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

US EPA RECORDS CENTER REGION 5
487464

Key for Determining Type of Monitoring Point

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

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STATE OF ILLINOIS

FP - 1
Name (Private Well, Stream, Spring, Impounded Water only)

L P C S M O 1 0 (1)–(8) SITE INVENTORY NUMBER 0 3 1 2 4 0 0 1 (9)–(16)

MONITOR POINT NUMBER G 1 0 1 (17)–(20) DATE COLLECTED 0 7 2 6 7 8 (21)–(26)

COOK Co. - IPC REGION N (27)

PALOS HILLS (Location) / CARLSON (Responsible Party)

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

Time Collected 11:45 a.m. p.m. Unable to collect sample (X) (30)

Pump-in 0 0.5 ft. (31) (33) Depth to water 17.7 ft. (from T.O.C.) (34) (36)

Sample temp. 68 °F (37) (39) Background (X). . . . (40)

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

Sample appearance: cloudy; brownish

Collector comments: Bailed 2 gallons; sampled 1 gal.

J. Johnson — Collected by — Walter H. Flood & Co Inc — Div. or Company
J. Johnson — Transported by — Walter H. Flood & Co Inc — Div. or Company

LAB USE ONLY
Lab No. 76050009-11
Date Rec'd 7/26/78
Rec'd by JK Time 4:00 a.m. p.m.
Sample temp. acceptable YES NO
Sample properly preserved YES NO
Date completed 8/3/78
Date forwarded 8/3/78
J. Khakshour
Supervisor Signature
Name Walter H. Flood & Co
Address of Lab 4421 Harrison St Hillside IL 60162

LPCSM030
Lab Comments:

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

| | | ERG* | PPM* |
|---|---|---|---|
| 27 | | Alkalinity† | |
| 31 | X | Ammonia as N | 0.84 |
| 37 | | Arsenic As | |
| 44 | | Barium Ba | |
| 49 | | BOD-5 | |
| 53 | | Boron B | |
| 59 | | Cadmium Cd | |
| 64 | | Calcium Ca | |
| 69 | X | COD | 49 |
| 73 | X | Chloride Cl | 23 |

LPCSM040

| | | | |
|---|---|---|---|
| 27 | | Chromium Cr (total) | |
| 33 | | Chromium $Cr^{+6}$ | |
| 39 | | Copper Cu | |
| 45 | | Cyanide CN | |
| 52 | | Fecal Coli (MPN/100 ml) | |
| 56 | | Fluoride F | |
| 61 | | Hardness $CaCO_3$ | |
| 65 | | Iron Fe | |
| 70 | | Lead Pb | |

LPCSM050

| | | | |
|---|---|---|---|
| 27 | | Magnesium Mg | |
| 32 | | Manganese Mn | |
| 38 | | Mercury Hg | |
| 46 | | Nickel Ni | |
| 51 | | Nitrate-nitrite N | |
| 56 | | Oil and Grease | |
| 62 | | pH (Units) | |
| 68 | | Phenolics | |
| 70 | | Phosphorus P | |
| 76 | | Potassium K | |

LPCSM060

| | | | |
|---|---|---|---|
| 27 | X | R.O.E. (180°C) | 839 |
| 31 | | Selenium Se | |
| 36 | | Silver Ag | |
| 44 | | Sodium Na | |
| 49 | | SC (umhos/cm) | |
| 53 | | Sulfate $SO_4$ | |
| 59 | | Zinc Zn | |
| 63 | | | |

*Analyses are to be performed on filtered samples. *Values exceeding two 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 set mg/l as ppm of $CaCO_3$ at pH 4.5.

IPC-8 REV. 7/77

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

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STATE OF ILLINOIS

Key for Determining Type of Monitoring

| (S) Surface Water | (G) Ground Water | (L) Leachate | (W) Waste |
|---|---|---|---|
| (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 3 - 71 (Private Well, Stream, Spring, Impounded Water only)

L P C S M 0 1 0 (1) (8) SITE INVENTORY NUMBER 0 3 1 2 4 0 0 1 (9) (16)

MONITOR POINT NUMBER G 1 0 3 (17) (20) DATE COLLECTED 0 7 2 6 7 8 (21) (26)

COOK Co. - LPC REGION N (27)

PALOS HILLS (Location) / CARLSON (Responsible Party)

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

Time Collected 9:55 a.m. p.m. Unable to collect sample (X) (30)

Stick-up 01.5 ft. (31) (33) Depth to water 21.0 ft. (from T.O.C.) (34) (36)

Sample temp. 63° F (37) (39) Background (X). . . . (40)

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

Sample Appearance: cloudy; brownish

Collector comments: Bailed 12 gallons; sampled 1 qt.

T. Johnson — Collected by
Walter H. Flood & Co — Div. or Company
T. Johnson — Transported by
Walter H. Flood & Co — Div. or Company

LAB USE ONLY

Lab No. 76050009-11

Date Rec'd 7/26/78

Rec'd by JK Time 4:00 a.m. p.m.

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed 8/3/78

Date forwarded 8/3/78

J Khakshouri
Supervisor Signature

Name WALTER H. FLOOD & Co
Address of Lab 1121 HARRISON HILLSIDE, ILL 60162

LPCSM030 Lab Comments:

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ILL. E.P.A. — D.L.P.C.
STATE OF ILLINOIS

Private Lab (X) X (77)

IEPA Lab (X) (78)

LPCSM030

| | | PARAMETERS* | PPM* |
|---|---|---|---|
| 27 | | Alkalinity[1] | |
| 31 | X | Ammonia as N | 1.49 |
| 37 | | Arsenic As | |
| 44 | | Barium Ba | |
| 49 | | BOD-5 | |
| 53 | | Boron B | |
| [illegible] | | Cadmium Cd | |
| [illegible] | | Calcium Ca | |
| [illegible] | X | COD | 396 |
| 73 | X | Chloride Cl | 1 |

