TESTING
LABORATORIES
inc.

Chemists
Engineers
Metallurgists

2350 Seventh Blvd. • St. Louis, Missouri 63104

314/PRospect 1-7111

US EPA RECORDS CENTER REGION 5
484200

Report No. 29-3-312

April 2, 1975

Examination of one (1) water sample submitted 3/20/75.

Raymond International
5305 Northrup
St. Louis, MO. 63110

Attn: Mr. G. Anderson

TEST REPORT

Alkalinity as $CaCO_3$, mg/l	@ pH 8.3	0
	@ pH 4.5	253
Ammonia, as N, mg/l		0.14
Boron, mg/l		0.43
Calcium, mg/l		120
Chloride, mg/l		6
Chromium, mg/l		0.11
C. O. D., mg/l		657
Copper, mg/l		0.20
Hardness, as $CaCO_3$, mg/l		590
Iron, mg/l		115
Lead, mg/l		0.18
Magnesium, mg/l		69.7
Manganese, mg/l		4.92
Mercury, mg/l		* 0.0001
pH		7.40
Potassium, mg/l		8.66
Sodium, mg/l		28.0
Sulfate as SO_4, mg/l		79.0
Total Dissolved Solids, mg/l		440
Zinc, mg/l		0.55

* Less than.

Respectfully submitted,
INDUSTRIAL TESTING LABORATORIES, INC

Allan M. Siegel, Director

From IEPA Microfilm

Background Analysis Well No. 3	Sample Date May 14, 1976
Alk	0.0
As	0.0
B	0.2
Cd	0.01
Ca	68
COD	9.0
CL	4.0
Cr	.00
Cn	.00
Hardness	320
Iron	0.8
Pb	0.06
Mg	33
Mn	0.31
Hg	0.0
pH	7.7
Phenols	0.005
K	1.7
Se	0.0
Na	59
SO_4	56
TSS	19
Zn	0.5
Total Acidity	12.0

From IEPA Microfilm

Background Analysis Well No. 4	Sample Date May 14, 1976
Alk	0.0
As	0.0
B	0.1
Cd	0.00
Ca	66
COD	266
Cl	12.0
Cr	0.00
Cyanide	0.0
Hardness	316
Fe	1.8
Pb	.01
Mg	30
Mn	2.34
Hg	0.0
pH	7.8
Phenols	0.005
K	2.0
Se	0.0
Na	69
SO_4	21
TSS	64
Zn	0.1
Total Acidity	8.0

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 OCT 82 E.P.A. - D SATE OF ILL

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

L P C S M 0 1 0 (1)–(8) SITE INVENTORY NUMBER 1 1 7 5 0 2 (9)–(16)

MONITOR POINT NUMBER 1 1 (17)–(20) DATE COLLECTED 0 9 1 5 7 9 (21)–(26)

Co. - LPC REGION 5 (27)

(Location) (Responsible Party)

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

Time Collected 1.45 a.m. p.m. Unable to collect sample (X) (30)

Depth (31) ft. Depth to water 20.4 ft. (from T.O.C.) (34)–(36)

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

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

Sample Appearance: Muddy grayish brown color, [illegible]

Other comments: well needs a cap [illegible] bottle broken

Collected by Div. or Company LPC

Transported by Div. or Company

Lab Name MDX A 06735
Lab No. SEP 20 1979
Date Rec'd
Rec'd Drinks Time 2:00 a.m. p.m.
Sample temp. acceptable YES NO
Chem. preservative YES NO
Date Completed OCT 5 1979
Board Order: HCL
[signature]
Supervisor Signature
MADION
Address of Lab

LPCSM020
Lab Comments:
CL 19 ALK (27)–(36)
11 filtered (37)–(46)
d (47)–(56)
(57)–(66)
(67)–(76)
Private Lab (X)
IEPA Lab (X) X (77) (78)

LPCSM030

		PARAMETERS*	PPM*
27	X	Alkalinity[1]	710.
31	X	Ammonia as N	0.65
37	X	Arsenic As	0.018
47	X	Barium Ba	1.3
49	X	BOD 5	12
53	X	Boron B	0.1
58	X	Cadmium Cd	0.02
64	X	Calcium Ca	120.
69	X	COD	56.
73	X	Chloride Cl	~~140~~

LPCSM040

37	X	Chromium Cr (tot)	0.23
33		Chromium Cr^{+6}	
39	X	Copper Cu	0.54
45	X	Cyanide CN	0.00
52		Fecal Coli #/100 ml	
56	X	Fluoride F	0.2
61	X	Hardness $CaCO_3$	540
65	X	Iron Fe	160.
70	X	Lead Pb	0.4

LPCSM050

27	X	Magnesium Mg	440.
32	X	Manganese Mn	12.
38	X	Mercury Hg	
46	X	Nickel Ni	0.4
51	X	Nitrate-nitrite N	0.2
57		Oil and Grease	
60	X	pH (units)	7.2
63	X	Phenolics	0.015
70		Phosphorus P	
75	X	Potassium K	7.8

LPCSM060

22	X	S.O.D. (mg/l)	2550
1		Selenium Se	
5	X	Silver Ag	0.01
44	X	Sodium Na	140.
19		SC (umhos/cm)	
62	X	Sulfate SO_4	160.
67	X	Zinc Zn	0.87
73			

*Analyses are to be performed on unfiltered samples. *Values preceding no. of places shown are reported to the nearest [illegible] requested but not [illegible] section.

