Woodruff + Edwards	08943801

SOURCE OF SAMPLE: (Exact Location)

From fill face at northern portion of site

PHYSICAL OBSERVATIONS, REMARKS:

Red / orange sand like material

TESTS REQUESTED: 48 hour leach for following parameters:

COLLECTED BY: Rick Peterson TRANSPORTED BY: Craig J. Liska

LABORATORY

RECEIVED BY: M. Indha DATE COMPLETED: DATE FORWARDED DEC. -4. 1981

Daugherty

As - 0.001
Cd - 0.00
Cr tot - 0.00
Cu - 0.00
CN - 0.24
Fe - 1.9
Pb - < 0.03
Mg - 5.9
Mn - 0.62

Hg - < 0.05 µg/liter
Ni - 0.0
phenolics - 0.026
Se - < 0.001
Zn - 0.1
pH - 7.2

Results expressed in mg/liter unless otherwise specified, based on a 1:10 sample to dist. water ratio.

IL 532-0314
LPC 8A 4/77

Environmental Protection Agency
Division of Laboratory Services
2121 W. Taylor Street
Chicago, Illinois 60612

(NOT FOR DATA PROCESSING)

C001997

HAZ WASTE

OCT

01996 ~~SEP 30~~

Time Collected: 10^15A-11^00A Lab #

SPECIAL ANALYSIS FORM

Date Collected: 9/25/81 Date Received 10·1·81

X201 (2 bottles) ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
KANE	Elgin / Woodruff + Edward	0894 3801

SOURCE OF SAMPLE: (Exact Location)

From broken white plastic bag (MOBILE tuf-tote) dumped at fill face @ northern portion of site

PHYSICAL OBSERVATIONS, REMARKS:

Light brown powdery material

TESTS REQUESTED: Acid digest for parameters listed below; pH

COLLECTED BY: Dick Peterson TRANSPORTED BY: Craig J. Liska

LABORATORY

RECEIVED BY: N Tedh DATE COMPLETED: DATE FORWARDED OCT -4 1981

Results expressed in Mg/Kg (ppm) dry wt. J Daugherty

As - 8.3
Cd - 42.5
Cr tot - 337.5
Cu - 500
Fe - 65000
Pb - 3249.8
Mg - 24,700
Mn - 14,650
Ni - 140
Se - 10.0
Zn 6678

Environmental Protection Agency
IL 532-0314 Division of Laboratory Services (NOT FOR DATA PROCESSING)
LPC 8A 4/77 2121 W. Taylor Street
Chicago, Illinois 60612

C001996

HAZ WASTE

1996 act

Time Collected: 10[15]A - 11[00]A

Lab #

SPECIAL ANALYSIS FORM

Date Collected: 9/25/81

Date Received 10.1.81

x201 (2 bottles)

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
KANE	Elgin / Woodruff + Edwards	08943801

SOURCE OF SAMPLE: (Exact Location)

From broken white plastic bag (MOBILE tuf-tote) dumped at fill face @ northern portion of site

PHYSICAL OBSERVATIONS, REMARKS:

Light brown powdery material

TESTS REQUESTED: 48 hour leach for following parameters:

COLLECTED BY: Dick Peterson

TRANSPORTED BY: Craig J. Fisher

LABORATORY

RECEIVED BY: M. Jadhe

DATE COMPLETED:

DATE FORWARDED: -4. 1981

J Daugherty

As - 0.003
Cd - 0.01
Cr tot - 0.00
Cu - 0.00
CN - 0.03
Fe - 0.2
Pb - <0.03
Mg - 23.3
Mn - 6.42

Hg - 0.06 µg/liter
Ni - 0.0
phenolics - 0.014
Se - 0.011
Zn - 0.1
pH - 7.7

Results expressed in mg/liter unless otherwise specified, based on a 1:10 sample to dist. water ratio.

Environmental Protection Agency
IL 532-0314 Division of Laboratory Services
LPC 8A 4/77 2121 W. Taylor Street
Chicago, Illinois 60612

(NOT FOR DATA PROCESSING)

C001996

HAZ WASTE

2cr1

Time Collected: 10^15A - 11^20A

Lab # 01999 ~~SEP30~~

SPECIAL ANALYSIS FORM

Date Collected: 9-25-81

Date Received 10.1.81

X204 (1 bottle)

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
KANE	Elgin/Woodruff + Edwards	08943801

SOURCE OF SAMPLE: (Exact Location)

From area west of fill face at northern portion of site.