LPCSM040

| | | | |
|---|---|---|---|
| 27 | | Chromium Cr (tot) | |
| 33 | | Chromium $Cr^{+6}$ | |
| [illegible] | | Copper Cu | |
| [illegible] | | Cyanide CN | |
| [illegible] | | Fecal Coli (MPN/100 ml) | |
| 56 | | Fluoride F | |
| 61 | | Hardness $CaCO_3$ | |
| 65 | | Iron Fe | |
| 70 | | Lead Pb | |

LPCSM050

| | | | |
|---|---|---|---|
| 27 | | Magnesium Mg | |
| [illegible] | | Manganese Mn | |
| 38 | | Mercury Hg | |
| 46 | | Nickel Ni | |
| 51 | | Nitrate-nitrite N | |
| 56 | | Oil and Grease | |
| [illegible] | | pH (Units) | |
| [illegible] | | Phenolics | |
| 70 | | Phosphorus P | |
| 75 | | Potassium K | |

LPCSM060

| | | | |
|---|---|---|---|
| 27 | X | Total Solids | 405 |
| 31 | | Selenium Se | |
| [illegible] | | Silver Ag | |
| 44 | | Sodium Na | |
| 49 | | SO (umhos/cm) | |
| 53 | | Sulfate $SO_4$ | |
| [illegible] | | Zinc Zn | |
| [illegible] | | | |

*Analyses are to be performed on filtered samples. *Values exceeding no. of places shown are reported in the lab comments section. [1]Alkalinity is to be determined as ppm of $CaCO_3$ at pH 4.5.

IEC-8 REV. [illegible]

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 |
|---|---|---|
| (1) Upstream | (1) Monitor Well | (1) Flow [illegible] seep |
| (2) Mid-site | (2) Private well | (2) Pond |
| (3) Downstream | (3) Spring | (3) Collection System |
| (4) Run-off | (4) Lysimeter | |
| (5) Impounded | (5) Public W S | |

RECEIVED NOV 16 1978 E.P.A. – D.L.P.C. STATE OF ILLINOIS

54B

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

L P C S M 0 1 0 (1) (8) SITE INVENTORY NUMBER 0 3 1 2 4 0 0 1 (9) (16)

MONITOR POINT NUMBER G 1 4 S (17) (20) DATE COLLECTED 0 7 2 6 7 8 (21) (26)

COOK Co. - LPC REGION N (27)

PALOS HILLS (Location) / CARLSON (Responsible Party)

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

Time Collected 1:00 a.m. p.m. Unable to collect sample (X) (30)

Stick-up 0 0.3 ft. (31) (33) Depth to water (from T.O.C.) 0 0.5 ft. (34) (36)

Sample temp. 63 °F (37) (39) Background (X). . . . (40)

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

Sample Appearance: Cloudy, brownish

Collector comments: Bailed 2 gallons, sampled 1 qt.

J. Johnson (Collected by) Walter H. Flood & Co Inc (Div. or Company)

J. Johnson (Transported by) Walter H. Flood & Co Inc (Div. or Company)

LAB USE ONLY

Lab No. 76050009-11

Date Rec'd 7/26/78

Rec'd by JK Time 4:00 a.m. p.m.

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed 8/3/78

Date forwarded 8/3/78

J. Khakshour
Supervisor Signature

Name Walter H. Flood & Co Inc
Address of Lab 4421 Harrison St Hillside Ill 60162

LPCSM030 Lab Comments:

(27) RECEIVED (37) NOV 27 1978 (46) (47) ILL. E.P.A. – D.L.P.C. STATE OF ILLINOIS (57) (66) (67) (76)

Private Lab (X) X (77)

IEPA Lab (X) (78)

LPCSM030

| | | PARAMETERS* | PPM* |
|---|---|---|---|
| 27 | | Alkalinity[1] | |
| 31 | X | Ammonia as N | 11.60 |
| 37 | | Arsenic As | |
| 44 | | Barium Ba | |
| 49 | | BOD -5 | |
| 53 | | Boron B | |
| 57 | | Cadmium Cd | |
| 64 | | Calcium Ca | |
| 69 | X | COD | 43. |
| 73 | X | Chloride Cl | 20. |

LPCSM030

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

LPCSM030

| | | | |
|---|---|---|---|
| 27 | | Magnesium Mg | |
| 32 | | Manganese Mn | |
| 38 | | Mercury Hg | |
| 46 | | Nickel Ni | |
| 51 | | Nitrate-Nitrite N | |
| 56 | | Oil and Grease | |
| 60 | | pH (Units) | |
| 63 | | Phenolics | |
| 70 | | Phosphorus P | |
| 76 | | Potassium K | |

LPCSM030

| | | | |
|---|---|---|---|
| 27 | X | T.O.C. (TOC) | 645. |
| 31 | | Selenium Se | |
| 38 | | Silver Ag | |
| 44 | | Sodium Na | |
| 49 | | SC (umhos/cm) | |
| 53 | | Sulfate $SO_4$ | |
| 58 | | Zinc Zn | |
| 63 | | | |

*Analyses are to be performed on filtered samples. *Values exceeding n . 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

Key for Determining Type of Monitoring Point

| (S) Surface Water | (G) Ground Water | (L) Leachate | (A) Soil |
|---|---|---|---|
| (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
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STATE OF ILLINOIS

54A
Name (Private Well, Stream, Spring, Impounded Water only)

L P C S M 0 1 0 (1–8) SITE INVENTORY NUMBER 0 3 1 2 4 0 0 1 (9–16)

MONITOR POINT NUMBER G 1 4 D (17–20) DATE COLLECTED 0 7 2 6 7 8 (21–26)

COOK Co. - LPC REGION N (27)

PALOS HILLS (Location) / CARLSON (Responsible Party)

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

Time Collected 1:20 a.m. p.m. Unable to collect sample (X) (30)

Stick-up 0 0.3 ft. (31–33) Depth to water 0 8.9 ft. (from T.O.C.) (34–36)

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

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

Sample Appearance: cloudy; grayish

Collector comments: Bailed 3 gallons; sampled 1 qt.