[1] Alkalinity is [illegible] determined at pH 4.5.

METALS ANALYZED AT CHAMPAIGN LABORATORY

F 0 7/77

INDUSTRIAL TESTING LABORATORIES inc.

Chemists
Engineers
Metallurgists

2350 Seventh Blvd. • St. Louis, Missouri 63104
314/PRospect 1-7111

A SUBSIDIARY OF CHROMALLOY AMERICAN CORPORATION

	Sample B-5	Sample B-6
Mercury, μg/l	*0.5	*0.5
pH	7.34	7.27
Phenol, mg/l	*0.01	*0.01
Potassium, mg/l	49.1	56.1
Sodium, mg/l	79.8	143
Sulfate, mg/l	106.6	882.8
Zinc, mg/l	0.15	0.22
Manganese, mg/l	0.75	0.13

* Less than

Respectfully submitted,

INDUSTRIAL TESTING LABORATORIES, INC.

Allan M. Siegel

Allan M. Siegel, P.E.
Director

RW/ps

INDUSTRIAL TESTING LABORATORIES inc.

Chemists
Engineers
Metallurgists

2350 Seventh Blvd. • St. Louis, Missouri 63104 | 314/PRospect 1-7111

A SUBSIDIARY OF CHROMALLOY AMERICAN CORPORATION

Report No. 78-12-223 December 28, 1978

Examination of two (2) water samples submitted on 12/15/78 marked, "B-5 and B-6".

John Mathes and Associates
123 Wedgewood Drive
P. O. Box 330
Columbia, Illinois 62236

Attn: Mr. Gary Mathes

TEST REPORT

	Sample B-5	Sample B-6
R.O.E., mg/1 @ 180°C.	908	2077
Ammonia as N, mg/1	0.56	0.56
Alkalinity, mg/1 as $CaCO_3$	1982	2740
Boron, mg/1	0.04	0.04
Calcium, mg/1	96.7	201
Trivalent Chromium, mg/1	*0.01	*0.01
Hexavalent Chromium, mg/1	*0.01	*0.01
C.O.D., mg/1	78	414
Copper, mg/1	*0.01	0.03
Fluoride, mg/1	0.3	0.2
Hardness, mg/1 as $CaCO_3$	590	1440
Iron, mg/1	11.1	2.8
Lead, mg/1	*0.01	*0.01
Magnesium, mg/1	60	150

* Less than

ILLINOIS E[illegible] 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		

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

L P C S M 0 1 0 (8) SITE INVENTORY NUMBER 1 1 7 8 0 2 0 3 (9) (16)

MONITOR POINT NUMBER G 1 0 6 (17) (20) DATE COLLECTED 1 2 0 3 2 9 (21) (26)

Macoupin Co. - LPC REGION S (27)

Brighton (Location) / Brighton Landfill #2 (Responsible Party)

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

Time Collected [illegible] a.m. p.m. Unable to collect sample (X) (30)

Stick-up .9 ft. (31) (33) Depth to water 1 7 . 0 ft. (from T.O.C.) (34) (36)

Sample temp. 4 6 ° F (37) (39) Background (X). . . . X (40)

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

Sample appearance: Dark - Hc. Odor

Inspector comments:

[illegible] W. Koe — Collected by
Brighton Landfill — Div. or Company
First Class Mail — Transported by
U.S. Postal Service — Div. or Company

LAB USE ONLY

Lab No.

Date Rec'd 12/4/79

Rec'd by [illegible] Time [illegible] a.m. p.m.

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed 1/4/80

Date forwarded 1/9/80

[illegible]
Supervisor Signature

Name Envirodyne Engineers
Address 12161 Lackland Road
of Lab St. Louis, Mo. 63141

LPCSM020
Lab Comments:

(27) Lead < 0.00 (36)

(37) Zinc 0.1 (46)

(47) Boron 0.3 (56)

(57) _____ (66)

(67) _____ (76)

Private Lab (X) X (77)

IEPA Lab (X) (78)

LPCSM020

		PARAMETERS	PPM
27	X	Alkalinity[1]	862
31	X	Ammonia as N	< .5
37		Arsenic As	
44		Barium Ba	
49		BOD -5	
53	X	Boron B	
58		Cadmium Cd	
64	X	Calcium Ca	76.5
69	X	COD	123
73	X	Chloride Cl	12

LPCSM040

27	X	Chromium Cr (tot)	0.03
33		Chromium Cr^{+6}	
39	X	Copper Cu	0.04
45		Cyanide CN	
52		Fecal Coli (Fiber mf)	
56		Fluoride F	
61	X	Hardness $CaCO_3$	167
65	X	Iron Fe	2.9
70	X	Lead Pb	