PHYSICAL OBSERVATIONS, REMARKS:

Light gray sandy material

TESTS REQUESTED: Acid digest for the following parameters; pH

COLLECTED BY: [signature] TRANSPORTED BY: Craig J. Liska

LABORATORY

RECEIVED BY: N. Jacob DATE COMPLETED: DATE FORWARDED: DEC. -4. 1981

Results expressed in Mg/Kg (ppm) dry wt. J Daugherty

As - <0.3
Cd - <2.5
Cr^tot - <2.5
Cu - <2.5
Fe - 942.5
Pb - 19.0
Mg - 125
Mn - 15

Ni - <25
Se - <0.3
Zn - 8

~~pH~~

Environmental Protection Agency
Division of Laboratory Services
2121 W. Taylor Street
Chicago, Illinois 60612

IL 532-0314
LPC 8A 4/77

(NOT FOR DATA PROCESSING)

C001989

HAZ WASTE

1999

Time Collected: 10^15A - 11^00A

Lab #

SPECIAL ANALYSIS FORM

Date Collected: 9-25-81

Date Received 10.1.81

X204 (1 bottle)

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
KANE	Elgin / Woodruff + Edwards	0894 3801

SOURCE OF SAMPLE: (Exact Location)

From area west of fill face at northern portion of site

PHYSICAL OBSERVATIONS, REMARKS:

Light gray sandy material

TESTS REQUESTED: 48 hour water leach for following parameters:

COLLECTED BY: Dick Peterson

TRANSPORTED BY: Craig J. Liska

LABORATORY

RECEIVED BY: M. Jacobs

DATE COMPLETED:

DATE FORWARDED: DEC. -4 1981

J Daugherty

As - <0.001

Cd - 0.00

Cr tot - 0.00

Cu - 0.01

CN - 0.00

Fe - 0.6

Pb - <0.03

Mg - 0.4

Mn <0.02

Hg - < 0.05 µg/liter

Ni - 0.0

phenolics - 0.000

Se - <0.001

Zn - 0.0

pH - 7.6

Results expressed in mg/liter unless otherwise specified, based on a 1:10 ~~dist water~~ sample to dist. water ratio.

Environmental Protection Agency
Division of Laboratory Services
2121 W. Taylor Street
Chicago, Illinois 60612

IL 532-0314
LPC 8A 4/77

(NOT FOR DATA PROCESSING)

C001999

HAZ WASTE

Time Collected: 2:15 pm

Date Collected: 7-19-82

SPECIAL ANALYSIS FORM

Lab # C00351

Date Received 7.23.82

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
E X201	Elgin / Woodruff-Edwards	08943801

SOURCE OF SAMPLE: (Exact Location)

Plastic bag located on north slope of site.

PHYSICAL OBSERVATIONS, REMARKS:

Bags believed to contain baghouse dust.

TESTS REQUESTED: E-P Toxicity - Metals

COLLECTED BY: Brad Benning TRANSPORTED BY:

LABORATORY

RECEIVED BY: M. Jacobs DATE COMPLETED: DATE FORWARDED: OCT. 20. 1982

Reported in mg/l

As - <0.001
Ba - 0.9
Cd - 0.01
Cr - 0.02
Pb - 0.06
Ag - <0.01
Se - <0.002
Hg - <0.00005

J Dougherty

LPC-8A 4/77 (NOT FOR DATA PROCESSING)

Environmental Protection Agency
Division of Laboratory Services
2121 W. Taylor Street
Chicago, Illinois 60612

H.W. C000051

C00352 JUL23

Time Collected: [illegible]

Lab #

SPECIAL ANALYSIS FORM

Date Collected: 7-19-82

Date Received 7-23-82

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
X202	Elgin/Woodruff-Edwards	08943801

SOURCE OF SAMPLE: (Exact Location)

Sand from Wood-ruff-Edwards disposal site along Fox River.

PHYSICAL OBSERVATIONS, REMARKS:

Black- Foundry Sand.

TESTS REQUESTED: EP Toxicity - Metals

COLLECTED BY: Brad Benning TRANSPORTED BY:

LABORATORY

RECEIVED BY: M. Iche DATE COMPLETED: DATE FORWARDED: OCT. 20. 1982

J Daugherty

As - 0.001
Ba - 0.7
Cd - <0.01
Cr - <0.01
Pb - <0.03
Ag - <0.01
Se - <0.002
Hg - <0.00005

reported in mg/liter

LPC-8A 4/77 Environmental Protection Agency
Division of Laboratory Services
2121 W. Taylor Street
Chicago, Illinois 60612

(NOT FOR DATA PROCESSING)

C000352

H.W.

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*****************************************************************************************************************************
SERIAL                    F A C I L I T Y                                   EST.POP. OWN START TREAT NO. OF   T R E A T M E N T
                                                                             SERVED   CD  YEAR  YEAR SERVICES    C O D E S
*****************************************************************************************************************************
      S O U R C E  O F  S U P P L Y          IMPOUND   WELL   PLANT   PUMPAGE  S T O R A G E  C A P S. PAY MIN  AMT/PER $ PER 1000
                                             SUP.CAP. SUP.CAP. SUP.CAP AVG.CAP GROUND  ELEVATED  TOTAL  CD CHG 1000 GAL LOW   HIGH
*****************************************************************************************************************************
 MINERAL  HARDNESS   HARD-NO-CARB   I R O N  FLUORIDE  INSPECTION INFO   OP CLASS UPDATE REGION
   FIN       FIN         FIN         FIN       FIN     CLASS  DATE      REQUIRED  DATE  NUMBER
*****************************************************************************************************************************

-----------------------------------------------------------------------------------------------------------------------------
061010-0 ELDRED                                                          350    M 1959            110   FA  C
001  DRIFT WELLS                                0.00   0.20    0.00   0.024      0.0      50.0    50.0 M  4.50  F L A T  R A T E
     0          0          0          0.00      0.9  32080 09-25-83    *C*      10-83   3

