Final Environmental Indicators (EI) Report

Millennium Petrochemicals, Inc.
ILD005078126 – Douglas County – 0418080002

Equistar Chemicals, LP – Tuscola Plant
625 East US Hwy 35 / Tuscola, Illinois

Volume 3 of 4
Appendices E through J

Clayton Project No. 15-00116.03
October 31, 2001

Prepared for:
MILLENNIUM PETROCHEMICALS, INC.
Cincinnati, Ohio

Prepared by:
CLAYTON GROUP SERVICES, INC.
3140 Finley Road
Downers Grove, Illinois 60515
630.795.3200

Clayton
GROUP SERVICES

FINAL ENVIRONMENTAL INDICATORS (EI) REPORT

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APPENDIX E

POTABLE WATER SUPPLY WELL LOGS

Whit... es:
Ill. ... of Public Health
Yellow Copy: Well Contractor
Golden Copy: Well Owner

2

Well Construction Report

THIS FORM MUST BE COMPLETED WITHIN 30 DAYS
OF WELL COMPLETION AND SENT TO
THE ILLINOIS DEPARTMENT OF PUBLIC HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
525 WEST JEFFERSON STREET
SPRINGFIELD, ILLINOIS 62761

1. Type of Well
   a. Bored____ Hole Diam. 10 in. Depth 67 ft
   Buried Slab: Yes___ No___
   b. Driven____ Drive Pipe Diam. 5 in. Depth 63 ft
   c. Drilled x Finished in Drift x In Rock____
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)
slurry		

2. Well furnishes water for human consumption? Yes x No____
3. Date well drilled 5-7-93
4. Permanent pump installed? Yes x Date 10-15-93 No____
   Manufacturer: Red Jacket Type sub
   Location well
   Capacity 10 gpm. Depth of setting 55 ft.
5. Well top sealed? Yes____ No____ Type____
6. Pitless adapter installed? Yes____ No x
   Manufacturer____ Model No.____
   How attached to casing?____
7. Well disinfected? Yes x No____
8. Pump and equipment disinfected Yes x No____

NOTE: pitless adapter & buried lines installed by others than Sims Drilling Company.

IMPORTANT NOTICE

This State Agency is requesting disclosure of information that is necessary to accomplish the statutory purpose as outlined under Public Act 85-0863. Disclosure of this information is mandatory. This form has been approved by the Forms Management Center.

PRESS FIRMLY WITH BLACK PEN OR TYPE
Do Not Use Felt Pen

IL482-0126

GEOLOGICAL AND WATER SURVEYS WELL RECORD

9. Driller R. Marc Sims, Jr License No 102-003423
10. Well Site Address RR 2 Tuscola, IL
11. Property Owner Gary Breen Well No. 2
12. Permit No. 022922 Date Issued 4-16-93
13. Location: NW¼, SW¼, SE¼, County Douglas
    Sec. 1, 48
    Twp. 15N
    Rge. ~~8E~~ 7E

Show location in section plat

14. Water from sand at depth 63 ft to 67 ft

15. Casing and Liner Pipe

Diam. (in)	Kind and Weight	From (ft)	To (ft)
5	SDR 21 PVC	0	63

16. Screen: Diam. 5 in, Length 48 in, Slot Size 10
17. Size hole below casing____ in. 18. Ground Elev.____ ft msl.
19. Static level 11 ft below casing top which is 1 ft. above ground level. Pumping level ? ft, pumping 34 gpm for 1 hours.

20. Earth Materials Passed Through	Depth of Top	Depth of Bottom
black topsoil	0	1
brown clay	1	13
gray clay	13	27
sand streak	27	28
interlayered gray & brown clay	28	41
sand & gravel streak	41	42
gray clay	42	63
fine, silty, gray sand	63	67

Continue on separate sheet if necessary.

Signed R. Marc Sims Jr. Date 1-12-94

Ill. Dept. of Public Health
Yellow Well Contractor
Golden Well Owner

Well Cons[illegible]ion Report

3

THIS FORM MUST BE COMPLETED WITHIN 30 DAYS
OF WELL COMPLETION AND SENT TO
THE ILLINOIS DEPARTMENT OF PUBLIC HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
525 WEST JEFFERSON STREET
SPRINGFIELD, ILLINOIS 62761

1. Type of Well
   a. Bored____ Hole Diam.____in. Depth____ft
      Buried Slab: Yes___ No___
   b. Driven____ Drive Pipe Diam.____in. Depth____ft
   c. Drilled ✓ Finished in Drift____ In Rock____
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)
Mud	0	113

2. Well furnishes water for human consumption? Yes___ No ✓
3. Date well drilled 5-25-89
4. Permanent pump installed? Yes ___ Date_____ No ✓
   Manufacturer_____ Type_____
   Location_____
   Capacity _____gpm. Depth of setting_____ft.
5. Well top sealed? Yes___ No___ Type_____
6. Pitless adapter installed? Yes___ No___
   Manufacturer_____ Model No._____
   How attached to casing?_____
7. Well disinfected? Yes___ No___
8. Pump and equipment disinfected Yes___ No___

IMPORTANT NOTICE

This State Agency is requesting disclosure of information that is necessary to accomplish the statutory purpose as outlined under Public Act 85-0863. Disclosure of this information is mandatory. This form has been approved by the Forms Management Center.

PRESS FIRMLY WITH BLACK PEN OR TYPE
Do Not Use Felt Pen

IL482-0126

GEOLOGICAL AND WATER SURVEYS WELL RECORD

9. Driller Rod Fleming License No. 102-002717
10. Well Site Address RT. 2 Tuscola
11. Property Owner Bob Henton Well No. 1
12. Permit No. 011380 Date Issued 5-15-89
13. Location: County Douglas
    Sec. 012
    Twp. 15N
    Rge. 07E

Show location in section plat
NW, SE, NE

14. Water from Sand & Gravel at depth 40 ft to 44 ft

15. Casing and Liner Pipe			
Diam.(in)	Kind and Weight	From (ft)	To (ft)
—	—	—	—

16. Screen: Diam. — in, Length____in, Slot Size____
17. Size hole below casing____in. 18. Ground Elev._____ ft msl.
19. Static level____ft below casing top which is ____ft. above ground level. Pumping level ____ft, pumping gpm for ____ hours.

20. Earth Materials Passed Through	Depth of Top	Depth of Bottom
Clay Surface	0	12
Clay blue	12	40
Sand & gravel	40	44
Clay blue	44	110
Lime stone	3	113

Continue on separate sheet if necessary.

Signed Rod Fleming Date 6/6/89

Yellow Copy – Public
Blue Copy – W...

... IN ... PERMIT INFORMATION REQUESTED AND MAIL ORIGINAL ... STATE DEPARTMENT OF PUBLIC HEALTH, CITY OF ... LTH ... OTEC ... 5 ... EST JEFFERSON, SPRINGFIELD, ILLINOIS, 62761. ... DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROP... ELL LOCATION.

4

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug____. Bored____. Hole Diam.____in. Depth____ft.
   Curb material____. Buried Slab: Yes____No____
   b. Driven____. Drive Pipe Diam.____in. Depth____ft.
   c. Drilled ✓. Finished in Drift ✓. In Rock____.
   Tubular____. Gravel Packed____.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)
Mud	0	20

2. Distance to Nearest:
   Building 20 Ft. Seepage Tile Field____
   Cess Pool____ Sewer (non Cast iron)____
   Privy____ Sewer (Cast iron)____
   Septic Tank 100 Barnyard____
   Leaching Pit____ Manure Pile____
3. Well furnishes water for human consumption? Yes ✓ No____
4. Date well completed 10-2-79
5. Permanent Pump Installed? Yes____Date____No ✓
   Manufacturer____Type____Location____
   Capacity____gpm. Depth of Setting____Ft.
6. Well Top Sealed? Yes ✓ No____Type plug
7. Pitless Adapter Installed? Yes____No____
   Manufacturer____Model Number____
   How attached to casing?____
8. Well Disinfected? Yes ✓ No____
9. Pump and Equipment Disinfected? Yes____No____
10. Pressure Tank Size____gal. Type____
    Location____
11. Water Sample Submitted? Yes____No ✓

REMARKS:

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Pat Clifford Well No. 1
    Address R.R. Tuscola
    Driller Rod Fleming License No. 102-002417
11. Permit No. 89809 Date 9-27-79
12. Water from Sand (Formation) at depth 75 to 84 ft.
13. County Douglas
    Sec. 1.8 gx
    Twp. 15 N
    Rge. 7E
    Elev.____
14. Screen: Diam. 2½ in.
    Length: 4 ft. Slot 12
15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4	Plastic	0	78

SHOW LOCATION IN SECTION PLAT
SWNWNW

16. Size Hole below casing: 4 in.
17. Static level 6 ft. below casing top which is 1 ft. above ground level. Pumping level 12 ft. when pumping at 10 gpm for 3 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Clay Surface	11	11
Clay Blue	64	75
Sand + Gravel	7	82

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Rod Fleming DATE 10-18-79

IDPH 4.065
1/74 – KNB-1

White Copy – Ill. Dept. of Public Health
Yellow Copy – [illegible]
Blue Copy – Well [illegible]

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEP[illegible]MEN[illegible] PUL[illegible] HEA[illegible], CO[illegible]ER [illegible]TH [illegible]TEC[illegible], 53[illegible]ST JEFFERSON, SPRINGFIELD, ILLINOIS, 62761. DO[illegible] ETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPE[illegible]LL LOCATION.

7

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug____. Bored____. Hole Diam.____in. Depth____ft.
   Curb material____. Buried Slab: Yes____No____
   b. Driven____. Drive Pipe Diam.____in. Depth____ft.
   c. Drilled ✓. Finished in Drift ✓. In Rock____.
   Tubular____. Gravel Packed____.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)
Mud	0	20

2. Distance to Nearest:
   Building 40 Ft. Seepage Tile Field____
   Cess Pool____ Sewer (non Cast iron)____
   Privy____ Sewer (Cast iron)____
   Septic Tank 100 Barnyard____
   Leaching Pit____ Manure Pile____
3. Well furnishes water for human consumption? Yes ✓ No____
4. Date well completed 9-19-79
5. Permanent Pump Installed? Yes____Date____No ✓
   Manufacturer____Type____Location____
   Capacity____gpm. Depth of Setting____Ft.
6. Well Top Sealed? Yes ✓ No____Type plug
7. Pitless Adapter Installed? Yes____No____
   Manufacturer____Model Number____
   How attached to casing?____
8. Well Disinfected? Yes ✓ No____
9. Pump and Equipment Disinfected? Yes____No____
10. Pressure Tank Size____gal. Type____
    Location____
11. Water Sample Submitted? Yes____No ✓

REMARKS:

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Cathie Bishop Well No. 1
    Address R.R. Tuscola
    Driller Rod Fleming License No. 102-002417
11. Permit No. 89808 Date 9-27-79
12. Water from Sand Formation 13. County Douglas
    at depth 78 to 85 ft. Sec. 18
14. Screen: Diam. 2½ in. Twp. 15N
    Length: 4 ft. Slot 15 Rge. 7E
    Elev.____

SHOW LOCATION IN SECTION PLAT
NW NW NW

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4	Plastic	0	81

16. Size Hole below casing: 4 in.
17. Static level 8 ft. below casing top which is 1 ft. above ground level. Pumping level 12 ft. when pumping at 10 gpm for 3 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Clay Surface	13	13
Clay Blue	65	78
Sand & Gravel	7	85

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Rod Fleming DATE 10-18-79

IDPH 4.065
1/74 – K[illegible]-1

W[illegible] of Public Health
Yel[illegible] py – Well Contractor
Blue Copy – Well Owner

INSTRUCTIONS TO DRILLERS

FILL IN ALL PERTINENT INFORMA[illegible] QUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, [illegible]UMER HEALTH PROTECTION, 535 WEST JEFFERSON, SPRINGFIELD, ILLINOIS, 62761. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

3

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug ____. Bored ____. Hole Diam. 4 in. Depth 60 ft.
   Curb material ____. Buried Slab: Yes ____ No ____
   b. Driven ____. Drive Pipe Diam. ____ in. Depth ____ ft.
   c. Drilled X. Finished in Drift X. In Rock ____.
   Tubular X. Gravel Packed ____.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)

2. Distance to Nearest:
   Building 40 Ft. Seepage Tile Field ____
   Cess Pool ____ Sewer (non Cast Iron) ____
   Privy ____ Sewer (Cast Iron) ____
   Septic Tank 150 Barnyard ____
   Leaching Pit ____ Manure Pile ____
3. Well furnishes water for human consumption? Yes Y No ____
4. Date well completed 9-14-84
5. Permanent Pump Installed? Yes X Date ____ No ____
   Manufacturer WESTROL Type SUB Location WELL
   Capacity 10 gpm. Depth of Setting 40 Ft.
6. Well Top Sealed? Yes ____ No ____ Type ____
7. Pitless Adapter Installed? Yes X No ____
   Manufacturer BAKER Model Number ____
   How attached to casing? ____
8. Well Disinfected? Yes X No ____
9. Pump and Equipment Disinfected? Yes X No ____
10. Pressure Tank Size ____ gal. Type ____
    Location ____
11. Water Sample Submitted? Yes ____ No X

REMARKS:

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner FLORENCE MOSS Well No. ____
    Address R.R.2 TUSCOLA ILL
    Driller ZANE EATON JR. License No. 102-002904
11. Permit No. 113076 Date 6-22-84
12. Water from SAND (Formation) at depth 51 to 60 ft.
13. County DOUGLAS
    Sec. 1/4 Twp. 15N Rge. 7E Elev. ____
14. Screen: Diam. 4 in. Length: 4 ft. Slot 14

			X

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4	PVC		

SHOW LOCATION IN SECTION PLAT
300'S & 200'W NE/c

16. Size Hole below casing: 4 in.
17. Static level 12 ft. below casing top which is 0 ft. above ground level. Pumping level 24 ft. when pumping at 10 gpm for 1 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
YELLOW CLAY		16
BLUE CLAY		51
YELLOW SAND		60

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Zane Eaton Jr. DATE 10-9-84

IDPH 4.065
1/74 – KNB.1

White Copy – Ill. Dept. of Pub
Yellow Copy – Well Contractor
Blue Copy – Well Owner

FILL IN ALL PERTINENT INFORMATION REQUEST[illegible] [illegible]AIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, ROOM 613, STATE [illegible]ICE BUILDING, SPRINGFIELD, ILLINOIS, 62706. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug ____. Bored X. Hole Diam. 45 in. Depth 78 ft.
   Curb material ____. Buried Slab: Yes ____ No ____
   b. Driven ____. Drive Pipe Diam. ____ in. Depth ____ ft.
   c. Drilled ____. Finished in Drift ____. In Rock ____.
   Tubular ____. Gravel Packed ____.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)

2. Distance to Nearest:
   Building 20 Ft. Seepage Tile Field OK
   Cess Pool OK Sewer (non Cast iron) OK
   Privy OK Sewer (Cast iron) OK
   Septic Tank OK Barnyard OK
   Leaching Pit OK Manure Pile OK
3. Is water from this well to be used for human consumption?
   Yes X No ____
4. Date well completed Nov. 19, 1971
5. Permanent Pump Installed? Yes X No ____
   Manufacturer Webtrol Type Submersible
   Capacity 5 gpm. Depth of setting 68 ft.
6. Well Top Sealed? Yes XX No ____
7. Pitless Adaptor Installed? Yes X Baker Monitor attached to casing by clamps No ____
8. Well Disinfected? Yes XX No ____
9. Water Sample Submitted? Yes XXXX No ____

REMARKS: 42 gal galv. pressure tank

IDPH 4.065
10/68

GEOLOGICAL AND WATER SURVEYS WELL RECORD

fractional section.

10. Property owner Julian Blagg Well No. 1
    Address Route # 2 Tuscola, Ill. 61938
    Driller E.C. Baker & Sons Inc. License No. 92-62
11. Permit No. NF 12719 Date 11-03-71
12. Water from Drift (Formation) at depth 10.0 to 78.0 ft.
13. County Douglas
    Sec. 4, 8 g
    Twp. 15 N
    Rge. 8 E
    Elev. ____
14. Screen: Diam. ____ in.
    Length: ____ ft. Slot ____
15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
6" ID	.280 wall, Sch. 40		
	#19, Blk, Casing	+ 2.0	- 10.0
36" ID	Concrete Casing	-10.0	-78.0

SHOW LOCATION IN SECTION PLAT
3600' S. & 100' E. of NW Cor. ~~Sec. 4~~

16. Size Hole below casing: ____ in.
17. Static level ____ ft. below casing top which is ____ ft. above ground level. Pumping level ____ ft. when pumping at ____ gpm for ____ hours. Estimated at 5 to 6 GPM

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Black Top Soil	2.0	2.0
Yellow Clay	13.0	15.0
Gray Clay	15.0	30.0
Sandy Gray Clay	12.0	42.0
Peat Mass	3.0	45.0
Gray Sandy Clay	7.0	52.0
Dirty Sand & Gravel (1 GPM at 56')	4.0	56.0
Gray Sandy Clay	16.0	72.0
Gray Sand (4-5 GPM)	2.0	74.0
~~Gray Sandy Clay~~	6.0	80.0

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Kohnen Concrete Products Co. DATE Nov. 19, 1971
Ill. Licenese No. 382

10

SWARTZ

lloyd

LOG OF WATER WELL tuscola

Property owner ~~Edward~~ Rahn Well No.

Drilled by Swartz + Biggs Year 1954

Formations passed through	Thickness	Depth of Bottom
4/10 Submerga Pump.		
set at 63 ft		
sand yellow	3	78

[Continue on back if necessary]

Finished in sand at 75 to 78 ft.

Cased with 4 inch Black Pipe from 0 to 75 ft.

and inch from to ft.

Size hole below casing inch. Static level from surf. 21 ft.

Tested capacity 10 gal. per min. Temperature °F.

Water lowered to 55 ft. in. in hrs. min.

Length of test 4 hrs. min. Screen Johnson

Slot 12 Diam. Length 4 ft. Bottom set at 78 ft.

[Show location in Section Plat]

Township name Elev.

Description of location located by platbook

Sec. 5.1k

Twp. 15N

Rge. 8E

Signed Swartz County Douglas

Copy for Illinois State Water Survey

Index:

White Copy – Ill. Dept. of Health
Yellow Copy – Contractor
Blue Copy – Well Owner

INSTRUCTIONS TO DRILLER

FILL IN ALL PERTINENT INFORMATION REQUIRED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, ROOM 616, STATE OFFICE BUILDING, SPRINGFIELD, ILLINOIS, 62706. DO NOT DETACH GEOLOGICAL / WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

11

1/67

fractional section

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug____. Bored____. Hole Diam.____in. Depth____ft.
   Curb material____. Buried Slab: Yes____No____
   b. Driven____. Drive Pipe Diam. 4 in. Depth 97 ft.
   c. Drilled x. Finished in Drift X. In Rock____.
   Tubular X. Gravel Packed____.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)

2. Distance to Nearest:
   Building 42 Ft. Seepage Tile Field____
   Cess Pool____ Sewer (non Cast iron)____
   Privy____ Sewer (Cast iron)____
   Septic Tank 75 Barnyard____
   Leaching Pit____ Manure Pile____
3. Is water from this well to be used for human consumption?
   Yes x No____
4. Date well completed January 20, 1969
5. Permanent Pump Installed? Yes x No____
   Manufacturer Jacuzzi Bros. Type Submersible
   Capacity 10 gpm. Depth of setting 63 ft.
6. Well Top Sealed? Yes x No____
7. Pitless Adaptor Installed? Yes x No____
8. Well Disinfected? Yes x No____
9. Water Sample Submitted? Yes 177657 No x

REMARKS:

GEOLOGICAL WATER SURVEYS WATER WELL RECORD

10. Dept. Mines and Minerals permit No. NF5169 Year 1968
11. Property owner Lightning Supply Co. Well No. 1
    Address 807 E. Scott Tuscola, Illinois
    Driller Sims Drilling Co. License No. 92-223
12. Water from Sand (Formation) at depth 92 to 97 ft.
13. County Douglas
    Sec. 5.7l
    Twp. 15N
    Rng. 8E
    Elev.____
14. Screen: Diam. 2 in.
    Length: 8 ft. Slot 12

SHOW LOCATION IN SECTION PLAT
290'S, 1056'E
NW/c

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4	Drive 11	0	90

16. Size Hole below casing:____in.
17. Static level 34 ft. below casing top which is 1 ft. above ground level. Pumping level 39 ft. when pumping at 10 gpm for 2 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
top soil	1	1
clay, yellow	11	12
clay, blue	53	65
clay, blue w/ sand streaks	8	73
clay, blue, gravelly	15	88
clay, blue w/ sand streaks	4	92
sand, fine w/ silt	5	97
(CONTINUE ON SEPARATE SHEET IF NECESSARY)		

SIGNED Delbert M. Sims DATE 3-8-69

DOUGLAS 5-15N-8E

11 Sp NHy

S.Tl 177657

CHy

ILLINOIS STATE GEOLOGICAL SURVEY
Urbana, Illinois

REPORT OF GAS FLOW MEASUREMENT
March 14, 1969

FARM - Lightning Supply, Charles Bechtel, Box 265, Tuscola, Ill. 61953

LOCATION - 230' S, 1056' E, of NW corner 5-15N-8E, Douglas County

ELEVATION - 690' topographic map

DATE DRILLED - January 20, 1969

DRILLER - Sims Drilling Co., Savoy, Ill. 61874

TOTAL DEPTH - 226', plugged back to 97' in Glacial Drift

Charles Bechtel
Box 265
Tuscola, Illinois

CASING - 4" at 90' with screen

WATER LEVEL - 34' from top

TYPE OF PUMP - Jacuzzi submersible

Wayne Meents

WATER VOLUME - 10 gallons per min. when drilled

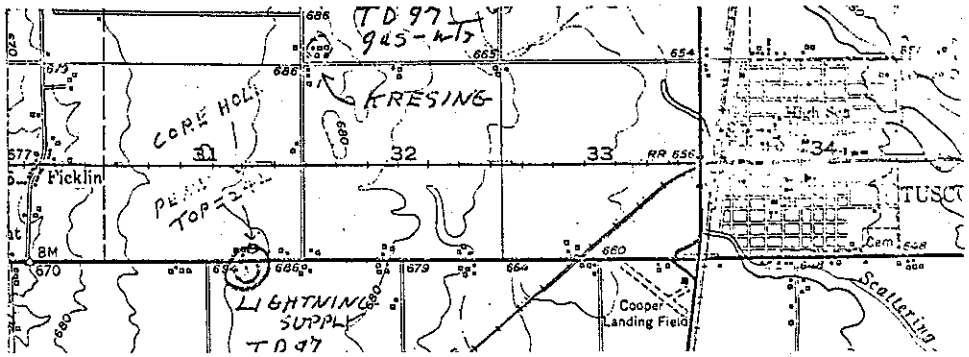
FORMATIONS - Clay and sand streaks 88'-92'; sand fine with silt 92'-97'; blue clay, sandy 97'-128'; peat 128'-137'; blue and green clay, sandy 137'-208'; and shale 208'-226'.

BAROMETER READING - 29.56" Hg

GAS VOLUME - In 6 min. = 1" of gas in 1' diameter test tank under 2½ PSI with 3 gallons of water per min. passing thru.
In 9 min. = 2" of gas
" 8 " = 3" of gas

NOTE: Gas was accumulating at the rate of 1" in 8 min., slightly less than other gassy water wells in this area. Water from well was pumped into a 2' diameter (5' high) storage tank open on top by pipe to roof for ventilating gas. Water level in this tank was controlled by a float valve, another water system pumping out of the bottom.

By Wayne F. Meents
Associate Geological Engineer



White Copy – Ill. Dept. of Public Health
Yellow Copy – Well Contractor
Blue Copy – Well Owner

12

INSTRUCTIONS TO DRILLER

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, CONSUMER HEALTH PROTECTION, 535 WEST JEFFERSON, SPRINGFIELD, ILLINOIS, 62761. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug____. Bored____. Hole Diam.____in. Depth____ft.
   Curb material____. Buried Slab: Yes____No____
   b. Driven____. Drive Pipe Diam.____in. Depth____ft.
   c. Drilled ✓. Finished in Drift ✓. In Rock____.
   Tubular ✓. Gravel Packed____.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)
Mud	0	20

2. Distance to Nearest:
   Building 40 Ft. Seepage Tile Field____
   Cess Pool____ Sewer (non Cast iron)____
   Privy____ Sewer (Cast iron)____
   Septic Tank 75 Barnyard____
   Leaching Pit____ Manure Pile____
3. Well furnishes water for human consumption? Yes ✓ No____
4. Date well completed____
5. Permanent Pump Installed? Yes____ Date____ No ✓
   Manufacturer____ Type____ Location____
   Capacity____gpm. Depth of Setting____Ft.
6. Well Top Sealed? Yes____ No____ Type____
7. Pitless Adapter Installed? Yes____ No____
   Manufacturer____ Model Number____
   How attached to casing?____
8. Well Disinfected? Yes ✓ No____
9. Pump and Equipment Disinfected? Yes____ No____
10. Pressure Tank Size____gal. Type____
    Location____
11. Water Sample Submitted? Yes____ No ✓

REMARKS:

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Don Cole Well No. 1
    Address 47 Poplar Hillcrest Tuscola
    Driller Rod Fleming License No. 102-002417
11. Permit No. 86797 Date 6-15-79
12. Water from Sand & Gravel (Formation) 13. County Douglas
    at depth 62 to 67 ft. Sec. 25.7a
    14. Screen: Diam. 2½ in. Twp. 16N
    Length: 4 ft. Slot 15 Rge. 7E
    Elev.____

SHOW LOCATION IN SECTION PLAT
110'N, 100'E, SW/c SE SW SW

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4	Plastic	0	43

16. Size Hole below casing: 4 in.
17. Static level 3 ft. below casing top which is 1 ft. above ground level. Pumping level 23 ft. when pumping at 7 gpm for 2 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Clay Surface	9	9
Clay Blue	33	42
Sand	3	45
Clay Blue	17	62
Sand & gravel	5	67

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Rod Fleming DATE 7/11/79

IDPH 4.065
1/74 – KNB-1

hite Copy – Ill. D Publ
ellow Copy – Well Co
lue Copy – Well Own

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, CONSUMER HEALTH PROTECTION, 535 WEST JEFFERSON, SPRINGFIELD, ILLINOIS, 62761. DO NOT TEACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

3

ILLINOIS DEPARTMENT OF PUBLIC HEALTH WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug____. Bored____. Hole Diam.____in. Depth____ft.
   Curb material _____. Buried Slab: Yes____No____
   b. Driven ____. Drive Pipe Diam. ____in. Depth ____ft.
   c. Drilled ✓. Finished in Drift ✓. In Rock____.
   Tubular ____. Gravel Packed ____.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)
Mud	0	20

2. Distance to Nearest:
   Building 60 Ft. Seepage Tile Field ____
   Cess Pool ____ Sewer (non Cast iron) ____
   Privy ____ Sewer (Cast iron) ____
   Septic Tank 80 Barnyard ____
   Leaching Pit ____ Manure Pile ____
3. Well furnishes water for human consumption? Yes ✓ No____
4. Date well completed ____
5. Permanent Pump Installed? Yes____ Date ____ No ✓
   Manufacturer ____ Type ____ Location ____
   Capacity____gpm. Depth of Setting ____Ft.
6. Well Top Sealed? Yes ✓ No____ Type plug
7. Pitless Adapter Installed? Yes____ No____
   Manufacturer ____ Model Number ____
   How attached to casing? ____
8. Well Disinfected? Yes ✓ No____
9. Pump and Equipment Disinfected? Yes____ No____
10. Pressure Tank Size____gal. Type ____
    Location ____
11. Water Sample Submitted? Yes____ No ✓

REMARKS:

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner John Alost Well No. 1
    Address R.R. Tuscola
    Driller R.R. Fleming License No. 102-135
11. Permit No. 58195 Date 3-24-77
12. Water from Sand Formation at depth 78 to 84 ft.
13. County Douglas
    Sec. 25 Sec.
    Twp. 16N
    Rge. 7E
    Elev. ____
14. Screen: Diam. 2 in.
    Length: 4 ft. Slot 15
15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4	Steel 11 lbs	0	80

SHOW LOCATION IN SECTION PLAT
SW SW SW

16. Size Hole below casing: 4 in.
17. Static level 15 ft. below casing top which is 1 ft. above ground level. Pumping level 25 ft. when pumping at 7 gpm for 2 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Clay Surface	12	12
Clay Blue	66	78
Sand & Gravel	6	84

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Rod Fleming DATE 10-18-79

IDPH 4.065
1/74 – KNB

17

ite Copy –
Ill. Dept. of Public Health
Yellow Copy – Well Contractor
Blue Copy – Well Owner

FILL IN ALL PERTINENT INFO ON REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEA., CONSUMER HEALTH PROTECTION, 535 WEST JEFFERSON, SPRINGFIELD, ILLINOIS, 62761. DO NOT DETACH GEOLOGICAL-WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug____. Bored____. Hole Diam.____in. Depth____ft.
   Curb material____. Buried Slab: Yes____No____
   b. Driven____. Drive Pipe Diam.____in. Depth____ft.
   c. Drilled X. Finished in Drift X. In Rock____.
   Tubular X. Gravel Packed____.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)
Mud	0	25

2. Distance to Nearest:
   Building 50 Ft. Seepage Tile Field____
   Cess Pool____ Sewer (non Cast iron)____
   Privy____ Sewer (Cast iron)____
   Septic Tank 75 Barnyard____
   Leaching Pit____ Manure Pile____
3. Well furnishes water for human consumption? Yes X No____
4. Date well completed May 2 - 77
5. Permanent Pump Installed? Yes____Date____No X
   Manufacturer____Type____Location____
   Capacity____gpm. Depth of Setting____Ft.
6. Well Top Sealed? Yes X No____Type____
7. Pitless Adapter Installed? Yes____No X
   Manufacturer____Model Number____
   How attached to casing?____
8. Well Disinfected? Yes X No____
9. Pump and Equipment Disinfected? Yes____No____
10. Pressure Tank Size____gal. Type____
    Location____
11. Water Sample Submitted? Yes____No X

REMARKS:

IDPH 4.065
1/74 – KNB-1

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner John Yoder Well No. 1
    Address Arthur, Ill
    Driller D.P. Fleming License No. 102-135
11. Permit No. 58682 Date April 11-77
12. Water from Gravel (Formation) 13. County Douglas
    at depth 70 to 75 ft.
14. Screen: Diam. 3 in.
    Length: 4 ft. Slot 20
    Sec. 25 Sa
    Twp. 16 N
    Rge. 7 E
    Elev.____

SHOW LOCATION IN SECTION PLAT
SE SW SW

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4	Steel 11	0	71

16. Size Hole below casing: 4 in.
17. Static level 7 ft. below casing top which is 1 ft. above ground level. Pumping level 20 ft. when pumping at 10 gpm for 1 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Surface clay	16	16
Blue "	20	36
Hardpan	30	70
Gravel	5	75

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED D.P. Fleming DATE May 14-77

15

SWARTZ

Millard Lindsey - 1964

LOG OF WATER WELL Aug 18

Property owner Millard Lindsey Well No.