LPCSM060

27	X	Magnesium Mg	90
32	X	Manganese Mn	1.44
38	X	Mercury Hg	< 0.001
46		Nickel Ni	
51		Nitrate-nitrite	
56		Oil and Grease	
60	X	pH (Units)	7.0
63	X	Phenolics	0.02
70		Phosphorus P	
73	X	Potassium K	7.1

LPCSM060

27	X	T.D.S. (180°C)	2175
31		Selenium Se	
38		Silver Ag	
44	X	Sodium Na	540
49		SC (umhos/cm)	
53	X	Sulfate SO_4	20[illegible]
58	X	Zinc Zn	[illegible]
63			

Analyses are to be performed on filtered samples. *Values exceeding no. of places shown are reported in the lab comments section; data 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.

RECEIVED
JAN 10 1980
E.P.A. - D.L.P.C.
STATE OF ILLINOIS

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
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(3) Downstream	(3) Spring	(3) Collection System	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded	(5) Public W S		

E.P.A. - D.L.P.C.
STATE OF ILLINOIS

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

(1) L P C S M 0 1 0 (8) SITE INVENTORY NUMBER (9) 1 1 2 8 0 2 0 7 (16)

MONITOR POINT NUMBER (17) 0 1 0 (20) DATE COLLECTED (21) 0 9 1 8 7 9 (26)

Macoupin Co. - LPC REGION (27) S

Litha / Brighton Landfill #2
(Location) (Responsible Party)

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

Time Collected 7 40 a.m. p.m. Unable to collect sample (X) (30)

Stick-up (31) 0 0.9 (33) ft. Depth to water (34) 1 8.2 (36) ft. (from T.O.C.)

Sample temp. (37) 1 1 ° (39) C Background (X). . . . X (40)

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

Sample appearance: dk gray, strong odor

Collector comments: well dry.

[illegible] Collected by — L.K. Div. or Company

Transported by — Div. or Company

LAB USE ONLY
Lab # A 06710
Date Rec'd SEP 20 1979
Rec'd by [illegible] Time 2:00 a.m. p.m.
Sample temp. acceptable YES NO
Sample properly preserved YES NO
Date completed OCT 5 1979
Date forwarded OCT 16 1979
Supervisor Signature [illegible]
MARION
Name
Address of Lab

LPCSM020
Lab Comments:
(27) Alk filter (36)
(37) ed (46)
(47) (56)
(57) (66)
(67) (76)
Private Lab (X)
IEPA Lab (X) X (77) (78)

LPCSM030

		PARAMETERS	PPM*
27	X	Alkalinity[1]	820.
31	X	Ammonia as N	0.55
37	X	Arsenic As	0.013
	X	Barium Ba	1.4
49	X	BOD -5	3.
53	X	Boron B	0.3
58	X	Cadmium Cd	0.05
64	X	Calcium Ca	110.
69	X	COD	100.
73	X	Chloride Cl	8.

LPCSM040

27	X	Chromium Cr (tot)	0.23
33		Chromium Cr^{+6}	
39	X	Copper Cu	0.58
45	X	Cyanide CN	0.00
52		Fecal Coli (#/100 ml)	
56	X	Fluoride F	0.2
61	X	Hardness $CaCO_3$	950.
65	X	Iron Fe	160.
70	X	Lead Pb	1.1

LPCSM050

27	X	Magnesium Mg	580.
32	X	Manganese Mn	11.
38	X	Mercury Hg	0.0001
46	X	Nickel Ni	0.4
51	X	Nitrate-nitrite N	0.2
56		Oil and Grease	
60	X	pH (Units)	7.1
63	X	Phenolics	0.005
70		Phosphorus P	
76	X	Potassium K	10.

LPCSM060

27	X	T.D.S. (180°C)	2090.
31		Selenium Se	
	X	Silver Ag	0.01
44	X	Sodium Na	350.
49		SC (umhos/cm)	
53	X	Sulfate SO_4	880.
59	X	Zinc Zn	1.4
63			

Analysis are to be performed on unfiltered samples. *Values reported in 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 $CaCO_3$ at pH 4.5.

METALS ANALYZED AT CHAMPAIGN LABORATORY

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
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(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 1 1 7 8 0 2 0 3 (9)(16)

MONITOR POINT NUMBER G 1 0 7 (17)(20) DATE COLLECTED 1 2 0 2 7 9 (21)(26)

Macoupin Co. - LPC REGION S (27)

Brighton / Brighton Landfill #2
(Location) (Responsible Party)

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

Time Collected 2:45 a.m. p.m. Unable to collect sample (X) (30)

Pick-up 0 1.4 ft. (31)(33) Depth to water 1 9.0 ft. (from T.O.C.) (34)(36)

Sample temp. 4 5 ° F (37)(39) Background (X). . . . X (40)

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

Sample Appearance: Muddy

Collector comments:

Gordon McKee — Collected by
Brighton Landfill — Div. or Company
First Class Mail — Transported by
United States Post Serv — Div. or Company

LAB USE ONLY

Lab No.