J. Johnson — Collected by
Walter H. Flood & Co Inc — Div. or Company
J. Johnson — Transported by
Walter H. Flood & Co Inc — Div. or Company

LAB USE ONLY
Lab No. 76050009-11
Date Rec'd 7/26/78
Rec'd by JK Time 4:00 a.m. p.m.
Sample temp. acceptable YES NO
Sample properly preserved YES NO
Date completed 8/3/78
Date forwarded 8/3/78
J. Khakshour
Supervisor Signature
Name Walter H. Flood & Co Inc
Address 4421 Harrison
of Lab Hillside Illinois 60162

LPCSM020
Lab Comments:

(27) RECEIVED
(37) NOV 27 1978 (46)
(47) ILL. E.P.A. – D.L.P.C. STATE OF ILLINOIS
(57) (66)
(67) (76)
Private Lab (X) X (77)
IEPA Lab (X) (78)

LPCSM030

| | | PARAMETERS* | PPM* |
|---|---|---|---|
| 27 | | Alkalinity[1] | |
| 31 | X | Ammonia as N | 3.10 |
| 37 | | Arsenic As | |
| 44 | | Barium Ba | |
| 49 | | BOD -5 | |
| 53 | | Boron B | |
| 59 | | Cadmium Cd | |
| 64 | | Calcium Ca | |
| 69 | X | COD | 26 |
| 73 | X | Chloride Cl | 10 |

LPCSM040

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

LPCSM050

| | | |
|---|---|---|
| 27 | | Magnesium Mg |
| 32 | | Manganese Mn |
| 38 | | Mercury Hg |
| 46 | | Nickel Ni |
| 51 | | Nitrate-nitrite N |
| 56 | | Oil and Grease |
| 60 | | pH (Units) |
| 63 | | Phenolics |
| 70 | | Phosphorus P |
| 76 | | Potassium K |

LPCSM060

| | | |
|---|---|---|
| 37 | X | R.O.E. (180°C) 181 |
| 41 | | Selenium Se |
| 38 | | Silver Ag |
| 44 | | Sodium Na |
| 49 | | SC (umhos/cm) |
| 53 | | Sulfate $SO_4$ |
| 57 | | 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] Reliability is to be determined as ppm of calcium carbonate.

IEC-8 REV. 3/77

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) Landfill |
|---|---|---|
| (1) Upstream | (1) Monitor Well | (1) Pre-Landfill Monitor Well; seep |
| (2) Mid-site | (2) Private well | (2) Pond |
| (3) Downstream | (3) Spring | (3) Collection Other System |
| (4) Run-off | (4) Lysimeter | |
| (5) Impounded | (5) Public W S | |

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STATE OF ILLINOIS

Name (Private Well, Stream, Spring, Impounded water only) FP - 15

LPCSM010 (1–8) SITE INVENTORY NUMBER 03124001 (9–16)

MONITOR POINT NUMBER G115 (17–20) DATE COLLECTED 072678 (21–26)

COOK Co. - LPC REGION N (27)

PALOS HILLS (Location) / CARLSON (Responsible Party)

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

Time Collected 12:30 A.M. P.M. Unable to collect sample (X) (30)

Stick-up 02.5 ft. (31) (33) Depth to water 18.1 ft. (from T.O.C.) (34) (36)

Sample temp. 65 °F (37) (39) Background (X). . . . (40)

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

Sample Appearance: Cloudy; brownish

Collector comments: Bailed 2 gallons; Sampled 1 quart

J. Johnson — Collected by
Walter H. Flood & Co Inc — Div. or Company
J. Johnson — Transported by
Walter H. Flood & Co Inc — Div. or Company

LAB USE ONLY

Lab No. 76050009-11

Date Rec'd 7/26/78

Rec'd by JK Time 4:00 A.M. P.M.

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed 8/3/78

Date forwarded 8/3/78

J. Khakshour
Supervisor Signature

Name WALTER H. FLOOD & CO INC
Address 4421 HARRISON ST
of Lab HILLSIDE IL 60162

LPCSM020 Lab Results

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STATE OF ILLINOIS

(37) (46) (47) (56) (57) (66) (67) (76)

Private Lab (X) X (77)

IEPA Lab (X) (78)

LPCSM030

| | | PARAMETERS* | PPM* |
|---|---|---|---|
| 27 | | Alkalinity[1] | |
| 31 | X | Ammonia as N | 5.20 |
| 37 | | Arsenic As | |
| 44 | | Barium Ba | |
| 49 | | BOD-5 | |
| 53 | | Boron B | |
| 58 | | Cadmium Cd | |
| 64 | | Calcium Ca | |
| 69 | X | COD | 132 |
| 73 | X | Chloride Cl | 4 |

LPCSM040

| | | | |
|---|---|---|---|
| 27 | | Chromium Cr (total) | |
| 33 | | Chromium Cr+6 | |
| 39 | | Copper Cu | |
| 45 | | Cyanide CN | |
| 52 | | Fecal Coli (#/100 ml) | |
| 56 | | Fluoride F | |
| 61 | | Hardness $CaCO_3$ | |
| 65 | | Iron Fe | |
| 70 | | Lead Pb | |

LPCSM050

| | | | |
|---|---|---|---|
| 27 | | Magnesium Mg | |
| 32 | | Manganese Mn | |
| 38 | | Mercury Hg | |
| 46 | | Nickel Ni | |
| 52 | | Nitrate-nitrite N | |
| 56 | | Oil and Grease | |
| 62 | | pH (Units) | |
| 68 | | Phenolics | |
| 70 | | Phosphorus P | |
| 75 | | Potassium K | |

LPCSM060

| | | | |
|---|---|---|---|
| 27 | X | R. S. (Total) | 717 |
| 31 | | Selenium Se | |
| 36 | | Silver Ag | |
| 44 | | Sodium Na | |
| 49 | | SC (umhos/cm) | |
| 53 | | Sulfate $SO_4$ | |
| 57 | | Tannin | |
| 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 mg $CaCO_3$ 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 |
|---|---|---|---|
| (1) Upstream | (1) Monitor Well | (1) Pond | (1) Waste |
| (2) Mid-site | (2) Private well | (2) Pond | (2) Other |
| (3) Downstream | (3) Spring | (3) Collection System | |
| (4) Run-off | (4) Lysimeter | | |
| (5) Impounded | (5) Public W S | | |