Drilled by Swartz & Son Year 1964

Formations passed through	Thickness	Depth of Bottom
½ HP Burks Sub pump		
set 48 ft 10 gal pipe		
sand fine		18
Clay		78
sand & gravel	4	82

[Continue on back if necessary]

Finished in sand & gravel at 78 to 82 ft.

Cased with 4 inch Black Pipe from 0 to 78 ft.

and inch from to ft.

Size hole below casing inch. Static level from surf. 16 ft.

Tested capacity 15 gal. per min. Temperature °F.

Water lowered to 25 ft. in. in hrs. min.

Length of test hrs. min. Screen Johnson

Slot 18 Diam 3 5/8 Length 4 ft Bottom set at 82 ft.

[Show location in Section Plat]

Township name Elev.

Description of location

Sec. 26.4d

Twp. [illegible]N

Rge. 7E

Signed E W Swartz County Douglas

Copy for Well Owner Index:

[illegible] 1968

White Copy – Ill. Dept. of Pub[illegible]h
Yellow Copy – Well [illegible]actor
Blue Copy – Well Owner

INS[illegible]TIO[illegible] DR[illegible]S

FILL IN ALL PERTINENT INFORMATION REQUES[illegible] [illegible]D MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, CONSUMER [illegible]LTH PROTECTION, 535 WEST JEFFERSON, SPRINGFIELD, ILLINOIS, 62761. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

16

ILLINOIS DEPARTMENT OF PUBLIC HEALTH WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug____. Bored____. Hole Diam.____in. Depth____ft.
   Curb material____. Buried Slab: Yes____No____
   b. Driven____. Drive Pipe Diam.____in. Depth____ft.
   c. Drilled ✓. Finished in Drift ✓. In Rock____.
   Tubular ✓. Gravel Packed____.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)

2. Distance to Nearest:
   Building 300 Ft. Seepage Tile Field____
   Cess Pool____ Sewer (non Cast iron)____
   Privy____ Sewer (Cast iron)____
   Septic Tank____ Barnyard____
   Leaching Pit____ Manure Pile____
3. Well furnishes water for human consumption? Yes ✓ No____
4. Date well completed May 79
5. Permanent Pump Installed? Yes____ Date____ No ✓
   Manufacturer____ Type____ Location____
   Capacity____gpm. Depth of Setting____Ft.
6. Well Top Sealed? Yes____ No____ Type____
7. Pitless Adapter Installed? Yes ✓ No____
   Manufacturer Merrell Model Number SPT4
   How attached to casing? Threaded
8. Well Disinfected? Yes ✓ No____
9. Pump and Equipment Disinfected? Yes____ No____
10. Pressure Tank Size____gal. Type____
    Location____
11. Water Sample Submitted? Yes____ No ✓

REMARKS:

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Edwin Puttoss Well No. 1
    Address R.R.1 Tuscola
    Driller D.D. Fleming License No. 102-135
11. Permit No. 80012 Date 9-27-79
12. Water from Sand & gravel Formation 13. County Douglas
    at depth 41 to 45 ft. Sec. 26 2b
    14. Screen: Diam. 2½ in. Twp. 16N
    Length: 4 ft. Slot 15 Rge. 7E
    Elev.____

SHOW LOCATION IN SECTION PLAT
NW SE SE

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4	Plastic	0.	41

16. Size Hole below casing: 4 in.
17. Static level 10 ft. below casing top which is 1 ft. above ground level. Pumping level 40 ft. when pumping at 17 gpm for 3 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Clay Surface	12	12
Clay Blue	29	41
Sand & gravel	4	45

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED D. D. Fleming DATE June, 1979

IDPH 4.0
[illegible]/74

White & Pink Copies:
I Publ alt
Yello : Well Contractor
Golden y: Well Owner

Well Construction Report

17

THIS FORM MUST BE COMPLETED WITHIN 30 DAYS
OF WELL COMPLETION AND SENT TO
THE ILLINOIS DEPARTMENT OF PUBLIC HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
525 WEST JEFFERSON STREET
SPRINGFIELD, ILLINOIS 62761

GEOLOGICAL AND WATER SURVEYS WELL RECORD

9. Driller Lin Drilling Co. License No. 102-003423
Well Site Address RR 3 Tuscola, Il
Property Owner Adam Brenner Well No. 1
Permit No. 020637 Date Issued 7-2-91
Location: County Douglas
NW ¼, NE ¼, SE ¼ Sec. 26 Twp. 16N Rge. 7E

Show location in section plat

1. Type of Well
a. Bored____ Hole Diam. 6¾ in. Depth 89 ft
Buried Slab: Yes___ No___
b. Driven____ Drive Pipe Diam. 4 in. Depth 85 ft
c. Drilled X Finished in Drift X In Rock____
d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)
Slurry		

2. Well furnishes water for human consumption? Yes X No___
3. Date well drilled 7-23-91
4. Permanent pump installed? Yes X Date 7-24-91 No 1
Manufacturer Lowara Type Sub
Location Well
Capacity 10 gpm. Depth of setting 80 ft.
5. Well top sealed? Yes___ No___ Type____
6. Pitless adapter installed? Yes X No___
Manufacturer Baker Snappy Model No. 8PLT4P1WM
How attached to casing? Compression
7. Well disinfected? Yes X No___
8. Pump and equipment disinfected Yes X No___

14. Water from sand/gravel at depth 84½ ft to 89 ft

15. Casing and Liner Pipe

Diam. (in)	Kind and Weight	From (ft)	To (ft)
4	SDR21 PVC	0	85

16. Screen: Diam. 4 in, Length 48 in, Slot Size 10
17. Size hole below casing — in. 18. Ground Elev. — ft msl.
19. Static level 22 ft below casing top which is 1 ft. above ground level. Pumping level 7 ft, pumping 10 gpm for 1 hours.

20. Earth Materials Passed Through	Depth of Top	Depth of Bottom
topsoil	0	1
Brown dirt	1	3
Brown Clay	3	14
soft gray clay	14	28
blue clay	28	36

Continue on separate sheet if necessary.

Signed R. Marc Lin Date 7-31-91

IMPORTANT NOTICE
This State Agency is requesting disclosure of information that is necessary to accomplish the statutory purpose as outlined under Public Act 85-0863. Disclosure of this information is mandatory. This form has been approved by the Forms Management Center.

PRESS FIRMLY WITH BLACK PEN OR TYPE
Do Not Use Felt Pen

IL482-0126

-OVER-
P. 1

20. Earth Materials Passed Through	Depth of Top	Depth of Bottom
gray clay	36	46
interlayers of gray clay w/silt, gravel	46	50
gray clay	50	57
sand streak	57	
gray clay	57	60
soft sandy gray clay	60	64
sandy firm " "	64	77
sand streak	77	
gray clay	77	85
interlayers sand, silt, gravel, gray clay	85	89

Continue on separate sheet if necessary.

Signed _____ Date 7-31-92

P. 3

18

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug____. Bored____. Hole Diam.____in. Depth____ft.
   Curb material____. Buried Slab: Yes____No____
   b. Driven____. Drive Pipe Diam. 4 in. Depth 80 ft.
   c. Drilled ✓. Finished in Drift sand. In Rock____.
   Tubular____. Gravel Packed____.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)
[illegible]	[illegible]	10

2. Distance to Nearest:
   Building 9 Ft. Seepage Tile Field____
   Cess Pool____ Sewer (non Cast iron)____
   Privy____ Sewer (Cast iron)____
   Septic Tank 70 Barnyard____
   Leaching Pit____ Manure Pile____
3. Is water from this well to be used for human consumption?
   Yes ✓ No____
4. Date well completed Sept 28-76
5. Permanent Pump Installed? Yes ✓ No____
   Manufacturer Red Jacket Type Sub.
   Capacity 12 gpm. Depth of setting 42 ft.
6. Well Top Sealed? Yes ✓ No____
7. Pitless Adaptor Installed? Yes ✓ No manufacturer - Mathews attached by clamps
8. Well Disinfected? Yes ✓ No____
9. Water Sample Submitted? Yes____ No____

REMARKS: 42 gal WX202 pressure Tank located in house

P4491—

GEOLOGICAL WATER SURVEYS WATER WELL RECORD

10. Dept. Mines and Minerals permit No. 52359 Year 76
11. Property owner Emelie Marsh Well No. 1
    Address [illegible]
    Driller [illegible] License No. [illegible]
12. Water from Sink (Formation) 13. County Douglas
    at depth 70 to 80 ft. Sec. 36
14. Screen: Diam. 4 in. Twp. 16N
    Length: 4 ft. Slot 20 [illegible] Rng. 7E
    Elev.____

SHOW LOCATION IN SECTION PLAT
75'N 100'W of SE/c SE SW

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4	Steel 10.7	[illegible]	76

16. Size Hole below casing: [illegible] in.
17. Static level 11 ft. below casing top which is 1 ft ft. above ground level. Pumping level 30 ft. when pumping at 12 gpm for 2 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
0-15 [illegible]	15	0-15
Grey rocky clay	20	15-35
[illegible]	6	35-41
[illegible]	4	41-45
[illegible]	25	45 to 70
[illegible]	10	70 to 80
(CONTINUE ON SEPARATE SHEET IF NECESSARY)		

SIGNED [illegible] DATE Oct 1-76

INSTRUCTIONS TO RS

19

White Copy – Ill. Dept. of Public Health
Yellow Copy – Well Contractor
Blue Copy – Well Owner

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, ROOM 616, STATE OFFICE BUILDING, SPRINGFIELD, ILLINOIS, 62706. DO NOT DETACH GEOLOGICAL / WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug____. Bored____. Hole Diam.____in. Depth____ft.
   Curb material____. Buried Slab: Yes____No____
   b. Driven____. Drive Pipe Diam.____in. Depth____ft.
   c. Drilled X. Finished in Drift X. In Rock____.
   Tubular X. Gravel Packed____.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)

2. Distance to Nearest:
   Building 25 Ft. Seepage Tile Field OK
   Cess Pool OK Sewer (non Cast iron) OK
   Privy OK Sewer (Cast iron) OK
   Septic Tank OK Barnyard OK
   Leaching Pit OK Manure Pile OK
3. Is water from this well to be used for human consumption?
   Yes XX No____
4. Date well completed MAY 25, 1972
5. Permanent Pump Installed? Yes____ No X
   Manufacturer____ Type____
   Capacity____gpm. Depth of setting____ft.
6. Well Top Sealed? Yes____ No X
7. Pitless Adaptor Installed? Yes____ No X
8. Well Disinfected? Yes____ No X
9. Water Sample Submitted? Yes____ No X

REMARKS: Lab. No. 188456

IDPH 4.065
10/68

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner JOSEPH LLOYD BACHE MEMORIAL CHAPEL BOARD OF TRUSTEES, GARRETT CEMETERY Well No. # 1
    Address GARRETT, ILLINOIS
    Driller E. C. BAKER & SONS, INC License No. 92-62
11. Permit No. NF 14586 Date MAY 10, 1972
12. Water from____ Formation
    at depth 64 to 68 ft.
13. County DOUGLAS
    Sec. 36 1/4
    Twp. 16N
    Rge. 7E
    Elev.____
14. Screen: Diam. 6 in.
    Length: 4 ft. Slot .010

SHOW LOCATION IN SECTION PLAT
450' N. & 1100' E OF SW COR. OF SW SECTION

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
6" ID	BLK. STEEL CASING	+ 2'	64'
	.200 WALL, 19#		
	SCH. 40		

16. Size Hole below casing:____in.
17. Static level 6 ft. below casing top which is 2 ft. above ground level. Pumping level 52 ft. when pumping at 10 gpm for 24 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM.
SOIL YELLOW CLAY	15'	15'
GRAY CLAY	10'	25'
GREEN SANDY CLAY	5'	30'
VERY SANDY BLUE CLAY (SOME WATER)	15'	45'
HARD BLUE SANDY CLAY	19'	64'
SAND (FINE SOME DRIFT WOOD)	4'	68'
HARD SANDY CLAY	4'	72'

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED EARL BAKER JR. DATE MAY 25, 1972

(8811—50M—6-69) 14

ILLINOIS GEOLOGICAL SURVEY, URBANA

CABLE TOOLS Permit # NF 14586	Thickness	Top	Bottom
Soil yellow clay	15		15
Gray clay	10		25
Green sandy clay	5		30
Very sandy blue clay (some water)	15		45
Hard blue sandy clay	19		64
Sand (fine some drift wood)	4		68
Hard sandy clay	4		72
			TD

Water from 64 - 68'
Casing: 6" inside diameter black steel casing .280 wall, 19# from +2 - 64'
Screen: diameter 6"; length 4'; slot .010
Static level 6' below casing top which is 2' above ground level.
Pumping level 52' when pumping at 10 gpm for 24 hours.

S.S. # 58337

* Garrett Township Cemetery

NO ENVELOPE

COMPANY E.C. Baker and Sons
FARM *Joseph L. Bache Memorial Chapel NO. 1
DATE DRILLED May 25, 1972 COUNTY NO. 1124
AUTHORITY Company
ELEVATION
LOCATION 450' S line 1100' W line of SW
COUNTY DOUGLAS

36-16N-7E

20

John C. Moore Corporation, Rochester, N. Y. Binder and holes in leaves Extended. FORM 403809

TOWN Tuscola TOWNSHIP Garrett MAP NO. 5
COMPANY Orva Williamson NO. R. 7E
FARM Kaskaskia School NO. T. 16 N SEC. 36
AUTHORITY Orva Williamson
ELEVATION
COLLECTOR
CONFIDENTIAL DATE DRILLED Nov. 1939
30' N. line, 727' W. line

NO.	STRATA	THICKNESS FEET	THICKNESS IN.	DEPTH FEET	DEPTH IN.
	Top soil, yellow clay	2		2	
	Clay, red	4		6	
	Sand, red	10		16	
	Sand, white	2		18	
	Clay, blue	30		48	
	Sand and gravel	7		55	

Finished in sand and gravel at 55'
One vein cased out because too shallow.

Cased with 3" galvanized to 49'8"

Screen used - Clayton Marks
Length 3'8", Diam. 2", Size 60 gauge

NO ENVELOPE

ORIGINAL FILED

COUNTY Douglas INDEX NO. 0536
DRILL RECORD 36-16N-7E
(A8572-15M-10-39) ILLINOIS GEOLOGICAL SURVEY, URBANA

21

W. J. Bucks - 1966

SWARTZ

Tuscola, Ill

LOG OF WATER WELL

Property owner Mrs. Buck Well No.

Drilled by Swartz + Biggs Year 1953

Formations passed through	Thickness	Depth of Bottom
sand clean		93

[Continue on back if necessary]

Finished in sand at 63 to 93 ft.

Cased with 4 inch Black pipe from 0 to 89.16" ft.

and inch from to ft.

Size hole below casing inch. Static level from surf. 30 ft.

Tested capacity 10 gal. per min. Temperature °F.

Water lowered to 35 ft. in. in hrs. min.

Length of test 3 hrs. min. Screen Johnson

Slot 14 Diam. Length Bottom set at 93 ft.

[Show location in Section Plat]

Township name Elev.

Description of location located by platbook - maybe inaccurate

Sec. 29 80

Twp. 16N

Rge. 8E

Signed County Douglas

Copy for Well Drilling Contractor Index:

22

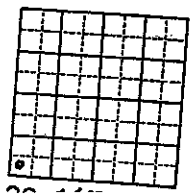
(2840—50M—12-64)

ILLINOIS GEOLOGICAL SURVEY, URBANA

	Thickness	Top	Bott
REPORT OF GAS FLOW MEASUREMENT May 16, 1967			
Total Depth in glacial drift ?			97
Casing: 4" to 97', 40-gallon water tank in basement			
Type of Pump - submersible			
Water Temperature - 55°F, air was 61°			
Barometer Reading - 29.48"			
Gas Volume - In 10 min. = 1" of gas in 1' diameter test tank under 2½ PSI with 3 gallons of water per minute passing through. In 20 minute = 2" of gas In 30 minute = 3" of gas			
NOTE: One inch of gas in test tank is 108 cubic inches or a little less than ½ gallon of water displacement. Gas was accumulating at the rate of 1" in 10 minutes, not too gassy compared to other wells of this type. This farm well is about one-half mile from a deep gas well.			
*Tenant - Arthur W. Kresin			
NO ENVELOPE			

COMPANY Edgar Swartz
FARM *Buck, Walter
DATE DRILLED 1952
AUTHORITY Wayne F. Meents
ELEVATION 688' T.M.
LOCATION 450'S line, 300'W line SW
COUNTY DOUGLAS

NO.
COUNTY NO. 932



23

John C. Moore Corporation, Rochester, N. Y. Binder and holes in leaves, each Patented 1908. 356302

TOWN Tuscola TOWNSHIP

COMPANY

FARM Link Morris No.

AUTHORITY Meister Bros No.

ELEVATION

COLLECTOR JY DATE DRILLED

CONFIDENTIAL

Map No. 4

R. 8 E

T 16 N Sec. 29

No.	STRATA	Thickness Feet	Thickness In.	Depth Feet	Depth In.
	Drift			96	
	Sand			96+	
	Water well				

NO ENVELOPE

County DOUGLAS Index No. 0429

T.—DRILL RECORD 29-16N-8E

17898 4M 5 29 ILLINOIS STATE GEOLOGICAL SURVEY

25

John C. Moore Corporation, Rochester, N. Y. Binder and holes in leaves, each Patented 1906. 346302

TOWN Tuscola TOWNSHIP Map No. 4
COMPANY R. 8 E
FARM Perry Howe No. T Sec.
AUTHORITY Meister Bros. No. 16 32
ELEVATION N
COLLECTOR JY DATE DRILLED
CONFIDENTIAL

No.	STRATA	Thickness Feet	Thickness In.	Depth Feet	Depth In.
	Drift			94	
	Sand			94+	
	Water well				

NO ENVELOPE

County DOUGLAS Index No. 0432
T.—DRILL RECORD ILLINOIS STATE GEOLOGICAL SURVEY
17893 4M 5 29 32-16N-8E

Irrational Location

A

City _____ County Douglas

Section 5.1 NE¼ Twp. No. 15N Range 8E

Location (in feet from section corner) 228 S and 625 W of NE corner

Owner C. B. Jackson Authority C. B. Jackson

Contractor Hunt Address Deceased

Date drilled 1912 Elev. above sea level top of well _____

Depth 98'

Log Finished in sand

Were drill cuttings saved No Where filed _____

Size hole 3½' If reduced, where and how much At 32' to 2"

Casing record Bricked wall to 32' - iron pipe rest of way - screened

Distance to water when not pumping 10' now 2' wet 15' dry Distance to water is 18

feet after pumping at 5 G. P. M. for 36 hours.

Reference point for above measurements ground level

Type of pump Deming Dbl. Act. Force Distance to cylinder 12'

Length of cylinder 3" x 10" Length of suction pipe below cylinder 18'

Length stroke 6" Speed _____

Hours used per day 3 - stock well Type of power Wind

Rating of motor _____ Rating of pump in G. P. M. 4 to 5

Can following be measured: (1) Static water level Yes

(2) Pumping level Yes (3) Discharge Yes

(4) Influence on other wells None

Temperature of water _____ Was water sample collected No

Date _____ Effect of water on meters, hot water

coils, etc. _____

Date of Analysis _____ Analysis No. _____

Recorder Allen W. Reeves

Date May 5, 1939

2807-19399 12

P4450

B

City _____ County Douglas

Section 6 lb SE¼ Twp. No. 15N Range 8E

Location (in feet from section corner) 1319 N and 66 W of SE corner

Owner H. L. Wallace Sam Lake Authority Sam Lake

Contractor Unknown Address _____

Date drilled 1910 Elev. above sea level top of well _____

Depth 60'

Log Finished in sand

Were drill cuttings saved No Where filed _____

Size hole 3½' If reduced, where and how much _____

Casing record Bricked wall

Distance to water when not pumping 4' wet 10' now 20' dry Distance to water is 20

feet after pumping at 3 G. P. M. for 4 hours.

Reference point for above measurements ground level

Type of pump Red Jacket Lift Distance to cylinder 18'

Length of cylinder 3" x 10" Length of suction pipe below cylinder 18

Length stroke 6" Speed _____

Hours used per day ¼-½-house & stock Type of power Hand

Rating of motor _____ Rating of pump in G. P. M. 3

Can following be measured: (1) Static water level Yes

(2) Pumping level Yes (3) Discharge Yes

(4) Influence on other wells None

Temperature of water _____ Was water sample collected No

Date _____ Effect of water on meters, hot water

coils, etc. _____

Date of Analysis _____ Analysis No. _____

Recorder Allen W. Reeves

2807-19399 12

Date Mar 5, 1939

P44501

C

City _____ County Douglas

Section 25.32 SE¼ Twp. No. 16N Range 7E

Location (in feet from section corner) 1667 N and 1884 W of SE corner

Owner J. F. Romine Authority J. F. Romine

Contractor Unknown Address _____

Date drilled 1898 Elev. above sea level top of well _____

Depth 97'

Log Finished in sand

Were drill cuttings saved No Where filed _____

Size hole 6" If reduced, where and how much _____

Casing record Cased all the way and screened

Distance to water when not pumping 11' Distance to water is 40

feet after pumping at 4 G. P. M. for 12 hours.

Reference point for above measurements ground level

Type of pump Deming Single Act. Force Distance to cylinder 30'

Length of cylinder 2½" x 14" Length of suction pipe below cylinder 60'

Length stroke 6" Speed _____

Hours used per day 800 gal - stock Type of power gas engine

Rating of motor 1½ HP Rating of pump in G. P. M. 4

Can following be measured: (1) Static water level No

(2) Pumping level No (3) Discharge Yes

(4) Influence on other wells None

Temperature of water _____ Was water sample collected No

Date _____ Effect of water on meters, hot water coils, etc. _____

Date of Analysis _____ Analysis No. _____

Recorder Allen W. Reeves

Date Mar 9, 1934

2807-22617 12

P4486'

D

NP

City NEAR Tuscola County Douglas

Section 25 38 Twp. No. 16 N Range 7 E

Location (in feet from section corner) SW¼ of the NE¼ of Sec 25

Owner Virgil B Ross Authority Tuscola, Ill

Contractor Address Route 3.

Date drilled Elev. above sea level top of well

Depth 30 feet

Log Clay.

Were drill cuttings saved Where filed

Size hole If reduced, where and how much

Casing record

Distance to water when not pumping Distance to water is

feet after pumping at G. P. M. for hours.

Reference point for above measurements

Type of pump Distance to cylinder

Length of cylinder Length of suction pipe below cylinder

Length stroke Speed

Hours used per day Type of power

Rating of motor Rating of pump in G. P. M.

Can following be measured: (1) Static water level

(2) Pumping level (3) Discharge

(4) Influence on other wells

Temperature of water H_2S at well Was water sample collected

Date Dec 2, 1957 Effect of water on meters, hot water

coils, etc.

Date of Analysis Analysis No. 145156

Recorder Fly H.

Date Dec 2, 1957

H_2S at well
black water
FeS

Water used to be clear - In last six weeks the water is black when pumped

2807-22617 12

P4486

E

Mp

City Rural Tuscola, Ills. near Ficklin County Douglas

Section 25 SW quadrant NE quarter NW " SE " Twp. No. 16 N Range R 7 E

Location (in feet from section corner) NW¼ of the SE¼ of Sec 25

Owner Leona Howe Joseph Authority Same

Contractor Geo. Meister Tuscola, Ills. Address

Date drilled 1957 Elev. above sea level top of well 680

Depth 93 feet

Log 4 in well; 1-18 top soil &yellow clay;18-42 grey clay;42-46 hard pan; 46-53 black SiC 53-57 grey clay;57-83 grey hard pan;83-93 fine sand to coarse sand & gravel.

Were drill cuttings saved Where filed

Size hole 4 inch If reduced, where and how much

Casing record 5' of 4" #20 slot Johnson brass screen

Distance to water when not pumping 24 FT Distance to water is

feet after pumping at Based on well at 15 gpm G. P. M. for hours.

Reference point for above measurements

Type of pump Reda Submersible Distance to cylinder 38'

Length of cylinder Length of suction pipe below cylinder

Length stroke Speed

Hours used per day Type of power

Rating of motor ⅓ hp Rating of pump in G. P. M. 15 gpm at zero pressure

Can following be measured: (1) Static water level

(2) Pumping level (3) Discharge

(4) Influence on other wells

Temperature of water Was water sample collected

Date April 4, 1961 Effect of water on meters, hot water coils, etc.

Date of Analysis Analysis No. 154513

Recorder

Date

2807-22617 12

P14865

F

maybe same as well on next page

City _____ County Douglas

Section 25 H SW¼ Twp. No. 16N Range 7E

Location (in feet from section corner) 2516 N and 845 E of SW corner

Owner J. F. Romine Authority J. F. Romine

Contractor Walker Address Unknown

Date drilled 1913 Elev. above sea level top of well _____

Depth 28' Has 6" hole bottom drilled about 12' deeper - wood casing. H.C.R.

Log Finished in gravel

Were drill cuttings saved No Where filed _____

Size hole 3½' If reduced, where and how much _____

Casing record Bricked wall

Distance to water when not pumping 14' Distance to water is 14'

feet after pumping at 5 G. P. M. for 48 hours.

Reference point for above measurements ground level

Type of pump Deming Dbl. Act. Force Distance to cylinder 12'

Length of cylinder 3" x 10" Length of suction pipe below cylinder 14'

Length stroke 6" Speed _____

Hours used per day 300 gal - house & stock Type of power Hand & 1½ HP gas engine

Rating of motor 1½ HP Rating of pump in G. P. M. 4 to 5

Can following be measured: (1) Static water level Yes

(2) Pumping level Yes (3) Discharge Yes

(4) Influence on other wells None

Temperature of water _____ Was water sample collected No

Date _____ Effect of water on meters, hot water coils, etc. _____

Date of Analysis _____ Analysis No. _____

Recorder Allen W. Reeves

Date Mar 9, 1934

2807-22617 12

Have used as high as 2000 gal/day for over a year at a time

PH 486

G

Transferred to well on preceding page 16 7 25

City about 4 mi. W of Tuscola County Douglas

Section 25 SA Twp. No. 16N Range 7E

Location (in feet from section corner) 30'E & 60'S of NW cor. of SW 1/4

Owner J. Fred Ramine Authority Same.

Contractor Address

Date ~~drilled~~ dug 1907 Elev. above sea level top of well

Depth 28'

Log finished in gravel

Were drill cuttings saved Where filed

Size hole 3' If reduced, where and how much

Casing record brick

Distance to water when not pumping Can be pumped down, but has never gone dry. Distance to water is

feet after pumping at G. P. M. for hours.

Reference point for above measurements Ground Surface

Type of pump Cylinder Distance to cylinder

Length of cylinder Length of suction pipe below cylinder

Length stroke Speed

Hours used per day Type of power electric

Rating of motor Rating of pump in G. P. M. 3

Can following be measured: (1) Static water level yes

(2) Pumping level yes (3) Discharge

(4) Influence on other wells none

Temperature of water Was water sample collected yes. 2 hrs. pumping

Date 4/14/42 Effect of water on meters, hot water coils, etc.

Date of Analysis Analysis No. 92793

daily use about 1000 gal.

Recorder H.E.R.

2807-22617 12

Date 4/17/42

PE1487

H

City _____ County Douglas

Section 26-4a SE ¼ Twp. No. 16 N Range 7 E

Location (in feet from section corner) 637 N and 2360 W of SE corner

Owner J. E. Romine Authority J. E. Romine

Contractor J. J. Ennis Address Deceased

Date drilled 1897 Elev. above sea level top of well _____

Depth 50'

Log Finished in gravel

Were drill cuttings saved No Where filed _____

Size hole 3½' If reduced, where and how much at 40' to 2"

Casing record Bricked wall to 40' - wood stem casing rest of way

Distance to water when not pumping 17' Distance to water is 17

feet after pumping at 3 G. P. M. for 8 hours.

Reference point for above measurements ground level

Type of pump U.S. W.E.& P.Co. lift Distance to cylinder 16'

Length of cylinder 3" x 10" Length of suction pipe below cylinder 16'

Length stroke 8" Speed _____

Hours used per day 600 gal - stock Type of power Wind

Rating of motor _____ Rating of pump in G. P. M. 3

Can following be measured: (1) Static water level Yes

(2) Pumping level Yes (3) Discharge Yes

(4) Influence on other wells None

Temperature of water _____ Was water sample collected No

Date _____ Effect of water on meters, hot water coils, etc. _____

Date of Analysis _____ Analysis No. _____

Recorder Allen W. Rowe

Date Mar 9, 1934

2807-22617 12

P4487

fractional section

I

City _____ County Douglas

Section 35, SF NW¼ Twp. No. 16N Range 7E

Location (in feet from section corner) 1724 S and 2394 E of NW corner

Owner L. F. Romine Authority L. F. Romine

Contractor Frank Offenstein Address Deceased

Date drilled 1904 Elev. above sea level top of well _____

Depth 113'

Log Finished in flour sand

Were drill cuttings saved No Where filed _____

Size hole 2" If reduced, where and how much _____

Casing record Iron pipe and screen

Distance to water when not pumping 22' Distance to water is 22

feet after pumping at 5 G. P. M. for 10 hours.