Date Rec'd 12/4/79

Rec'd by KAV Time 1:00 a.m. p.m.

Sample temp. acceptable YES NO
Sample properly preserved YES NO
Date completed 1/4/80
Date forwarded 1/4/80

Supervisor Signature

Name of Lab Envirodyne Engineers
Address 12161 Lackland Road
St. Louis, Mo. 63141

LPCSM020
Lab Comments:

(27) B D R D 0 0.1 4 (36)
(37) (46)
(47) (56)
(57) (66)
(67) (76)

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

LPCSM010

		Parameter	PPM
27	X	Alkalinity*	481.
31	X	Ammonia as N	2.5
37		Arsenic As	.
44		Barium Ba	.
49		COD	.
53	X	Iron Fe	.
58		Iodide I	.
64	X	Calcium Ca	2230.
69	X	COD	440.
73	X	Chloride Cl	12.

LPCSM020

27	X	Chromium Cr (total)	0.44
33		Chromium Cr^{+6}	.
39	X	Copper Cu	0.48
45		Cyanide CN	.
52		Fecal Coli (Fecal Coliform)	.
56		Fluoride F	.
61	X	Hardness $CaCO_3$	3110
65	X	Iron Fe	286.
70	X	Lead Pb	4.4

LPCSM030

27	X	Magnesium Mg	880.
32	X	Manganese Mn	11.6
38	X	Mercury Hg	0.0003
46		Nickel Ni	.
51		Nitrate-nitrite N	.
56		Oil and Grease	.
60	X	pH (Units)	6.7
63	X	Phenolics	0.02
70		Phosphorus P	.
76	X	Potassium K	25.6

LPCSM040

37	X	S.O.P. (SO_4)	800.
31		Selenium Se	.
38		Silver Ag	.
44	X	Sodium Na	64.
49		SC (umhos/cm)	.
53	X	Sulfate SO_4	73.
58	X	Zinc Zn	1.4
63			.

Analyses are to be performed on filtered 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.

*Alkalinity is to be determined as ppm of $CaCO_3$ at pH 4.5.

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
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(3) Downstream	(3) Spring	(3) Collection System	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded	(5) Public W S		

OCT 72

EPA
STATE OF ILLINOIS

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

L P C S M 0 1 0 (1)–(8) SITE INVENTORY NUMBER (9) 1 1 7 8 0 2 0 3 (16)

MONITOR POINT NUMBER (17) C 1 0 (20) DATE COLLECTED (21) 0 9 1 8 7 9 (26)

Macoupin Co. - LPC REGION (27) 5

Brighton (Location) / Brighton Landfill (Responsible Party)

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

Time Collected 1100 a.m. p.m. Unable to collect sample (X) (30)

Stick-up (31) 0 1 ft. (33) Depth to water (from T.O.C.) (34) 1 7 5 ft. (36)

Sample temp. (37) 6 6° (39) F Background (X). . . . (40) X

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

Sample appearance: Milky (cloudy) brown color, odorless

Other comments: well dry

Collected by — Div. or Company: LPC

Transported by — Div. or Company

LAB USE ONLY

Lab No. A 067749

Date Rec'd SEP 20 1979

Rec'd by PRKolb Time 9:42 a.m. p.m.

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed OCT 5 1979

Data recorded OCT 16 1979

Lab Supervisor Signature

Name

Address of Lab

LPCSM020
Lab Comments:

(27) BOD OVERdiluted (36)

(37) (46)

(47) (56)

(57) (66)

(67) (76)

Private Lab (X)

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

LPCSM030

		PARAMETERS*	PPM*
27	X	Alkalinity[1]	470
31	X	Ammonia as N	0.15
37	X	Arsenic As	0.010
42	X	Barium Ba	0.9
49	X	BOD -5 *	—
53	X	Boron B	0.1
59	X	Cadmium Cd	0.02
64	X	Calcium Ca	760
69	X	COD	255
73	X	Chloride Cl	6

LPCSM040

27	X	Chromium Cr (tot)	0.16
33	X	Chromium Cr^{+6}	
39	X	Copper Cu	0.38
45	X	Cyanide CN	0.00
52		Fecal Coli (#/100 ml)	
56	X	Fluoride F	0.4
61	X	Hardness $CaCO_3$	490
65	X	Iron Fe	87
7	X	Lead Pb	0.4

LPCSM050

27	X	Magnesium Mg	410
32	X	Manganese Mn	6.9
38	X	Mercury Hg	0.0001
46	X	Nickel Ni	0.3
51	X	Nitrate-nitrite N	3.9
56		Oil and Grease	
60	X	pH (Units)	7.6
63	X	Phenolics	0.005
70		Phosphorus P	
75	X	Potassium K	45

LPCSM060

37	X	T.D.S. (180°C)	700
31		Selenium Se	0
3	X	Silver Ag	0.01
44	X	Sodium Na	52
49		SC (umhos/cm)	
53	X	Sulfate SO_4	97
56	X	Zinc Zn	0.50
63			

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

Alkalinity is to be determined as pp[illegible] [illegible] pH 4.5.