-----------------------------------------------------------------------------------------------------------------------------
089438-0 ELGIN                                                         65000    M 1904  1983     17800   FA  H  L  P  C
028  INTAKE FOX RIVER-DRIFT AND ROCK WELLS      0.00   0.00   24.00   8.120   7230.0    1500.0  8730.0 B  2.50   0.0  1.12  1.12
   155         88          0          0.00      0.8  31080 07-08-83    *A*      08-83   2

-----------------------------------------------------------------------------------------------------------------------------
085015-0 ELIZABETH                                                       772    M 1904            360   FA  C
002  ROCK WELLS                                 0.00   0.46    0.50   0.120     206.0       0.0   206.0 B 15.00   5.0  0.30  3.00
   390        348         34          0.60      0.9  22080 01-11-84    *C*      02-84   1

-----------------------------------------------------------------------------------------------------------------------------
069010-0 ELIZABETHTOWN                                                   875    M 1937  1981      250   FA  I  C
002  ROCK WELLS                                 0.00   0.00    0.00   0.045       0.0     125.0   125.0 M  6.50   2.2  0.60  1.75
   310        190        106          0.02      1.1  11032 09-14-82    *B*      10-82   5

-----------------------------------------------------------------------------------------------------------------------------
031440-0 ELK GROVE                                                     28900    M 1956           9100   PP FN  C
002  ROCK WELLS                                 0.00  15.70   25.00   5.650  10000.0     500.0 10500.0 B  8.54   0.0  0.69  0.69
   572        372        113          0.10      1.0  31080 12-10-82    *C*      03-83   2

-----------------------------------------------------------------------------------------------------------------------------
107015-0 ELKHART CITY                                                    493    M 1941  1943      205   I  C FA
001  DRIFT WELLS                                0.00   0.14    0.08   0.055       0.0      50.0    50.0 M  4.00   1.0  1.50  4.00
     0          0          0          0.23      0.8  32021 11-10-82    *B*      12-82   3

-----------------------------------------------------------------------------------------------------------------------------
077030-0 ELKVILLE                                                       1113    M 1937            435   C
390  KINKAID REEDS CRK INT-CITY WTR SYST        0.00   0.00    0.14   0.070      30.0      60.0    90.0 M  3.00   1.0  2.50  2.50
     0          0          0          0.00      0.0  20080 10-31-84    *C*      12-84   5

-----------------------------------------------------------------------------------------------------------------------------
053005-0 ELLIOTT                                                         400    M 1951            138   FN
001  DRIFT WELLS                                0.00   0.22    0.00   0.030       0.0      50.0    50.0 Q  2.00   2.0  0.65  1.50
     0          0          0          0.00      0.9  12088 07-20-84    *D*      09-84   3A

-----------------------------------------------------------------------------------------------------------------------------
157020-0 ELLIS GROVE                                                     350    M 1961            203
348  EVANSVILLE                                 0.00   0.00    0.00   0.039       0.0      50.0    50.0 M  6.00   2.0  1.50  3.00
     0          0          0          0.00      0.0  12080 11-08-83    *D*      12-83   4

-----------------------------------------------------------------------------------------------------------------------------
113055-0 ELLSWORTH                                                       280    M 1960             95   FA  C
001  DRIFT WELLS                                0.00   0.22    0.00   0.020       0.0     *12.0    12.0 B  5.00   6.0  0.50  1.25
     0          0          0          0.00      1.0  32080 08-01-84    *C*      10-84   3A

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ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

DIVISION OF LAND POLLUTION CONTROL ANALYSIS FORM

RECEIVED
JUN 14 1976
ILL. E.P.A. – D.L.P.C.
STATE OF ILLINOIS

C08584 MAY 19'76

Kane County — Region 2

Elgin (Woodcliff & Edward) — Municipality — Operator

Center of active fill area ~15' from Fox River edge — Source or Location

Date collected 5-19-76

Time 6:55 p.m. °C °F (a.m.) Sample temp.

Sample appearance:

Collector comments: Sample needs analysis to determine correlation w/ independent lab report.

no standards

___ Routine Analysis — Flow Rate ___

___ Industrial Waste Analysis — Age of Flow ___ (Leachate only)

___ Groundwater Analysis — Well No. ___

X Special Analysis — Sample No. 5-1

Type of Analysis 1	2	3	4	Parameters	mg/10grams
				Alkalinity $CaCO_3$	____.XXXX
X				Ammonia N	____.__XX
	X	X		Arsenic As	____.___X
		X		Barium Ba	____.__XXX
				BOD - 5	____.XXXX
X	X			Boron B	____.__XXX
	X	X	X	Cadmium Cd	___0.00XX
				Calcium Ca	____.__XXX
X	X	X		COD	____.XXXX
X	X	X		Chloride Cl	____.XXXX
	X			Chromium Cr (tot)	____.___XX
	X			Chromium Cr^{+6}	____.___XX
	X		X	Copper Cu	___0.20XX
	X	X		Cyanide CN	____.___X
				Dissolved oxygen	____.__XXX
				Fecal coli (#/100 ml.)	____.XXXX
				Fluoride F	____.__XXX
				Hardness $CaCO_3$	____.XXXX
X	X	X	X	Iron Fe	__26.0XXX
X	X	X	X	Lead Pb	___0.16XX
				Magnesium Mg	____.__XXX
	X	X		Manganese Mn	____.___XX
			X	Mercury Hg	___0.0000 per 1gram