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STATE OF ILLINOIS

58
Name (Private Well, Stream, Spring, Leachate Water only)

L P C S M 0 1 0 (1) (8)

SITE INVENTORY NUMBER 0 3 1 2 4 0 0 1 (9) (16)

MONITOR POINT NUMBER G 1 5 8 (17) (23)

DATE COLLECTED 0 7 2 6 7 8 (21) (26)

COOK Co. - LPC REGION N (27)

PALOS HILLS (Location) / CARLSON (Responsible Party)

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

Time Collected 10:15 a.m. p.m. Unable to collect sample (X) (30)

Stick-up 03.5 ft. (31) (33) Depth to water 24.3 ft. (from T.O.C.) (34) (38)

Sample temp. 71 °F (37) (39) Background (X). . . . (40)

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

Sample Appearance: cloudy, grayish

Collector comments: Bailed 4 gallons; sample size 1 qt.

J. Johnson — Collected by
Walter H. Flood & Co. Inc — Div. or Company
J. Johnson — Transported by
Walter H. Flood & Co Inc — Div. or Company

LAB USE ONLY
Lab No. 76050009-11
Date Recd 7/26/78
Recd by JK Time 4:00 a.m. p.m.
Sample temp. acceptable YES NO
Sample properly preserved YES NO
Date completed 8/3/78
Date forwarded 8/3/78
J. Khakshour RJE
Supervisor Signature
Name WALTER H. FLOOD & Co
Address 4421 HARRISON
of Lab HILLSIDE IL 60162

LPCM030
Lab Comments:

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ILL. E.P.A. – D.L.P.C.
STATE OF ILLINOIS

Private Lab (X) X (79)
IEPA Lab (X) (77)

LPCM030

| | PARAMETERS | PPM* |
|---|---|---|
| | Alkalinity[1] | |
| X | Ammonia as N | 1.40 |
| | Arsenic As | |
| | Barium Ba | |
| | BOD 5-5 | |
| X | Boron B | 0.0 |
| | Cadmium Cd | |
| | Calcium Ca | |
| X | Cl | 245 |
| X | Chloride Cl | 17 |

LPCM030

| | | |
|---|---|---|
| | Chromium Cr (Total) | |
| | Chromium Cr+6 | |
| | Copper Cu | |
| | Cyanide CN | |
| | Fecal Coli (#/100 ml) | |
| | Fluoride F | |
| X | Hardness (CaCO3) | 300 |
| X | Iron Fe | 0.8 |
| | Lead Pb | |

LPCM030

| | | |
|---|---|---|
| | Magnesium Mg | |
| | Manganese Mn | |
| | Mercury Hg | |
| | Nickel Ni | |
| | Nitrate-nitrite N | |
| | Oil and Grease | |
| | pH (Units) | |
| | Phenols | |
| | Phosphorus P | |
| | Potassium K | |

LPCM030

| | | |
|---|---|---|
| X | Residue (TDS) | 545 |
| | Selenium Se | |
| | Silver Ag | |
| | Sodium Na | |
| | Sulfate (mg/l) | |
| X | Sulfate $SO_4$ | 350.0 |
| | Tannin | |
| | | |

*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 reported in mg/l of $CaCO_3$.

LPC-8 REV. 7/77

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
NOV 16 1978
I.E.P.A. – D.L.P.C.
STATE OF ILLINOIS

Name 60 (Private Well, Stream, Spring, Impounded Water only)

LPCSM010 (1–8) SITE INVENTORY NUMBER 03124001 (9–16)

MONITOR POINT NUMBER G160 (17–20) DATE COLLECTED 072678 (21–26)

COOK Co. – LPC REGION N (27)

PALOS HILLS (Location) / CARLSON (Responsible Party)

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

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

Stick-up 03.5 ft. (31–33) Depth to water 21.0 ft. (from T.O.C.) (34–36)

Sample temp. 99 °F (37–39) background (X). . . . (40)

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

Sample Appearance: Cloudy, Dark Gray

Collector comments: Bailed 26 gallons; sampled 1 qt.

Johnson — Collected by
Walter H. Flood & Co Inc. — Div. or Company
J. Johnson — Transported by
Walter H. Flood & Co Inc. — Div. or Company

LAB USE ONLY
Lab No. 76050005-11
Date Rec'd 7/26/78
Rec'd by JK Time 4:00 a.m. / p.m.
Sample temp. acceptable YES NO
Sample properly preserved YES NO
Date completed 8/3/78
Date forwarded 8/3/78
J. Khukshour
Supervisor Signature
Name WALTER H. FLOOD & Co
Address of Lab 4421 HARRISON HILLSIDE IL 60162

LPCSM020 Lab Comments:

(77) (78)
(37) RECEIVED (42)
(47) NOV 27 1978 (52)
(57) ILL. E.P.A. – D.L.P.C. STATE OF ILLINOIS (62)
(67) (72)
Private Lab (X) X (77)
IEPA Lab (X) (78)

LPCSM030

| | | PARAMETERS* | PPM* |
|---|---|---|---|
| 27 | | Alkalinity[1] | |
| 31 | X | Ammonia as N | 17.30 |
| 37 | | Arsenic As | |
| 44 | | Barium Ba | |
| 49 | | BOD -5 | |
| 53 | X | Boron B | 2.0 |
| 58 | | Cadmium Cd | |
| 64 | | Calcium Ca | |
| 69 | X | COD | 2486 |
| 73 | X | Chloride Cl | 280 |

LPCSM040

| | | | |
|---|---|---|---|
| 27 | | Chromium Cr (+6) | |
| 33 | | Chromium Cr(T) | |
| 39 | | Copper Cu | |
| 45 | | Cyanide CN | |
| 52 | | Fecal Coli (#/100 ml) | |
| 56 | | Fluoride F | |
| 61 | X | Hardness $CaCO_3$ | 243 |
| 65 | X | Iron Fe | 100.1 |
| 70 | | Lead Pb | |