Reference point for above measurements ground level

Type of pump Myers Dbl. Act. Force Distance to ~~cylinder~~ plunger 60'

Length of cylinder No cyl. using casing Length of suction pipe below cylinder _____

Length stroke 6" Speed _____

Hours used per day 800 gal - stock Type of power Wind

Rating of motor _____ Rating of pump in G. P. M. 4 to 5

Can following be measured: (1) Static water level No

(2) Pumping level No (3) Discharge Yes

(4) Influence on other wells None

Temperature of water _____ Was water sample collected No

Date _____ Effect of water on meters, hot water coils, etc. _____

Date of Analysis _____ Analysis No. _____

Recorder Allen N. Reeves

Date Mar 9, 1934

2807-22617 12

P4491

APPENDIX F

WETLANDS DELINEATION INFORMATION

F-1 USACE Wetland Determination Data Forms
F-2 Floristic Quality Assessment Data Sheets
F-3 Floristic Quality Assessment Example Hand Calculation

Clayton
GROUP SERVICES

APPENDIX F-1

USACE WETLAND DETERMINATION DATA FORMS

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Millennium Petro-chemicals Inc Applicant/Owner: Investigator: Ann Mason; Heidi Mendygral; Scott Hoppel	Date: 4/30/01 County: Douglas State: IL
Do Normal Circumstances exist on the site? Yes No Is the site significantly disturbed (Atypical Situation)? Yes No Is the area a potential Problem Area? Yes No (If needed, explain on reverse.)	Community ID: PFO1C Transect ID: Plot ID: #1

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Silver Maple	Tree	FACW	9.		
2. Green Ash	Tree	FACW	10.		
3. White Ash	Tree	FACU	11.		
4. Virginia Creeper	W-vine	FAC-	12.		
5. Reed Canary Grass	P-Grass	FACW+	13.		
6. Birds Foot Violet	P-Forb	UPL	14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 75%

Remarks:

HYDROLOGY

X Recorded Data (Describe in Remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: N/A (in.)

Depth to Saturated Soil: N/A (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ___ Inundated
- ___ Saturated in Upper 12 Inches
- X Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- X Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- X Oxidized Root Channels in Upper 12 Inches
- X Water-Stained Leaves
- X Local Soil Survey Data
- X FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: NWI MAP, soils are on Hydric Soil List (NRCS).

Plot 1

SOILS

Map Unit Name (Series and Phase): LAWSON silt loam

Drainage Class: Somewhat poorly

Field Observations Confirm Mapped Type? (Yes) No

Taxonomy (Subgroup): Fine-silty, mixed, superactive, mesic Aquic Cumulic Hapludolls

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-14	A_1	10YR 2/2			silt loam; granular
14-18	A_2	10YR 2/1			SICL-subangular blocky
18-	A_3	10YR 2/2	10YR 5/4	Few/Fine	SICL-subangular blocky
				Fe + Mn concretions	

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- X Reducing Conditions
- X Gleyed or Low-Chroma Colors
- X Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- X Listed on Local Hydric Soils List
- X Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) No	(Circle)
Wetland Hydrology Present?	(Yes) No	
Hydric Soils Present?	(Yes) No	

(Circle)

Is this Sampling Point Within a Wetland? (Yes) No

Remarks:

Approved by HQUSACE 3/92

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Millennium Petro-Chemicals Inc Applicant/Owner: Investigator: Ann MASON; Heidi Mendyral; Scott Hoppel	Date: 5/1/01 County: Douglas State: IL
Do Normal Circumstances exist on the site? Yes No Is the site significantly disturbed (Atypical Situation)? Yes No Is the area a potential Problem Area? Yes No (If needed, explain on reverse.)	Community ID: PUBFh Transect ID: Plot ID: #2

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Canary Reed Grass	P-Grass	FACW+	9.		
2. Tumble Mustard	A-Forb	FACU	10.		
3. Silver Maple	Tree	FACW	11.		
4. Honey Locust	Tree	FAC	12.		
5. Black Ash	Tree	FACW+	13.		
6. White Mulberry	Tree	FAC	14.		
7. Blue Beech	Tree	FAC	15.		
8. Crataegus Prvinosa	Tree	UPL	16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 92 %

Remarks:

HYDROLOGY

X Recorded Data (Describe in Remarks):
___ Stream, Lake, or Tide Gauge
X Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: N/A (in.)

Depth to Saturated Soil: N/A (in.)

Wetland Hydrology Indicators:
Primary Indicators:
X Inundated
X Saturated in Upper 12 Inches
X Water Marks
___ Drift Lines
___ Sediment Deposits
X Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
X Oxidized Root Channels in Upper 12 Inches
X Water-Stained Leaves
X Local Soil Survey Data
X FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks:

plot 2

SOILS

Map Unit Name (Series and Phase): Lawson Silt Loam

Drainage Class: Somewhat Poorly

Field Observations Confirm Mapped Type? (Yes) No

Taxonomy (Subgroup): Fine-silty, mixed, superactive, mesic Aquic Cumulic Hapludolls

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-19	A_1	10YR 2/2			Silt Loam; granular
19-23	A_2	10YR 2/1			SL - Subangular Blocky
23-	A_3	10YR 2/1	10YR 3/4	Few / Fine FE+ MN	SiCL - subangular Blocky

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- X Reducing Conditions
- X Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- X Listed on Local Hydric Soils List
- X Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) No	(Circle)
Wetland Hydrology Present?	(Yes) No	
Hydric Soils Present?	(Yes) No	

(Circle)

Is this Sampling Point Within a Wetland? (Yes) No

Remarks:

Approved by HQUSACE 3/92

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Millennium Petro-chemicals Inc Applicant/Owner: Investigator: Ann Mason; Heidi Mendyorak, Scott Hoppel	Date: 5/1/01 County: Douglas State: IL
Do Normal Circumstances exist on the site? Yes No Is the site significantly disturbed (Atypical Situation)? Yes No Is the area a potential Problem Area? Yes No (If needed, explain on reverse.)	Community ID: PEMAF Transect ID: Plot ID: #3

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Woolly Blue Violet	P-Forb	FAC-	9.		
2. Queen Anne Lace	B-Forb	FACU-	10.		
3. Wild Onion	P-Forb	UPL	11.		
4. Spring Beauty	P-Forb	FACU	12.		
5. Sugar Maple	Tree	FACU	13.		
6. White Ash	Tree	FACU	14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 63%

Remarks:

HYDROLOGY

X Recorded Data (Describe in Remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: N/A (in.)

Depth to Saturated Soil: N/A (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ___ Inundated
- ___ Saturated in Upper 12 Inches
- X Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- X Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- X Oxidized Root Channels in Upper 12 Inches
- X Water-Stained Leaves
- X Local Soil Survey Data
- X FAC-Neutral Test
- X Other (Explain in Remarks)

Remarks: NWI Maps, Soils Are on Hydric Soil List (NRCS)

Plot # 3

SOILS

Map Unit Name (Series and Phase): SAWMILL silty clay Loam

Drainage Class: poorly

Field Observations Confirm Mapped Type? (Yes) No

Taxonomy (Subgroup): Fine-silty, mixed, superactive, mesic Cumulic Endoaquolls

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-9	A1	10YR 3/1			Silty clay loam, granular
9-15	A2	10YR 3/2			SICL - Subangular blocky
15-27	A3	10YR 2/1	10YR 5/4	Few/Fine	" "
27-	AB	10YR 4/1	7.5YR 2.5/1	Few/Fine Fe/Mn root pores	" "

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- X Aquic Moisture Regime
- X Reducing Conditions
- X Gleyed or Low-Chroma Colors
- X Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- X Listed on Local Hydric Soils List
- X Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) No	(Circle)
Wetland Hydrology Present?	(Yes) No	
Hydric Soils Present?	(Yes) No	

(Circle)

Is this Sampling Point Within a Wetland? (Yes) No

Remarks:

Approved by HQUSACE 3/92

Clayton
GROUP SERVICES

APPENDIX F-2

FLORISTIC QUALITY ASSESSMENT DATA SHEETS

Site: Plot 1
Locale: PFOIC- North of Railroad Tracks
By: Ann Marie Mason
File: n:\Projermr\15-00116_Millennium\FQI\Plot 1.inv

FLORISTIC QUALITY DATA	Native	5	83.3%	Adventive	1	16.7%
5 NATIVE SPECIES	Tree	3	50.0%	Tree	0	0.0%
6 Total Species	Shrub	0	0.0%	Shrub	0	0.0%
3.2 NATIVE MEAN C	W-Vine	1	16.7%	W-Vine	0	0.0%
2.7 W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
7.2 NATIVE FQI	P-Forb	1	16.7%	P-Forb	0	0.0%
6.5 W/Adventives	B-Forb	0	0.0%	B-Forb	0	0.0%
0.6 NATIVE MEAN W	A-Forb	0	0.0%	A-Forb	0	0.0%
-0.2 W/Adventives	P-Grass	0	0.0%	P-Grass	1	16.7%
AVG: Faculative (-)	A-Grass	0	0.0%	A-Grass	0	0.0%
	P-Sedge	0	0.0%	P-Sedge	0	0.0%
	A-Sedge	0	0.0%	A-Sedge	0	0.0%
	Fern	0	0.0%			

ACRONYM	C	SCIENTIFIC NAME	W	WETNESS	PHYSIOGNOMY	COMMON NAME
ACESAI	1	Acer saccharinum	-3	FACW	Nt Tree	SILVER MAPLE
FRAAMC	4	Fraxinus americana	3	FACU	Nt Tree	WHITE ASH
FRAPES	2	Fraxinus pennsylvanica v. subintegerrima	-3	FACW	Nt Tree	GREEN ASH
PARQUI	2	Parthenocissus quinquefolia	1	FAC-	Nt W-Vine	VIRGINIA CREEPER
PHAARU	0	PHALARIS ARUNDINACEA	-4	FACW+	Ad P-Grass	REED CANARY GRASS
VIOPET	7	Viola pedata	5	UPL	Nt P-Forb	BIRD'S FOOT VIOLET

Site: Plot 2
Locale: PUBFh- South of Railroad Tracks
Date: May 2, 2001 3.5 hours
By: Ann Marie Mason
File: n:\Projermr\15-00116_Millennium\FQI\Plot 2.inv

FLORISTIC QUALITY DATA	Native	4	66.7%	Adventive	2	33.3%
4 NATIVE SPECIES	Tree	2	33.3%	Tree	0	0.0%
6 Total Species	Shrub	0	0.0%	Shrub	0	0.0%
3.0 NATIVE MEAN C	W-Vine	0	0.0%	W-Vine	0	0.0%
2.0 W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
6.0 NATIVE FQI	P-Forb	2	33.3%	P-Forb	1	16.7%
4.9 W/Adventives	B-Forb	0	0.0%	B-Forb	1	16.7%
2.5 NATIVE MEAN W	A-Forb	0	0.0%	A-Forb	0	0.0%
3.2 W/Adventives	P-Grass	0	0.0%	P-Grass	0	0.0%
AVG: Fac. Upland	A-Grass	0	0.0%	A-Grass	0	0.0%
	P-Sedge	0	0.0%	P-Sedge	0	0.0%
	A-Sedge	0	0.0%	A-Sedge	0	0.0%
	Fern	0	0.0%			

ACRONYM	C	SCIENTIFIC NAME	W	WETNESS	PHYSIOGNOMY	COMMON NAME
ACESAU	4	Acer saccharum	3	FACU	Nt Tree	SUGAR MAPLE
ALLAMP	0	ALLIUM AMPELOPRASUM v. ATROVIOLACEUM	5	UPL	Ad P-Forb	WILD ONION
CLAVIR	1	Claytonia virginica	3	FACU	Nt P-Forb	SPRING BEAUTY
DAUCAR	0	DAUCUS CAROTA	4	FACU-	Ad B-Forb	QUEEN ANNE'S LACE
FRAAMC	4	Fraxinus americana	3	FACU	Nt Tree	WHITE ASH
VIOSOR	3	Viola sororia	1	FAC-	Nt P-Forb	WOOLLY BLUE VIOLET

Site: Plot 3
Locale: PEMAf- West of Middle Wastewater Treatment Ponds
Date: April 30, 2001 4 hours
By: Ann Marie Mason
File: n:\Projermr\15-00116_Millennium\FQI\Plot 3.inv

FLORISTIC QUALITY DATA	Native	5	62.5%	Adventive	3	37.5%
5 NATIVE SPECIES	Tree	5	62.5%	Tree	1	12.5%
8 Total Species	Shrub	0	0.0%	Shrub	0	0.0%
4.0 NATIVE MEAN C	W-Vine	0	0.0%	W-Vine	0	0.0%
2.5 W/Adventives	H-Vine	0	0.0%	H-Vine	0	0.0%
8.9 NATIVE FQI	P-Forb	0	0.0%	P-Forb	0	0.0%
7.1 W/Adventives	B-Forb	0	0.0%	B-Forb	0	0.0%
-0.4 NATIVE MEAN W	A-Forb	0	0.0%	A-Forb	1	12.5%
-0.4 W/Adventives	P-Grass	0	0.0%	P-Grass	1	12.5%
AVG: Faculative	A-Grass	0	0.0%	A-Grass	0	0.0%
	P-Sedge	0	0.0%	P-Sedge	0	0.0%
	A-Sedge	0	0.0%	A-Sedge	0	0.0%
	Fern	0	0.0%			

ACRONYM	C	SCIENTIFIC NAME	W	WETNESS	PHYSIOGNOMY	COMMON NAME
ACESAI	1	Acer saccharinum	-3	FACW	Nt Tree	SILVER MAPLE
CARCAL	6	Carpinus caroliniana	0	FAC	Nt Tree	BLUE BEECH
CRAPRU	3	Crataegus pruinosa	5	UPL	Nt Tree	FROSTED HAWTHORN
FRANIG	8	Fraxinus nigra	-4	FACW+	Nt Tree	BLACK ASH
GLETRI	2	Gleditsia triacanthos	0	FAC	Nt Tree	HONEY LOCUST
MORALB	0	MORUS ALBA	0	FAC	Ad Tree	WHITE MULBERRY
PHAARU	0	PHALARIS ARUNDINACEA	-4	FACW+	Ad P-Grass	REED CANARY GRASS
SISALT	0	SISYMBRIUM ALTISSIMUM	3	FACU	Ad A-Forb	TUMBLE MUSTARD

Clayton
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APPENDIX F-3

FLORISTIC QUALITY ASSESSMENT EXAMPLE HAND CALCULATION

Clayton GROUP SERVICES
3140 Finley Road, Downers Grove, IL 60515
(630) 795-3200 Fax (630) 795-1130

SHEET NO. 1 OF 1
PROJECT Millennium Retro.
DATE 5/3/01
BY AMM CKD
15-00116

Plot #1

Floristic Quality Assessment Data Sheet

# of Native Species = 5 # of Total Species = 6

*C valve	Scientific Name	common name
1	Acer saccharinum	Silver maple
4	Fraxinus americana	White ash
2	Fraxinus pennsylvanica v. sub.	green Ash
2	Parthenocissus quinquefolia	Virginia Creeper
0	Phalaris arundinacea	Reed canary Grass
7	Viola pedeta	Bird's foot Violet

16 = Total C valve

$N = 5$

$\bar{C} = \frac{16}{5} = 3.2$

$I = \bar{C}\sqrt{N}$

$I = 3.2\sqrt{5}$

$I = 7.15$

$I = 7.2$

I = Floristic Quality Index

* (Values for "C" from Swink & Wilhelm, 1994)

APPENDIX G

ECOLOGICAL INVENTORY INFORMATION

G-1 Illinois DNR Biological Streams Characterization
G-2 Illinois DNR Listing of Fish
G-3 Illinois DNR Database Review

Clayton
GROUP SERVICES

APPENDIX G-1

ILLINOIS DNR BIOLOGICAL STREAMS CHARACTERIZATION

Office Facsimile
IL Dept of Natural Resources
Div of Fisheries

20100 Hazlet Park Rd
Carlyle, IL 62231
618/594-3627
FAX 618/594-8481

To: John Dennison

FAX: 630/795-1130

From: Randy Sauer

Date: April 19, 2000

Pages (incl cover sheet): 3

John-

Here are the most recent data we have on the closest sites above and below US 36 on the Kaskaskia River. In our original (1983) survey of the Kaskaskia River basin, we sampled all three sites with rotenone. Our last effort (1997) included only one site in this area and it was sampled w/ electric seine. Efficiency did not seem to suffer, however (esp for quillback!) and the data seem comparable.

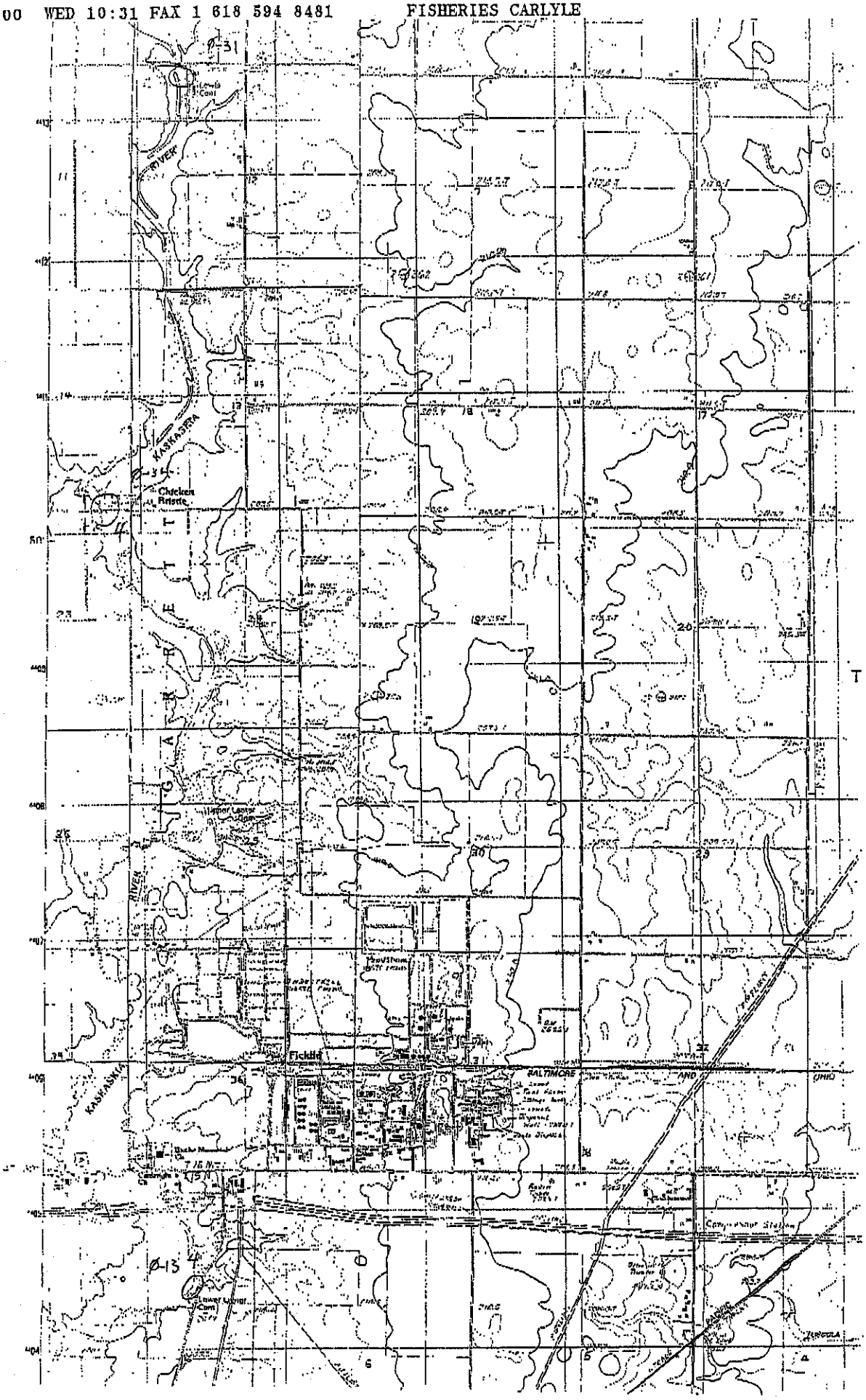
IBI (Index of Biotic Integrity) is a twelve metric tool used to rate stream quality based on fish community parameters (overall diversity, species comp, tolerance etc). Can range from 12 to 60 so the values here are in "Fair" to "Good" range. This part of river rated a "C" (Moderate Aquatic Resource) by Illinois' Biological Streams Characterization (BSC) work group in 1983 but was upgraded to "B" (Highly Valued Aquatic Resource) after 1997.

Hope this fulfills your info needs. Call if you need further explanation, can't read the station map, etc.

Randy

Table 1. Fishes collected from three sites on Kaskaskia River, 1983 (with rotenone) and 1997 (w/ electric seine) by IDNR.

SPECIES	DATE	O-31 (Far upstream) 6/28/83	O-31 (Far upstream) 8/14/97	O-34 (Upstream) 6/28/83	O-13 (Downstream) 8/01/83
Gizzard shad		14	18	3	3
Grass pickerel		3	0	1	0
Carp		3	14	0	4
Creek chub		0	0	0	3
Hornyhead chub		17	0	1	12
Suckermouth minnow		0	0	0	1
Striped shiner		8	185	14	24
Steelcolor shiner		0	0	0	1
Red shiner		2	66	7	7
Bluntnose minnow		251	48	61	14
Bullhead minnow		0	1	0	0
Sand shiner		139	28	22	4
Quillback		6	404	1	0
River carpsucker		2	1	0	0
Highfin carpsucker		0	50	0	0
Northern hogsucker		0	0	1	0
Golden redhorse		3	3	9	0
Channel catfish		3	19	6	2
Yellow bullhead		2	2	0	5
Tadpole madtom		93	1	18	41
Freckled madtom		0	1	0	0
Blackstripe topminnow		6	13	11	3
White bass		0	0	1	0
White crappie		2	13	1	0
Largemouth bass		0	5	0	0
Green sunfish		10	9	12	40
Longear sunfish x GSF hybrid		0	1	0	0
Bluegill		0	13	1	0
Longear sunfish		53	32	31	28
Blackside darter		0	0	1	4
Slenderhead darter		2	0	0	8
Logperch		8	0	4	11
Johnny darter		3	0	0	1
Mud darter		0	0	0	24
Freshwater drum		23	45	13	56
Total individuals		653	972	219	296
Total species		22	22	21	22
IBI/AIBI		40	43	40	36


KASKASKIA
RIVER
Chicken Bristle
Fickle
BALTIMORE
AND
OHIO
Compressor Station
Lower Lodge Cem
Upper Lodge Cem
Ø-31
Ø-13

Clayton
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APPENDIX G-2

ILLINOIS DNR LISTING OF FISH

Literature/Documentation Review Notes

1)
IL Department of Natural Resources
Division of Fisheries
Randy Sauer
4/19/2000 Facsimile

June -August 1983 Kaskaskia River fisheries survey

Sampling point approx. 3 miles (16,000 feet) upstream of US 36	Sampling Point approx. 0.5 miles (2,800 feet) downstream of US 36
Index of Biotic Integrity (IBI) **40**	Index of Biotic Integrity (IBI) **36**
Total species **21**	Total species **22**
Total individual fish **219**	Total individual fish **296**

IBI is a twelve metric tool (ranging from 12 to 60) used to rate stream quality based on fish community parameters (overall diversity, species composition, tolerance etc.). The above values are classified as in the Fair to Good range.

In 1983 this portion of river rated as a Moderate Aquatic Resource (C) (described as FAIR - Species diversity and number of intolerant fish reduced. Trophic structure skewed with increased frequency of omnivores, green sunfish or tolerant species) by Illinois Biological Streams Characterization (BSC). Upgraded to Highly Valued Aquatic Resource (B) (described as Good - Good fishery for important gamefish species; species richness may be somewhat below expectations for stream size or geographic region) after 1997.

BSC is a stream quality index developed by the IL Dept. of Conservation (now the IL Dept. of Natural Resources) and the IEPA. The BSC is derived from data on fish populations, water quality and aquatic macroinvertebrates. The BSC rating system ranges from "A" Highest Quality" to "E" Lowest Quality".

2)
IL Dept. of Natural Resources
Fran Harty
Facsimile 4/12/2000

<u>Illinois Natural Areas Inventory (INAI)</u>

Kaskaskia River is in Illinois Natural Area Categories & Significant Features VI which is described as an outstanding example of high mussel diversity stream from a distance spanning 5.75 miles (30,400 feet) north of US 36 south to US 36.

The INAI was conducted in the mid 1970s and provides data on the distribution and abundance of statewide-significant natural communities in Illinois (White 1978).

3)
IL Dept. of Natural Resources
Kaskaskia River Area Assessment
2000

The IL Water Quality Report (IEPA 1996) rated the Kaskaskia River upstream from Lake Shelbyville as "Full Support" (water quality meets the needs of all designated uses protected by applicable water quality standards). However, a 17.6 mile reach downstream from an unnamed chemical factory (River Mile 264) was impacted by organic contaminants and rated as "Partial Support/Minor Impairment" (water quality has been impaired but only to a minor degree).

A study "Biologically Significant Illinois Streams (BSS Report) (Page et al. 1992) expanded the list of high quality streams beyond the BSC "A" streams by considering additional data on biodiversity; specifically, data on endangered and threatened species (fishes, crustaceans, mussels, and plants) and on mussel diversity. This expanded list identified the most important streams that should be protected and managed for their outstanding biological characteristics. The Kaskaskia River, from the Champaign/Douglas County line south to US 36 (7.64 miles) was classified as a biologically significant stream segment in the Kaskaskia River Assessment Area because of the presence of threatened and/or endangered species and high mussel and/or fish diversity. The Kaskaskia River downstream of US 36 is not classified as a biologically significant stream (See figure 11 from Kaskaskia River Area Assessment).

Clayton
ENVIRONMENTAL
CONSULTANTS

TELEPHONE LOG SHEET

DATE 4/17/00

PROJECT NO. 15-00016.00-001 TIME 0855

COMPANY / AGENCY IDNR

CONVERSATION WITH Randy PHONE #

SUBJECT OF CONVERSATION

NOTES

Species Inventories: '97
'88

Will fax these to me by mid-week

J. Dennison
SIGNATURE

Clayton
GROUP SERVICES

APPENDIX G-3

ILLINOIS DNR DATABASE REVIEW

Illinois
Department of
Natural Resources

http://dnr.state.il.us

524 South Second Street, Springfield, Illinois 62707-1787 George H. Ryan, Governor • Brent Manning, Director

March 13, 2001

Heidi Mendygral
Clayton Group Services
3140 Finley Road
Downers Grove, IL 60515

Re: Information Request, Douglas County

Dear Ms. Mendygral:

I have reviewed the Natural Heritage Database for the presence of endangered and threatened species, Illinois Natural Area Inventory (INAI) sites, and dedicated Illinois Nature Preserves within approximately a one-mile radius of the project location near Tuscola. According to the Database, the project site borders the Kaskaskia River-Chicken Bristle INAI site in Section 36, Township 16 North, Range 7 East. This is a high mussel diversity stream.

Please be aware that the Natural Heritage Database cannot provide a conclusive statement on the presence, absence, or condition of significant features in any part of Illinois. The reports only summarize the existing information regarding the natural features or locations in question known to the Division of Natural Heritage at the time of the inquiry. This response should not be regarded as a final statement on the site being considered, nor should it be a substitute for field surveys required for environmental assessments.

This information is being provided as a response to a request for information only. Please be advised that if any environmentally-altering activities related to this project are funded, performed, or authorized/permitted by a State agency or local unit of government then those entities are responsible for consulting with the Department regarding possible adverse impacts to protected resources.

If you have any questions or need additional information, please contact me at 217-785-5500.

Sincerely,

Heather C. Mammen

Heather C. Mammen
GIS Program Manager
Division of Resource Review & Coordination

Printed on recycled and recyclable stock

Freshwater Mussels from the Kaskaskia River in Douglas County
INHS Mollusk Collection
Records as of March, 2001
R. Szafoni

Cylindrical papershel	Anodontoides ferussacianus
Creeper	Strophitus undulatus
Giant floater	Pyganodon grandis
Threeridge	Amblema plicata
Wabash pigtoe	Fusconaia flava
Round pigtoe	Pleurobema sintoxia
Pimpleback	Quadrula pustulosa
Pondhorn	Uniomerus tetralasmus
Plain pocketbook	Lampsilis cardium
Fatmucket	Lampsilis siliquoidea
Lilliput	Toxolasma parvus
Elktoe	Alasmidonta marginata
Mucket	Actinonaias ligamentina
Fragile papershell	Leptodea fragilis
Rock pocketbook	Arcidens confragosus
White heelsplitter	Lasmigona complanata
Purple heelsplitter	Potamilus ohiensis
Mapleleaf	Quadrula quadrula
Pistolgrip	Tritogonia verrucosa
Deertoe	Truncilla truncata
Little spectaclecase	Villosa lienosa
Washboard	Megalonaias nervosa

APPENDIX H

RFI ANALYTICAL SUMMARY TABLES

H-1 Wastewater Treatment Pond Sludge
- **H-1A High Ponds**
- **H-1B Middle Ponds**
- **H-1C Low Ponds**

H-2 Kaskaskia River Surface Water
H-3 Kaskaskia River Sediment (November 2000)
H-3A Kaskaskia River Sediment (July 2001)
H-4 Intermittent Stream Sediment
H-5 Groundwater
- **H-5A Potable Water Wells**

H-6 Summary of Geotechnical Testing Results

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APPENDIX H-1

WASTEWATER TREATMENT POND SLUDGE

Clayton
GROUP SERVICES

APPENDIX H-1A

HIGH PONDS

TABLE H-1A
Wastewater Treatment Pond Sludge
High Ponds
Detected VOCs

ILD 005078126 -- Douglas County -- 041808002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION	HIGH POND 1				HIGH POND 2				HIGH POND 7						HIGH POND 8				HIGH POND 9	
SAMPLE IDENTIFIER	SL01HA		SL01HB		SL02HA		SL02HB		SL07HA		SL07HA DUP		SL07HB		SL08HA		SL08HB		SL09HA	
SAMPLE DATE	11/17/2000		11/17/2000		11/17/2000		11/17/2000		11/16/2000		11/16/2000		11/16/2000		11/16/2000		11/16/2000		11/21/2000	
Compound (ug/kg)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Acetone	140	U	470		770		190	U	11000	U	NA*		60	J	11000	U	10000	U	520	
Benzene	100		10	J	54		35		1600		NA*		5	J	1100	U	500	J	280	
2-Butanone	140	U	330	U	450	U	190	U	11000	U	NA*		140	U	11000	U	10000	U	340	U
Carbon Disulfide	140	U	330	U	400	J	190	U	11000	U	NA*		140	U	11000	U	10000	U	100	J
Chloroform	65		340		10	J	19	U	1100	U	NA*		14	U	1100	U	1000	U	34	U
Ethylbenzene	400	J	10	J	400		290		11000		NA*		6	J	1500		23000		79	
Methylene Chloride	23		1000		30	J	10	J	1100	U	NA*		10	J	1100	U	1000	U	20	J
Styrene	14	U	33	U	45	U	19	U	4300		NA*		14	U	1100	U	2000		34	U
Tetrachloroethene	14	U	33	U	45	U	19	U	1100	U	NA*		14	U	1100	U	1000	U	34	U
Toluene	270		6600		20	J	10	J	2000		NA*		10	J	1100	U	2800		20	J
Xylenes, Total	240		100	U	90	J	63		2000	J	NA*		43	U	3300	U	4900		100	U

NOTES: DQ = Data Qualifier
B = Compound found in the laboratory method blank
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
NA* = Not Analyzed. Sample held beyond holding time.
Results are in micrograms per kilogram (ug/kg) or parts per billion (ppb).