Type of Analysis 1	2	3	4	Parameters	mg/10grams
		X		MBAS	____.__XXX
				Nickel Ni	____.__XXX
		X		Nitrate-nitrite N	____.___XX
		X		Oil	____.XXXX
X	X			pH (units)	XX__.__XXX
	X	X		Phenols	____.___X
				Phosphorus P	____.___XX
				Potassium K	____.__XXX
X	X	X		R.O.E. (180° C)	____.XXXX
		X		Selenium Se	____.___X
				Silica SiO_2	____.XXXX
	X			Silver Ag	____.___XX
				Sodium Na	____.__XXX
				SC (umhos/cm)	____.XXXX
X	X	X		Sulfate SO_4	____.XXXX
				Sulfide S	____.__XXX
				TSS	____.XXXX
X	X		X	Zinc Zn	___0.1XXX

*values exceeding no. of places shown are reported in lab comments section.

Parameters	mg/l*
	____.____
	____.____
	____.____
	____.____
	____.____
	____.____
	____.____
	____.____

Collected by — L.P.C. Div.

Transported by — L.P.C. Div.

Surface Water: Upstream, Downstream, Lake, Run-off, Flood Water

Leachate: Flow, Pond

Groundwater: Well, Spring

LAB USE ONLY

Lab No. C008584

Date Rec'd 5-19-76

Rec'd by F. Cabrera — Time 12:30 AM/PM

Sample temperature acceptable Yes No

Sample properly preserved Yes No

Tests req'd 6 — Tests run 6

Date analyses completed 6-9-76

Date analyses forwarded 6-10-76

Lab Section — Supervisor

Lab Comments: 10 grams of sampl was not digested. Tests were performed on acid digest.

DPC-8

CC: Region II – D.L.P.C.
AUPCA

100% Recycled Paper

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

DIVISION OF LAND POLLUTION CONTROL ANALYSIS FORM

RECEIVED JUN - 7 1976 ILL. E.P.A. STATE OF ILLINOIS

County: KANE Region: 5

Municipality: FLGIN Operator: WOODRUFF & EDWARDS

Source or Location: SMALL INTERMITTENT STREAM FLOWING DIRECTLY INTO FOX RIVER NORTH AND AT FOOT OF NATIVE FOX ROCK.

Date collected: 5/11/76

Time: 7:00 p.m. (a.m.) °C °F Sample temp.

Sample appearance: Cool & Clear

Collector comments:

Routine Analysis

Industrial Waste Analysis

Groundwater Analysis

Special Analysis

Flow Rate

Age of Flow (Leachate only)

Well No.

Sample No. S-2

(effluent Standard)

C008580 MAY 1976

Type of Analysis 1	2	3	4	Parameters	mg/l*
				Alkalinity $CaCO_3$	. X X X X
				Ammonia N	0.88 X X
X	X			Arsenic As	0.000 X
	X			Barium Ba	. X X X
				BOD - 5	. X X X X
X	X			Boron B	0.6 X X X
X	X			Cadmium Cd	0.00 X X
				Calcium Ca	. X X X
X	X			COD	41. X X X X
X	X			Chloride Cl	140. X X X X
X				Chromium Cr (tot)	0.00 X X
X				Chromium Cr^{+6}	0.00 X X
X				Copper Cu	0.01 X X
X	X			Cyanide CN	0.03 X
				Dissolved oxygen	. X X X
				Fecal coli (#/100 ml.)	. X X X X
				Fluoride F	. X X X
				Hardness $CaCO_3$	. X X X X
X	X			Iron Fe	0.9X X X
X	X			Lead Pb	0.15X X
				Magnesium Mg	. X X X
X	X			Manganese Mn	0.05 X X
X				Mercury Hg	0.0001

Type of Analysis 1	2	3	4	Parameters	mg/l*
		X		MBAS	. X X X
				Nickel Ni	. X X X
		X		Nitrate-nitrite N	. X X
		X		Oil	. X X X X
X	X			pH (units)	X X 8.7 X X X
	X	X		Phenols	6.00 X
				Phosphorus P	. X X
				Potassium K	. X X X
X	X	X		R.O.E. (180° C)	754. X X X X
		X		Selenium Se	. X
				Silica SiO_2	. X X X X
	X			Silver Ag	0.00 X X
				Sodium Na	. X X X
				SC (umhos/cm)	. X X X X
X	X	X		Sulfate SO_4	61. X X X X
				Sulfide S	. X X X
				TSS	. X X X X
X	X			Zinc Zn	0.1 X X X

Parameters	mg/l*
	.
	.
	.
	.
	.
	.
	.
	.

*values exceeding no. of places shown are reported in lab comments section.

Collected by: R. Leadner Div.: C.P.C.

Transported by: R. Leadner Div.: C.P.C.