LPCSM050

| | | | |
|---|---|---|---|
| 27 | | Magnesium Mg | |
| 32 | | Manganese Mn | |
| 38 | | Mercury Hg | |
| 46 | | Nickel Ni | |
| 51 | | Nitrate-nitrite N | |
| 56 | | Oil and Grease | |
| 61 | | pH (Units) | |
| 63 | | Phenols | |
| 70 | | Phosphorus P | |
| 75 | | Potassium K | |

LPCSM060

| | | | |
|---|---|---|---|
| 27 | X | R.O.E. (ppm) | 1708 |
| 31 | | Selenium Se | |
| 35 | | Silver Ag | |
| 44 | | Sodium Na | |
| 49 | | TS (unheated) | |
| 53 | X | Sulfate $SO_4$ | 27.0 |
| 58 | | Tin Sn | |
| 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 $CaCO_3$, pH 4.5.

IEC-8 REV. 3-77

RECEIVED

MAR 19 1979

E.P.A. – D.L.P.
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) Coll. |
| (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 3 - 71 (Private Well, Stream, Spring, Impounded Water only)

(1) L P C S M 0 1 0 (8) SITE INVENTORY NUMBER (9) 0 3 1 2 4 0 0 1 (16)

MONITOR POINT NUMBER (17) G 1 0 3 (20) DATE COLLECTED (21) 1 0 1 8 7 8 (26)

COOK Co. - LPC REGION (27) N

PALOS HILLS (Location) / CARLSON (Responsible Party)

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

Time Collected 12:15 p.m. Unable to collect sample (X) (30)

Stick-up (31) 1.8 ft. (33) Depth to water (from T.O.C.) (34) 17.5 ft. (36)

Sample temp. (37) 60 ° (39) F Background (X). . . . (40)

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

Sample Appearance: clear

Collector comments: Bailed 17 gallons; collected 1qt sample depth to bottom of well 43.2'

C. Evankoe — Collected by
Walter H. Flood & Co. Inc — Div. or Company
M. De Michael — Transported by
Walter H. Flood & Co Inc — Div. or Company

LAB USE ONLY

Lab No. 76050009-12

Date Rec'd 10/18/78

Rec'd by JK Time 5:30 p.m.

Sample temp. acceptable (YES) NO

Sample properly preserved (YES) NO

Date completed 11/8/78

Date forwarded 11/8/78

Raymond J. Lod
Supervisor Signature

Name Walter H. Flood & Co Inc
Address of Lab 4421 Harrison St Hillside Ill 60162

LPCSM020
Lab Comments:

(27) — (36)

(37) — (46)

(47) — (56)

(57) — (66)

(67) — (76)

Private Lab (X) X (77)

IEPA Lab (X) (78)

LPCSM030

| | | PARAMETERS+ | PPM* |
|---|---|---|---|
| 27 | | Alkalinity[1] | |
| 31 | X | Ammonia as N | 1.68 |
| 37 | | Arsenic As | |
| 44 | | Barium Ba | |
| 49 | | BOD -5 | |
| 53 | | Boron B | |
| 58 | | Cadmium Cd | |
| 64 | | Calcium Ca | |
| 69 | X | COD | 385 |
| 73 | X | Chloride Cl | 124 |

LPCSM040

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

LPCSM050

| | | |
|---|---|---|
| 27 | | Magnesium Mg |
| 32 | | Manganese Mn |
| 38 | | Mercury Hg |
| 46 | | Nickel Ni |
| 51 | | Nitrate-nitrite N |
| 56 | | Oil and Grease |
| 60 | | pH (Units) |
| 63 | | Phenolics |
| 70 | | Phosphorus P |
| 76 | | Potassium K |

LPCSM060

| | | |
|---|---|---|
| 27 | X | R.O.E. (180°C) 4400 |
| 31 | | Selenium Se |
| 38 | | Silver Ag |
| 44 | | Sodium Na |
| 49 | | SC (umhos/cm) |
| 53 | | Sulfate $SO_4$ |
| 58 | | 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.

LPC-8 REV. 3/77

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

RECEIVED
MAR 19 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 FP - 15 (Private Well, Stream, Spring, Impounded Water only)

(1) L P C S M 0 1 0 (8) SITE INVENTORY NUMBER (9) 0 3 1 2 4 0 0 1 (16)

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

COOK Co. - LPC REGION (27) N

PALOS HILLS (Location) / CARLSON (Responsible Party)

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

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

Stick-up (31) 3.0 (33) ft. Depth to water (from T.O.C.) (34) 15.0 (36) ft.

Sample temp. (37) 62 (39) °F Background (X). . . . (40)

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

Sample Appearance: Slightly cloudy

Collector comments: Bailed 2 gallons; collected 1qt sample;

C. Evanko — Collected by — Walter H. Flood & Co Inc — Div. or Company

M. De Michael — Transported by — Walter H. Flood & Co Inc — Div. or Company

LAB USE ONLY

Lab No. 76050009-12

Date Rec'd 10/18/78

Rec'd by JK Time 5:30 p.m.

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed 11/8/78

Date forwarded 11/8/78

Raymond J. Flood — Supervisor Signature

Name WALTER H. FLOOD & Co INC

Address of Lab 4421 Harrison St Hillside Ill 60162

LPCSM020 Lab Comments:

(27) — (36)

(37) — (46)

(47) — (56)

(57) — (66)

(67) — (76)

Private Lab (X) X (77)

IEPA Lab (X) (78)

LPCSM030

| | | PARAMETERS+ | PPM* |
|---|---|---|---|
| 27 | | Alkalinity[1] | |
| 31 | X | Ammonia as N | 1.20 |
| 37 | | Arsenic As | |
| 44 | | Barium Ba | |
| 49 | | BOD -5 | |
| 53 | | Boron B | |
| 58 | | Cadmium Cd | |
| 64 | | Calcium Ca | |
| 69 | X | COD | 139 |
| 73 | X | Chloride Cl | 4 |

LPCSM040

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

LPCSM050

| | | |
|---|---|---|
| 27 | | Magnesium Mg |
| 32 | | Manganese Mn |
| 38 | | Mercury Hg |
| 46 | | Nickel Ni |
| 51 | | Nitrate-nitrite N |
| 56 | | Oil and Grease |
| 60 | | pH (Units) |
| 63 | | Phenolics |
| 70 | | Phosphorus P |
| 76 | | Potassium K |

LPCSM060

| | | |
|---|---|---|
| 27 | X | R.O.E. (180°C) 1060 |
| 31 | | Selenium Se |
| 38 | | Silver Ag |
| 44 | | Sodium Na |
| 49 | | SC (umhos/cm) |
| 53 | | Sulfate $SO_4$ |
| 58 | | 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.