METALS ANALYZED AT CHAMPAIGN LABORATORY

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

#1 R-TP

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 1 1 7 8 0 2 0 3 (9)–(16)

MONITOR POINT NUMBER G 1 0 8 (17)–(20) DATE COLLECTED 1 2 0 2 7 9 (21)–(26) RTP

Macoupin Co. - LPC REGION S (27)

Brighton (Location) / Brighton Landfill #2 (Responsible Party)

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

Time Collected 1:30 a.m. p.m. Unable to collect sample (X) (30)

Stick-up 0 2 . 1 ft. (31)–(33) Depth to water 1 6 . 5 ft. (from T.O.C.) (34)–(36)

Sample temp. 4 5 ° F (37)–(39) Background (X). . . . X (40)

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

Sample Appearance: Clear No Smell

Collector comments:

Todd McKee — Collected by
Brighton Landfill — Div. or Company
First Class Mail — Transported by
U.S. Postal Service — Div. or Company

LAB USE ONLY

Lab No.

Date Rec'd 12/4/79

Rec'd by KAV Time 1:00 a.m. p.m.

Sample temp. acceptable (YES) NO

Sample properly preserved (YES) NO

Date completed 1/4/80

Date forwarded 1/8/80

Kevin Vacek
Supervisor Signature

Name of Lab: Envirodyne Engineers
Address: ~~12161 Lackland Road~~ St. Louis, Mo. 63141

LPCSM020
Lab Comments:

(27) Lead 0.013 (36)

(37) Zinc 0.29 (46)

(47) _____ (56)

(57) _____ (66)

(67) _____ (76)

Private Lab (X) X (77)

IEPA Lab (X) (78)

		Parameter	Result
		LPCSM020	
27	X	Alkalinity[1]	395.
31	X	Ammonia as N	<.5
37		Arsenic As	.
44		Barium Ba	.
49		BOD-5	.
53	X	Boron B	4.1
58		Cadmium Cd	.
64	X	Calcium Ca	103.
69	X	Iron	29.
73	X	Chloride Cl	20.
		LPCSM030	
27	X	Chromium Cr (tot)	0.02
33		Chromium Cr^{+6}	.
39	X	Copper Cu	0.19
45		Cyanide CN	.
52		Fecal Coli	.
56		Fluoride F	.
61	X	Hardness $CaCO_3$	436.
65	X	Iron Fe	2.1
70	X	Lead Pb	.
		LPCSM040	
27	X	Magnesium Mg	48.
32	X	Manganese Mn	0.53
38	X	Mercury Hg	<0.0001
46		Nickel Ni	.
51		Nitrate-nitrite N	.
56		Oil and Grease	.
60	X	pH (Units)	7.1
63	X	Phenolics	0.02
70		Phosphorus P	.
75	X	Potassium K	4.5
		LPCSM050	
27	X	T.D.S. (180°C)	927.
31		Selenium Se	.
38		Silver Ag	.
44	X	Sodium Na	200.
49		SC (umhos/cm)	.
53	X	Sulfate SO_4	290.
58	X	Zinc Zn	.
63			

*Analyses are to be performed on filtered 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.

RECEIVED JAN 10 1980 EPA - D.L.P.C.

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		

OCT 22
E.P.A. — STATE OF

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

LPCSM010 (1)–(8) SITE INVENTORY NUMBER 1L2S0203 (9)–(16)

MONITOR POINT NUMBER 0109 (17)–(20) DATE COLLECTED 092972 (21)–(26)

Co. - LPC REGION S (27)

Brighton (Location) / Brighton Landfill #2 (Responsible Party)

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

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

Pick-up 0.1 ft. (31)–(33) Depth to water 6.2 ft. (from T.O.C.) (34)–(36)

Sample Temp. 6 C° (37)–(39) Background (X). . . . X (40)

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

Sample appearance: lt gray, odorless

Collector comments: okay

Collected by — Div. or Company LPC

Transported by — Div. or Company

LAB USE ONLY

Lab No. A 06736

Date Rec'd SEP 20 1979

Rec'd by Time 2:00 a.m. p.m.

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed OCT 5 1979

Date forwarded OCT 22 1979

John H. Gray
Supervisor Signature

Name MARION
Address of Lab

LPCSM020
Lab Comments:

(27) BOD overdi (36)

(37) luted (46)

(47) (56)

(57) (66)

(67) (76)

Private Lab (X)

IEPA Lab (X) X (77)

LPCSM030

		PARAMETERS*	PPM*
27	X	Alkalinity[1]	400
31	X	Ammonia as N	0.10
37	X	Arsenic As	0.003
44	X	Barium Ba	0.2
49	X	BOD -5	
53	X	Boron B	0.1
58	X	Cadmium Cd	0.00
64	X	Calcium Ca	91
69	X	COD	45
73	X	Chloride Cl	21