Surface Water: Upstream, Downstream, Lake, Run-off, Flood Water

Leachate: Flow, Pond

Groundwater: Well, Spring

LAB USE ONLY

Lab No. C008580

Date Rec'd 5-19-76

Rec'd by F Calicur Time

Sample temperature acceptable Yes No

Sample properly preserved Yes No

Tests req'd 20 Tests run 20

Date analyses completed 6-2-76

Date analyses forwarded 6-3-76

Lab Section: Chicago Supervisor: J. Daugherty

Lab Comments:

LPC-8 CC: Region II - D.C.P.C.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

DIVISION OF LAND POLLUTION CONTROL ANALYSIS FORM

Kane County — Region 2

Elgin — Municipality

Woodruff & Edwards — Operator

Small intermittent stream flowing directly into Fox River North and at foot of active fill area. — Source or Location

Surface water Standard — Flow Rate

Age of Flow (Leachate only)

Well No.

Sample No. S-2

Routine Analysis

X Industrial Waste Analysis

Groundwater Analysis

Special Analysis

Date collected 5/11/76

Time 7:00 p.m. (a.m.) °C °F Sample temp.

Sample appearance: Cool & Clear

Collector comments:

RECEIVED

C08580 MAY 19 1976

JUN 14 1976

ILL. E.P.A. - D.L.P.C.

STATE OF ILLINOIS

Type of Analysis 2	3	4	Parameters	mg/l*
			Alkalinity $CaCO_3$	____.XXXX
X			Ammonia N	___0.88XX
X	X		Arsenic As	___0.000X
	X		Barium Ba	____.XXX
			BOD - 5	____.XXXX
X	X		Boron B	___0.6XXX
X	X		Cadmium Cd	___0.00XX
			Calcium Ca	____.XXX
X	X		COD	__41.XXXX
X	X		Chloride Cl	_140.XXXX
X			Chromium Cr (tot)	___0.00XX
X			Chromium Cr^{+6}	___0.00XX
X			Copper Cu	___0.01XX
X	X		Cyanide CN	___0.03XX
			Dissolved oxygen	____.XXX
			Fecal coli (#/100 ml.)	____.XXXX
			Fluoride F	____.XXX
			Hardness $CaCO_3$	____.XXXX
X	X		Iron Fe	___0.9XXX
X	X		Lead Pb	___0.15XX
			Magnesium Mg	____.XXX
X	X		Manganese Mn	___0.05XX
X			Mercury Hg	___0.0001

Type of Analysis 1	2	3	4	Parameters	mg/l
		X		MBAS	____.XXX
				Nickel Ni	____.XXX
		X		Nitrate-nitrite N	____.XX
		X		Oil	____.XXXX
X	X			pH (units)	XX8.7XXX
	X	X		Phenols	___0.000X
				Phosphorus P	____.XX
				Potassium K	____.XXX
X	X	X		R.O.E. (180° C)	254.XXXX
		X		Selenium Se	____.X
				Silica SiO_2	____.XXXX
	X			Silver Ag	___0.00XX
				Sodium Na	____.XXX
				SC (umhos/cm)	____.XXXX
X	X	X		Sulfate SO_4	__61.XXXX
				Sulfide S	____.XXX
				TSS	____.XXXX
X	X			Zinc Zn	___0.1XXX

Parameters	mg/l*
	____.____
	____.____
	____.____
	____.____
	____.____
	____.____
	____.____
	____.____

*values exceeding no. of places shown are reported in lab comments section.

P. Stecker — Collected by — L.P.C. Div.

P. Stecker — Transported by — L.P.C. Div.

Surface Water: Upstream, Downstream, Lake, Run-off, Flood Water

Leachate: Flow, Pond

Groundwater: Well, Spring

LAB USE ONLY

Lab No. C008580

Date Rec'd 5-19-76

Rec'd by F Cabeen Time 8:00 AM

Sample temperature acceptable Yes No

Sample properly preserved Yes No

Tests req'd 20 Tests run 20

Date analyses completed 6-2-76

Date analyses forwarded 6-3-76

Chicago — Lab Section — J Daugherty — Supervisor

Lab Comments:

LPC-8 cc: Region II - D.L.P.C. Aurora

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

DIVISION OF LAND POLLUTION CONTROL ANALYSIS FORM

RECEIVED
JUN 14 1976
ILL. E.P.A. – D.L.P.C.
STATE OF ILLINOIS

C08584 MAY 19'76

Kane County — Region 2

Elgin Municipality — Woodcliff & Edward Operator

Water of Active Fill Area — Source or Location

15' from Fox River Edge

Date collected 5-19-76

Time 6:55 p.m. °C °F (a.m.) Sample temp.

Sample appearance:

Collector comments: Sample needs analysis to determine correlation w/ independent lab report.

No Standards

Routine Analysis — Flow Rate

Industrial Waste Analysis — Age of Flow (Leachate only)

Groundwater Analysis — Well No.