LPC-8 REV. 3/77

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

RECEIVED
NOV 29 1979
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 FP - 1 (Private Well, Stream, Spring, Impounded Water only)

L P C S M 0 1 0 (1)–(8) SITE INVENTORY NUMBER 0 3 1 2 4 0 0 1 (9)–(16)

MONITOR POINT NUMBER G 1 0 1 (17)–(20) DATE COLLECTED (21)–(26)

COOK Co. - LPC REGION N (27)

PALOS HILLS (Location) / CARLSON (Responsible Party)

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

Time Collected 3:00 a.m. p.m. Unable to collect sample (X) (30)

Stick-up 0.0 ft. (31)–(33) Depth to water (from T.O.C.) 21.5 ft. (34)–(36)

Sample temp. 66 °F (37)–(39) Background (X). . . . (40)

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

Sample Appearance: Clear

Collector comments: Bailed 1.5 gallons; collected 1 qt. sample
Depth to bottom of well 34.8'

C. Evankoe — Collected by
Walter H. Flood & Co Inc — Div. or Company
M. De Michael — Transported by
Walter H. Flood & Co Inc — Div. or Company

LAB USE ONLY

Lab No. 76050009-12

Date Rec'd 10/12/78

Rec'd by JK Time 5:30 a.m. p.m.

Sample temp. acceptable YES NO
Sample properly preserved YES NO

Date completed 11/8/78
Date forwarded 11/8/78

Raymond J. Flood
Supervisor Signature

Name WALTER H. FLOOD & Co Inc
Address of Lab 4421 Harrison St Hillside Ill 60162

LPCSM020
Lab Comments:

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

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

LPCSM030

| | | PARAMETERS+ | PPM* |
|---|---|---|---|
| 27 | | Alkalinity[1] | |
| 31 | X | Ammonia as N | 1.13 |
| 37 | | Arsenic As | |
| 44 | | Barium Ba | |
| 49 | | BOD -5 | |
| 53 | | Boron B | |
| 58 | | Cadmium Cd | |
| 64 | | Calcium Ca | |
| 69 | X | COD | 49 |
| 73 | X | Chloride Cl | 28 |

LPCSM040

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

LPCSM050

| | | |
|---|---|---|
| 27 | | Magnesium Mg |
| 32 | | Manganese Mn |
| 38 | | Mercury Hg |
| 46 | | Nickel Ni |
| 51 | | Nitrate-nitrite N |
| 56 | | Oil and Grease |
| 60 | | pH (Units) |
| 63 | | Phenolics |
| 70 | | Phosphorus P |
| 76 | | Potassium K |

LPCSM060

| | | |
|---|---|---|
| 27 | X | R.O.E. (180°C) 600 |
| 31 | | Selenium Se |
| 36 | | Silver Ag |
| 44 | | Sodium Na |
| 49 | | SC (umhos/cm) |
| 53 | | Sulfate $SO_4$ |
| 58 | | 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.

LPC-8 REV. 3/77

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

RECEIVED
MAR 19 197
E.P.A. – D.L.
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 54B (Private Well, Stream, Spring, Impounded Water only)

(1) L P C S M 0 1 0 (8) SITE INVENTORY NUMBER (9) 0 3 1 2 4 0 0 1 (16)

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

COOK Co. - LPC REGION (27) N

PALOS HILLS (Location) / CARLSON (Responsible Party)

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

Time Collected 2:00 ~~a.m.~~ p.m. Unable to collect sample (X) (30)

Stick-up (31) 0.1 (33) ft. Depth to water (from T.O.C.) (34) 5.0 (36) ft.

Sample temp. (37) 60 (39) °F Background (X). . . . (40)

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

Sample Appearance: Clear

Collector comments: Bailed 1.5 gallons; collected 1 qt. sample
Depth to bottom of well 20.5'

C. Evankoe — Collected by — Walter H. Flood & Co. Inc — Div. or Company

M. De Michael — Transported by — Walter H. Flood & Co Inc — Div. or Company

LAB USE ONLY

Lab No. 76050009-12

Date Rec'd 10/18/78

Rec'd by JK Time 5:30 ~~a.m.~~ p.m.

Sample temp. acceptable YES NO
Sample properly preserved YES NO

Date completed 11/8/78
Date forwarded 11/8/78

Raymond J Flood
Supervisor Signature

Name Walter H. Flood & Co Inc
Address 4421 Harrison St.
of Lab Hillside, Ill 60162

LPCSM020
Lab Comments:

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

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

LPCSM030

| | | PARAMETERS+ | PPM* |
|---|---|---|---|
| 27 | | Alkalinity[1] | |
| 31 | X | Ammonia as N | 0.93 |
| 37 | | Arsenic As | |
| 44 | | Barium Ba | |
| 49 | | BOD -5 | |
| 53 | | Boron B | |
| 58 | | Cadmium Cd | |
| 64 | | Calcium Ca | |
| 69 | X | COD | 91 |
| 73 | X | Chloride Cl | 29 |

LPCSM040

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

LPCSM050

| | | |
|---|---|---|
| 27 | | Magnesium Mg |
| 32 | | Manganese Mn |
| 38 | | Mercury Hg |
| 46 | | Nickel Ni |
| 51 | | Nitrate-nitrite N |
| 56 | | Oil and Grease |
| 60 | | pH (Units) |
| 63 | | Phenolics |
| 70 | | Phosphorus P |
| 76 | | Potassium K |

LPCSM060

| | | |
|---|---|---|
| 27 | X | R.O.E. (180°C) 610 |
| 31 | | Selenium Se |
| 36 | | Silver Ag |
| 44 | | Sodium Na |
| 49 | | SC (umhos/cm) |
| 53 | | Sulfate $SO_4$ |
| 58 | | 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.