LPCSM040

27	X	Chromium Cr (tot)	0.00
33		Chromium Cr^{+6}	
39	X	Copper Cu	0.48
45	X	Cyanide CN	0.00
52		Fecal Coli (#/100 ml)	
56	X	Fluoride F	0.3
61	X	Hardness $CaCO_3$	550
65	X	Iron Fe	3.4
70	X	Lead Pb	0.6

LPCSM050

27	X	Magnesium Mg	56
32	X	Manganese Mn	0.63
38	X	Mercury Hg	0.0001
46	X	Nickel Ni	0.0
51	X	Nitrate-nitrite N	1.6
56		Oil and Grease	
60	X	pH (Units)	7.4
63	X	Phenolics	0.000
70		Phosphorus P	
75	X	Potassium K	2.7

LPCSM060

27	X	T.D.S. (180°C)	1000
31		Selenium Se	
37	X	Silver Ag	0.00
44	X	Sodium Na	88
49		SC (umhos/cm)	
53	X	Sulfate SO_4	350
58	X	Zinc Zn	0.07
63			

Analyses are to be performed on unfiltered samples. *Values to specified no. of places shown are reported in the Lab Comments Section. Alkalinity is to be determined as pH 4.5. Data requested but not run should also be explained in the Lab Comments section.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

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

#5

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 (8) SITE INVENTORY NUMBER 1 1 7 8 0 2 0 3 (9) (16)

MONITOR POINT NUMBER G 1 0 9 (17) (20) DATE COLLECTED 1 2 0 2 7 9 (21) (26) RTB

Macoupin Co. - LPC REGION S (27)

Brighton (Location) / Brighton Landfill #2 (Responsible Party)

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

Time Collected 11:00 a.m. p.m. Unable to collect sample (X) (30)

Pick-up 0 1 . 9 ft. (31) (33) Depth to water 9 3 . 2 ft. (from T.O.C.) (34) (36)

Sample temp. 4 6° F (37) (39) Background (X). . . . X (40)

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

Sample Appearance: Clear

Collector comments:

Sandra McKee — Collected by
Brighton Landfill — Div. or Company
First Class Mail — Transported by
U.S. Postal Service — Div. or Company

AB USE ONLY

Lab No.

Date Rec'd 12/5/79

Rec'd by KAV Time 1:00 a.m. p.m.

Sample temp. acceptable (YES) NO

Sample properly preserved (YES) NO

Date completed 1/5/80

Date forwarded 1/8/80

Karen Lacie
Supervisor Signature

Name Envirodyne Engineers
Address 2161 Lackland Road
of Lab St. Louis, Mo. 63141

LPCSM020
Lab Comments:

(27) B D L D 0.3 6 (36)

(37) — (46)

(47) — (56)

(57) — (66)

(67) — (76)

Private Lab (X) X (77)

IEPA Lab (X) (78)

LPCSM010

		Parameter	PPM
27	X	Alkalinity*	330.
31	X	Ammonia as N	4.5
37		Arsenic As	
44		Barium Ba	
49		BOD-5	
53	X	Boron B	
54		Cadmium Cd	
64	X	Calcium Ca	107.
69	X	COD	70.
73	X	Chloride Cl	58.

LPCSM040

27	X	Chromium Cr (tot)	0.03
33		Chromium Cr^{+6}	
39	X	Copper Cu	0.43
45		Cyanide CN	
52		Fecal Coli	
56		Fluoride F	
61	X	Hardness $CaCO_3$	567
65	X	Iron Fe	9.9
70	X	Lead Pb	1.03

LPCSM050

27	X	Magnesium Mg	78.
32	X	Manganese Mn	0.79
38	X	Mercury Hg	0.001
46		Nickel Ni	
51		Nitrate-nitrite N	
56		Oil and Grease	
60	X	pH (Units)	6.8
63	X	Phenolics	0.02
70		Phosphorus P	
75	X	Potassium K	9.0

LPCSM060

27	X	T.D.S. (180°C)	1979.
31		Selenium Se	
38		Silver Ag	
44	X	Sodium Na	420.
49		SC (umhos/cm)	
53	X	Sulfate SO_4	2330.
58	X	Zinc Zn	0
63			

*Analyses are to be performed on filtered 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.

*Alkalinity is to be determined as ppm of $CaCO_3$ at pH 4.5.

RECEIVED
JAN 10 1980
I.E.P.A.
D.L.P.C.
ILLINOIS

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

RECEIVED OCT 17 1979 E.P.A. 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) Water
(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 1 1 7 8 0 2 0 3 (9)–(16)

MONITOR POINT NUMBER 1 1 C (17)–(20) DATE COLLECTED 0 9 1 9 7 9 (21)–(26)

Macoupin Co. - LPC REGION 5 (27)

Brighton / Brighton Land Fill #2
Location / (Responsible Party)

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

Time Collected 1:30 a.m. p.m. Unable to collect sample (X) (30)

Pick-up (31)(33) 0.1 ft. Depth to water (from T.O.C.) (34)(36) 22.5 ft.