X Special Analysis — Sample No. S-1

Type of Analysis 1	2	3	4	Parameters	mg/10grams
				Alkalinity $CaCO_3$	____.XXXX
X				Ammonia N	____.__XX
X	X			Arsenic As	____.___X
	X			Barium Ba	____.__XX
				BOD - 5	____.XXXX
X	X			Boron B	____.__XX
X	X	X		Cadmium Cd	___0.00XX
				Calcium Ca	____.__XX
X	X			COD	____.XXXX
X	X			Chloride Cl	____.XXXX
X				Chromium Cr (tot)	____.___XX
X				Chromium Cr^{+6}	____.___XX
X		X		Copper Cu	___0.20XX
X	X			Cyanide CN	____.___X
				Dissolved oxygen	____.__XX
				Fecal coli (#/100 ml.)	____.XXXX
				Fluoride F	____.__XX
				Hardness $CaCO_3$	____.XXXX
X	X	X		Iron Fe	__26.0XXX
X	X	X		Lead Pb	___0.16XX
				Magnesium Mg	____.__XX
				Manganese Mn	____.___XX
		X		Mercury Hg	___0.0000 per 1gram

Type of Analysis 1	2	3	4	Parameters	mg/10grams
		X		MBAS	____.__XXX
				Nickel Ni	____.__XXX
		X		Nitrate-nitrite N	____.___XX
		X		Oil	____.XXXX
X	X			pH (units)	XX__.__XXX
	X	X		Phenols	____.___X
				Phosphorus P	____.___XX
				Potassium K	____.__XXX
X	X	X		R.O.E. (180° C)	____.XXXX
		X		Selenium Se	____.___X
				Silica SiO_2	____.XXXX
	X			Silver Ag	____.___XX
				Sodium Na	____.__XXX
				SC (umhos/cm)	____.XXXX
X	X	X		Sulfate SO_4	____.XXXX
				Sulfide S	____.__XXX
				TSS	____.XXXX
X	X		X	Zinc Zn	___0.1XXX

*values exceeding no. of places shown are reported in lab comments section.

Parameters	mg/1*
	____.____
	____.____
	____.____
	____.____
	____.____
	____.____
	____.____
	____.____

Collected by — L.P.C. Div.

Transported by — L.P.C. Div.

Surface Water: Upstream, Downstream, Lake, Run-off, Flood Water

Leachate: Flow, Pond

Groundwater: Well

LAB USE ONLY

Lab No. C008584

Date Rec'd 5-19-76

Rec'd by F. Cabrera Time 12:00 AM PM

Sample temperature acceptable Yes No

Sample properly preserved Yes No

Tests req'd 6 Tests run 6

Date analyses completed 6-9-76

Date analyses forwarded 6-10-76

Chicago — Lab Section; Daugherty — Supervisor

Lab Comments: 10 grams of sample was not digested. Tests were performed on acid direct.

cc: Region II – D.L.P.C.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

DIVISION OF LAND POLLUTION CONTROL ANALYSIS FORM

RECEIVED
JUN - 7 1976
ILL. E.P.A.
STATE OF ILLINOIS

County: KANE Region: 5

Municipality: ELGIN Operator: L. WOODRUFF & EDWARDS

Source or Location: SMALL INTERMITTENT STREAM FLOWING DIRECTLY INTO FOX RIVER NORTH AND AT FOOT OF NATIVE FOX AREA.

(effluent Standard)

C008580 MAY 1976

Date collected: 5/11/76

Time: 7:00 p.m. (a.m.) °C °F Sample temp.

Sample appearance: Cool & Clear

Collector comments:

- Routine Analysis
- X Industrial Waste Analysis
- Groundwater Analysis
- Special Analysis

Flow Rate:

Age of Flow (Leachate only):

Well No.:

Sample No. S-2

Type of Analysis 2	3	4	Parameters	mg/l*
			Alkalinity $CaCO_3$	. X X X X
X			Ammonia N	0.88 X X
X	X		Arsenic As	0.000 X
	X		Barium Ba	. X X X
			BOD - 5	. X X X X
X	X		Boron B	0.6 X X X
X	X		Cadmium Cd	0.00 X X
			Calcium Ca	. X X X
X	X		COD	41. X X X X
X	X		Chloride Cl	140. X X X X
X			Chromium Cr (tot)	0.00 X X
X			Chromium Cr^{+6}	0.00 X X
X			Copper Cu	0.01 X X
X	X		Cyanide CN	0.03 X X
			Dissolved oxygen	. X X X
			Fecal coli (#/100 ml.)	. X X X X
			Fluoride F	. X X X
			Hardness $CaCO_3$	. X X X X
X	X	X	Iron Fe	0.9 X X X
X	X	X	Lead Pb	0.15 X X
			Magnesium Mg	. X X X
X	X	X	Manganese Mn	0.05 X X
X	X		Mercury Hg	0.001

Type of Analysis 1	2	3	4	Parameters	mg/l*
		X		MBAS	. X X X
				Nickel Ni	. X X X
		X		Nitrate-nitrite N	. X X
		X		Oil	. X X X X
X	X			pH (units)	X X 8.7 X X X
	X	X		Phenols	6.00 X
				Phosphorus P	. X X
				Potassium K	. X X X
X	X	X		R.O.E. (180° C)	754. X X X X
		X		Selenium Se	. X
				Silica SiO_2	. X X X X
	X			Silver Ag	0.00 X X
				Sodium Na	. X X X
				SC (umhos/cm)	. X X X X
X	X	X		Sulfate SO_4	61. X X X X
				Sulfide S	. X X X
				TSS	. X X X X
X	X			Zinc Zn	0.1 X X X

Parameters	mg/l*
	.
	.
	.
	.
	.
	.
	.
	.

*values exceeding no. of places shown are reported in lab comments section.