TABLE H-1A
Waste Water Treatment Pond Sludge
High Ponds
Detected VOCs

Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION	HIGH POND 9				HIGH POND 10						HIGH POND 11				HIGH POND 12					
SAMPLE IDENTIFIER	SL09HA		SL09HB		SL10HA		SL10HA DUP		SL10HB		SL11HA		SL11HB		SL12HA		SL12HA DUP		SL12HB	
SAMPLE DATE	11/21/2000		11/21/2000		11/20/2000		11/20/2000		11/20/2000		11/16/2000		11/16/2000		11/28/2000		11/28/2000		11/28/2000	
Compound (ug/kg)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Acetone	200	J	8600	U	12000	U	11000	U	190	U	260	U	190	U	520		300	J	460	
Benzene	570		12000		2900		800	J	19	U	26	U	19	U	29	U	36	U	36	U
2-Butanone	340	U	8600	U	12000	U	11000	U	190	U	260	U	190	U	290	U	360	U	360	U
Carbon Disulfide	340	U	8600	U	12000	U	11000	U	190	U	260	U	190	U	290	U	360	U	100	J
Chloroform	34	U	860	U	1200	U	1100	U	19	U	26	U	19	U	29	U	36	U	36	U
Ethylbenzene	210		30000		7600		2600		19	U	26	U	19	U	29	U	30	J	94	
Methylene Chloride	10	J	860	U	1200	U	1100	U	9	J	10	J	8	J	10	J	10	J	20	J
Styrene	34	U	9500		2700		3100		19	U	26	U	19	U	29	U	36	U	36	U
Tetrachloroethene	34	U	860	U	1200	U	1100	U	19	U	26	U	19	U	29	U	30	J	43	
Toluene	10	J	14000		1000	J	1000	J	19	U	26	U	19	U	29	U	36	U	36	U
Xylenes, Total	100	U	6200		2000	J	3200	U	58	U	77	U	58	U	88	U	20	J	100	J

NOTES: DQ = Data Qualifier
B = Compound found in the laboratory method blank
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
NA* = Not Analyzed. Sample held beyond holding time.
Results are in micrograms per kilogram (ug/kg) or parts per billion (ppb).

TABLE H-1A
Waste Water Treatment Pond Sludge
High Ponds
Detected VOCs

Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION	HIGH POND 13				HIGH POND 14				HIGH POND 15				HIGH POND 16				HIGH POND 17	
SAMPLE IDENTIFIER	SL13HA		SL13HB		SL14HA		SL14HB		SL15HA		SL15HB		SL16HA		SL16HB		SL17HA	
SAMPLE DATE	11/28/2000		11/28/2000		11/28/2000		11/28/2000		11/20/2000		11/20/2000		11/28/2000		11/28/2000		11/21/2000	
Compound (ug/kg)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Acetone	460		50	U	400		700		270	U	230	U	360		650		180	U
Benzene	200		59		28	U	33	U	27	U	23	U	26	U	42		18	U
2-Butanone	200	J	34		300	J	300	J	270	U	230	U	260	U	420	U	180	U
Carbon Disulfide	200	J	10	U	280	U	380		270	U	230	U	260	U	420		180	U
Chloroform	37	U	5	U	28	U	33	U	27	U	23	U	26	U	42	U	18	U
Ethylbenzene	900	J	15		20	J	33	U	27	U	23	U	26	U	42	U	18	U
Methylene Chloride	20	J	26	B	10	J	20	J	20	J	10	J	9	J	42		18	U
Styrene	37	U	5	U	28	U	33	U	27	U	23	U	26	U	42	U	18	U
Tetrachloroethene	37	U	5	U	28	U	33	U	27	U	20	J	26	U	42		18	U
Toluene	20	J	5	U	96		33	U	27	U	23	U	26	U	42		18	U
Xylenes, Total	250		26		40	J	100	U	81	U	70	U	79	U	120		55	U

NOTES: DQ = Data Qualifier
B = Compound found in the laboratory method blank
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
NA* = Not Analyzed. Sample held beyond holding time.
Results are in micrograms per kilogram (ug/kg) or parts per billion (ppb).

TABLE H-1A
Waste Water Treatment Pond Sludge
High Ponds
Detected VOCs

Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION	HIGH POND 17		HIGH POND 18				HIGH POND 19				HIGH POND 20			
SAMPLE IDENTIFIER	SL17HB		SL18HA		SL18HB		SL19HA		SL19HB		SL20HA		SL20HB	
SAMPLE DATE	11/21/2000		11/20/2000		11/20/2000		11/17/2000		11/17/2000		11/17/2000		11/17/2000	
Compound (ug/kg)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Acetone	230	U	210	U	170	U	140	U	120	U	120	U	130	U
Benzene	25		21	U	17	U	14	U	3	J	12	U	13	U
2-Butanone	230	U	210	U	170	U	140	U	120	U	120	U	130	U
Carbon Disulfide	230	U	210	U	170	U	140	U	50	J	120	U	130	U
Chloroform	23	U	21	U	17	U	14	U	12	U	12	U	13	U
Ethylbenzene	23	U	21	U	20	J	14	U	12	U	12	U	13	U
Methylene Chloride	10	J	9	J	17	U	14	U	5	J	8	J	7	J
Styrene	23	U	21	U	17	U	14	U	12	U	12	U	13	U
Tetrachloroethene	23	U	20	J	150		14	U	12	U	12	U	13	U
Toluene	23	U	21	U	8	J	14	U	8	J	6	J	28	
Xylenes, Total	70	U	62	U	20	J	41	U	38	U	36	U	39	U

NOTES: DQ = Data Qualifier
B = Compound found in the laboratory method blank
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
NA* = Not Analyzed. Sample held beyond holding time.
Results are in micrograms per kilogram (ug/kg) or parts per billion (ppb).

TABLE H-1A
Wastewater Treatment Pond Sludge
High Ponds
Detected SVOCs

ILD 005078126 -- Douglas County -- 041808002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION	HIGH POND 1				HIGH POND 2				HIGH POND 7						HIGH POND 8				HIGH POND 9			
SAMPLE IDENTIFIER	SL01HA		SL01HB		SL02HA		SL02HB		SL07HA		SL07HA DUP		SL07HB		SL08HA		SL08HB		SL09HA		SL09HA DUP	
SAMPLE DATE	11/17/2000		11/17/2000		11/17/2000		11/17/2000		11/16/2000		11/16/2000		11/16/2000		11/16/2000		11/16/2000		11/21/2000		11/21/2000	
Compound (ug/kg)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
2,4-Dinitrotoluene	470	U	1100	U	1500	U	620	U	75000	U	36000	U	480	U	7300	U	6700	U	1100	U	1100	U
2-Methylnaphthalene	600		65000		400	J	400	J	150000		100000		70	J	10000	J	150000		400	J	600	J
4-Methylphenol	470	U	4700		1500	U	620	U	75000	U	36000	U	480	U	7300	U	6700	U	27000		6200	
Acenaphthene	670		27000		5000		3500		70000	J	81000		480	U	15000		100000	J	300		500	J
Acenaphthylene	400	J	20000	J	4200		3200		94000		170000		100	J	76000		270000		600		800	J
Anthracene	300	J	10000	J	1900		2200		40000	J	71000		50	J	24000		100000	J	300	J	500	J
Benzo(a)anthracene	59		2000		480		300		12000	B	11000	B	25	B	6300		23000		110		110	
Benzo(a)pyrene	36		1300		370		160		6900	B	6000	B	22	U	4400		14000		120		82	
Benzo(b)fluoranthene	22		930		300		92		2800	B	2400	B	16	U	2500		6400		90		64	
Benzo(g,h,i)perylene	20	J	700	J	400	J	80	J	3000	J	3000	J	480	U	3000	J	6000	J	200	J	90	J
Benzo(k)fluoranthene	19		980		200		65		3500	B	2800	B	16	U	2500		4600		43		53	
Benzoic Acid	4700	U	11000	U	15000	U	6200	U	750000	U	360000	U	4800	U	73000	U	67000	U	600	J	11000	U
Bis(2-ethylhexyl)phthalate	470	U	1100		900	J	620	U	75000	U	36000	U	480	U	7300	U	6700	U	600	J	500	J
Chrysene	50	J	2000	J	400	J	250		9000		8700		30	J	5000		17000		100	J	100	J
Dibenzo(a,h)anthracene	29	U	1300	U	80	J	38	U	770		400	J	29	U	400	J	1400		30	J	20	J
Dibenzofuran	470	U	1100	U	1500	U	620	U	75000	U	36000	U	480	U	7300	U	4000	J	1100	U	1100	U
Diethyl phthalate	470	U	1100	U	3100		620	U	75000	U	36000	U	480	U	7300	U	6700	U	1100	U	1100	U
Di-n-octyl phthalate	470	U	1100	U	1500	U	620	U	75000	U	36000	U	480	U	7300	U	6700	U	1100	U	1100	U
Fluoranthene	200	J	7000	J	1000	J	1200		24000		23000		100	J	20000		40000		300	J	400	J
Fluorene	770		27000		3300		4400		92000		150000	B	200	U	33000		220000		500	J	930	
Indeno(1,2,3-cd)pyrene	41	U	1900	U	220		40	J	2000		1500		42	U	1900		3800		70	J	50	J
Naphthalene	1100		150000		800	J	1600		380000		230000		480	U	9100		180000		900	J	1000	J
Phenanthrene	1300		39000		2300		6800		160000		270000		50	J	69000		420000		1000	J	1900	
Phenol	470	U	400	J	1500	U	620	U	75000	U	36000	U	480	U	7300	U	6700	U	1200		600	J
Pyrene	420		13000		3100		2300		74000		110000		200	J	44000		9600		730		800	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitation Limit
B = Compound found in the laboratory method blank.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per kilogram (ug/kg) or parts per billion (ppb).

TABLE H-1A
Waste Water Treatment Pond Sludge
High Ponds
Detected SVOCs

ILD 005078126 -- Douglas County -- 041808002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION	HIGH POND 9		HIGH POND 10						HIGH POND 11						HIGH POND 12						HIGH POND 13	
SAMPLE IDENTIFIER	SL09HB		SL10HA		SL10HA DUP		SL10HB		SL11HA		SL11HB		SL11HB DUP		SL12HA		SL12HA DUP		SL12HB		SL13HA	
SAMPLE DATE	11/21/2000		11/20/2000		11/20/2000		11/20/2000		11/16/2000		11/16/2000		11/16/2000		11/28/2000		11/28/2000		11/28/2000		11/28/2000	
Compound (ug/kg)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
2,4-Dinitrotoluene	1200		8000	U	700	U	6300	U	850	U	630	U	700	U	9700	U	12000	U	12000	U	4900	U
2-Methylnaphthalene	120000		270000		11000		11000		1300		200	J	1000	J	1000	J	12000	U	5000	J	5300	
4-Methylphenol	570	U	8000	U	700	U	6300	U	850	U	630	U	700	U	9700	U	12000	U	12000	U	4900	U
Acenaphthene	64000		170000		300	J	4000	J	850	U	630	U	200	J	200	J	400	J	1000	J	52000	
Acenaphthylene	120000		350000		12000		73000		1500		940		9800		11000		14000		7000	J	59000	
Anthracene	50000	J	130000		1300		12000		500	J	300	J	3300		2600	J	3000	J	3000	J	30000	
Benzo(a)anthracene	6300		19000		290		3800		140		300		1400		530		860		940		7000	
Benzo(a)pyrene	2900		9700		980		5300		160		210		1500		910		1800		800		2600	
Benzo(b)fluoranthene	1000	J	4500		490		2500		110		150		1000		730		890		440		1500	
Benzo(g,h,i)perylene	1000	J	5000	J	1300		3000	J	80	J	100	J	780		700	J	1000	J	400	J	1100	J
Benzo(k)fluoranthene	2000	J	3900		310		2300		62		210		760		430		750		500		1800	
Benzoic Acid	5700	U	80000	U	7000	U	63000	U	8500	U	6300	U	7000	U	97000	U	120000	U	120000	U	49000	U
Bis(2-ethylhexyl)phthalate	300	J	8000	U	700	U	6300	U	850	U	400	J	1000		9700	U	12000	U	12000	U	4900	U
Chrysene	5000	J	14000		230		3100		100	J	320		1300		700	J	1000	J	1000	J	6300	
Dibenzo(a,h)anthracene	3400	U	400	J	160		610		51	U	40		310		590	U	710	U	710	U	200	J
Dibenzofuran	1300		6000	J	700	U	6300	U	850	U	630	U	700	U	9700	U	12000	U	12000	U	4900	U
Diethyl phthalate	570	U	8000	U	700	U	6300	U	850	U	630	U	700	U	9700	U	12000	U	12000	U	4900	U
Di-n-octyl phthalate	570	U	8000	U	700	U	6300	U	850	U	630	U	700	U	9700	U	12000	U	12000	U	4900	U
Fluoranthene	20000	J	80000	J	600	J	7400		200	J	500	J	1500		900	J	1000	J	2000	J	18000	
Fluorene	110000		300000		4800		12000		200	J	270	U	600		700	J	700	J	3000	J	70000	
Indeno(1,2,3-cd)pyrene	5000	U	2600		590		1700		60	J	71		580		430	J	600	J	300	J	560	
Naphthalene	280000		610000		1300		22000		200	J	300	J	1100		300	J	400	J	3000	J	7900	
Phenanthrene	200000		560000		1500		21000		300	J	500	J	1400		1100	J	1000	J	10000	J	130000	
Phenol	570	U	8000	U	700	U	6300	U	850	U	630	U	700	U	9700	U	12000	U	12000	U	4900	U
Pyrene	56000		6000		1200		15000		200	J	1100		3800		2500	J	6400		8200		55000	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitation Limit
B = Compound found in the laboratory method blank.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per kilogram (ug/kg) or parts per billion (ppb).

TABLE H-1A
Waste Water Treatment Pond Sludge
High Ponds
Detected SVOCs

ILD 005078126 -- Douglas County -- 041808002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION	HIGH POND 13		HIGH POND 14				HIGH POND 15				HIGH POND 16				HIGH POND 17			
SAMPLE IDENTIFIER	SL13HB		SL14HA		SL14HB		SL15HA		SL15HB		SL16HA		SL16HB		SL17HA		SL17HA DUP	
SAMPLE DATE	11/28/2000		11/28/2000		11/28/2000		11/20/2000		11/20/2000		11/28/2000		11/28/2000		11/21/2000		11/21/2000	
Compound (ug/kg)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
2,4-Dinitrotoluene	10000	U	9200	U	11000	U	890	U	770	U	870	U	14000	U	600	U	590	U
2-Methylnaphthalene	10000	U	9200	U	11000	U	1800		500	J	1300		300	J	200	J	400	J
4-Methylphenol	10000	U	9200	U	11000	U	890	U	770	U	870	U	14000	U	600	U	590	U
Acenaphthene	290		3200	J	500	J	300	J	80	J	540	J	14000	U	70	J	100	J
Acenaphthylene	560		6100	J	2000	J	6700		5200		6500		2000	J	1100		1300	
Anthracene	280		2600	J	600	J	1600		1000		1500		300	J	200	J	200	J
Benzo(a)anthracene	240	U	590		220	J	570		330		300		360	U	160		180	
Benzo(a)pyrene	240	U	260	J	500	U	520		190		100		630	U	140		140	
Benzo(b)fluoranthene	240	U	310	U	370	U	250		160		120		460	U	130		140	
Benzo(g,h,i)perylene	240	U	9200	U	11000	U	200	J	100	J	60	J	14000	U	100	J	100	J
Benzo(k)fluoranthene	240	U	310	U	370	U	220		120		100		460	U	83		85	
Benzoic Acid	48000	U	92000	U	110000	U	8900	U	7700	U	8700	U	140000	U	6000	U	5900	U
Bis(2-ethylhexyl)phthalate	10000	U	9200	U	11000	U	960		770	U	870	U	14000	U	600	U	590	U
Chrysene	240	U	600	J	300	J	560		320		360		4200	U	180		200	
Dibenzo(a,h)anthracene	240	U	560	U	670	U	74		30	J	53	U	830	U	38		37	
Dibenzofuran	10000	U	9200	U	11000	U	890	U	770	U	870	U	14000	U	600	U	590	U
Diethyl phthalate	10000	U	9200	U	11000	U	890	U	770	U	870	U	14000	U	600	U	590	U
Di-n-octyl phthalate	10000	U	9200	U	11000	U	890	U	770	U	870	U	14000	U	600	U	590	U
Fluoranthene	350		2500	J	1000	J	1200		500	J	1200		14000	U	300	J	300	J
Fluorene	380		3200	J	4700	U	2900		2100		730		5800	U	100	J	200	J
Indeno(1,2,3-cd)pyrene	240	U	810	U	970	U	140		73		30	J	1200	U	87		80	
Naphthalene	240	U	200	J	11000	U	4600		950		1900		14000	U	300	J	400	J
Phenanthrene	1100		800	J	200	J	3700		960		4400		14000	U	710		970	
Phenol	10000	U	9200	U	11000	U	890	U	770	U	870	U	14000	U	600	U	590	U
Pyrene	580		6400		2000	J	3600		1200		3300		300	J	420		450	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitation Limit
B = Compound found in the laboratory method blank.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per kilogram (ug/kg) or parts per billion (ppb).

TABLE H-1A
Waste Water Treatment Pond Sludge
High Ponds
Detected SVOCs

ILD 005078126 -- Douglas County -- 041808002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION	HIGH POND 17		HIGH POND 18				HIGH POND 19				HIGH POND 20			
SAMPLE IDENTIFIER	SL17HB		SL18HA		SL18HB		SL19HA		SL19HB		SL20HA		SL20HB	
SAMPLE DATE	11/21/2000		11/20/2000		11/20/2000		11/17/2000		11/17/2000		11/17/2000		11/17/2000	
Compound (ug/kg)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
2,4-Dinitrotoluene	770	U	2100	U	550	U	450	U	410	U	400	U	430	U
2-Methylnaphthalene	100	J	1000	J	100	J	450	U	410	U	400	U	430	U
4-Methylphenol	770	U	2100	U	550	U	450	U	410	U	400	U	430	U
Acenaphthene	3800	U	100	J	20	J	450	U	410	U	400	U	430	U
Acenaphthylene	300	J	6900		750		450	U	410	U	400	U	430	U
Anthracene	100	J	1000	J	200	J	450	U	410	U	400	U	430	U
Benzo(a)anthracene	100	U	290		74		12	U	11	U	10	U	11	U
Benzo(a)pyrene	170	U	70	J	38		20	U	19	U	18	U	19	U
Benzo(b)fluoranthene	80	J	75		37		15	U	14	U	13	U	14	U
Benzo(g,h,i)perylene	90	J	2100	U	20	J	450	U	410	U	400	U	430	U
Benzo(k)fluoranthene	130	U	73		32		15	U	14	U	13	U	14	U
Benzoic Acid	7700	U	21000	U	5500	U	4500	U	4100	U	4000	U	4300	U
Bis(2-ethylhexyl)phthalate	770	U	2100	U	500	J	450	U	410	U	400	U	430	U
Chrysene	90	J	300	J	80	J	140	U	120	U	120	U	130	U
Dibenzo(a,h)anthracene	230	U	120	U	33	U	27	U	25	U	24	U	26	U
Dibenzofuran	770	U	2100	U	550	U	450	U	410	U	400	U	430	U
Diethyl phthalate	770	U	2100	U	550	U	450	U	410	U	400	U	430	U
Di-n-octyl phthalate	770	U	2100	U	550	U	450	U	410	U	400	U	430	U
Fluoranthene	200	J	700	J	200	J	450	U	410	U	400	U	430	U
Fluorene	1600	U	300	J	40	J	190	U	180	U	170	U	180	U
Indeno(1,2,3-cd)pyrene	340	U	180	U	10	J	39	U	36	U	35	U	38	U
Naphthalene	300	J	1000	J	400	J	450	U	410	U	400	U	430	U
Phenanthrene	400	J	2000	J	400	J	450	U	410	U	400	U	430	U
Phenol	770	U	2100	U	550	U	450	U	410	U	400	U	430	U
Pyrene	200	J	1500		330		240	U	220	U	220	U	230	U

NOTES: DQ = Data Qualifier
PQL = Practical Quantitation Limit
B = Compound found in the laboratory method blank.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per kilogram (ug/kg) or parts per billion (ppb).

TABLE H-1A
Wastewater Treatment Pond Sludge
High Ponds
Detected PCBs

ILD 005078126 -- Douglas County -- 041808002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION	HIGH POND 1				HIGH POND 2				HIGH POND 7						HIGH POND 8				HIGH POND 9	
SAMPLE IDENTIFIER	SL01HA		SL01HB		SL02HA		SL02HB		SL07HA		SL07HA DUP		SL07HB		SL08HA		SL08HB		SL09HA	
SAMPLE DATE	11/17/2000		11/17/2000		11/17/2000		11/17/2000		11/16/2000		11/16/2000		11/16/2000		11/16/2000		11/16/2000		11/21/2000	
Compound (ug/kg)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aroclor 1254	330	U	330	U	330	U	330	U	330	U	330	U	330	U	330	U	330	U	330	U
Aroclor 1260	330	U	330	U	330	U	330	U	330	U	330	U	330	U	330	U	330	U	330	U

NOTES: DQ = Data Qualifier
U = Compound not detected at or above the practical quantitative limit (PQL).
Results are in micrograms per kilogram (ug/kg) or parts per billion (ppb).

TABLE H-1A
Waste Water Treatment Pond Sludge
High Ponds
Detected PCBs

ILD 005078126 -- Douglas County -- 041808002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION	HIGH POND 9				HIGH POND 10						HIGH POND 11						HIGH POND 12					
SAMPLE IDENTIFIER	SL09HA		SL09HB		SL10HA		SL10HA DUP		SL10HB		SL11HA		SL11HB		SL11HB DUP		SL12HA		SL12HA DUP		SL12HB	
SAMPLE DATE	11/21/2000		11/21/2000		11/20/2000		11/20/2000		11/20/2000		11/16/2000		11/16/2000		11/16/2000		11/28/2000		11/28/2000		11/28/2000	
Compound (ug/kg)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aroclor 1254	330	U	330	U	330	U	330	U	330	U	330	U	330	U	330	U	330	U	330	U	330	U
Aroclor 1260	330	U	330	U	330	U	330	U	330	U	330	U	330	U	330	U	330	U	330	U	330	U

NOTES: DQ = Data Qualifier
U = Compound not detected at or above the practical quantitative limit (PQL).
Results are in micrograms per kilogram (ug/kg) or parts per billion (ppb).

TABLE H-1A
Waste Water Treatment Pond Sludge
High Ponds
Detected PCBs

ILD 005078126 -- Douglas County -- 041808002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION	HIGH POND 13				HIGH POND 14				HIGH POND 15				HIGH POND 16				HIGH POND 17			
SAMPLE IDENTIFIER	SL13HA		SL13HB		SL14HA		SL14HB		SL15HA		SL15HB		SL16HA		SL16HB		SL17HA		SL17HA DUP	
SAMPLE DATE	11/28/2000		11/28/2000		11/28/2000		11/28/2000		11/20/2000		11/20/2000		11/28/2000		11/28/2000		11/21/2000		11/21/2000	
Compound (ug/kg)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aroclor 1254	620	U	98	U	460	U	550	U	640		330	U	330	U	330	U	330	U	330	U
Aroclor 1260	620	U	98	U	460	U	550	U	430		330	U	330	U	330	U	330	U	330	U

NOTES: DQ = Data Qualifier
U = Compound not detected at or above the practical quantitative limit (PQL).
Results are in micrograms per kilogram (ug/kg) or parts per billion (ppb).

TABLE H-1A
Waste Water Treatment Pond Sludge
High Ponds
Detected PCBs

ILD 005078126 -- Douglas County -- 041808002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION	HIGH POND 17		HIGH POND 18				HIGH POND 19				HIGH POND 20			
SAMPLE IDENTIFIER	SL17HB		SL18HA		SL18HB		SL19HA		SL19HB		SL20HA		SL20HB	
SAMPLE DATE	11/21/2000		11/20/2000		11/20/2000		11/17/2000		11/17/2000		11/17/2000		11/17/2000	
Compound (ug/kg)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aroclor 1254	330	U	330	U	460		330	U	330	U	330	U	330	U
Aroclor 1260	330	U	330	U	330	U	330	U	330	U	330	U	330	U

NOTES: DQ = Data Qualifier
U = Compound not detected at or above the practical quantitative limit (PQL).
Results are in micrograms per kilogram (ug/kg) or parts per billion (ppb).

TABLE H-1A
Wastewater Treatment Pond Sludge
High Ponds
Metals Analyses

ILD 005078126 -- Douglas County -- 041808002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION	HIGH POND 1				HIGH POND 2				HIGH POND 7						HIGH POND 8	
SAMPLE IDENTIFIER	SL01HA		SL01HB		SL02HA		SL02HB		SL07HA		SL07HA DUP		SL07HB		SL08HA	
SAMPLE DATE	11/17/2000		11/17/2000		11/17/2000		11/17/2000		11/16/2000		11/16/2000		11/16/2000		11/16/2000	
Compound (ug/kg)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aluminum	4100000		15000000		7200000		2300000		7000000		6500000		5600000		4700000	
Antimony	410	U	970	U	1400	U	580	U	680	U	650	U	430	U	660	U
Arsenic	45000		66000		67000		10000		48000		39000		900		45000	
Barium	120000		220000		280000		99000		130000		140000		93000		160000	
Beryllium	1000		2400		2200		370		1000		680		570		800	
Boron	18000		42000		57000		23000		24000		20000		8300		22000	
Cadmium	450		660		1200		200		760		700		370		810	
Calcium	61000000		140000000		430000000		150000000		220000000		200000000		28000000		170000000	
Chromium, Hexavalent	390	U	390	U	390	U	580		590		2600		390	U	1500	
Chromium, Total	110000		170000		580000		62000		950000		1000000		78000		810000	
Cobalt	8400		21000		10000		3400		4600		4600		8100		4600	
Copper	38000		67000		150000		16000		67000		77000		23000		66000	
Iron	5700000		24000000		8500000		2400000		6900000		5800000		10000000		4700000	
Lead	35000		54000		64000		11000		29000		30000		18000		23000	
Magnesium	3800000		11000000		33000000		12000000		12000000		12000000		7200000		9600000	
Manganese	180000		380000		240000		80000		200000		170000		280000		190000	
Mercury	120		200	J	310		60	J	90	J	50	J	20	J	90	J
Nickel	25000		58000		49000		22000		35000		33000		23000		39000	
Potassium	310000		1200000		750000		210000		330000		270000		670000		230000	
Selenium	2700		3100		3200		4300		700	J	1100		810		3700	
Silver	170		320		300	J	70	J	70	J	100	J	20	J	260	
Sodium	690000		490000		880000		330000		440000		400000		200000		320000	
Thallium	430		900	J	800	J	80	J	300	J	300	J	200	J	200	J
Vanadium	29000		60000		32000		13000		680	U	650	U	17000		660	U
Zinc	140000		230000		390000		62000		330000		350000		85000		300000	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
NA = Not Analyzed. Analyses not requested.
Results are in micrograms per kilogram (ug/kg) or parts per billion (ppb).

TABLE H-1A
Waste Water Treatment Pond Sludge
High Ponds
Metals Analyses

ILD 005078126 -- Douglas County -- 041808002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION	HIGH POND 8		HIGH POND 9						HIGH POND 10						HIGH POND 11			
SAMPLE IDENTIFIER	SL08HB		SL09HA		SL09HA DUP		SL09HB		SL10HA		SL10HA DUP		SL10HB		SL11HA		SL11HB	
SAMPLE DATE	11/16/2000		11/21/2000		11/21/2000		11/21/2000		11/20/2000		11/20/2000		11/20/2000		11/16/2000		11/16/2000	
Compound (ug/kg)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aluminum	4700000		13000000		11000000		7300000		8400000		6900000		5500000		5600000		3000000	
Antimony	630	U	990	U	1000	U	530	U	700	U	640	U	550	U	770	U	570	U
Arsenic	51000		39000		36000		30000		72000		83000		48000		34000		12000	
Barium	160000		220000		150000		110000		170000		130000		160000		180000		85000	
Beryllium	880		1400		1100		820		810		470		650		270		490	
Boron	15000		40000		47000		20000		24000		16000		22000		31000		19000	
Cadmium	1000		790		540		730		1000		4100		3100		1100		570	
Calcium	140000000		390000000		320000000		160000000		200000000		220000000		270000000		280000000		260000000	
Chromium, Hexavalent	400	U	400	U	400	U	390	U	460		400	U	2300		390	U	390	U
Chromium, Total	1100000		440000		110000		510000		1700000		780000		800000		510000		150000	
Cobalt	5000		7600		5100		6300		4800		3600		3200		5300		3000	
Copper	75000		120000		73000		83000		110000		84000		110000		150000		120000	
Iron	4400000		17000000		5600000		11000000		7200000		6200000		4800000		7100000		2800000	
Lead	30000		49000		40000		27000		25000		18000		14000		32000		23000	
Magnesium	7700000		26000000		21000000		15000000		8900000		7800000		7300000		17000000		6800000	
Manganese	130000		650000		530000		350000		110000		110000		78000		380000		110000	
Mercury	120		340		340		130		41	J	31	J	110	U	190		160	
Nickel	38000		63000		34000		38000		33000		36000		39000		49000		31000	
Potassium	260000		1000000		500000		700000		450000		330000		270000		290000		170000	
Selenium	2700		700	J	2000	J	700	J	1700		19000		42000		3700		2200	
Silver	200	J	300	J	200	J	190		420		470		100	J	200	J	80	J
Sodium	290000		900000		910000		460000		730000		770000		710000		620000		140000	
Thallium	300	J	500	J	300	J	300	J	200	J	300	J	30	J	200	J	100	J
Vanadium	630	U	17000		17000		2700		700	U	640	U	4600		2700		9300	
Zinc	390000		310000		180000		250000		470000		330000		250000		230000		81000	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
NA = Not Analyzed. Analyses not requested.
Results are in micrograms per kilogram (ug/kg) or parts per billion (ppb).