LPC-8 REV. 3/77

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

RECEIVED
MAR 19 197
E.P.A. – D.L.N.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 54A (Private Well, Stream, Spring, Impounded Water only)

(1) L P C S M 0 1 0 (8) SITE INVENTORY NUMBER (9) 0 3 1 2 4 0 0 1 (16)

MONITOR POINT NUMBER (17) G 1 4 D (20) DATE COLLECTED (21) 10 18 78 (26)

COOK Co. - LPC REGION (27) N

PALOS HILLS (Location) / CARLSON (Responsible Party)

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

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

Stick-up (31) 0.1 (33) ft. Depth to water (from T.O.C.) (34) 14.8 (36) ft.

Sample temp. (37) 62 (39) °F Background (X). . . . (40)

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

Sample Appearance: Cloudy, grayish

Collector comments: Bailed 3 gallons; collected 1 qt. sample

C. Evenkoe — Collected by
Walter H. Flood & Co Inc — Div. or Company
M. DeMichael — Transported by
Walter H. Flood & Co. Inc — Div. or Company

LAB USE ONLY

Lab No. 76050009-12

Date Rec'd 10/18/78

Rec'd by JK Time 5:30 ~~a.m.~~ p.m.

Sample temp. acceptable YES NO
Sample properly preserved YES NO
Date completed 11/8/78
Date forwarded 11/8/78

Raymond Flood
Supervisor Signature

Name WALTER H. FLOOD & CO INC
Address of Lab 4421 Harrison St. Hillside, Ill 60162

LPCSM020
Lab Comments:

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

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

LPCSM030

| | | PARAMETERS* | PPM* |
|---|---|---|---|
| 27 | | Alkalinity[1] | |
| 31 | X | Ammonia as N | 1.08 |
| 37 | | Arsenic As | |
| 44 | | Barium Ba | |
| 49 | | BOD -5 | |
| 53 | | Boron B | |
| 58 | | Cadmium Cd | |
| 64 | | Calcium Ca | |
| 69 | X | COD | 35 |
| 73 | X | Chloride Cl | 11 |

LPCSM040

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

LPCSM050

| | | | |
|---|---|---|---|
| 27 | | Magnesium Mg | |
| 32 | | Manganese Mn | |
| 38 | | Mercury Hg | |
| 46 | | Nickel Ni | |
| 51 | | Nitrate-nitrite N | |
| 56 | | Oil and Grease | |
| 60 | | pH (Units) | |
| 63 | | Phenolics | |
| 70 | | Phosphorus P | |
| 76 | | Potassium K | |

LPCSM060

| | | | |
|---|---|---|---|
| 27 | X | R.O.E. (180°C) | 1500 |
| 31 | | Selenium Se | |
| 38 | | Silver Ag | |
| 44 | | Sodium Na | |
| 49 | | SC (umhos/cm) | |
| 53 | | Sulfate $SO_4$ | |
| 58 | | 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.

LPC-8 REV. 3/77

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

RECEIVED
MAR 19 197
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) Coil |
| (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 60 (Private Well, Stream, Spring, Impounded Water only)

(1) L P C S M 0 1 0 (8) SITE INVENTORY NUMBER (9) 0 3 1 2 4 0 0 1 (16)

MONITOR POINT NUMBER (17) G 1 6 0 (20) DATE COLLECTED (21) 1 0 1 8 7 8 (26)

COOK Co. - LPC REGION (27) N

PALOS HILLS (Location) / CARLSON (Responsible Party)

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

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

Stick-up (31) 4.0 (33) ft. Depth to water (from T.O.C.) (34) 25.0 (36) ft.

Sample temp. (37) 99 (39) °F Background (X). . . . (40)

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

Sample Appearance: Cloudy, greenish,

Collector comments: Bailed 20 gallons; collected 1 qt. sample depth to bottom of well 29', gas odor

C. Evankoe — Collected by
Walter H. Flood & Co. Inc — Div. or Company
M. De Michael — Transported by
Walter H. Flood & Co Inc — Div. or Company

LAB USE ONLY

Lab No. 76050009-12

Date Rec'd 10/18/79

Rec'd by JK Time 5:30 p.m.

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed 11/8/78

Date forwarded 11/8/78

Raymond J Lord
Supervisor Signature

Name WALTER H. FLOOD & Co Inc
Address 4421 Harrison St.
of Lab Hillside Illinois 60162

LPCSM020
Lab Comments:

(27) ROE 17300 (36)

(37) (46)

(47) (56)

(57) (66)

(67) (76)

Private Lab (X) X (77)

IEPA Lab (X) (78)

LPCSM030

| | | PARAMETERS+ | PPM* |
|---|---|---|---|
| 27 | | Alkalinity[1] | |
| 31 | X | Ammonia as N | 15.25 |
| 37 | | Arsenic As | |
| 44 | | Barium Ba | |
| 49 | | BOD -5 | |
| 53 | X | Boron B | 0.2 |
| 58 | | Cadmium Cd | |
| 64 | | Calcium Ca | |
| 69 | X | COD | 2420 |
| 73 | X | Chloride Cl | 288 |

LPCSM040

| | | | |
|---|---|---|---|
| 27 | | Chromium Cr (tot) | |
| 33 | | Chromium $Cr^{+6}$ | |
| 39 | | Copper Cu | |
| 45 | | Cyanide CN | |
| 52 | | Fecal Coli (#/100 ml) | |
| 56 | | Fluoride F | |
| 61 | X | Hardness $CaCO_3$ | 601 |
| 65 | X | Iron Fe | 16.0 |
| 70 | | Lead Pb | |

LPCSM050

| | | | |
|---|---|---|---|
| 27 | | Magnesium Mg | |
| 32 | | Manganese Mn | |
| 38 | | Mercury Hg | |
| 46 | | Nickel Ni | |
| 51 | | Nitrate-nitrite N | |
| 56 | | Oil and Grease | |
| 60 | | pH (Units) | |
| 63 | | Phenolics | |
| 70 | | Phosphorus P | |
| 76 | | Potassium K | |

LPCSM060

| | | | |
|---|---|---|---|
| 27 | X | R.O.E. (180°C) | |
| 31 | | Selenium Se | |
| 38 | | Silver Ag | |
| 44 | | Sodium Na | |
| 49 | | SC (umhos/cm) | |
| 53 | X | Sulfate $SO_4$ | 3250 |
| 58 | | 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.