Collected by: C.P.C. Div.

Transported by: C.P.C. Div.

Surface Water: Upstream, Downstream, Lake, Run-off, Flood Water

Leachate: Flow, Pond

Groundwater: Well, Spring

LAB USE ONLY

Lab No. C008580

Date Rec'd 5-19-76

Rec'd by F Cabeen Time 2:00 AM

Sample temperature acceptable Yes No

Sample properly preserved Yes No

Tests req'd 20 Tests run 20

Date analyses completed 6-2-76

Date analyses forwarded 6-3-76

Lab Section: Chicago Supervisor: J Daugherty

Lab Comments:

LPC-8 cc: Region II - D.C.P.C. AURORA

100% Recycled P

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

DIVISION OF LAND POLLUTION CONTROL ANALYSIS FORM

Northern Region

County: KANE Region: 2

Municipality: ELGIN Operator: WOODRUFF & EDWARDS

Source or Location: SMALL INTERMITTANT STREAM FLOWING DIRECTLY INTO FOX RIVER NORTH AND AT FOOT OF ACTIVE FILL AREA.

Surface water

Standard

Routine Analysis — 1

X Industrial Waste Analysis — 2

Groundwater Analysis — 3

Special Analysis — 4

Flow Rate

Age of Flow (Leachate only)

Well No.

Sample No. S-2

Date collected 5/11/76

Time 7:00 p.m. (a.m.)

°C °F Sample temp.

Sample appearance: Cool & Clear

Collector comments:

RECEIVED

C008580 MAY 19 1976

JUN 14 1976

ILL. E.P.A. - D.L.P.C.

STATE OF ILLINOIS

Type of Analysis 2	3	4	Parameters	mg/l*
			Alkalinity $CaCO_3$	____.XXXX
X			Ammonia N	___0.88XX
X	X		Arsenic As	___0.000X
	X		Barium Ba	____.__XXX
			BOD - 5	____.XXXX
X	X		Boron B	___0.6XXX
X	X		Cadmium Cd	___0.00XX
			Calcium Ca	____.__XXX
X	X		COD	__41.XXXX
X	X		Chloride Cl	_140.XXXX
X			Chromium Cr (tot)	___0.00XX
X			Chromium Cr^{+6}	___0.00XX
X			Copper Cu	___0.01XX
X	X		Cyanide CN	___0.03XX
			Dissolved oxygen	____.__XXX
			Fecal coli (#/100 ml.)	____.XXXX
			Fluoride F	____.__XXX
			Hardness $CaCO_3$	____.XXXX
X	X		Iron Fe	___0.9XXX
X	X		Lead Pb	__0.15XX
			Magnesium Mg	____.__XXX
X	X		Manganese Mn	___0.05XX
X			Mercury Hg	___0.001

Type of Analysis 1	2	3	4	Parameters	mg/l*
		X		MBAS	____.__XXX
				Nickel Ni	____.__XXX
		X		Nitrate-nitrite N	____.___XX
		X		Oil	____.XXXX
X	X			pH (units)	XX8.7XXX
	X	X		Phenols	___0.000X
				Phosphorus P	____.___XX
				Potassium K	____.__XXX
X	X	X		R.O.E. (180° C)	_754.XXXX
		X		Selenium Se	____.___X
				Silica SiO_2	____.XXXX
	X			Silver Ag	___0.00XX
				Sodium Na	____.__XXX
				SC (umhos/cm)	____.XXXX
X	X	X		Sulfate SO_4	__61.XXXX
				Sulfide S	____.__XXX
				TSS	____.XXXX
X	X			Zinc Zn	___0.1XXX

Parameters	mg/l*
	____.____
	____.____
	____.____
	____.____
	____.____
	____.____
	____.____
	____.____

*values exceeding no. of places shown are reported in lab comments section.

Collected by — L.P.C. Div.

Transported by — L.P.C. Div.

Surface Water: Upstream, Downstream, Lake, Run-off, Flood Water

Leachate: Flow, Pond

Groundwater: Well, Spring

LAB USE ONLY

Lab No. C008580

Date Rec'd 5-19-76

Rec'd by F Cabeen Time

Sample temperature acceptable Yes No

Sample properly preserved Yes No

Tests req'd 20 Tests run 20

Date analyses completed 6-2-76

Date analyses forwarded 6-3-76

Chicago J Daugherty

Lab Section Supervisor

Lab Comments:

LPC-8 cc: Region II - D.L.P.C. Aurora.

100% Recycled Paper

AQUALAB

ANALYTICAL REPORT

DATE: May 7, 1976

ANALYSIS NO: 0365

City of Elgin
150 Dexter Court
Elgin, Illinois 60120

Attn.: Jim Johnson

TAKEN: 4/26/76 1100
RECEIVED: 4/28/76 1410
ANALYZED: 4/28/76

Sample Description: Drainage from landfill into river from Woodriff & Edwards (SAND — DILUTED W/ HOH)

Cadmium	mg/l	0.38
Copper	ppm	1.5
Iron, total	ppm	845
Lead	ppm	2.5
Mercury	mg/l	0.0005
Zinc	ppm	3.14