TABLE H-1A
Waste Water Treatment Pond Sludge
High Ponds
Metals Analyses

ILD 005078126 -- Douglas County -- 041808002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION	HIGH POND 11		HIGH POND 12						HIGH POND 13				HIGH POND 14			
SAMPLE IDENTIFIER	SL11HB DUP		SL12HA		SL12HA DUP		SL12HB		SL13HA		SL13HB		SL14HA		SL14HB	
SAMPLE DATE	11/16/2000		11/28/2000		11/28/2000		11/28/2000		11/28/2000		11/28/2000		11/28/2000		11/28/2000	
Compound (ug/kg)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aluminum	4100000		9500000		11000000		7000000		14000000		NA		11000000		8500000	
Antimony	610	U	910	U	1100	U	1100	U	1100	U	NA		810	U	1000	U
Arsenic	47000		27000		35000		18000		49000		17000		65000		18000	
Barium	130000		130000		69000		96000		190000		54000		160000		160000	
Beryllium	1500		790		510		770		2200		NA		1300		1000	
Boron	27000		33000		36000		44000		29000		NA		12000		10000	J
Cadmium	990		1300		1600		820		2400		1200		1600		1400	
Calcium	210000000		200000000		230000000		250000000		110000000		NA		190000000		29000000	
Chromium, Hexavalent	NA		3300		5100		400	U	400	U	400	U	1600		400	U
Chromium, Total	440000		370000		780000		420000		1400000		500000		900000		780000	
Cobalt	5800		6800		8900		4600		10000		NA		7300		8900	
Copper	170000		200000		280000		230000		130000		NA		280000		58000	
Iron	5300000		8700000		12000000		7600000		26000000		NA		22000000		14000000	
Lead	70000		45000		58000		32000		71000		13000		84000		28000	
Magnesium	11000000		21000000		22000000		38000000		7600000		NA		7200000		3600000	
Manganese	240000		470000		620000		530000		630000		NA		1000000		1000000	
Mercury	310		210		230		120	J	350		46		420		67	J
Nickel	50000		37000		52000		34000		43000		NA		99000		35000	
Potassium	230000		280000		260000		180000		790000		NA		800000		630000	
Selenium	500	J	5400		1000	J	700	J	1800	U	4000	U	2300		3200	
Silver	470		100	J	200	J	30	J	200	J	400	U	320		100	J
Sodium	290000		860000		1000000		1400000		1100000		NA		760000		1000000	
Thallium	400	J	300	J	200	J	100	J	1800		NA		400	J	800	J
Vanadium	6200		15000		9200		13000		12000		NA		11000		17000	
Zinc	250000		350000		410000		200000		450000		NA		510000		260000	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
NA = Not Analyzed. Analyses not requested.
Results are in micrograms per kilogram (ug/kg) or parts per billion (ppb).

TABLE H-1A
Waste Water Treatment Pond Sludge
High Ponds
Metals Analyses

ILD 005078126 -- Douglas County -- 041808002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION	HIGH POND 15				HIGH POND 16				HIGH POND 17					
SAMPLE IDENTIFIER	SL15HA		SL15HB		SL16HA		SL16HB		SL17HA		SL17HA DUP		SL17HB	
SAMPLE DATE	11/20/2000		11/20/2000		11/28/2000		11/28/2000		11/21/2000		11/21/2000		11/21/2000	
Compound (ug/kg)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aluminum	6000000		8400000		11000000		25000000		3400000		7400000		12000000	
Antimony	770	U	680	U	780	U	1200	U	520	U	550	U	680	U
Arsenic	30000		35000		62000		190000		49000		83000		100000	
Barium	100000		180000		120000		220000		140000		130000		160000	
Beryllium	1000		1100		2200		5500		420		830		2400	
Boron	40000		44000		59000		82000		18000		21000		40000	
Cadmium	990		440		1200		2700		260		700		1700	
Calcium	260000000		170000000		150000000		310000000		390000000		290000000		170000000	
Chromium, Hexavalent	390	U	400	U	6500		7900		390	U	400	U	400	U
Chromium, Total	560000		360000		470000		1000000		19000		47000		470000	
Cobalt	4000		4500		11000		14000		2600		3700		11000	
Copper	230000		300000		84000		120000		41000		70000		89000	
Iron	5400000		7200000		11000000		20000000		2900000		6600000		23000000	
Lead	62000		84000		81000		200000		12000		32000		79000	
Magnesium	13000000		7800000		6100000		13000000		7200000		8000000		12000000	
Manganese	150000		190000		410000		690000		82000		140000		460000	
Mercury	360		330		90	J	220	J	110		390		290	
Nickel	33000		36000		38000		67000		31000		28000		54000	
Potassium	360000		690000		480000		710000		200000		310000		940000	
Selenium	3100		1300		100	J	7400		890		1100		1000	J
Silver	200	J	250		330		300	J	80	J	300		380	
Sodium	420000		420000		660000		1100000		650000		540000		740000	
Thallium	300	J	500	J	1100		2300		100	J	630		1100	
Vanadium	6300		14000		21000		39000		8300		15000		31000	
Zinc	270000		140000		320000		630000		100000		240000		300000	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
NA = Not Analyzed. Analyses not requested.
Results are in micrograms per kilogram (ug/kg) or parts per billion (ppb).

TABLE H-1A
Waste Water Treatment Pond Sludge
High Ponds
Metals Analyses

ILD 005078126 -- Douglas County -- 041808002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION	HIGH POND 18				HIGH POND 19				HIGH POND 20			
SAMPLE IDENTIFIER	SL18HA		SL18HB		SL19HA		SL19HB		SL20HA		SL20HB	
SAMPLE DATE	11/20/2000		11/20/2000		11/17/2000		11/17/2000		11/17/2000		11/17/2000	
Compound (ug/kg)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aluminum	4300000		3800000		12000000		7800000		7900000		5500000	
Antimony	600	U	510	U	410	U	370	U	370	U	370	U
Arsenic	25000		19000		12000		9200		8600		10000	
Barium	70000		64000		140000		87000		73000		190000	
Beryllium	600		430		880		530		730		920	
Boron	25000		39000		4900		5300		14000		15000	
Cadmium	760		530		400		99		150		350	
Calcium	310000000		270000000		2000000		11000000		59000000		70000000	
Chromium, Hexavalent	1500		400	U	800		390	U	390	U	760	
Chromium, Total	250000		150000		25000		21000		24000		20000	
Cobalt	3200		2500		8900		10000		11000		13000	
Copper	56000		49000		26000		17000		17000		20000	
Iron	4400000		3300000		28000000		21000000		10000000		8000000	
Lead	33000		22000		19000		22000		14000		14000	
Magnesium	8500000		9100000		3200000		9300000		4900000		4700000	
Manganese	180000		83000		220000		690000		180000		160000	
Mercury	150		62	J	40	J	20	J	20	J	20	J
Nickel	36000		25000		30000		25000		28000		27000	
Potassium	200000		130000		650000		970000		610000		410000	
Selenium	1000	U	1000		940		2500		2000		2500	
Silver	100	J	200		100	J	70	J	200		100	J
Sodium	330000		160000		210000		240000		300000		200000	
Thallium	300	J	500	J	200	J	100	J	300	J	300	J
Vanadium	9400		8400		42000		22000		21000		33000	
Zinc	110000		82000		68000		54000		64000		68000	

NOTES: DQ = Data Qualifier
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J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
NA = Not Analyzed. Analyses not requested.
Results are in micrograms per kilogram (ug/kg) or parts per billion (ppb).

TABLE H-1A
Wastewater Treatment Pond Sludge
High Ponds
General Chemistry Analyses

ILD 005078126 -- Douglas County -- 041808002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION	HIGH POND 1				HIGH POND 2				HIGH POND 7						HIGH POND 8			
SAMPLE IDENTIFIER	SL01HA		SL01HB		SL02HA		SL02HB		SL07HA		SL07HA DUP		SL07HB		SL08HA		SL08HB	
SAMPLE DATE	11/17/2000		11/17/2000		11/17/2000		11/17/2000		11/16/2000		11/16/2000		11/16/2000		11/16/2000		11/16/2000	
Compound *(see Notes)*	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Alkalinity, Total (As CaCO3)	1200		1800		1800		1100		920		1400		880		2000		2300	
Biochemical Oxygen Demand	2	U	2	U	7.8		3		14		13		11		2	U	30	
Chemical Oxygen Demand	840		980		2000		840		560		680		920		960		320	
Chloride	160		220		240		150		120		88		37		48		59	
Cyanide	0.2	U	0.94		0.49		0.6		0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Fluoride	15		8.2		7		3.2		13		13		19		14		8	
Hardness	170000		390000		1200000		440000		590000		560000		99000		470000		390000	
Nitrogen, Ammonia (As N)	57		27		76		25		67		55		45		2.6		8.6	
Nitrogen, Nitrate	5.7		17		1.9	U	2	U	2	U	1.9	U	7.9		1.9	U	2	U
Percent Moisture	30		70		78		47		56		54		31		55		51	
pH	8		7.5		8.1		9.3		8.1		8.3		8.5		7.9		8	
Sulfate	1200		270		7600		460		1400		1700		510		3400		2200	
Sulfide	2.4		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U

NOTES: DQ = Data Qualifier
U = Compound not detected at or above the practical quantitative limit (PQL).
NA = Not Analyzed. Analyses not requested.
Biochemical Oxygen Demand is reported in milligrams per liter (mg/L) or parts per million (ppm).
pH is reported in pH Units.
Percent Moisture is reported in percent.
All other results are in milligrams per kilogram (mg/kg) or ppm.

TABLE H-1A
Waste Water Treatment Pond Sludge
High Ponds
General Chemistry Analyses

Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION	HIGH POND 9						HIGH POND 10						HIGH POND 11					
SAMPLE IDENTIFIER	SL09HA		SL09HA DUP		SL09HB		SL10HA		SL10HA DUP		SL10HB		SL11HA		SL11HB		SL11HB DUP	
SAMPLE DATE	11/21/2000		11/21/2000		11/21/2000		11/20/2000		11/20/2000		11/20/2000		11/16/2000		11/16/2000		11/16/2000	
Compound *(see Notes)*	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Alkalinity, Total (As CaCO3)	8300		3400		10000		3200		3000		3100		920		520		440	
Biochemical Oxygen Demand	9		35		28		7.2		2	U	2	U	2	U	2	U	2	U
Chemical Oxygen Demand	2900		7200		1900		2800		220		2700		200		340		320	
Chloride	320		610		180		370		280		170		55		27		18	
Cyanide	0.2	U	1.2		0.2		0.2	U	0.3		0.31		0.2	U	0.7		0.52	
Fluoride	49		140		25		29		27		39		3.8		12		11	
Hardness	1100000		890000		450000		540000		570000		710000		760000		670000		580000	
Nitrogen, Ammonia (As N)	1	U	700		140		7.3		22		1	U	1.8		4.6		3.4	
Nitrogen, Nitrate	1.9	U	1.9	U	1.9	U	1.9	U	1.9	U	2		91		1.9	U	NA	
Percent Moisture	71		71		42		59		53		48		61		48		53	
pH	8.3		8.2		8.2		8.1		7.7		7.6		7.8		8		7.6	
Sulfate	960		960		2000		6500		4400		2700		5700		29000		29000	
Sulfide	1		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U

NOTES: DQ = Data Qualifier
U = Compound not detected at or above the practical quantitative limit (PQL).
NA = Not Analyzed. Analyses not requested.
Biochemical Oxygen Demand is reported in mg/L.
pH is reported in pH Units.
Percent Moisture is reported in percent.
All other results are in milligrams per kilogram (mg/kg) or parts per million (ppm).

TABLE H-1A
Waste Water Treatment Pond Sludge
High Ponds
General Chemistry Analyses

Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION	HIGH POND 12						HIGH POND 13				HIGH POND 14				HIGH POND 15	
SAMPLE IDENTIFIER	SL12HA		SL12HA DUP		SL12HB		SL13HA		SL13HB		SL14HA		SL14HB		SL15HA	
SAMPLE DATE	11/28/2000		11/28/2000		11/28/2000		11/28/2000		11/28/2000		11/28/2000		11/28/2000		11/20/2000	
Compound *(see Notes)*	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Alkalinity, Total (As CaCO3)	3800		4500		1400		3200		220		820		1900		1200	
Biochemical Oxygen Demand	2	U	3.6		2	U	8.4		9000		9.9		6.6		2	U
Chemical Oxygen Demand	61		300		140		760		190000		620		540		1100	
Chloride	290		630		490		440		1		390		260		75	
Cyanide	0.7		0.7		0.2	U	0.2	U	0.098	U	0.51		0.56		0.2	U
Fluoride	6.7		22		26		58		2.8		27		18		6.2	
Hardness	580000		680000		780000		310000		NA		510000		88000		700000	
Nitrogen, Ammonia (As N)	1	U	39		73		120		410		82		38		1	U
Nitrogen, Nitrate	5.5		1.9	U	1.9	U	1.9	U	1.8	U	2	U	1.9	U	2	U
Percent Moisture	66		72		72		73		75		64		70		63	
pH	7.6		7.9		8.1		8.2		8.03		8.1		8.3		7.7	
Sulfate	20000		6800		58000		2200		230		2500		2800		17000	
Sulfide	1	U	1	U	1	U	1	U	7.3		1.3		1	U	1	U

NOTES: DQ = Data Qualifier
U = Compound not detected at or above the practical quantitative limit (PQL).
NA = Not Analyzed. Analyses not requested.
Biochemical Oxygen Demand is reported in mg/L.
pH is reported in pH Units.
Percent Moisture is reported in percent.
All other results are in milligrams per kilogram (mg/kg) or parts per million (ppm).

TABLE H-1A
Waste Water Treatment Pond Sludge
High Ponds
General Chemistry Analyses

Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION	HIGH POND 15		HIGH POND 16				HIGH POND 17				HIGH POND 17	
SAMPLE IDENTIFIER	SL15HB		SL16HA		SL16HB		SL17HA		SL17HA DUP		SL17HB	
SAMPLE DATE	11/20/2000		11/28/2000		11/28/2000		11/21/2000		11/21/2000		11/21/2000	
Compound *(see Notes)*	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Alkalinity, Total (As CaCO3)	1700		3300		3200		2400		1600		2700	
Biochemical Oxygen Demand	2	U	2	U	2	U	2	U	2	U	2	U
Chemical Oxygen Demand	380		40	U	40	U	200		560		390	
Chloride	100		180		170		160		72		220	
Cyanide	0.28		0.2	U	0.2	U	0.36		0.61		0.2	U
Fluoride	21		16		16		19		25		48	
Hardness	450000		400000		830000		1000000		770000		480000	
Nitrogen, Ammonia (As N)	1	U	7.7		1	U	1	U	1	U	1	U
Nitrogen, Nitrate	66		2.2		1.9	U	33		60		9.7	
Percent Moisture	57		62		76		45		44		57	
pH	8		7.4		7.3		7.7		7.7		7.7	
Sulfate	27000		21000		22000		6100		830		10000	
Sulfide	1	U	1	U	1	U	1	U	1	U	1	U

NOTES: DQ = Data Qualifier
U = Compound not detected at or above the practical quantitative limit (PQL).
NA = Not Analyzed. Analyses not requested.
Biochemical Oxygen Demand is reported in mg/L.
pH is reported in pH Units.
Percent Moisture is reported in percent.
All other results are in milligrams per kilogram (mg/kg) or parts per million (ppm).

TABLE H-1A
Waste Water Treatment Pond Sludge
High Ponds
General Chemistry Analyses

Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION	HIGH POND 18				HIGH POND 19				HIGH POND 20			
SAMPLE IDENTIFIER	SL18HA		SL18HB		SL19HA		SL19HB		SL20HA		SL20HB	
SAMPLE DATE	11/20/2000		11/20/2000		11/17/2000		11/17/2000		11/17/2000		11/17/2000	
Compound *(see Notes)*	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Alkalinity, Total (As CaCO3)	2600		1700		440		2600		3100		2400	
Biochemical Oxygen Demand	2	U	2	U	2	U	2	U	2	U	2	
Chemical Oxygen Demand	77		2600		40	U	4100		60		2500	
Chloride	82		33		82		120		100		92	
Cyanide	0.2	U	0.2	U	0.52		0.94		0.33		0.36	
Fluoride	7.7		11		13		13		7.2		13	
Hardness	800000		700000		18000		65000		170000		190000	
Nitrogen, Ammonia (As N)	1	U	1	U	18		140		230		43	
Nitrogen, Nitrate	1.9	U	1.9	U	1.9	U	2	U	6.2		1.9	U
Percent Moisture	52		40		26		20		17		23	
pH	7.7		11.7		5.9		7.6		8		8.4	
Sulfate	3900		810		1800		300		150		99	
Sulfide	1	U	1	U	1.1		13		22		8.1	

NOTES: DQ = Data Qualifier
U = Compound not detected at or above the practical quantitative limit (PQL).
NA = Not Analyzed. Analyses not requested.
Biochemical Oxygen Demand is reported in mg/L.
pH is reported in pH Units.
Percent Moisture is reported in percent.
All other results are in milligrams per kilogram (mg/kg) or parts per million (ppm).

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APPENDIX H-1B

MIDDLE PONDS

TABLE H-1B
Wastewater Treatment Pond Sludge
Middle Ponds
Detected VOCs

ILD 005078126 -- Douglas County -- 041808002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION	MIDDLE POND 1				MIDDLE POND 2				MIDDLE POND 3				MIDDLE POND 4						MIDDLE POND 5				MIDDLE POND 6			
SAMPLE IDENTIFIER	SL01MA		SL01MB		SL02MA		SL02MB		SL03MA		SL03MB		SL04MA		SL04MB		SL04MB DUP		SL05MA		SL05MB		SL06MA		SL06MB	
SAMPLE DATE	11/14/2000		11/14/2000		11/14/2000		11/15/2000		11/15/2000		11/15/2000		11/15/2000		11/15/2000		11/15/2000		11/15/2000		11/15/2000		11/15/2000		11/15/2000	
Compound (ug/kg)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Acetone	150	U	170	U	170	U	150	U	530	U	310	U	220	U	170	U	200	J	100	J	200	J	160	U	200	U
Benzene	15	U	17	U	17	U	15	U	40	J	88		95		80		290		29	U	260		16	U	20	U
2-Butanone	150	U	170	U	170	U	150	U	530	U	310	U	220	U	170	U	170	U	290	U	590	U	160	U	200	U
Carbon Disulfide	150	U	170	U	170	U	150	U	530	U	100	J	220	U	170	U	400	J	100	J	200	J	160	U	200	U
Chloroform	15	U	17	U	17	U	15	U	53	U	31	U	22	U	17	U	17	U	29	U	59	U	16	U	20	U
Ethylbenzene	15	U	17	U	17	U	15	U	55		1100		10	J	73		250		29	U	200		16	U	20	U
Methylene Chloride	10	J	10	J	10	J	10	J	30	J	35		10	J	9	J	60	J	20	J	40	J	10	J	20	J
Styrene	15	U	17	U	17	U	15	U	53	U	31	U	22	U	17	U	67	U	29	U	59	U	16	U	20	U
Tetrachloroethene	15	U	17	U	17	U	15	U	53	U	31	U	22	U	17	U	67	U	29	U	59	U	16	U	20	U
Toluene	15	U	17	U	17	U	15	U	53	U	30	J	22	U	6	J	60	J	29	U	50	J	16	U	20	U
Xylenes, Total	45	U	51	U	50	U	46	U	160	U	120		20	J	20	J	210		86	U	250		49	U	61	U

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per kilogram (ug/kg) or parts per billion (ppb).

TABLE H-1B
Wastewater Treatment Pond Sludge
Middle Ponds
Detected SVOCs

ILD 005078126 -- Douglas County -- 041808002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION	MIDDLE POND 1				MIDDLE POND 2				MIDDLE POND 3				MIDDLE POND 4						MIDDLE POND 5				MIDDLE POND 6			
SAMPLE IDENTIFIER	SL01MA		SL01MB		SL02MA		SL02MB		SL03MA		SL03MB		SL04MA		SL04MB		SL04MB DUP		SL05MA		SL05MB		SL06MA		SL06MB	
SAMPLE DATE	11/14/2000		11/14/2000		11/14/2000		11/15/2000		11/15/2000		11/15/2000		11/15/2000		11/15/2000		11/15/2000		11/15/2000		11/15/2000		11/15/2000		11/15/2000	
Compound (ug/kg)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
2,4-Dinitrotoluene	5000	U	560	U	550	U	5100	U	1700	U	1000	U	730	U	5700	U	22000	U	9400	U	500	J	540	U	670	U
2-Methylnaphthalene	5000	U	200	J	200	J	200	J	6000	B	11000		1300		3000	J	27000		3000	J	7400		540	U	20	J
4-Methylphenol	5000	U	560	U	550	U	5100	U	1700	U	1000	U	730	U	5700	U	22000	U	9400	U	1900	U	540	U	670	U
Acenaphthene	5000	U	560	U	30	J	300	J	7800	B	19000	B	2900		6000	J	28000		3000	J	8300		540	U	10	J
Acenaphthylene	200	J	400	J	400	J	400	J	14000	B	16000	B	3200		6000		44000		6000	J	15000		540	U	70	J
Anthracene	5000	U	100	J	100	J	5100	U	6600	B	10000	J	2100		5000	J	20000	J	3000	J	8900		540	U	20	J
Benzo(a)anthracene	130	U	55		51		130	U	1800	B	1900	B	610		1300		7800		980		2800		14	U	10	J
Benzo(a)pyrene	230	U	38		28		230	U	940	B	760	B	220		500		3300		470		1200		25	U	31	U
Benzo(b)fluoranthene	170	U	41		27		170	U	540	B	380	B	150		260		1900		310	U	680		18	U	22	U
Benzo(g,h,i)perylene	5000	U	30	J	20	J	5100	U	300	J	300	J	100	J	200	J	2000	J	9400	U	500	J	540	U	670	U
Benzo(k)fluoranthene	170	U	40		24		170	U	500	B	430	B	140		280		1700		300	J	750		18	U	22	U
Benzoic Acid	50000	U	5600	U	5500	U	51000	U	17000	U	10000	U	7300	U	57000	U	220000	U	94000	U	19000	U	5400	U	6700	U
Bis(2-ethylhexyl)phthalate	5000	U	560	U	550	U	5100	U	1700	U	1000	U	730	U	5700	U	22000	U	9400	U	400	J	540	U	670	U
Chrysene	1500	U	60	J	60	J	1500	U	1600	B	1600	B	560		1000	J	6700		900	J	2700		160	U	20	J
Dibenzo(a,h)anthracene	300	U	34	U	33	U	310	U	50	J	50	J	30	J	340	U	1300	U	570	U	130		33	U	41	U
Dibenzofuran	5000	U	560	U	550	U	5100	U	1700	U	300	J	730	U	5700	U	22000	U	9400	U	400	J	540	U	670	U
Diethyl phthalate	5000	U	560	U	550	U	5100	U	1700	U	1000	U	730	U	5700	U	22000	U	9400	U	1900	U	540	U	670	U
Di-n-octyl phthalate	5000	U	560	U	550	U	5100	U	1700	U	1000	U	730	U	5700	U	22000	U	9400	U	1900	U	540	U	670	U
Fluoranthene	5000	U	100	J	300	J	500	J	7200	B	4600	B	3000		5000	J	30000		4000	J	14000		30	J	70	J
Fluorene	2100	U	30	J	20	J	2200	U	10000	B	23000	B	4000		8800		44000		4000		14000		230	U	290	U
Indeno(1,2,3-cd)pyrene	440	U	20	J	48	U	450	U	240	B	210	B	60	J	500	U	1000	J	830	U	330		48	U	59	U
Naphthalene	5000	U	560	U	550	U	5100	U	900	J	2700	B	1600		3000	J	2000	J	9400	U	1000	J	540	U	20	J
Phenanthrene	5000	U	50	J	40	J	5100	U	13000	B	37000		9900		21000		42000		6000	J	30000		540	U	20	J
Phenol	5000	U	560	U	550	U	5100	U	1700	U	1000	U	730	U	5700	U	22000	U	9400	U	1900	U	540	U	670	U
Pyrene	2700	U	200	J	420		1000	J	12000	B	17000	B	4800		10000		64000		9100		24000		30	J	100	J

NOTES: DQ = Data Qualifier
B = Compound found in the laboratory method blank.
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per kilogram (ug/kg) or parts per billion (ppb).

TABLE H-1B
Wastewater Treatment Pond Sludge
Middle Ponds
Detected PCBs

ILD 005078126 -- Douglas County -- 041808002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION	MIDDLE POND 1				MIDDLE POND 2				MIDDLE POND 3				MIDDLE POND 4						MIDDLE POND 5				MIDDLE POND 6			
SAMPLE IDENTIFIER	SL01MA		SL01MB		SL02MA		SL02MB		SL03MA		SL03MB		SL04MA		SL04MB		SL04MB DUP		SL05MA		SL05MB		SL06MA		SL06MB	
SAMPLE DATE	11/14/2000		11/14/2000		11/14/2000		11/15/2000		11/15/2000		11/15/2000		11/15/2000		11/15/2000		11/15/2000		11/15/2000		11/15/2000		11/15/2000		11/15/2000	
Compound (ug/kg)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aroclor 1254	500	U	560	U	550	U	510	U	330	U	330	U	730	U	570	U	2200	U	940	U	1900	U	330	U	330	U
Aroclor 1260	500	U	560	U	550	U	510	U	330	U	330	U	730	U	570	U	2200	U	940	U	1900	U	330	U	330	U

NOTES: DQ = Data Qualifier
U = Compound not detected at or above the practical quantitative limit (PQL).
Results are in micrograms per kilogram (ug/kg) or parts per billion (ppb).

TABLE H-1B
Wastewater Treatment Pond Sludge
Middle Ponds
Metals Analyses

ILD 005078126 -- Douglas County -- 041808002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION	MIDDLE POND 1				MIDDLE POND 2				MIDDLE POND 3				MIDDLE POND 4	
SAMPLE IDENTIFIER	SL01MA		SL01MB		SL02MA		SL02MB		SL03MA		SL03MB		SL04MA	
SAMPLE DATE	11/14/2000		11/14/2000		11/14/2000		11/15/2000		11/15/2000		11/15/2000		11/15/2000	
Compound (ug/kg)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aluminum	13000000		12000000		8800000		6600000		16000000		16000000		8400000	
Antimony	440	U	490	U	490	U	450	U	1600	U	940	U	680	U
Arsenic	5600		23000		14000		7400		76000		95000		44000	
Barium	210000		140000		140000		50000		240000		250000		140000	
Beryllium	830		710		810		490		3800		2700		1500	
Boron	4900		6300		5700		7800		26000		24000		7900	
Cadmium	60	J	910		700		230		3100		2900		1700	
Calcium	4300000		6600000		6100000		66000000		94000000		99000000		15000000	
Chromium, Hexavalent	390	U	620		1000		400	U	390	U	390	U	390	U
Chromium, Total	26000		170000		360000		73000		2200000		1800000		780000	
Cobalt	7800		9800		9600		9500		16000		13000		14000	
Copper	20000		29000		30000		17000		150000		140000		65000	
Iron	19000000		20000000		15000000		13000000		26000000		23000000		14000000	
Lead	16000		18000		16000		11000		89000		99000		35000	
Magnesium	4000000		4900000		3500000		30000000		7600000		9300000		3200000	
Manganese	280000		420000		280000		370000		720000		570000		440000	
Mercury	30	J	10	J	10	J	94	U	200	J	240		30	J
Nickel	22000		28000		28000		25000		65000		60000		33000	
Potassium	1100000		1100000		900000		1300000		1000000		1200000		800000	
Selenium	790		1500		300	J	200	J	2000	J	3900		1600	
Silver	100	J	100	J	60	J	230		40	J	100	J	100	J
Sodium	320000		380000		320000		230000		1200000		660000		280000	
Thallium	300	J	400	J	300	J	300	J	1900		2100		1200	
Vanadium	41000		25000		8800		16000		1600	U	940	U	680	U
Zinc	67000		150000		180000		57000		720000		620000		280000	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per kilogram (ug/kg) or parts per billion (ppb).

TABLE H-1B
Waste Water Treatment Pond Sludge
Middle Ponds
Metals Analyses

ILD 005078126 -- Douglas County -- 041808002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION	MIDDLE POND 4				MIDDLE POND 5				MIDDLE POND 6			
SAMPLE IDENTIFIER	SL04MB		SL04MB DUP		SL05MA		SL05MB		SL06MA		SL06MB	
SAMPLE DATE	11/15/2000		11/15/2000		11/15/2000		11/15/2000		11/15/2000		11/15/2000	
Compound (ug/kg)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aluminum	6900000		14000000		9400000		19000000		9700000		9600000	
Antimony	510	U	2000	U	840	U	1700	U	490	U	610	U
Arsenic	17000		72000		35000		92000		8700		36000	
Barium	120000		250000		160000		290000		100000		120000	
Beryllium	1000		2700		1400		2600		1300		1100	
Boron	11000		22000		12000		25000		4900	U	8700	
Cadmium	750		3000		1700		3200		120		1300	
Calcium	49000000		47000000		21000000		72000000		8400000		48000000	
Chromium, Hexavalent	390	U	400	U	520		400	U	560		390	U
Chromium, Total	200000		3200000		1700000		2800000		33000		860000	
Cobalt	10000		21000		12000		26000		12000		10000	
Copper	34000		140000		82000		190000		23000		62000	
Iron	10000000		28000000		17000000		35000000		16000000		14000000	
Lead	25000		60000		30000		48000		30000		31000	
Magnesium	4100000		6300000		6100000		14000000		3500000		3600000	
Manganese	620000		790000		570000		1100000		440000		560000	
Mercury	80	J	60	J	90	J	100	J	10	J	30	J
Nickel	23000		67000		37000		83000		22000		26000	
Potassium	670000		1100000		950000		1900000		710000		560000	
Selenium	1200		3000	J	2400		4300		300	J	1000	J
Silver	100	J	100	J	200	J	570	U	70	J	240	
Sodium	250000		1400000		470000		880000		490000		320000	
Thallium	200	J	2000	J	700	J	2000	J	200	J	1100	
Vanadium	19000		2000	U	840	U	1700	U	32000		610	U
Zinc	110000		850000		480000		910000		70000		240000	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per kilogram (ug/kg) or parts per billion (ppb).