Sample temp. (37) 1 C° (39) Background (X). . . . X (40)

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

Sample appearance: muddy, gray color, odorless

Collector comments: well dry

Collected by — Div. or Company

Transported by — Div. or Company

LAB USE ONLY

Lab No. A 067737

Date Rec'd SEP 20 1979

Rec'd by [illegible] Time 7:00 a.m. p.m.

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Lab analysis completed OCT 5 1979

Results forwarded OCT 16 1979

Supervisor Signature

Name MARION

Address of Lab

LPCSM020

Lab Comments:

(27) H ALK Filt (36)

ered (37) (46)

(47) (56)

(57) (66)

(67) (76)

Private Lab (X)

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

LPCSM030

		PARAMETERS+	PPM*
27	X	Alkalinity[1]	340
31	X	Ammonia as N	1.3
37	X	Arsenic As	0.017
	X	Barium Ba	0.3
49	X	BOD -5	5
53	X	Boron B	0.2
58	X	Cadmium Cd	0.01
64	X	Calcium Ca	190.
69	X	COD	320
73	X	Chloride Cl	55

LPCSM040

27	X	Chromium Cr (tot)	0.04
33		Chromium Cr^{+6}	
39	X	Copper Cu	0.44
45	X	Cyanide CN	0.00
52		Fecal Coli (#/100 ml)	
56	X	Fluoride F	0.5
61	X	Hardness $CaCO_3$	520
65	X	Iron Fe	42
70	X	Lead Pb	0.2

LPCSM050

27	X	Magnesium Mg	81
32	X	Manganese Mn	1.9
38	X	Mercury Hg	0.0001
46	X	Nickel Ni	0.1
51	X	Nitrate-nitrite N	23.0
56		Oil and Grease	
60	X	pH (Units)	7.6
63	X	Phenolics	0.000
70		Phosphorus P	
75	X	Potassium K	9.0

LPCSM060

27	X	R.O.E. (180°C)	1880
31	X	Selenium Se	0.002
36	X	Silver Ag	0.00
44	X	Sodium Na	420.
49		SC (umhos/cm)	
53	X	Sulfate SO_4 -	870
58	X	Zinc Zn	0.20
63			

*Analyses are to be performed on unfiltered samples. *Values exceeding no. of places shown are reported in the lab comments section. +Results requested but not run should be indicated in the lab comments section. [1] Alkalinity is to be determined as ppm of $CaCO_3$ at pH 4.5.

METALS ANALYZED AT CHAMPAIGN LABORATORY

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

RECEIVED SEP 1979 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 (9) L 7 5 0 2 0 3 (16)

MONITOR POINT NUMBER (17) 1 1 0 (20) DATE COLLECTED (21) 0 9 1 8 7 9 (26)

Macoupin Co. - LPC REGION 5 (27)

Brighton (Location) / Brighton Land Fill #2 (Responsible Party)

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

Time Collected 3:50 a.m. p.m. Unable to collect sample (X) (30)

Stick-up 1 1.5 ft. (31) (33) Depth to water 17.0 ft. (from T.O.C.) (34) (36)

Sample temp. 1 1 0 (37) 1 (39) Background (X). . . . X (40)

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

Sample Appearance: light grayish brown, colorless

Collector comments: well okay

Collected by — Div. or Company: LPC

Transported by — Div. or Company

LAB USE ONLY

Lab No. A 06738

Date Rec'd SEP 20 1979

Rec'd by PRNK Time 3:00 a.m. p.m.

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed OCT 5 1979

Date forwarded OCT 16 1979

John H. Gray
Supervisor Signature

Name MARION

Address of Lab

LPCSM020
Lab Comments:

(27) BOD overdi (36)
luted (37) (46)
(47) (56)
(57) (66)
(67) (76)

Private Lab (X)

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

LPCSM030

		PARAMETERS	PPM*
27	X	Alkalinity[1]	420.
31	X	Ammonia as N	0.15
37	X	Arsenic As	0.013
44	X	Barium Ba	0.2
49	X	BOD -5 X	—
53	X	Boron B	0.1
58	X	Cadmium Cd	0.01
64	X	Calcium Ca	270.
69	X	COD	280.
73	X	Chloride Cl	11.

LPCSM040

27	X	Chromium Cr (tot)	0.04
33		Chromium Cr^{+6}	
39	X	Copper Cu	0.37
45	X	Cyanide CN	0.00
52		Fecal Coli (#/100 ml)	
56	X	Fluoride F	0.4
61	X	Hardness $CaCO_3$	810.
65	X	Iron Fe	29.
70	X	Lead Pb	0.2

LPCSM050

27	X	Magnesium Mg	140.
32	X	Manganese Mn	3.1
38	X	Mercury Hg	0.0001
46	X	Nickel Ni	0.1
51	X	Nitrate-nitrite N	0.2
56		Oil and Grease	
60	X	pH (Units)	7.5
63	X	Phenolics	0.005
70		Phosphorus P	
76	X	Potassium K	6.9

LPCSM060

27	X	T.D.S. (180°C)	1980.
31		Selenium Se	0.
37	X	Silver Ag	0.00
44	X	Sodium Na	72.
49		SC (mmhos/cm)	
53	X	Sulfate SO_4	520.
58	X	Zinc Zn	0.19
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 $CaCO_3$ at pH 4.5.