LPC-8 REV. 3/77

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

RECEIVED
MAR 19 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 58 (Private Well, Stream, Spring, Impounded Water only)

(1) L P C S M 0 1 0 (8) SITE INVENTORY NUMBER (9) 0 3 1 2 4 0 0 1 (16)

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

COOK Co. - LPC REGION (27) N

PALOS HILLS (Location) / CARLSON (Responsible Party)

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

Time Collected 1:00 p.m. Unable to collect sample (X) (30)

Stick-up (31) 4 (33) .2 ft. Depth to water (from T.O.C.) (34) 2 (36) 8.0 ft.

Sample temp. (37) 6 (39) 5 °F Background (X). . . . (40)

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

Sample Appearance: Cloudy Grayish

Collector comments: Bailed 2.5 gallons, collected 1 qt. sample depth to bottom of well 34'

C. Evankoe — Collected by — Walter H. Flood & Co. Inc — Div. or Company

M. DeMichael — Transported by — Walter H. Flood & Co Inc — Div. or Company

LAB USE ONLY

Lab No. 76050009-12

Date Rec'd 10/18/78

Rec'd by JK Time 5:30 p.m.

Sample temp. acceptable (YES) NO

Sample properly preserved (YES) NO

Date completed 11/8/78

Date forwarded

Raymond J. Flood — Supervisor Signature

Name Walter H. Flood & Co Inc
Address of Lab 4421 Harrison St Hillside Ill 60162

LPCSM020
Lab Comments:

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

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

LPCSM030

| | PARAMETERS+ | PPM* |
|---|---|---|
| 27 | Alkalinity[1] | |
| 31 X | Ammonia as N | 0.93 |
| 37 | Arsenic As | |
| 44 | Barium Ba | |
| 49 | BOD -5 | |
| 53 X | Boron B | 0.0 |
| 58 | Cadmium Cd | |
| 64 | Calcium Ca | |
| 69 X | COD | 243 |
| 73 X | Chloride Cl | 17 |

LPCSM040

| | | |
|---|---|---|
| 27 | Chromium Cr (tot) | |
| 33 | Chromium $Cr^{+6}$ | |
| 39 | Copper Cu | |
| 45 | Cyanide CN | |
| 52 | Fecal Coli (#/100 ml) | |
| 56 | Fluoride F | |
| 61 X | Hardness $CaCO_3$ | 360 |
| 65 X | Iron Fe | 0.8 |
| 70 | Lead Pb | |

LPCSM050

| | | |
|---|---|---|
| 27 | Magnesium Mg | |
| 32 | Manganese Mn | |
| 38 | Mercury Hg | |
| 46 | Nickel Ni | |
| 51 | Nitrate-nitrite N | |
| 56 | Oil and Grease | |
| 60 | pH (Units) | |
| 63 | Phenolics | |
| 70 | Phosphorus P | |
| 76 | Potassium K | |

LPCSM060

| | | |
|---|---|---|
| 27 X | R.O.E. (180°C) | 2600 |
| 31 | Selenium Se | |
| 38 | Silver Ag | |
| 44 | Sodium Na | |
| 49 | SC (umhos/cm) | |
| 53 X | Sulfate $SO_4$ | 540.0 |
| 58 | 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.

LPC-8 REV. 3/77

For Northern Region KID

**Walter H. Flood & Co., Inc.**
ENGINEERS
4421 HARRISON STREET
HILLSIDE, ILLINOIS 60162
TELEPHONE 312/449-0500
CHICAGO NUMBER 261-6607

RECEIVED
MAR 19 1979
E.P.A. – D.L.P.C.
STATE OF ILLINOIS

ESTABLISHED 1913
WALTER H. FLOOD (1885-1951)
RAYMOND J. FLOOD, P. E.
PAUL E. FLOOD, P. E.
KALAMAZOO OFFICE
7509 S. WEST NEDGE AVENUE
PORTAGE, MICHIGAN 49081
TELEPHONE 616/327-7095

March 16, 1979

RECEIVED
MAR 21 1979
ILL.E.P.A. – D.L.P.C.
NORTHERN REGION

State of Illinois
Environmental Protection Agency
2200 Churchill Road
Springfield, Illinois 62706

Re: Cook County 03124001
Palos Hills/Carlson
(Our No. 76050009-12)

Attn: Mr. Thomas P. Clark
Hydrogeologist, Technical Support Unit (Land)
Division of Land/Noise Pollution Control

Gentlemen:

Attached are water quality tests for the 4th quarter of 1978.

An inspection of the site was made by the undersigned on March 16, 1979. No major depressions or erosional areas were noted. Locally, ice and snow appeared in small depressions on the perimeter. It is suggested that these small areas be reinspected after a complete thaw to see if they require filling or draining. There were no gaseous odors detected, and there was no activity in the immediate area that might be threatened by gas migration.

Respectfully submitted,

WALTER H. FLOOD & CO., INC.

Raymond J. Flood
Registered Professional Engineer
Illinois 21775

Enclosures:
Chemical Analysis Forms (7)

RJF:rs
2-
2-Forest Preserve District of Cook County
536 N. Harlem Avenue
River Forest, Illinois 60305
Attn: Mr. Harry Barrett
1-Mr. Harry Carlson
Attorney at Law
1942 W. 101st Place
Chicago, Illinois 60643

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