TABLE H-1B
Wastewater Treatment Pond Sludge
Middle Ponds
General Chemistry Analyses

ILD 005078126 -- Douglas County -- 041808002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION	MIDDLE POND 1				MIDDLE POND 2				MIDDLE POND 3				MIDDLE POND 4	
SAMPLE IDENTIFIER	SL01MA		SL01MB		SL02MA		SL02MB		SL03MA		SL03MB		SL04MA	
SAMPLE DATE	11/14/2000		11/14/2000		11/14/2000		11/15/2000		11/15/2000		11/15/2000		11/15/2000	
Compound *(see Notes)*	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Alkalinity, Total (As CaCO3)	2400		1000		1200		1500		1400		1200		1800	
Biochemical Oxygen Demand	10		14		14		52		16		17		44	
Chemical Oxygen Demand	54000		2100		1500		51000		49000		41000		58000	
Chloride	82		110		120		110		70		160		85	
Cyanide	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Fluoride	92		82		98		36		14		23		19	
Hardness	27000		37000		30000		280000		260000		290000		51000	
Nitrogen, Ammonia (As N)	25		44		25		43		66		50		71	
Nitrogen, Nitrate	22		18		6.4		2.2		1.9	U	1.9	U	1.9	U
Percent Moisture	34		41		40		35		81		68		55	
pH	8		7.7		7.8		8.2		8.2		8.1		8	
Sulfate	880		680		660		250		37		61		42	
Sulfide	1	U	2.8		1	U	1	U	1.1		1	U	1	U

NOTES: DQ = Data Qualifier
U = Compound not detected at or above the practical quantitative limit (PQL).
Biochemical Oxygen Demand is reported in milligrams per liter (mg/L) or parts per million (ppm).
pH is reported in pH Units.
Percent Moisture is reported in percent.
All other results are in milligrams per kilogram (mg/kg) or ppm.

TABLE H-1B
Waste Water Treatment Pond Sludge
Middle Ponds
General Chemistry Analyses

ILD 005078126 -- Douglas County -- 041808002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION	MIDDLE POND 4				MIDDLE POND 5				MIDDLE POND 6			
SAMPLE IDENTIFIER	SL04MB		SL04MB DUP		SL05MA		SL05MB		SL06MA		SL06MB	
SAMPLE DATE	11/15/2000		11/15/2000		11/15/2000		11/15/2000		11/15/2000		11/15/2000	
Compound *(see Notes)*	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Alkalinity, Total (As CaCO3)	1500		1200		1700		2000		1000		480	
Biochemical Oxygen Demand	12		7.5		15		32		12		14	
Chemical Oxygen Demand	47000		12000		1600		45000		360		1100	
Chloride	64		110		74		88		140		210	
Cyanide	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Fluoride	23		21		60		43		12		15	
Hardness	140000		150000		78000		240000		35000		140000	
Nitrogen, Ammonia (As N)	59		44		72		53		1	U	19	
Nitrogen, Nitrate	4.9		3.5		2.5		2	U	3.4		2.6	
Percent Moisture	42		85		65		83		39		51	
pH	8.2		8		8.1		8.1		7.9		7.6	
Sulfate	34		76		140		45		1300		1300	
Sulfide	1	U	1	U	1	U	1	U	1	U	1	U

NOTES: DQ = Data Qualifier
U = Compound not detected at or above the practical quantitative limit (PQL).
Biochemical Oxygen Demand is reported in mg/L.
pH is reported in pH Units.
Percent Moisture is reported in percent.
All other results are in milligrams per kilogram (mg/kg) or ppm.

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APPENDIX H-1C

LOW PONDS

TABLE H-1C
Wastewater Treatment Pond Sludge
Low Ponds
Detected VOCs

ILD 005078126 -- Douglas County -- 041808002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION	LOW POND 7				LOW POND 8			
SAMPLE IDENTIFIER	SL07LA		SL07LB		SL08LA		SL08LB	
SAMPLE DATE	11/15/2000		11/15/2000		11/16/2000		11/16/2000	
Compound (ug/kg)	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Acetone	130	U	90	J	590	U	480	U
Benzene	7	J	20	J	99		50	J
2-Butanone	130	U	220	U	590	U	480	U
Carbon Disulfide	130	U	80	J	590	U	480	U
Chloroform	13	U	22	U	59	U	48	U
Ethylbenzene	4	J	9	J	290		310	
Methylene Chloride	10	J	20	J	60	J	50	J
Styrene	13	U	22	U	59	U	48	U
Tetrachloroethene	13	U	22	U	59	U	48	U
Toluene	9	J	22		30	J	20	J
Xylenes, Total	38	U	65	U	100	J	170	

NOTES:
DQ = Data Qualifier
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per kilogram (ug/kg) or parts per billion (ppb).

TABLE H-1C
Wastewater Treatment Pond Sludge
Low Ponds
Detected SVOCs

ILD 005078126 -- Douglas County -- 041808002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION	LOW POND 7				LOW POND 8			
SAMPLE IDENTIFIER	SL07LA		SL07LB		SL08LA		SL08LB	
SAMPLE DATE	11/15/2000		11/15/2000		11/16/2000		11/16/2000	
Compound (ug/kg)	Result	DQ	Result	DQ	Result	DQ	Result	DQ
2,4-Dinitrotoluene	420	U	720	U	9700	U	7900	U
2-Methylnaphthalene	420	U	720	U	3900	B	5000	B
4-Methylphenol	420	U	720	U	9700	U	7900	U
Acenaphthene	420	U	720	U	4900	B	4100	B
Acenaphthylene	420	U	720	U	5800	B	4400	B
Anthracene	420	U	720	U	4500	B	3600	B
Benzo(a)anthracene	11	U	19	U	1300	B	920	B
Benzo(a)pyrene	19	U	33	U	510	B	400	B
Benzo(b)fluoranthene	14	U	24	U	320	B	180	B
Benzo(g,h,i)perylene	420	U	720	U	200	J	200	J
Benzo(k)fluoranthene	14	U	24	U	210	B	250	B
Benzoic Acid	4200	U	7200	U	97000	U	79000	U
Bis(2-ethylhexyl)phthalate	420	U	720	U	9700	U	7900	U
Chrysene	130	U	220	U	1100	B	800	B
Dibenzo(a,h)anthracene	25	U	43	U	120	U	40	J
Dibenzofuran	420	U	720	U	9700	U	7900	U
Diethyl phthalate	420	U	720	U	9700	U	7900	U
Di-n-octyl phthalate	20	J	40	J	9700	U	7900	U
Fluoranthene	420	U	720	U	5400	B	4100	B
Fluorene	180	U	300	U	7600	B	6300	B
Indeno(1,2,3-cd)pyrene	37	U	63	U	100	J	100	J
Naphthalene	420	U	720	U	7900	B	10000	B
Phenanthrene	420	U	720	U	20000		18000	
Phenol	420	U	720	U	9700	U	7900	U
Pyrene	230	U	390	U	11000	B	7900	B

NOTES:
DQ = Data Qualifier
B = Compound found in the laboratory method blank.
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per kilogram (ug/kg) or parts per billion (ppb).

TABLE H-1C
Wastewater Treatment Pond Sludge
Low Ponds
Detected PCBs

ILD 005078126 -- Douglas County -- 041808002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION	LOW POND 7				LOW POND 8			
SAMPLE IDENTIFIER	SL07LA		SL07LB		SL08LA		SL08LB	
SAMPLE DATE	11/15/2000		11/15/2000		11/16/2000		11/16/2000	
Compound (ug/kg)	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aroclor 1254	330	U	330	U	330	U	330	U
Aroclor 1260	330	U	330	U	330	U	330	U

NOTES:
DQ = Data Qualifier
U = Compound not detected at or above the practical quantitative limit (PQL)
Results are in micrograms per kilogram (ug/kg) or parts per billion (ppb).

TABLE H-1C
Wastewater Treatment Pond Sludge
Low Ponds
Metals Analyses

ILD 005078126 -- Douglas County -- 041808002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION	LOW POND 7				LOW POND 8			
SAMPLE IDENTIFIER	SL07LA		SL07LB		SL08LA		SL08LB	
SAMPLE DATE	11/15/2000		11/15/2000		11/16/2000		11/16/2000	
Compound (ug/kg)	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aluminum	4700000		7700000		10000000		13000000	
Antimony	380	U	650	U	1800	U	1400	U
Arsenic	3500		7600		86000		40000	
Barium	50000		72000		100000		220000	
Beryllium	460		580		2000		1200	
Boron	3500	J	6000	J	44000		19000	
Cadmium	60	J	20	J	2900		2600	
Calcium	26000000		41000000		160000000		45000000	
Chromium, Hexavalent	390	U	400	U	400	U	750	
Chromium, Total	19000		28000		840000		900000	
Cobalt	6200		11000		11000		23000	
Copper	13000		17000		170000		89000	
Iron	9400000		16000000		13000000		21000000	
Lead	8900		15000		61000		41000	
Magnesium	8800000		17000000		26000000		11000000	
Manganese	360000		450000		750000		570000	
Mercury	76	U	130	U	200	J	40	J
Nickel	17000		30000		65000		70000	
Potassium	660000		1200000		620000		1100000	
Selenium	100	J	2700		2000	J	3600	
Silver	130	U	220	U	200	J	50	J
Sodium	180000		300000		1200000		800000	
Thallium	100	J	100	J	1000	J	2200	
Vanadium	13000		19000		1800	U	13000	
Zinc	38000		59000		400000		450000	

NOTES:
DQ = Data Qualifier
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per kilogram (ug/kg) or parts per billion (ppb).

TABLE H-1C
Wastewater Treatment Pond Sludge
Low Ponds
General Chemistry Analyses

ILD 005078126 -- Douglas County -- 041808002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION	LOW POND 7				LOW POND 8			
SAMPLE IDENTIFIER	SL07LA		SL07LB		SL08LA		SL08LB	
SAMPLE DATE	11/15/2000		11/15/2000		11/16/2000		11/16/2000	
Compound *(see Notes)*	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Alkalinity, Total (As CaCO3)	1600		800		1200		2200	
Biochemical Oxygen Demand	10		14		3.1		18	
Chemical Oxygen Demand	1200		880		400		4800	
Chloride	99		120		120		110	
Cyanide	0.2	U	0.2	U	0.2	U	0.2	U
Fluoride	16		13		8.6		13	
Hardness	100000		170000		500000		160000	
Nitrogen, Ammonia (As N)	170		140		11		21	
Nitrogen, Nitrate	50		100		2	U	1.9	U
Percent Moisture	21		54		83		79	
pH	8		7.9		8.8		8.9	
Sulfate	470		480		460		220	
Sulfide	1.5		1	U	1	U	1	U

NOTES:
DQ = Data Qualifier
U = Compound not detected at or above the practical quantitative limit (PQL).
Biochemical Oxygen Demand is in milligrams per liter (mg/L) or parts per million (ppm).
pH is reported in pH Units.
Percent Moisture is reported in percent.
All other results are in micrograms per kilogram (ug/kg) or parts per billion (ppb).

Clayton
GROUP SERVICES

APPENDIX H-2

KASKASKIA RIVER SURFACE WATER

TABLE H-2
Kaskaskia River Surface Water
Detected VOCs

ILD005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION:	SW04 Down Stream		SW05 Down Stream		SW06 Outlet Channel		SW07 Inlet Channel		SW08 Mid-Site		SW09 Up Stream		SW09 (DUP)		SW10 Up Stream	
SAMPLE DATE:	11/29/00		11/29/00		11/29/00		11/29/00		11/29/00		11/29/00		11/29/00		11/29/00	
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
2-Butanone	50	U	50	U	53		50	U	50	U	50	U	50	U	50	U
Acetone	100	U	100	U	60	J	100	U	100	U	100	U	100	U	100	U
Chloroform	1	U	1	U	1.3		1	U	1	U	1	U	1	U	1	U

NOTES: DQ = Data Qualifier
PQL = Practical Quantitation Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per liter (ug/L) or parts per billion (ppb).

TABLE H-2
Kaskaskia River Surface Water
Detected SVOCs

ILD005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION:	SW04 Down Stream		SW05 Down Stream		SW06 Outlet Channel		SW07 Inlet Channel		SW08 Mid-Site		SW09 Up Stream		SW09 (DUP)		SW10 Up Stream	
SAMPLE DATE:	11/29/00		11/29/00		11/29/00		11/29/00		11/29/00		11/29/00		11/29/00		11/29/00	
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
2-Methylnaphthalene	5.1		0.4	J	5	U	5	U	5	U	5	U	2	J	5	U
Acenaphthene	0.4	J	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Anthracene	**0.2**	J	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Bis(2-ethylhexyl)phthalate	5	U	2	BJ	5	U	5	U	5	U	3	BJ	5	U	5	U
Fluorene	0.9	J	5	U	5	U	5	U	5	U	5	U	0.4	J	5	U
Naphthalene	1	J	5	U	5	U	5	U	5	U	5	U	0.4	J	5	U
Phenanthrene	2	J	0.3	J	0.4	J	5	U	5	U	5	U	0.8	J	5	U
Pyrene	**0.4**	J	5	U	5	U	5	U	5	U	5	U	5	U	5	U

NOTES: B = Compound found in the laboratory method blank.
DQ = Data Qualifier
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per liter (ug/L) or parts per billion (ppb).

TABLE H-2
Kaskaskia River Surface Water
Metals Analyses

ILD005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION:	SW04 Down Stream		SW05 Down Stream		SW06 Outlet Channel		SW07 Inlet Channel		SW08 Mid-Site		SW09 Up Stream		SW09 (DUP)		SW10 Up Stream	
SAMPLE DATE:	11/29/00		11/29/00		11/29/00		11/29/00		11/29/00		11/29/00		11/29/00		11/29/00	
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aluminum	160		100	U	560		270		120		100	U	100	U	280	
Antimony	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Arsenic	1	J	4	J	5	J	2	J	5	U	5	U	5	U	2	J
Barium	85		82		58		85		81		76		82		83	
Beryllium	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Boron	310		280		550		330		260		260		200		360	
Cadmium	0.5	U	0.5	U	0.5	U	0.1	J	0.5	U	0.5	U	0.5	U	0.5	U
Calcium	76000		75000		81000		75000		75000		79000		75000		76000	
Chromium, Hexavalent	5	U	5	U	5	U	5	U	5	U	5	U	NA		5	U
Chromium, Total	5		4	J	5	J	4	J	3	J	14		6.9		3	J
Cobalt	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Copper	4	J	3	J	**6.2**		3	J	2	J	4	J	**5.1**		**6.8**	
Iron	110		100	U	660		110		100	U	100		100	U	100	U
Lead	1	J	3	U	3	U	3	U	3	U	3	U	2	J	3	U
Magnesium	33000		32000		39000		34000		32000		34000		32000		34000	
Manganese	100	U	100	U	350		100	U	100	U	100	U	100	U	100	U
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Nickel	9.2		6.3		11		7.5		6.8		6.9		6.6		6.7	
Potassium	1900		1900		4300		1800		1700		1900		1700		1800	
Selenium	5	U	1	J	5	U	5	U	5	U	5	U	5	U	5	U
Silver	0.5	U	0.2	J	0.5	U	0.5	U	1		0.1	J	0.5	U	0.5	U
Sodium	18000		15000		150000		14000		13000		15000		13000		14000	
Thallium	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Vanadium	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Zinc	14		15		22		56		14		20		10		11	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitation Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
NA = Not Analyzed
Results are in micrograms per liter (ug/L) or parts per billion (ppb).

TABLE H-2
Kaskaskia River Surface Water
General Chemistry Analyses

ILD005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION:	SW04 Down Stream		SW05 Down Stream		SW06 Outlet Channel		SW07 Inlet Channel		SW08 Mid-Site		SW09 Up Stream		SW09 (DUP)		SW10 Up Stream	
SAMPLE DATE:	11/29/00		11/29/00		11/29/00		11/29/00		11/29/00		11/29/00		11/29/00		11/29/00	
Compound *(see Notes)*	**Result**	**DQ**	**Result**	**DQ**	**Result**	**DQ**	**Result**	**DQ**	**Result**	**DQ**	**Result**	**DQ**	**Result**	**DQ**	**Result**	**DQ**
Alkalinity, Total (As CaCO3)	250		250		100		250		250		260		250		250	
Biochemical Oxygen Demand	2	U	2	U	6.9		2	U	2	U	2	U	2	U	2	U
Chemical Oxygen Demand	10	U	24		45		30		27		30		21		15	
Chloride	39		37		38		34		34		34		35		34	
Cyanide	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
Fluoride	0.3		0.28		0.88		0.26		0.27		0.28		0.2	U	0.28	
Hardness	330		320		360		330		320		340		320		330	
Nitrogen, Ammonia (As N)	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Nitrogen, Nitrate	8.4		8.5		3.4		8.7		8.6		8.5		NA		8.6	
pH	7.9	H	8	H	7.1	H	8	H	8	H	8	H	8	H	8	H
Sulfate	40		35		71		31		29		29		29		29	
Sulfide	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Suspended Solids	6.6		6.1		12		26		5.9		7.1		7.5		7.5	
Total Dissolved Solids	380	H	410	H	950	H	430	H	420	H	400	H	390	H	390	H

NOTES: DQ = Data Qualifier
PQL = Practical Quantitation Limit
H = Analysis of this compound performed beyond recommended holding time.
U = Compound not detected at or above the PQL.
NA = Not Analyzed
pH is reported in pH Units.
All other results are in milligrams per liter (mg/L) or parts per million (ppm).

Clayton GROUP SERVICES

APPENDIX H-3

KASKASKIA RIVER SEDIMENT (NOVEMBER 2000)

TABLE H-3
Kaskaskia River Sediment (November 2000)
Detected VOCs

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION:	SS04 Down Stream		SS05 Down Stream		SS06 Outlet Channel		SS07 Inlet Channel		SS07 (DUP)		SS08 Mid-Site		SS09 Up Stream		SS10 Up Stream	
SAMPLE DATE:	11/29/00		11/29/00		11/29/00		11/29/00		11/29/00		11/29/00		11/29/00		11/29/00	
Compound (ug/kg)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Acetone	340		130	U	360		**560**		100	J	100	J	100	J	100	J
Benzene	6	J	13	U	14	U	18	U	6	J	7	J	13	U	14	U
Carbon Disulfide	160	U	130	U	100	J	180	U	170	U	130	U	130	U	140	U
Ethylbenzene	**6**	J	13	U	14	U	18	U	17	U	**5**	J	13	U	14	U
Methylene Chloride	5	J	7	J	5	J	18	U	7	J	5	J	13	U	14	U
Toluene	9	J	13	U	5	J	18	U	10	J	16		5	J	5	J
Xylenes, Total	30	J	39	U	41	U	54	U	51	U	38	U	38	U	42	U

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per kilogram (ug/kg) or parts per billion (ppb).

TABLE H-3
Kaskaskia River Sediment (November 2000)
Detected SVOCs

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION:	SS04 Down Stream		SS05 Down Stream		SS06 Outlet Channel		SS07 Inlet Channel		SS07 (DUP)		SS08 Mid-Site		SS09 Up Stream		SS10 Up Stream	
SAMPLE DATE:	11/29/00		11/29/00		11/29/00		11/29/00		11/29/00		11/29/00		11/29/00		11/29/00	
Compound (ug/kg)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
2-Methylnaphthalene	**90**	J	430	U	**30**	J	1200	U	1100	U	420	U	420	U	460	U
Acenaphthene	**250**	J	430	U	**430**	J	1200	U	1100	U	420	U	420	U	460	U
Acenaphthylene	**40**	J	430	U	**170**	J	1200	U	1100	U	420	U	420	U	460	U
Anthracene	40	J	430	U	**120**	J	1200	U	1100	U	420	U	420	U	10	J
Benzo(a)anthracene	**38**		11	U	**45**		**46**		**42**		11	U	11	U	31	
Benzo(a)pyrene	**39**		19	U	**30**	J	**62**		**56**		19	U	19	U	**34**	
Benzo(b)fluoranthene	49		14	U	37		94		68		14	U	14	U	39	
Benzo(g,h,i)perylene	30	J	430	U	20	J	70	J	60	J	420	U	420	U	30	J
Benzo(k)fluoranthene	33		14	U	30	J	49		66		14	U	14	U	36	
Chrysene	50	J	130	U	50	J	**70**	J	**70**	J	130	U	130	U	50	J
Dibenzo(a,h)anthracene	32	U	26	U	55	U	**20**	J	68	U	25	U	26	U	**10**	J
Fluoranthene	**130**	J	430	U	**290**	J	100	J	100	J	10	J	420	U	50	J
Fluorene	**120**	J	180	U	**370**	J	500	U	470	U	180	U	180	U	200	U
Indeno(1,2,3-cd)pyrene	20	J	38	U	79	U	60	J	51	J	37	U	37	U	20	J
Naphthalene	**130**	J	430	U	30	J	1200	U	1100	U	420	U	420	U	460	U
Phenanthrene	**320**	J	430	U	**210**	J	**50**	J	**50**	J	420	U	420	U	20	J
Pyrene	**140**	J	230	U	**400**	J	**80**	J	**80**	J	230	U	230	U	30	J

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per kilogram (ug/kg) or parts per billion (ppb).

TABLE H-3
Kaskaskia River Sediment (November 2000)
Metals Analyses

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION:	SS04 Down Stream		SS05 Down Stream		SS06 Outlet Channel		SS07 Inlet Channel		SS07 (DUP)		SS08 Mid-Site		SS09 Up Stream		SS10 Up Stream	
SAMPLE DATE:	11/29/00		11/29/00		11/29/00		11/29/00		11/29/00		11/29/00		11/29/00		11/29/00	
Compound (ug/kg)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aluminum	8100000		5400000		3600000		6700000		5400000		2200000		1500000		3400000	
Antimony	480	U	390	U	410	U	540	U	510	U	380	U	380	U	410	U
Arsenic	**8900**		**22000**		**6400**		4600		4200		930		**9400**		2800	
Barium	120000		87000		57000		95000		88000		25000		82000		49000	
Beryllium	940		640		450		460		540		220		580		320	
Boron	4800	U	4000	J	4800		5400	U	5100	U	3800	U	3800	U	26000	
Cadmium	**670**		64	U	510		230		160		110		60	J	30	J
Calcium	26000000		2800000		33000000		18000000		20000000		36000000		7300000		14000000	
Chromium, Hexavalent	390	U	390	U	390	U	390	U	390	U	400	U	400	U	390	U
Chromium, Total	**330000**		11000		**35000**		13000		13000		7500		5700		5500	
Cobalt	9200		12000		8100		5700		5100		3100		7300		3700	
Copper	**110000**		13000		16000		**18000**		14000		4800		7100		6000	
Iron	16000000		38000000		8300000		11000000		9400000		4700000		4300000		7700000	
Lead	29000		12000		14000		19000		16000		7200		10000		9000	
Magnesium	8600000		2600000		2700000		6800000		7100000		20000000		3900000		6000000	
Manganese	490000		350000		330000		380000		330000		140000		270000		340000	
Mercury	81	J	78	U	82	U	110	U	100	U	76	U	77	U	85	U
Nickel	**45000**		**21000**		**22000**		15000		**18000**		8300		9100		7600	
Potassium	910000		440000		2000000		840000		700000		230000		200000		410000	
Selenium	800	U	910		1600		1800		1800		200	J	700		690	U
Silver	180		80	J	80	J	410		370		150		80	J	100	J
Sodium	110000		67000		280000		98000		97000		54000		38000		63000	
Thallium	200	J	100	J	200	J	200	J	100	J	80	J	70	J	30	J
Vanadium	15000		20000		13000		16000		13000		9200		14000		7000	
Zinc	**130000**		46000		55000		74000		65000		26000		33000		35000	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per kilogram (ug/kg) or parts per billion (ppb).

TABLE H-3
Kaskaskia River Sediment (November 2000)
General Chemistry Analyses

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION:	SS04 Down Stream		SS05 Down Stream		SS06 Outlet Channel		SS07 Inlet Channel		SS07 (DUP)		SS08 Mid-Site		SS09 Up Stream		SS10 Up Stream	
SAMPLE DATE:	11/29/00		11/29/00		11/29/00		11/29/00		11/29/00		11/29/00		11/29/00		11/29/00	
Compound *(see Notes)*	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Alkalinity, Total (As $CaCO_3$)	2000		1800		1900		4300		3700		1200		1200		1400	
Biochemical Oxygen Demand	6.6		2	U	9		3.3		3.6		2	U	2	U	7.5	
Chemical Oxygen Demand	160		40	U	40	U	820		620		40	U	40	U	90	
Chloride	51		120		120		230		190		29		57		55	
Cyanide	0.2	U	**0.59**		0.2	U	**0.45**		0.2	U	**0.43**		**0.85**		**1.3**	
Fluoride	8.6		5.9		8.4		10		11		2	U	2	U	5.4	
Hardness	100000		18000		94000		74000		80000		170000		34000		61000	
Nitrogen, Ammonia (As N)	55		230		48		240		160		12		36		7.8	
Nitrogen, Nitrate	1.9	U	1.9	U	2	U	1.9	U	1.9	U	1.9	U	1.9	U	1.9	U
Percent Moisture	37		23		27		44		41		21		22		29	
pH	7.9		7.8		7.7		7.7		7.5		8.4		7.4		7.3	
Sulfate	500		86		670		160		130		52		95		700	
Sulfide	2.2		33		1.9		14		5.1		2.2		3.2		1	U

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
U = Compound not detected at or above the PQL.
Biochemical Oxygen Demand is reported in milligrams per liter (mg/L) or parts per million (ppm).
pH is reported in pH Units.
Percent Moisture is reported in percent.
All other results are in milligrams per kilogram (mg/kg) which is equivalent to parts per million (ppm).

Clayton
GROUP SERVICES

APPENDIX H-3A

KASKASKIA RIVER SEDIMENT (JULY 2001)

TABLE H-3A
Kaskaskia River Sediment (July 2001)
Detected SVOCs

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION:	SS04A		SS04B		SS04C		SS04D		SS04E		SS04F		SS04G		SS04G DUP		SS04H	
SAMPLE DATE:	7/12/01		7/12/01		7/12/01		7/12/01		7/12/01		7/12/01		7/12/01		7/12/01		7/12/01	
Compound (ug/kg)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
2-Methylnaphthalene	500	U	530	U	410	U	850	U	610	U	440	U	450	U	460	U	460	U
Acenaphthene	500	U	530	U	410	U	850	U	610	U	440	U	450	U	460	U	300	J
Acenaphthylene	500	U	530	U	410	U	850	U	610	U	440	U	450	U	460	U	460	U
Anthracene	400	J	530	U	410	U	850	U	610	U	440	U	450	U	460	U	690	
Benzo(a)anthracene	64		8	J	25		22		200		27		10	J	10	J	600	
Benzo(a)pyrene	48		9	J	35		20	J	180		23		10	J	10	J	260	
Benzo(b)fluoranthene	47		10	J	42		32		150		31		10	J	17		350	
Benzo(g,h,i)perylene	500	U	530	U	410	U	850	U	610	U	440	U	450	U	460	U	460	U
Benzo(k)fluoranthene	45		10	J	39		20	J	160		31		10	J	10	J	360	
Chrysene	100	J	160	U	120	U	260	U	220		50	J	140	U	140	U	940	
Dibenzo(a,h)anthracene	10	J	32	U	7	J	51	U	41		27	U	27	U	28	U	54	
Fluoranthene	500	U	530	U	410	U	850	U	500	J	440	U	450	U	460	U	3000	
Fluorene	210	U	230	U	170	U	360	U	100	J	190	U	190	U	190	U	460	
Indeno(1,2,3-cd)pyrene	30	J	47	U	20	J	74	U	130		20	J	40	U	40	U	140	
Naphthalene	500	U	530	U	410	U	850	U	610	U	440	U	450	U	460	U	200	J
Phenanthrene	500	U	530	U	410	U	850	U	500	J	440	U	450	U	460	U	2900	
Pyrene	70	J	290	U	50	J	460	U	430		70	J	40	J	250	U	2000	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per kilogram (ug/kg) or parts per billion (ppb).

TABLE H-3A
Kaskaskia River Sediment (July 2001)
Detected SVOCs

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION:	SS04I		SS04J		SS06A		SS06A DUP		SS06B		SS06C		SS06D		SS06E	
SAMPLE DATE:	7/12/01		7/12/01		7/12/01		7/12/01		7/12/01		7/12/01		7/12/01		7/12/01	
Compound (ug/kg)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
2-Methylnaphthalene	460	U	450	U	520	U	520	U	500	J	390	U	510	U	490	U
Acenaphthene	460	U	450	U	300	J	300	J	700		390	U	650		490	U
Acenaphthylene	460	U	450	U	200	J	400	J	830		390	U	300	J	490	U
Anthracene	460	U	450	U	520	U	200	J	600		390	U	1100		490	U
Benzo(a)anthracene	6	J	5	J	320		75		210		9	J	2200		180	
Benzo(a)pyrene	8	J	20	U	480		39		100		8	J	2000		220	
Benzo(b)fluoranthene	10	J	7	J	450		34		60		8	J	1600		210	
Benzo(g,h,i)perylene	460	U	450	U	400	J	520	U	530	U	390	U	1000		490	U
Benzo(k)fluoranthene	6	J	5	J	310		33		62		6	J	1300		160	
Chrysene	140	U	140	U	620		100	J	250		120	U	2100		240	
Dibenzo(a,h)anthracene	28	U	27	U	150		32	U	10	J	24	U	340		41	
Fluoranthene	460	U	450	U	550		650		940		390	U	5300		300	J
Fluorene	190	U	190	U	200	J	200	J	610		160	U	370		210	U
Indeno(1,2,3-cd)pyrene	40	U	39	U	310		46	U	30	J	34	U	960		100	
Naphthalene	460	U	450	U	520	U	520	U	530	U	390	U	510	U	490	U
Phenanthrene	460	U	450	U	300	J	300	J	500	J	390	U	3400		200	J
Pyrene	250	U	240	U	780		940		2000		100	J	5000		350	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per kilogram (ug/kg) or parts per billion (ppb).

Clayton
GROUP SERVICES

APPENDIX H-4

INTERMITTENT STREAM SEDIMENT

TABLE H-4
Intermittent Stream Sediment
Detected VOCs

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION:	SS01		SS02		SS03	
SAMPLE DATE:	11/28/00		11/28/00		12/5/00	
Compound (ug/kg)	Result	DQ	Result	DQ	Result	DQ
Methylene Chloride	14	U	7	J	5	J

Pg 2-5
8.9 ppm

NOTES:

DQ = Data Qualifier
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per kilogram (ug/kg) or parts per billion (ppb).