LABORATORY

ANALYTICAL—CHEMISTRY—RESEARCH—FIELD STUDIES

3278 NO. LINDBERGH
FLORISSANT, MO. 63033

PHONE
1-314-921-4488

ENVIRONMENTAL
ANALYSIS
INC.

Date: 02-22-82
Report No. 9122
Lab No. 166-13
P.O. No. ----

Mr. Gene Evans
BRIGHTON LANDFILL
1201 Dunn Road
St. Louis, MO 63138

REPORT OF ANALYSIS

Subject: Analysis of Ground Water Monitoring System Well water samples in accordance with EPA Hazardous Waste Management System, Part VII, Subpart F - Ground Water Monitoring, 265.92 Sampling and Analysis.

Sampling was performed from November 13 thru November 16 1981, by Environmental Science & Engineering, Inc., 11665 Lilburn Park Road, St. Louis, MO 63141. The samples were taken at Brighton Landfill property located near Brighton Illinois. A copy of the synopsis of the sampling at the Brighton Landfill, supplied by ESE, is attached to this report.

Sample Identification:
#1 - Well No. 2A, sampled on 11-16-81, 10:15 AM by ESE.
#2 - Well No. 3, sampled on 11-16-81, 9:45 AM by ESE.
#3 - Well No. 9, sampled on 11-13-81, 12:00 PM by ESE.

Results of Analysis:

	# 1	# 2	# 3
Arsenic, mg As/l	<0.001	<0.001	<0.001
Barium, mg Ba/l	0.16	0.15	0.01
Cadmium, mg Cd/l	<0.001	<0.001	<0.001
Chromium (total), mg Cr/l	0.008	<0.001	0.003
Fluoride (elec.), mg F/l	0.42	0.72	0.56
Lead, mg Pb/l	0.002	0.012	0.001

ANALYTICAL—CHEMISTRY—RESEARCH—FIELD STUDIES

3278 NO. LINDBERGH
FLORISSANT. MO. 63033

PHONE
1-314-921-4488

ENVIRONMENTAL
ANALYSIS
INC.

Results of Analysis:

	# 1	# 2	# 3
Mercury, mg Hg/l	<0.0005	<0.0005	<0.0005
Nitrate Nitrogen, mg N/l	0.91	<0.10	8.78
Selenium, mg Se/l	0.002	0.002	0.001
Silver, mg Ag/l	0.002	0.005	0.005
Endrin, mg/l	<0.0002	<0.0002	<0.0002
Lindane, mg/l	<0.0002	<0.0002	<0.0002
Methoxychlor, mg/l	<0.0002	<0.0002	<0.0002
Toxaphene, mg/l	<0.002	<0.002	<0.002
2,4 - D, mg/l	<0.0002	<0.0002	<0.0002
2,4,5-TP Silvex, mg/l	<0.0002	<0.0002	<0.0002
Radium, (total) pCi/l	<0.6	<0.6	<0.6
Gross Alpha, pCi/l	<2	<2	<2
Gross Beta, pCi/l	3.0	<3	<3
Fecal Coliform, #/100 ml.	<2	<2	<2
Chloride, mg Cl/l	146	2.0	28.3
Manganese, mg Mn/l	1.33	0.99	0.014
Phenols, mg Phenol/l	<0.001	<0.001	<0.001
Sodium, mg Na/l	108	76.6	57.4
Total Sulfates, mg SO4/l	155	29.5	225
pH Value, pH Units	7.17	7.86	7.62
pH Value, pH Units	x	x	7.62
pH Value, pH Units	x	x	7.64

ANALYTICAL—CHEMISTRY—RESEARCH—FIELD STUDIES

3278 NO. LINDBERGH
LORISSANT, MO. 63033

PHONE
1-314-921-4488

ENVIRONMENTAL ANALYSIS INC.

Results of Analysis:

	# 1	# 2	# 3
pH Value, pH Units	x	x	7.64
Arithmetric Mean	x	x	7.63
Variance	x	x	0.01
Specific Conductance	1820	820	1190
Specific Conductance	x	x	1190
Specific Conductance	x	x	1200
Specific Conductance	x	x	1200
Arithmetric Mean	x	x	1195
Variance	x	x	5
Total Organic Carbon, mg/l	24.2	6.9	6.9
Total Organic Carbon, mg/l	x	x	6.6
Total Organic Carbon, mg/l	x	x	6.6
Total Organic Carbon, mg/l	x	x	6.7
Arithmetric Mean	x	x	6.7
Variance	x	x	0.2
Total Organic Halogen, mg/l	0.17	0.069	0.055
Total Organic Halogen, mg/l	x	x	0.040
Total Organic Halogen, mg/l	x	x	0.038
Total Organic Halogen, mg/l	x	x	0.059
Arithmetric Mean	x	x	0.048
Variance	x	x	0.011
Iron, mg Fe/l	0.09	0.03	0.03

Respectfully submitted,

R. M. Ferris, Director