Carl R. Pampel

Carl R. Pampel,
Chief Chemist

CERTIFIED LABORATORY
STATE OF ILLINOIS
REGISTRATION No. 17233

CRP:b

RT. 20 AT VALLEY LANE STREAMWOOD, ILL. 60103 312·289·3100

SYSTEM	SERIES	GROUP OR FORMATION	AQUIFER		LOG	THICKNESS (FT)	DESCRIPTION
QUATERNARY	PLEISTOCENE		Sands and Gravels			0-300	Unconsolidated glacial deposits-pebbly clay (till), silt, sand and gravel Alluvial silts and sands along streams
SILURIAN	NIAGARAN	Racine	Silurian	Shallow dolomite aquifer system	reef	0-180	Dolomite, very pure to argillaceous, silty, cherty; reefs in upper part
		Sugar Run					Dolomite, slightly argillaceous and silty
		Joliet					Dolomite, very pure to shaly and shale, dolomitic; white, light gray, green, pink, maroon
	ALEXANDRIAN	Kankakee				0-70	Dolomite, pure top 1'-2', thin green shale partings, base glauconitic
		Elwood					Dolomite, slightly argillaceous, abundant layered white chert
		Wilhelmi					Dolomite, gray, argillaceous and becomes dolomitic shale at base
ORDOVICIAN	CINCINNATIAN	Maquoketa				0-210	Shale, red to maroon, oolites Shale, silty, dolomitic, greenish gray, weak (Upper unit) Dolomite and limestone, white, light gray, interbedded shale (Middle unit) Shale, dolomitic, brown, gray (Lower unit)
	CHAMPLAINIAN	Galena	Galena-Platteville	Cambrian-Ordovician aquifer system		300-350	Dolomite, and/or limestone, cherty (Lower part)
		Platteville					Dolomite, shale partings, speckled Dolomite and/or limestone, cherty, sandy at base
		Glenwood	Glenwood-St. Peter			200-500	Sandstone, fine and coarse grained; little dolomite; shale at top
		St. Peter					Sandstone, fine to medium grained; locally cherty red shale at base
	CANADIAN	Shakopee New Richmond Oneota Gunter	Prairie du Chien			0-200	Dolomite, sandy, cherty (oolitic); sandstone Sandstone interbedded with dolomite Dolomite, white to pink, coarse grained cherty (oolitic) Sandstone, medium-grained, slightly dolomitic
CAMBRIAN	CROIXAN	Eminence	Eminence-Potosi			0-300	Dolomite, light colored, sandy, thin sandstones
		Potosi					Dolomite, fine-grained, gray to brown, drusy quartz
		Franconia	Franconia		G	60-85	Dolomite, sandstone and shale, glauconitic, green to red, micaceous
		Ironton	Ironton-Galesville			160-210	Sandstone, fine to coarse grained, well sorted; upper part dolomitic
		Galesville					
		Eau Claire			G	390-430	Shale and siltstone, dolomitic, glauconitic; sandstone, dolomitic, glauconitic
		Elmhurst Member	Elmhurst-Mt. Simon	Elmhurst-Mt. Simon aquifer		2000-2600	Sandstone, coarse grained, white, red in lower half; lenses of shale and siltstone, red, micaceous
		Mt. Simon					
PRE-CAMBRIAN							Granitic rocks

Figure 1. Generalized column of rock stratigraphic units and aquifers in Kane County
(Prepared by M. L. Sargent, Illinois State Geological Survey)

CC - DWPC/FOS/RU
- DLPC - Brad Benning

INSPECTION NOTES

WOODRUFF EDWARDS
City of Elgin
(Kane County)

DATE:	July 28, 1983
SITE:	Landfill, Rt. 31, Elgin Adjacent to Fox River
PURPOSE:	Water Quality Samples - Fox River
Accompanied By:	Brad Benning, DLPC

Attached are the results of grab samples collected to determine if leachate from the subject landfill is impacting the Fox River. The samples were collected during dry weather. Wet weather samples may provide different results.

Samples were collected upstream, adjacent to, and downstream of the landfill. All parameters analyzed were within Illinois General use water quality limits. No trends of increasing concentration of metals from upstream to downstream were present. Mercury was relatively high (0.25 ug/l) at the north end of the landfill when compared to the other sites sampled (<0.1 ug/l).

John W. Raevuori

John W. Raevuori
Environmental Protection Specialist

JWR:wn

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY

IL 532-0357
ADM 39

Subject WOODRUFF EDWARDS - CITY OF ELGIN LANDFILL
Data FOX RIVER GRAB SAMPLES
Reviewed by J. RAEVUORI Date

LOCATION	LAB #	CD	CU	FE	PB	MN	HG	NI	ZN
UPSTREAM	618	0.00	0.00	0.7	<0.03	0.10	<0.1	0.0	0.
NORTH END	615	0.00	0.00	0.4	<0.03	0.06	0.25	0.0	0.
SOUTH END	616	0.00	0.00	0.3	<0.03	0.10	<0.1	0.0	0.
DOWNSTREAM	617	0.00	0.00	0.7	<0.03	0.10	<0.1	0.0	0.
GENERAL USE WATER QUALITY STANDARDS		0.05	0.02	1.0	0.1	1.0	0.5	1.0	1.

ALL RESULTS EXPRESSED AS MG/L, EXCEPT MERCURY IS UG/L