TABLE H-4
Intermittent Stream Sediment
Detected SVOCs

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION:	SS01		SS02		SS03		RG Res (ppm) Soil
SAMPLE DATE:	11/28/00		11/28/00		12/5/00		
Compound (ug/kg)	Result	DQ	Result	DQ	Result	DQ	
2-Methylnaphthalene	150	J	130	J	430	U	
Acenaphthene	320	J	80	J	430	U	3200 ppm
Acenaphthylene	580		100	J	430	U	
Anthracene	250	J	80	J	430	U	22000 ppm
Benzo(a)anthracene	100		84		11	U	0.62 ppm = 620 ppb
Benzo(a)pyrene	74		63		19	U	0.62 → 620 ppb
Benzo(b)fluoranthene	61		55		14	U	0.62
Benzo(g,h,i)perylene	60	J	50	J	430	U	0.062 → 62 ppb
Benzo(k)fluoranthene	57		47		14	U	6.2 ppm
Chrysene	100	J	100	J	130	U	62 ppm
Dibenzo(a,h)anthracene	20	J	20	J	26	U	0.62 ppm → 620 ppb
Fluoranthene	230	J	140	J	430	U	2300 ppm
Fluorene	310		50	J	180	U	2600 ppm
Indeno(1,2,3-cd)pyrene	37	J	34	J	38	U	0.62 → 620 ppb
Naphthalene	240	J	170	J	430	U	56 ppm
Phenanthrene	630		430	J	430	U	
Pyrene	300		140	J	230	U	2300 ppm

NOTES:

DQ = Data Qualifier
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per kilogram (ug/kg) or parts per billion (ppb).

TABLE H-4
Intermittent Stream Sediment
Metals Analyses

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION:	SS01		SS02		SS03		R9 Res Soil PPM
SAMPLE DATE:	11/28/00		11/28/00		12/5/00		
Compound (ug/kg)	Result	DQ	Result	DQ	Result	DQ	
Aluminum	7000000		6000000		7500000		26,000
Antimony	390	U	410	U	390	U	310
Arsenic	**14000**		**9500**		640		0.39 - Cancer
Barium	58000		100000		83000		5,400
Beryllium	890		730		660		150
Boron	6800		3000	J	3900	U	5500
Cadmium	30	J	69	U	120		370
Calcium	53000000		45000000		3400000		
Chromium, Hexavalent	2300		980		390	U	30
Chromium, Total	**20000**		**39000**		13000		210
Cobalt	9200		8300		4300		4700
Copper	**17000**		**19000**		14000		2900
Iron	17000000		14000000		10000000		
Lead	21000		22000		10000		400
Magnesium	16000000		15000000		3300000		
Manganese	580000		530000		710000		1800
Mercury	82	U	130		10	J	230
Nickel	**27000**		**19000**		14000		1600
Potassium	980000		550000		760000		
Selenium	2700		1500		650	U	390
Silver	70	J	100	J	90	J	390
Sodium	140000		110000		52000		
Thallium	400		200	J	90	J	5.2
Vanadium	21000		27000		11000		550
Zinc	61000		110000		54000		23000

NOTES:

DQ = Data Qualifier
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per kilogram (ug/kg) or parts per billion (ppb).

TABLE H-4
Intermittent Stream Sediment
General Chemistry Analyses

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals, Inc. / Tuscola, Illinois

SAMPLE LOCATION:	SS01		SS02		SS03	
SAMPLE DATE:	11/28/00		11/28/00		12/5/00	
Compound *(see Notes)*	Result	DQ	Result	DQ	Result	DQ
Alkalinity, Total (As $CaCO_3$)	2100		1500		280	
Biochemical Oxygen Demand	2	U	2	U	2	U
Chemical Oxygen Demand	51		40	U	380	
Chloride	170		80		27	
Cyanide	**0.49**		**1.5**		0.2	U
Fluoride	12		8.7		11	
Hardness	190000		170000		22000	
Nitrogen, Ammonia (As N)	220		25		50	
Nitrogen, Nitrate	1.9	U	1.9	U	1.9	U
Percent Moisture	27		28		23	
pH	8.1		8.4		7.7	H
Sulfate	150		140		20000	
Sulfide	31		10		2.5	

PQL Res Soil

11 ppm

NOTES:

DQ = Data Qualifier
PQL = Practical Quantitative Limit
H = Analysis of this compound performed beyond recommended holding time.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Biochemical Oxygen Demand is reported in milligrams per liter (mg/L) or parts per million.
pH is reported in pH Units.
Percent Moisture is reported in percent.
All other results are in milligrams per kilogram (mg/kg) or parts per milliion (ppm).

Clayton
GROUP SERVICES

APPENDIX H-5

GROUNDWATER

TABLE H-5
Groundwater
Detected VOCs

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW01D		MW01D DUP		MW01D		MW01D		MW01S		MW01S		MW01S		Deep Class I ppb	Shallow Class II
GROUNDWATER CLASS:	I		I		I		I		I		I		I			
SAMPLE DATE:	12/11/2000				3/8/2001		8/7/2001		12/7/2000		3/7/2001		8/7/2001			
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ		
Acetone	100	U	100	U	20	J	100	U	100	U	100	U	100	U		
Benzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
Bromodichloromethane	1	U	**0.3**	J	1	U	1	U	1	U	1	U	1	U	0.2	0.2
2, Butanone	50	U	50	U	50	U	50	U	50	U	50	U	50	U		
Chloroform	**2**		**2.2**		**3.6**		1	U	**3.6**		**4.5**		1	U	0.2	1.0
Chloromethane	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
1,1-Dichloroethane	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
1,1-Dichloroethene	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
cis-1,2-Dichloroethene	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
trans-1,2-Dichloroethene	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
Ethylbenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
Methylene Chloride	5	U	5	U	5	U	5	U	5	U	5	U	5	U		
Styrene	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
Tetrachloroethene	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
Toluene	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
Trichloroethene	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
Vinyl Chloride	1	U	1	U	1	U	1	U	1	U	1	U	1	U		
Xylenes, Total	3	U	3	U	3	U	3	U	3	U	3	U	3	U		

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per liter (ug/L) or parts per billion (ppb).
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Detected VOCs

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW02D		MW02D		MW02D		MW02S		MW02S		MW02S	
GROUNDWATER CLASS:	I		I		I		II		II		II	
SAMPLE DATE:	12/7/2000		3/7/2001		8/6/2001		12/7/2000		3/6/2001		8/6/2001	
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Acetone	100	U	100	U	100	U	100	U	100	U	100	U
Benzene	1	U	1	U	1	U	1	U	1	U	1	U
Bromodichloromethane	1	U	1	U	1	U	1	U	1	U	1	U
2, Butanone	50	U	50	U	50	U	50	U	50	U	50	U
Chloroform	1	U	1	U	1	U	1	U	1	U	1	U
Chloromethane	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethene	1	U	1	U	1	U	1	U	1	U	1	U
cis-1,2-Dichloroethene	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	1	U	1	U	1	U	1	U	1	U	1	U
Ethylbenzene	1	U	1	U	1	U	1	U	1	U	1	U
Methylene Chloride	5	U	5	U	5	U	5	U	5	U	5	U
Styrene	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	1	U	1	U	0.6	J	1	U	1	U	1	U
Toluene	1	U	1	U	0.8	J	0.4	J	1	U	1	U
Trichloroethene	1	U	1	U	1	U	1	U	1	U	1	U
Vinyl Chloride	1	U	1	U	1	U	1	U	1	U	1	U
Xylenes, Total	3	U	3	U	3	U	3	U	3	U	3	U

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per liter (ug/L) or parts per billion (ppb).
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Detected VOCs

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW03D		MW03D		MW03D		MW03S		MW03S DUP		MW03S		MW03S DUP		MW03S		(Class II II
GROUNDWATER CLASS:	I		I		I		II		II		II		II		II		
SAMPLE DATE:	12/11/2000		3/8/2001		8/8/2001		12/11/2000				3/6/2001				8/9/2001		
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	
Acetone	100	U	100	U	100	U	100	U	100	U	100	U	100	U	100	U	
Benzene	1	U	1	U	1	U	**470**		**470**		**760**		**740**		**1900**		5 25
Bromodichloromethane	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	
2, Butanone	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	
Chloroform	**1.3**	B	**1.1**		**2.6**		0.4	J	0.4	J	1	U	1	U	1	U	0.2 1.0
Chloromethane	1	U	1	U	1	U	2.7		2.9		1	U	1	U	1	U	
1,1-Dichloroethane	1	U	1	U	1	U	5		6		5.6		6.4		7.3		
1,1-Dichloroethene	1	U	1	U	1	U	0.8	J	0.8	J	1	J	1.2		2.6		
cis-1,2-Dichloroethene	1	U	1	U	1	U	**500**		**530**		**720**		**690**		**710**		70 200
trans-1,2-Dichloroethene	1	U	1	U	1	U	4.8		5.6		6.6		8.2		7.1		
Ethylbenzene	1	U	1	U	1	U	28		32		42		54		330		
Methylene Chloride	2	J	5	U	5	U	5	U	5	U	5	U	5	U	5	U	
Styrene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	29		
Tetrachloroethene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	
Toluene	1	U	1	U	0.5	J	13		14		20		26		260		
Trichloroethene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	2.5		
Vinyl Chloride	1	U	1	U	1	U	**210**		**250**		**210**		**260**		**260**		2 10
Xylenes, Total	3	U	3	U	3	U	10		11		22		26		81		

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per liter (ug/L) or parts per billion (ppb).
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Detected VOCs

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW04D		MW04D		MW04D		MW04S		MW04S		MW04S	
GROUNDWATER CLASS:	I		I		I		II		II		II	
SAMPLE DATE:	12/4/2000		3/5/2001		8/7/2001		12/6/2000		3/6/2001		8/7/2001	
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Acetone	100	U	100	U	100	U	100	U	140		30	J
Benzene	1	U	1	U	1	U	1	U	1	U	1	U
Bromodichloromethane	1	U	1	U	1	U	1	U	1	U	1	U
2, Butanone	50	U	50	U	50	U	50	U	91		20	J
Chloroform	0.6	J	1	U	1	U	1	U	1	U	1	U
Chloromethane	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethene	1	U	1	U	1	U	1	U	1	U	1	U
cis-1,2-Dichloroethene	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	1	U	1	U	1	U	1	U	1	U	1	U
Ethylbenzene	1	U	1	U	1	U	1	U	1	U	1	U
Methylene Chloride	5	U	5	U	5	U	5	U	5	U	5	U
Styrene	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	1	U	1	U	1	U	1	U	1	U	1	U
Toluene	1	U	1	U	1	U	1	U	1	U	1	U
Trichloroethene	1	U	1	U	1	U	1	U	1	U	1	U
Vinyl Chloride	1	U	1	U	1	U	1	U	1	U	1	U
Xylenes, Total	3	U	3	U	3	U	3	U	3	U	3	U

Class I II

0.2 1.0

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per liter (ug/L) or parts per billion (ppb).
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Detected VOCs

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW05D		MW05D		MW05D		MW05S		MW05S		MW05S	
GROUNDWATER CLASS:	I		I		I		II		II		II	
SAMPLE DATE:	12/6/2000		3/5/2001		8/7/2001		12/6/2000		3/5/2001		8/7/2001	
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Acetone	100	U	100	U	100	U	100	U	100	U	100	U
Benzene	1	U	1	U	1	U	1	U	1	U	1	U
Bromodichloromethane	1	U	1	U	1	U	1	U	1	U	1	U
2, Butanone	50	U	50	U	50	U	50	U	50	U	50	U
Chloroform	**4.3**		1	U	1	U	1	U	1	U	1	U
Chloromethane	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethene	1	U	1	U	1	U	1	U	1	U	1	U
cis-1,2-Dichloroethene	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	1	U	1	U	1	U	1	U	1	U	1	U
Ethylbenzene	1	U	1	U	1	U	1	U	1	U	1	U
Methylene Chloride	3	J	5	U	5	U	5	U	5	U	5	U
Styrene	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	1	U	1	U	1	U	1	U	1	U	1	U
Toluene	1	U	6.8		1	U	1	U	1	U	1	U
Trichloroethene	1	U	1	U	1	U	1	U	1	U	1	U
Vinyl Chloride	1	U	1	U	1	U	1	U	1	U	1	U
Xylenes, Total	3	U	3	U	3	U	3	U	3	U	3	U

Class I II

0.2 1.0

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per liter (ug/L) or parts per billion (ppb).
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Detected VOCs

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW06D		MW06D		MW06D		MW06S		MW06S		MW06S		Class I	II
GROUNDWATER CLASS:	I		I		I		I		I		I			
SAMPLE DATE:	12/6/2000		3/6/2001		8/8/2001		12/6/2000		3/5/2001		8/8/2001			
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ		
Acetone	100	U	100	U	100	U	100	U	100	U	100	U		
Benzene	1	U	1	U	1	U	1	U	1	U	1	U		
Bromodichloromethane	1	U	1	U	1	U	1.1		1	U	1	U	0.2	0.2
2, Butanone	50	U	50	U	50	U	50	U	50	U	50	U		
Chloroform	0.8	J	1	U	1	U	8		1	U	1	U	0.2	1.0
Chloromethane	1	U	1	U	1	U	1	U	1	U	1	U		
1,1-Dichloroethane	1	U	1	U	1	U	1	U	1	U	1	U		
1,1-Dichloroethene	1	U	1	U	1	U	1	U	1	U	1	U		
cis-1,2-Dichloroethene	1	U	1	U	1	U	1	U	1	U	1	U		
trans-1,2-Dichloroethene	1	U	1	U	1	U	1	U	1	U	1	U		
Ethylbenzene	1	U	1	U	1	U	1	U	1	U	1	U		
Methylene Chloride	5	U	5	U	5	U	5	U	5	U	5	U		
Styrene	1	U	1	U	1	U	1	U	1	U	1	U		
Tetrachloroethene	1	U	1	U	1	U	1	U	1	U	1	U		
Toluene	1	U	1	U	1	U	1	U	1	U	1	U		
Trichloroethene	1	U	1	U	1	U	1	U	1	U	1	U		
Vinyl Chloride	1	U	1	U	1	U	1	U	1	U	1	U		
Xylenes, Total	3	U	3	U	3	U	3	U	3	U	3	U		

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per liter (ug/L) or parts per billion (ppb).
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Detected VOCs

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW07D		MW07D		MW07D DUP		MW07D		MW07D DUP		MW07S		MW07S		MW07S	
GROUNDWATER CLASS:	I		I		I		I		I		I		I		I	
SAMPLE DATE:	12/5/2000		3/6/2001				8/8/2001				12/5/2000		3/6/2001		8/8/2001	
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Acetone	100	U	100	U	100	U	100	U	100	U	100	U	100	U	100	U
Benzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromodichloromethane	**0.7**	J	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2, Butanone	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Chloroform	**4.8**		**1.1**		**1.1**		**0.5**	J	**0.4**	J	1	U	1	U	1	U
Chloromethane	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
cis-1,2-Dichloroethene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Ethylbenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Methylene Chloride	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Styrene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Toluene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Trichloroethene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Vinyl Chloride	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Xylenes, Total	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U

Class
I II
0.2 0.2
0.2 1.0

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per liter (ug/L) or parts per billion (ppb).
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Detected VOCs

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW08D		MW08D		MW08D		MW08S		MW08S		MW08S	
GROUNDWATER CLASS:	I		I		I		II		II		II	
SAMPLE DATE:	12/13/2000		3/8/2001		8/10/2001		12/13/2000		3/7/2001		8/10/2001	
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Acetone	100	U	100	U	100	U	100	U	100	U	100	U
Benzene	1	U	1	U	1	U	1	U	1	U	1	U
Bromodichloromethane	1	U	1	U	1	U	1	U	1	U	1	U
2, Butanone	50	U	50	U	50	U	50	U	50	U	50	U
Chloroform	**1.8**		**2.8**		1	U	1	U	1	U	1	U
Chloromethane	0.7	J	1	U	1	U	0.5	J	1	U	1	U
1,1-Dichloroethane	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethene	1	U	1	U	1	U	1	U	1	U	1	U
cis-1,2-Dichloroethene	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	1	U	1	U	1	U	1	U	1	U	1	U
Ethylbenzene	1	U	1	U	1	U	1	U	1	U	1	U
Methylene Chloride	2	J	5	U	5	U	5	U	5	U	5	U
Styrene	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	1	U	1	U	1	U	1	U	1	U	1	U
Toluene	1	U	1	U	1	U	1	U	1	U	1	U
Trichloroethene	1	U	1	U	1	U	1	U	1	U	1	U
Vinyl Chloride	1	U	1	U	1	U	1	U	1	U	1	U
Xylenes, Total	3	U	3	U	3	U	3	U	3	U	3	U

Class I II

0.2 1.0

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per liter (ug/L) or parts per billion (ppb).
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Detected VOCs

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW09D		MW09D		MW09D		MW09S		MW09S		MW09S		MW10*		MW10* DUP		MW11*	
GROUNDWATER CLASS:	I		I		I		II		II		II		II		II		I	
SAMPLE DATE:	12/12/2000		3/9/2001		8/9/2001		12/12/2000		3/7/2001		8/9/2001		8/9/2001		8/9/2001		8/9/2001	
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Acetone	100	U	100	U	100	U	100	U	100	U	100	U	100	U	100	U	100	U
Benzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromodichloromethane	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2, Butanone	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U
Chloroform	**2.1**		1	U	1	U	1	U	1	U	1	U	1	U	1	U	**1.3**	
Chloromethane	1.5		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
cis-1,2-Dichloroethene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Ethylbenzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Methylene Chloride	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Styrene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Toluene	1	U	1	U	3.6		1	U	1	U	1	U	1	U	1	U	1	U
Trichloroethene	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Vinyl Chloride	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Xylenes, Total	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U

I II

0.2 1.0

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per liter (ug/L) or parts per billion (ppb).
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Detected SVOCs

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW01D		MW01D DUP		MW01D		MW01D		MW01S		MW01S		MW01S	
GROUNDWATER CLASS	I		I		I		I		I		I		I	
SAMPLE DATE:	12/11/2000				3/8/2001		8/7/2001		12/7/2000		3/7/2001		8/7/2001	
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Acenaphthene	5	U	5	U	5	U	5	U	5	U	5	U	3	J
Acenaphthylene	5	U	5	U	5	U	5	U	5	U	5	U	0.2	J
Anthracene	5	U	5	U	5	U	5	U	5	U	5	U	3	J
Benzo(a)anthracene	0.13	U	0.13	U	0.13	U	0.13	U	0.13	U	0.13	U	**1.2**	
Benzo(b)fluoranthene	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	**0.33**	
Benzo(k)fluoranthene	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U	**0.45**	
Benzo(g,h,i)perylene	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzo(a)pyrene	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.2	J
Benzoic Acid	20	U	20	U	20	U	20	U	20	U	20	U	20	U
Bis(2-ethylhexyl)phthalate	5	U	5	U	2	J	6.2		5	U	5	U	3	J
Chrysene	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1	J
Di-n-butyl phthalate	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Di-n-octyl phthalate	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Dibenzo(a,h)anthracene	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U
Dibenzofuran	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Diethyl phthalate	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Fluoranthene	5	U	5	U	5	U	5	U	5	U	5	U	5.3	
Fluorene	5	U	5	U	5	U	5	U	5	U	5	U	4	J
Ideno(1,2,3-cd)pyrene	0.43	U	0.43	U	0.43	U	0.43	U	0.43	U	0.43	U	0.43	U
2-Methylnaphthalene	5	U	5	U	5	U	0.2	J	5	U	5	U	1	J
4-Methylphenol	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Naphthalene	5	U	5	U	5	U	5	U	0.2	J	5	U	1	J
Phenanthrene	5	U	5	U	5	U	0.2	J	5	U	0.1	J	11	
Phenol	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Pyrene	5	U	5	U	5	U	5	U	5	U	5	U	4	J

Class I II

5 2J
0.18 0.9
0.17 0.85

6 60

140 220
Anomalous?

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per liter (ug/L) or parts per billion (ppb).
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Detected SVOCs

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW02D		MW02D		MW02D		MW02S		MW02S		MW02S	
GROUNDWATER CLASS	I		I		I		II		II		II	
SAMPLE DATE:	12/7/2000		3/7/2001		8/6/2001		12/7/2000		3/6/2001		8/6/2001	
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Acenaphthene	5	U	5	U	5	U	5	U	5	U	5	U
Acenaphthylene	5	U	5	U	5	U	5	U	5	U	5	U
Anthracene	5	U	5	U	5	U	5	U	5	U	5	U
Benzo(a)anthracene	0.13	U	0.13	U	0.13	U	0.13	U	0.13	U	0.13	U
Benzo(b)fluoranthene	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U
Benzo(k)fluoranthene	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U
Benzo(g,h,i)perylene	5	U	5	U	5	U	5	U	5	U	5	U
Benzo(a)pyrene	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U
Benzoic Acid	20	U	20	U	20	U	20	U	20	U	20	U
Bis(2-ethylhexyl)phthalate	5	U	6.8		1	J	5	U	3	J	5	U
Chrysene	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U
Di-n-butyl phthalate	5	U	5	U	5	U	5	U	5	U	5	U
Di-n-octyl phthalate	5	U	5	U	5	U	5	U	5	U	5	U
Dibenzo(a,h)anthracene	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U
Dibenzofuran	5	U	5	U	5	U	5	U	5	U	5	U
Diethyl phthalate	5	U	5	U	5	U	5	U	5	U	5	U
Fluoranthene	5	U	0.1	J	5	U	5	U	5	U	5	U
Fluorene	5	U	5	U	5	U	5	U	5	U	5	U
Ideno(1,2,3-cd)pyrene	0.43	U	0.43	U	0.43	U	0.43	U	0.43	U	0.43	U
2-Methylnaphthalene	5	U	5	U	5	U	5	U	5	U	5	U
4-Methylphenol	5	U	5	U	5	U	5	U	5	U	5	U
Naphthalene	5	U	5	U	5	U	0.2	J	5	U	5	U
Phenanthrene	5	U	0.4	J	5	U	5	U	0.2	J	5	U
Phenol	5	U	5	U	5	U	5	U	5	U	5	U
Pyrene	5	U	0.1	J	5	U	5	U	5	U	5	U

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per liter (ug/L) or parts per billion (ppb).
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Detected SVOCs

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW03D		MW03D		MW03D		MW03S		MW03S DUP		MW03S		MW03S DUP		MW03S	
GROUNDWATER CLASS	I		I		I		II		II		II		II		II	
SAMPLE DATE:	12/11/2000		3/8/2001		8/8/2001		12/11/2000				3/6/2001				8/9/2001	
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Acenaphthene	5	U	5	U	5	U	14		12		12		16		15	
Acenaphthylene	5	U	5	U	5	U	11		11		10		14		12	
Anthracene	5	U	5	U	5	U	5	U	5	U	0.2	J	0.2	J	5	U
Benzo(a)anthracene	0.13	U	0.13	U	0.13	U	0.13	U	0.13	U	0.13	U	0.13	U	0.13	U
Benzo(b)fluoranthene	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U
Benzo(k)fluoranthene	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U
Benzo(g,h,i)perylene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzo(a)pyrene	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U
Benzoic Acid	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U
Bis(2-ethylhexyl)phthalate	5	U	5	U	4	J	5	U	5	U	7.3		2	J	5	U
Chrysene	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U
Di-n-butyl phthalate	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Di-n-octyl phthalate	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Dibenzo(a,h)anthracene	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U
Dibenzofuran	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Diethyl phthalate	5	U	5	U	5	U	5	U	5	U	1	J	5	U	5	U
Fluoranthene	5	U	5	U	5	U	5	U	5	U	0.2	J	0.2	J	5	U
Fluorene	5	U	5	U	0.1	J	1	J	1	J	1	J	2	J	2	J
Ideno(1,2,3-cd)pyrene	0.43	U	0.43	U	0.43	U	0.43	U	0.43	U	0.43	U	0.43	U	0.43	U
2-Methylnaphthalene	5	U	5	U	0.2	J	5	U	5	U	21		26		31	
4-Methylphenol	5	U	5	U	5	U	5	U	5	U	5	U	5	U	2	J
Naphthalene	5	U	5	U	5	U	28		41		7.4		7.2		33	
Phenanthrene	5	U	5	U	0.4	J	5	U	5	U	0.6	J	0.6	J	0.3	J
Phenol	5	U	5	U	5	U	5	U	4	J	5.2		5	J	22	
Pyrene	5	U	5	U	5	U	5	U	5	U	0.2	J	0.1	J	5	U

Class
I II
420 2100

eco 329 ppb
140 220 OK
RATap 22000

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per liter (ug/L) or parts per billion (ppb).
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Detected SVOCs

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW04D		MW04D		MW04D		MW04S		MW04S		MW04S	
GROUNDWATER CLASS	I		I		I		II		II		II	
SAMPLE DATE:	12/4/2000		3/5/2001		8/7/2001		12/5/2000		3/6/2001		8/7/2001	
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Acenaphthene	5	U	5	U	5	U	5	U	5	U	0.1	J
Acenaphthylene	5	U	5	U	5	U	5	U	5	U	5	U
Anthracene	5	U	5	U	5	U	5	U	1	J	0.4	J
Benzo(a)anthracene	0.13	U	0.13	U	0.13	U	0.13	U	0.3		0.13	U
Benzo(b)fluoranthene	0.18	U	0.18	U	0.18	U	0.18	U	0.26		0.18	U
Benzo(k)fluoranthene	0.17	U	0.17	U	0.17	U	0.17	U	0.21		0.17	U
Benzo(g,h,i)perylene	5	U	5	U	5	U	5	U	0.1	J	5	U
Benzo(a)pyrene	0.23	U	0.23	U	0.23	U	0.23	U	0.1	J	0.23	U
Benzoic Acid	20	U	20	U	20	U	20	U	10	J	40	U
Bis(2-ethylhexyl)phthalate	5	U	3	J	2	J	3	J	17		20	
Chrysene	1.5	U	1.5	U	1.5	U	1.5	U	0.7	J	1.5	U
Di-n-butyl phthalate	5	U	5	U	5	U	5	U	5.8		10	U
Di-n-octyl phthalate	5	U	5	U	5	U	5	U	23		6	J
Dibenzo(a,h)anthracene	0.3	U	0.3	U	0.3	U	0.3	U	0.1	J	0.3	U
Dibenzofuran	5	U	5	U	5	U	5	U	5	U	10	U
Diethyl phthalate	5	U	5	U	5	U	5	U	5	U	10	U
Fluoranthene	5	U	5	U	5	U	5	U	0.7	J	0.2	J
Fluorene	5	U	5	U	5	U	5	U	5	U	5	U
Ideno(1,2,3-cd)pyrene	0.43	U	0.43	U	0.43	U	0.43	U	0.2	J	0.43	U
2-Methylnaphthalene	0.3	J	5	U	5	U	5	U	0.3	J	0.1	J
4-Methylphenol	5	U	5	U	5	U	5	U	5	U	10	U
Naphthalene	5	U	5	U	5	U	0.3	J	0.3	J	0.3	J
Phenanthrene	5	U	5	U	5	U	5	U	1	J	5	U
Phenol	5	U	5	U	5	U	5	U	5	U	21	
Pyrene	5	U	5	U	5	U	5	U	0.7	J	5	U

Below Class II - OK

140 >00

- 29 Tap 22000

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per liter (ug/L) or parts per billion (ppb).
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Detected SVOCs

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW05D		MW05D		MW05D		MW05S		MW05S		MW05S	
GROUNDWATER CLASS	I		I		I		II		II		II	
SAMPLE DATE:	12/6/2000		3/5/2001		8/7/2001		12/6/2000		3/5/2001		8/7/2001	
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Acenaphthene	5	U	5	U	5	U	5	U	5	U	0.2	J
Acenaphthylene	5	U	5	U	5	U	5	U	5	U	5	U
Anthracene	5	U	5	U	5	U	5	U	5	U	0.1	J
Benzo(a)anthracene	0.13	U	0.13	U	0.13	U	0.13	U	0.13	U	0.13	U
Benzo(b)fluoranthene	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U
Benzo(k)fluoranthene	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U
Benzo(g,h,i)perylene	5	U	5	U	5	U	5	U	5	U	5	U
Benzo(a)pyrene	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U
Benzoic Acid	20	U	1	J	20	U	20	U	20	U	20	U
Bis(2-ethylhexyl)phthalate	5	U	2	J	**6.5**		5	U	1	J	5	J
Chrysene	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U
Di-n-butyl phthalate	5	U	5	U	5	U	5	U	5	U	5	U
Di-n-octyl phthalate	3	J	5	U	5	U	3	J	5	U	5	U
Dibenzo(a,h)anthracene	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U
Dibenzofuran	5	U	5	U	5	U	5	U	5	U	5	U
Diethyl phthalate	5	U	5	U	5	U	5	U	5	U	5	U
Fluoranthene	5	U	5	U	5	U	5	U	5	U	0.2	J
Fluorene	5	U	5	U	0.2	J	5	U	5	U	0.2	J
Ideno(1,2,3-cd)pyrene	0.43	U	0.43	U	0.43	U	0.43	U	0.43	U	0.43	U
2-Methylnaphthalene	0.2	J	5	U	0.1	J	5	U	5	U	0.1	J
4-Methylphenol	5	U	5	U	5	U	5	U	5	U	5	U
Naphthalene	0.2	J	5	U	5	U	0.2	J	5	U	5	U
Phenanthrene	0.2	J	0.1	J	0.5	J	5	U	5	U	0.6	J
Phenol	5	U	5	U	5	U	5	U	1	J	5	U
Pyrene	5	U	5	U	0.1	J	5	U	5	U	0.2	J

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per liter (ug/L) or parts per billion (ppb).
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Detected SVOCs

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW06D		MW06D		MW06D		MW06S		MW06S		MW06S	
GROUNDWATER CLASS	I		I		I		I		I		I	
SAMPLE DATE:	12/6/2000		3/6/2001		8/8/2001		12/6/2000		3/5/2001		8/8/2001	
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Acenaphthene	5	U	5	U	5	U	5	U	5	U	5	U
Acenaphthylene	5	U	5	U	5	U	5	U	5	U	5	U
Anthracene	5	U	5	U	5	U	5	U	5	U	5	U
Benzo(a)anthracene	0.13	U	0.13	U	0.13	U	0.13	U	0.13	U	0.13	U
Benzo(b)fluoranthene	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U
Benzo(k)fluoranthene	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U
Benzo(g,h,i)perylene	5	U	5	U	5	U	5	U	5	U	5	U
Benzo(a)pyrene	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U
Benzoic Acid	20	U	1	J	20	U	20	U	20	U	24	U
Bis(2-ethylhexyl)phthalate	5	U	2	J	1	J	5	U	1	J	6	J
Chrysene	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U
Di-n-butyl phthalate	5	U	5	U	5	U	5	U	5	U	6	U
Di-n-octyl phthalate	3	J	5	U	5	U	3	J	5	U	6	U
Dibenzo(a,h)anthracene	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U
Dibenzofuran	5	U	5	U	5	U	5	U	5	U	6	U
Diethyl phthalate	5	U	1	J	1	J	5	U	5	U	6	U
Fluoranthene	5	U	5	U	5	U	5	U	5	U	5	U
Fluorene	5	U	5	U	5	U	5	U	5	U	5	U
Ideno(1,2,3-cd)pyrene	0.43	U	0.43	U	0.43	U	0.43	U	0.43	U	0.43	U
2-Methylnaphthalene	5	U	5	U	5	U	0.1	J	5	U	5	U
4-Methylphenol	5	U	5	U	5	U	5	U	5	U	6	U
Naphthalene	0.1	J	5	U	5	U	0.4	J	5	U	5	U
Phenanthrene	5	U	0.2	J	5	U	5	U	5	U	5	U
Phenol	5	U	5	U	5	U	5	U	5	U	6	U
Pyrene	5	U	5	U	5	U	5	U	5	U	5	U

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per liter (ug/L) or parts per billion (ppb).
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Detected SVOCs

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW07D		MW07D		MW07D DUP		MW07D		MW07D DUP		MW07S		MW07S		MW07S	
GROUNDWATER CLASS	I		I		I		I		I		I		I		I	
SAMPLE DATE:	12/5/2000		3/6/2001				8/8/2001				12/5/2000		3/6/2001		8/8/2001	
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Acenaphthene	5	U	5	U	5	U	0.3	J	5	U	5	U	5	U	5	U
Acenaphthylene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Anthracene	5	U	5	U	5	U	0.2	J	5	U	5	U	5	U	5	U
Benzo(a)anthracene	0.13	U	0.13	U	0.13	U	0.13	U	0.13	U	0.13	U	0.13	U	0.13	U
Benzo(b)fluoranthene	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U
Benzo(k)fluoranthene	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U
Benzo(g,h,i)perylene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzo(a)pyrene	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U
Benzoic Acid	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U
Bis(2-ethylhexyl)phthalate	6.4		2	J	2	J	2	J	1	J	5	U	2	J	2	J
Chrysene	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U
Di-n-butyl phthalate	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Di-n-octyl phthalate	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Dibenzo(a,h)anthracene	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U
Dibenzofuran	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Diethyl phthalate	5	U	5	U	5	U	5	U	5	U	5	U	1	J	1	J
Fluoranthene	5	U	0.1	J	5	U	0.1	J	5	U	5	U	5	U	0.1	J
Fluorene	5	U	5	U	5	U	0.2	J	0.1	J	5	U	5	U	5	U
Ideno(1,2,3-cd)pyrene	0.43	U	0.43	U	0.43	U	0.43	U	0.43	U	0.43	U	0.43	U	0.43	U
2-Methylnaphthalene	5	U	0.1	J	5	U	0.3	J	0.2	J	5	U	5	U	0.2	J
4-Methylphenol	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Naphthalene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	0.4	J
Phenanthrene	5	U	0.4	J	0.2	J	0.9	J	0.4	J	5	U	5	U	0.1	J
Phenol	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Pyrene	5	U	0.1	J	5	U	0.3	J	5	U	5	U	5	U	5	U

Class I II

6 60

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per liter (ug/L) or parts per billion (ppb).
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Detected SVOCs

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW08D		MW08D		MW08D		MW08S		MW08S		MW08S	
GROUNDWATER CLASS	I		I		I		II		II		II	
SAMPLE DATE:	12/13/2000		3/8/2001		8/10/2001		12/13/2000		3/7/2001		8/10/2001	
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Acenaphthene	5	U	5	U	0.3	J	5	U	0.1	J	0.5	J
Acenaphthylene	5	U	5	U	5	U	5	U	5	U	0.2	J
Anthracene	5	U	5	U	0.2	J	5	U	5	U	0.2	J
Benzo(a)anthracene	0.13	U	0.13	U	0.13	U	0.13	U	0.13	U	0.13	U
Benzo(b)fluoranthene	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U
Benzo(k)fluoranthene	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U
Benzo(g,h,i)perylene	5	U	5	U	5	U	5	U	5	U	5	U
Benzo(a)pyrene	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.13	U
Benzoic Acid	20	U	20	U	20	U	20	U	20	U	0.23	U
Bis(2-ethylhexyl)phthalate	2	J	2	J	1	J	5	U	1	J	1	J
Chrysene	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U
Di-n-butyl phthalate	5	U	5	U	5	U	5	U	5	U	5	U
Di-n-octyl phthalate	5	U	5	U	5	U	5	U	5	U	5	U
Dibenzo(a,h)anthracene	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U
Dibenzofuran	5	U	5	U	5	U	5	U	5	U	5	U
Diethyl phthalate	5	U	5	U	5	U	5	U	5	U	5	U
Fluoranthene	5	U	5	U	0.1	J	5	U	5	U	0.1	J
Fluorene	5	U	5	U	0.5	J	5	U	0.1	J	0.6	J
Ideno(1,2,3-cd)pyrene	0.43	U	0.43	U	0.43	U	0.43	U	0.43	U	0.43	U
2-Methylnaphthalene	5	U	5	U	0.8	J	5	U	0.4	J	0.5	J
4-Methylphenol	5	U	5	U	2	J	5	U	5	U	5	U
Naphthalene	5	U	5	U	0.1	J	5	U	5	U	0.2	J
Phenanthrene	5	U	0.2	J	1	J	5	U	0.3	J	1	J
Phenol	5	U	5	U	5	U	5	U	5	U	5	U
Pyrene	5	U	5	U	0.3	J	5	U	0.2	J	0.3	J

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per liter (ug/L) or parts per billion (ppb).
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Detected SVOCs

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW09D		MW09D		MW09D		MW09S		MW09S		MW09S		MW10*		MW10* DUP		MW11*	
GROUNDWATER CLASS	I		I		I		II		II		II		II		II		I	
SAMPLE DATE:	12/12/2000		3/9/2001		8/9/2001		12/12/2000		3/7/2001		8/9/2001		8/9/2001		8/9/2001		8/9/2001	
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Acenaphthene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	0.4	J	5	U
Acenaphthylene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Anthracene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	0.2	J	5	U
Benzo(a)anthracene	0.13	U	0.13	U	0.13	U	0.13	U	0.13	U	0.13	U	0.13	U	0.13	U	0.13	U
Benzo(b)fluoranthene	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U
Benzo(k)fluoranthene	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U
Benzo(g,h,i)perylene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzo(a)pyrene	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U
Benzoic Acid	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U	20	U
Bis(2-ethylhexyl)phthalate	3	J	1	J	1	J	5	U	5	U	5	U	5	U	1	J	200	B
Chrysene	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U
Di-n-butyl phthalate	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Di-n-octyl phthalate	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Dibenzo(a,h)anthracene	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U
Dibenzofuran	5	U	5	U	5	U	5	U	5	U	5	U	5	U	7.9		5	U
Diethyl phthalate	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Fluoranthene	5	U	5	U	0.1	J	5	U	5	U	5	U	5	U	0.3	J	5	U
Fluorene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	0.4	J	5	U
Ideno(1,2,3-cd)pyrene	0.43	U	0.43	U	0.43	U	0.43	U	0.43	U	0.43	U	0.43	U	0.43	U	0.43	U
2-Methylnaphthalene	5	U	5	U	5	U	5	U	5	U	5	U	0.2	J	0.5	J	5	U
4-Methylphenol	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Naphthalene	5	U	5	U	5	U	5	U	5	U	5	U	5	U	0.2	J	0.3	J
Phenanthrene	5	U	5	U	5	U	5	U	5	U	5	U	0.3	J	0.9	J	5	U
Phenol	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Pyrene	5	U	5	U	5	U	5	U	5	U	5	U	0.1	J	0.5	J	5	U

I II

→ 1297ap = 24 ppb

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per liter (ug/L) or parts per billion (ppb).
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Metals Analyses

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW01D		MW01D DUP		MW01D Field Filtered		MW01D Field Filtered (DUP)		MW01D		MW01D Field Filtered		MW01D		MW01D Field Filtered	
GROUNDWATER CLASS:	I		I		I		I		I		I		I		I	
SAMPLE DATE:	12/11/2000								3/8/2001				8/7/2001			
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aluminum	340		230		100	U	100	U	700		100	U	520		250	
Antimony	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Arsenic	6.5		7.6		7.3		7.6		5	J	4	J	4	J	5	U
Barium	160		160		160		150		190		82		170		140	
Beryllium	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Boron	1800		1700		1700		1500		2000		1600		2000		**2200**	
Cadmium	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.1	J	0.5	U	0.4	J
Calcium	57000		52000		53000		48000		83000		36000		54000		43000	
Chromium, Hexavalent	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Chromium, Total	12		16		4	J	5.1		5.4		3	J	5.3		3	J
Cobalt	1	J	5	U	1	J	5	U	1	J	5	U	5	U	5	U
Copper	9.1		9.3		2	J	4	J	14		5.7		10		4	J
Iron	3500		3000		2400		2200		3200		100	U	3700		1100	
Lead	1	J	3	U	3	U	3	U	2	J	3	U	2	J	2	J
Magnesium	20000		18000		18000		17000		19000		14000		19000		18000	
Manganese	100	U	100	U	100	U	100	U	100	U	100	U	15	U	15	U
Mercury	0.23		0.2	U	0.28		0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Nickel	14		15		11		9.5		13		6.9		5.7		4	J
Potassium	1600		1500		1600		1300		14000		19000		4400		5700	
Selenium	5	U	2	J	5	J	5.7		6		5.8		6.6		6.9	
Silver	0.5	U	0.5	U	0.5	U	0.5	J	0.5	U	0.2	J	0.5	U	0.5	U
Sodium	72000		68000		71000		66000		79000		78000		76000		77000	
Thallium	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Vanadium	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Zinc	5	J	5	J	3	J	1	J	6	J	18		7	J	6	J

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per liter (ug/L) or parts per billion (ppb).
NA = Not Analyzed.
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Metals Analyses

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW01S		MW01S Field Filtered		MW01S		MW01S Field Filtered		MW01S		MW01S Field Filtered	
GROUNDWATER CLASS:	I		I		I		I		I		I	
SAMPLE DATE:	12/7/2000				3/7/2001				8/7/2001			
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aluminum	100	U	100	U	150		100	U	440		130	
Antimony	5	U	5	U	5	U	5	U	5	U	5	U
Arsenic	26		18		33		29		36		34	
Barium	82		86		110		100		97		85	
Beryllium	1	U	1	U	0.2	J	1	U	1	U	1	U
Boron	1400		1500		1200		1200		1500		1400	
Cadmium	0.5	U	0.5	U	0.5	U	0.5	U	0.4	J	0.4	J
Calcium	66000		63000		150000		160000		140000		130000	
Chromium, Hexavalent	5	U	5	U	5	U	5	U	5	U	5	U
Chromium, Total	4	J	4	J	3	J	3	J	5.4		3	J
Cobalt	5	U	5	U	1	J	1	J	5	U	5	U
Copper	3	J	2	J	4	J	3	J	11		4	J
Iron	850		810		3900		3900		**5400**		3900	
Lead	3	U	3	U	3	U	3	U	3	J	3	U
Magnesium	49000		48000		92000		94000		110000		100000	
Manganese	120		120		**200**		**250**		**300**		**260**	
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Nickel	8.6		8.6		16		15		15		8.5	
Potassium	2700		2500		3300		3400		3900		3500	
Selenium	2	J	5	U	2	J	5	U	3	J	5	U
Silver	0.5	U	0.5	U	0.5	U	0.66		0.5	U	0.5	U
Sodium	58000		65000		57000		58000		65000		62000	
Thallium	5	U	5	U	5	U	5	U	5	U	5	U
Vanadium	5	U	5	U	5	U	5	U	5	U	5	U
Zinc	5	J	3	J	16		19		9	J	27	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per liter (ug/L) or parts per billion (ppb).
NA = Not Analyzed.
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Metals Analyses

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW02D		MW02D Field Filtered		MW02D		MW02D Field Filtered		MW02D		MW02D Field Filtered	
GROUNDWATER CLASS:	I		I		I		I		I		I	
SAMPLE DATE:	12/7/2000				3/7/2001				8/6/2001			
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aluminum	250		100	U	450		100	U	750		60	U
Antimony	5	U	5	U	5	U	5	U	5	U	5	U
Arsenic	12		13		5	J	3	J	5	U	4	J
Barium	160		150		150		140		150		140	
Beryllium	1	U	1	U	0.5	J	1	U	1	U	1	U
Boron	1600		1600		1800		1900		1900		1800	
Cadmium	0.5	U	0.5	U	0.5	U	0.5	U	0.3	J	0.5	U
Calcium	42000		40000		49000		49000		38000		35000	
Chromium, Hexavalent	5	U	5	U	5	U	5	U	5	U	5	U
Chromium, Total	5.4		2	J	5.5		2	J	7.3		4	J
Cobalt	5	U	5	U	5	U	5	U	5	U	5	U
Copper	5.2		2	J	9.2		3	J	10		2	J
Iron	2700		1900		3200		800		2200		100	U
Lead	3	U	3	U	3	U	3	U	1	J	3	U
Magnesium	17000		16000		17000		17000		18000		16000	
Manganese	100	U	100	U	100		100	U	120		15	U
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Nickel	17		7		40		27		37		26	
Potassium	1900		1400		2300		2100		2100		1600	
Selenium	2	J	5	U	5.4		2	J	5	U	5	U
Silver	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Sodium	120000		52000		65000		68000		69000		69000	
Thallium	5	U	5	U	5	U	5	U	5	U	5	U
Vanadium	5	U	5	U	5	U	5	U	5	U	5	U
Zinc	6	J	4	J	5	J	6	J	9	J	3	J

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per liter (ug/L) or parts per billion (ppb).
NA = Not Analyzed.
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Metals Analyses

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW02S		MW02S Field Filtered		MW02S		MW02S Field Filtered		MW02S		MW02S Field Filtered	
GROUNDWATER CLASS:	II		II		II		II		II		II	
SAMPLE DATE:	12/7/2000				3/6/2001				8/6/2001			
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aluminum	1000		3100		5700		100	U	13000		60	U
Antimony	5	U	5	U	5	U	5	U	5	U	5	U
Arsenic	7.2		6.2		3	J	5	U	5	U	5	U
Barium	120		140		130		110		190		120	
Beryllium	1	U	1	U	1	U	1	U	1.5		1	U
Boron	260		250		300		300		410		410	
Cadmium	0.5	U	0.5	U	0.5	U	0.5	U	0.3	J	0.5	U
Calcium	100000		110000		150000		140000		130000		110000	
Chromium, Hexavalent	5	U	5	U	5	U	5	U	5	U	5	U
Chromium, Total	4	J	11		15		3	J	34		2	J
Cobalt	1	J	4	J	4	J	5	U	9.7		5	U
Copper	12		12		19		5	J	70		5	J
Iron	2600		4300		**9200**		700		**22000**		490	
Lead	3	U	2	J	4.2		3	U	12		1	J
Magnesium	63000		64000		75000		70000		78000		66000	
Manganese	100	U	250		260		140		660		140	
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	NA		NA	
Nickel	14		22		25		12		37		11	
Potassium	3600		4800		5600		3100		8200		3500	
Selenium	5.3		5	U	5	U	5	U	5	U	5	U
Silver	0.5	U	0.5	U	0.57		0.5	U	0.5	U	0.5	U
Sodium	25000		26000		25000		24000		26000		25000	
Thallium	5	U	5	U	5	U	5	U	5	U	5	U
Vanadium	5	U	3	J	5.6		5	U	18		5	U
Zinc	4	J	18		35		28		58		25	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per liter (ug/L) or parts per billion (ppb).
NA = Not Analyzed.
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Metals Analyses

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW03D		MW03D Field Filtered		MW03D		MW03D Field Filtered		MW03D		MW03D Field Filtered	
GROUNDWATER CLASS:	I		I		I		I		I		I	
SAMPLE DATE:	12/11/2000				3/8/2001				8/8/2001			
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aluminum	150		100	U	600		120		450		310	
Antimony	5	U	5	U	5	U	5	U	5	U	5	U
Arsenic	10		10		11		8.5		11		5	U
Barium	200		200		240		230		220		220	
Beryllium	1	U	1	U	0.2	J	1	U	1	U	1	U
Boron	1600		1500		1600		1500		1700		1700	
Cadmium	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Calcium	45000		42000		53000		47000		39000		38000	
Chromium, Hexavalent	5	U	5	U	5	U	5	U	5	U	5	U
Chromium, Total	4	J	4	J	6		2	J	6.8		3	J
Cobalt	1	J	1	J	1	J	1	J	5	U	5	U
Copper	3	J	3	J	5	J	2	J	4	J	3	J
Iron	1600		1000		**5100**		3100		3000		1800	
Lead	3	U	3	U	3	U	3	U	3	U	3	U
Magnesium	24000		23000		22000		20000		21000		21000	
Manganese	**250**		**190**		100		100	U	15	U	15	U
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Nickel	27		21		16		15		21		25	
Potassium	2500		2100		2200		2100		3200		3200	
Selenium	3	J	5	U	5.9		5	U	15		5.4	
Silver	0.5	U	0.4	J	0.5	U	0.5	U	0.5	U	0.5	U
Sodium	89000		88000		88000		86000		89000		87000	
Thallium	5	U	5	U	5	U	5	U	5	U	5	U
Vanadium	5	U	5	U	5	U	5	U	5	U	5	U
Zinc	6	J	3	J	7	J	4	J	24		7	J

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per liter (ug/L) or parts per billion (ppb).
NA = Not Analyzed.
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Metals Analyses

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW03S		MW03S DUP		MW03S Field Filtered		MW03S Field Filtered (DUP)	
GROUNDWATER CLASS:	II		II		II		II	
SAMPLE DATE:	12/11/2000							
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aluminum	100	U	100	U	100	U	100	U
Antimony	5	U	5	U	5	U	5	U
Arsenic	22		20		26		24	
Barium	72		66		70		71	
Beryllium	1	U	1	U	1	U	1	U
Boron	170		200		170		110	
Cadmium	0.5	U	0.5	U	0.5	U	0.5	U
Calcium	170000		180000		180000		180000	
Chromium, Hexavalent	5	U	5	U	5	U	5	U
Chromium, Total	4	J	4	J	2	J	2	J
Cobalt	4	J	4	J	4	J	4	J
Copper	3	J	3	J	2	J	2	J
Iron	**23000**		**24000**		**24000**		**25000**	
Lead	3	U	3	U	3	U	3	U
Magnesium	92000		93000		91000		91000	
Manganese	8400		8400		8200		8400	
Mercury	0.2	U	0.2	U	0.26		0.23	
Nickel	16		17		17		16	
Potassium	500	U	500	U	500	U	500	U
Selenium	3	J	5	U	1	J	5	J
Silver	0.5	U	0.5	U	0.5	U	0.5	U
Sodium	230000		220000		220000		220000	
Thallium	5	U	5	U	5	U	5	U
Vanadium	5	U	5	U	5	U	5	U
Zinc	5	J	4	J	25		10	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per liter (ug/L) or parts per billion (ppb).
NA = Not Analyzed.
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Metals Analyses

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW03S		MW03S DUP		MW03S Field Filtered		MW03S Field Filtered (DUP)		MW03S		MW03S Field Filtered	
GROUNDWATER CLASS:	II		II		II		II		II		II	
SAMPLE DATE:	3/6/2001								8/9/2001			
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aluminum	100	U	100	U	100	U	100	U	130		100	
Antimony	5	U	5	U	5	U	5	U	5	U	5	U
Arsenic	16		13		19		18		28		18	
Barium	63		58		58		58		68		63	
Beryllium	0.4	J	1	U	1	U	1	U	1	U	1	U
Boron	100	U	100	U	100	U	100		210		160	
Cadmium	0.5	U	0.5	U	0.5	U	0.5	U	0.4	J	0.5	U
Calcium	190000		190000		190000		190000		260000		250000	
Chromium, Hexavalent	5	U	5	U	5	U	5	U	5	U	5	U
Chromium, Total	2	J	5	U	1	J	1	J	5	U	5	U
Cobalt	4	J	5	J	5	J	5	J	4	J	4	J
Copper	4	J	4	J	4	J	4	J	3	J	4	J
Iron	**28000**		**26000**		**25000**		**28000**		**39000**		**38000**	
Lead	3	U	3	U	3	U	3	U	3	U	3	U
Magnesium	99000		97000		95000		100000		120000		120000	
Manganese	8800		8900		8800		9100		11000		11000	
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Nickel	19		17		18		19		15		14	
Potassium	200	J	500	U	200	J	500	U	860		500	U
Selenium	5	U	5	U	5	U	5	U	4	J	5	U
Silver	0.3	J	0.5	U	0.5	U	0.4	J	0.5	U	0.5	U
Sodium	240000		220000		220000		230000		280000		270000	
Thallium	5	U	5	U	5	U	5	U	5	U	5	U
Vanadium	5	U	5	U	5	U	5	U	5	U	5	U
Zinc	12		60		10	J	9	J	7	J	35	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per liter (ug/L) or parts per billion (ppb).
NA = Not Analyzed.
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Metals Analyses

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW04D		MW04D Field Filtered		MW04D		MW04D Field Filtered		MW04D		MW04D Field Filtered	
GROUNDWATER CLASS:	I		I		I		I		I		I	
SAMPLE DATE:	12/4/2000				3/5/2001				8/7/2001			
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aluminum	100	U	100	U	1100		900		1300		60	U
Antimony	5	U	5	U	5	U	5	U	5	U	5	U
Arsenic	26		32		29		19		13		12	
Barium	230		240		300		260		260		260	
Beryllium	1	U	1	U	0.8	J	0.4	J	0.3	J	1	U
Boron	1600		1600		1200		1300		1700		1600	
Cadmium	0.5	U	0.5	U	0.5	U	0.3	J	0.5	U	0.5	U
Calcium	48000		46000		65000		45000		43000		37000	
Chromium, Hexavalent	5	U	5	U	5	U	5	U	5	U	5	U
Chromium, Total	2	J	2	J	12		2	J	6.1		2	J
Cobalt	5	U	5	U	5.2		0.9	J	5	U	5	U
Copper	3	J	2	J	12		4	J	6.1		2	J
Iron	1500		1200		**5800**		1500		4800		1500	
Lead	3	U	3	U	**9.2**		3	U	2	J	3	U
Magnesium	21000		21000		24000		19000		22000		20000	
Manganese	100	U	100	U	**170**		100	U	15	U	15	U
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Nickel	8		7.2		21		9.3		7.2		3	J
Potassium	1700		1700		1400		1300		1600		500	U
Selenium	5	U	1	J	5	U	5.5		2	J	5	U
Silver	0.2	J	0.5	U	0.1	J	0.5	U	0.5	U	0.5	U
Sodium	92000		91000		110000		110000		96000		96000	
Thallium	5	U	5	U	5	U	5	U	5	U	5	U
Vanadium	5	U	5	U	11		5	U	3	J	5	U
Zinc	3	J	3	J	30		6	J	11		4	J

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per liter (ug/L) or parts per billion (ppb).
NA = Not Analyzed.
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Metals Analyses

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW04S		MW04S Field Filtered		MW04S		MW04S Field Filtered		MW04S		MW04S Field Filtered	
GROUNDWATER CLASS:	II		II		II		II		II		II	
SAMPLE DATE:	12/5/2000				3/6/2001				8/7/2001			
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aluminum	100	U	630		100	U	100	U	6100		620	
Antimony	5	U	5	U	5	U	5	U	5	U	5	U
Arsenic	3	J	5.9		5	U	5	U	5	U	5	U
Barium	150		150		63		63		90		36	
Beryllium	0.2	J	1	U	0.1	J	0.1	J	0.7	J	1	U
Boron	260		320		700		800		560		580	
Cadmium	0.2	J	0.1	J	0.1	J	0.5	U	0.5	U	0.5	U
Calcium	110000		120000		270000		280000		280000		260000	
Chromium, Hexavalent	5	U	5	U	78		120		5	U	5	U
Chromium, Total	26		4	J	43		55		28		4	J
Cobalt	5		3	J	3	J	3	J	5.9		5	U
Copper	10		9.7		28		29		34		17	
Iron	570		100	U	200		100	U	**10000**		100	U
Lead	1	J	0.2	J	0.3	J	3	U	5.9		3	U
Magnesium	68000		73000		540000		580000		380000		410000	
Manganese	4500		4600		6300		6000		6100		5600	
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Nickel	70		29		31		32		35		20	
Potassium	500	U	500	U	700		700		2000		1200	
Selenium	5	U	7.6		5	U	5	U	5	U	3	J
Silver	0.6		0.2	J	0.5	U	0.5	U	0.5	U	0.5	U
Sodium	17000		21000		42000		42000		33000		34000	
Thallium	5	U	0.5	J	5	U	5	U	5	U	5	U
Vanadium	5	U	5	U	5	U	5	U	7.9		5	U
Zinc	11		6	J	33		9	J	23		3	J

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
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Results are in micrograms per liter (ug/L) or parts per billion (ppb).
NA = Not Analyzed.
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Metals Analyses

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW05D		MW05D Field Filtered		MW05D		MW05D Field Filtered		MW05D		MW05D Field Filtered	
GROUNDWATER CLASS:	I		I		I		I		I		I	
SAMPLE DATE:	12/6/2000				3/5/2001				8/7/2001			
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aluminum	420		370		570		850		60	U	60	U
Antimony	5	U	5	U	5	U	5	U	5	U	5	U
Arsenic	20		24		24		25		20		22	
Barium	280		270		340		330		350		340	
Beryllium	1	U	1	U	0.2	J	1	U	1	U	1	U
Boron	1200		1300		1200		1200		1500		1600	
Cadmium	0.5	U	0.5	U	0.5	U	0.1	J	0.5	U	0.5	U
Calcium	44000		45000		61000		59000		49000		51000	
Chromium, Hexavalent	5	U	5	U	5	U	5	U	5	U	5	U
Chromium, Total	3	J	5.8		4	J	5	U	6.8		2	J
Cobalt	2	J	1	J	5	U	5	U	5	U	5	U
Copper	4	J	1	J	5.5		3	J	4	J	2	J
Iron	4500		3700		**7000**		**6500**		4500		4400	
Lead	3	U	3	U	3	U	3	U	3	U	3	U
Magnesium	24000		25000		21000		20000		22000		22000	
Manganese	**240**		**200**		100	U	100	U	15	U	15	U
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Nickel	25		18		15		11		9.9		5.5	
Potassium	2500		2500		1900		1800		1500		1700	
Selenium	7.1		5	U	5	U	5	U	12		6.6	
Silver	0.5	U	0.5		0.5	U	0.4	J	0.5	U	0.5	U
Sodium	95000		95000		110000		110000		100000		100000	
Thallium	5	U	5	U	5	U	5	U	5	U	5	U
Vanadium	5	U	5	U	5	U	5	U	5	U	5	U
Zinc	8	J	5	J	77		6	J	5	J	4	J

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
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Results are in micrograms per liter (ug/L) or parts per billion (ppb).
NA = Not Analyzed.
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Metals Analyses

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW05S		MW05S Field Filtered		MW05S		MW05S Field Filtered		MW05S		MW05S Field Filtered	
GROUNDWATER CLASS:	II		II		II		II		II		II	
SAMPLE DATE:	12/6/2000				3/5/2001				8/7/2001		8/6/2001	
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aluminum	1400		460		2500		950		1100		60	U
Antimony	5	U	5	U	5	U	5	U	5	U	5	U
Arsenic	6.4		7.1		26		5	U	5	U	5	U
Barium	25		21		210		22		24		14	
Beryllium	1	U	1	U	1.3		0.2	J	1	U	1	U
Boron	1400		1200		1200		1200		1100		1200	
Cadmium	0.2	J	0.5	U	0.5	U	0.5	U	0.5	U	0.4	J
Calcium	280000		290000		460000		350000		270000		280000	
Chromium, Hexavalent	5	U	5	U	57		5	U	5	U	NA	
Chromium, Total	5.4		5	U	67		3	J	6.3		4	J
Cobalt	4	J	5		33		4	J	3	J	5	U
Copper	10		10		73		5.6		7.4		5	J
Iron	1700		100	U	2100		200		2400		100	U
Lead	3	U	3	U	8.6		1	J	4.5		3	U
Magnesium	320000		330000		370000		330000		340000		350000	
Manganese	1300		1400		2000		1200		1100		1200	
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Nickel	35		32		110		39		24		21	
Potassium	12000		11000		12000		11000		11000		12000	
Selenium	2	J	2	J	4	J	5	U	3	J	8.8	
Silver	0.5	U	0.5	U	0.72		0.5	U	0.5	U	0.5	U
Sodium	150000		140000		160000		160000		140000		150000	
Thallium	5	U	5	U	0.8	J	5	U	5	U	5	U
Vanadium	5	U	5	U	57		5	U	5	U	5	U
Zinc	18		12		220		14		22		22	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
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Results are in micrograms per liter (ug/L) or parts per billion (ppb).
NA = Not Analyzed.
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Metals Analyses

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW06D		MW06D Field Filtered		MW06D		MW06D Field Filtered		MW06D		MW06D Field Filtered	
GROUNDWATER CLASS:	I		I		I		I		I		I	
SAMPLE DATE:	12/6/2000				3/6/2001				8/8/2001			
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aluminum	580		410		370		100	U	460		60	U
Antimony	5	U	5	U	5	U	5	U	5	U	5	U
Arsenic	18		17		14		17		16		12	
Barium	470		450		490		480		460		430	
Beryllium	1	U	1	U	1	U	0.2	J	1	U	1	U
Boron	1200		1200		1400		1400		1400		1500	
Cadmium	0.5	U	0.5	U	0.5	U	0.5	U	0.58		0.5	U
Calcium	69000		65000		96000		89000		73000		70000	
Chromium, Hexavalent	5	U	5	U	5	U	5	U	5	U	5	U
Chromium, Total	7.6		4	J	7.8		3	J	7.7		2	J
Cobalt	3	J	2	J	2	J	1	J	2	J	5	U
Copper	4	J	2	J	6.4		4	J	7.3		35	
Iron	**9200**		**8500**		**12000**		**9800**		**7200**		**5900**	
Lead	3	U	3	U	2	J	3	U	3.1		3	U
Magnesium	30000		29000		33000		31000		29000		29000	
Manganese	150		130		120		100	U	15	U	15	U
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Nickel	82		65		21		16		12		7.7	
Potassium	3400		3200		2900		2700		2600		2600	
Selenium	3	J	5	U	5	U	5	U	5	U	5.4	
Silver	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Sodium	110000		100000		120000		120000		110000		110000	
Thallium	5	U	5	U	5	U	5	U	5	U	5	U
Vanadium	5	U	5	U	5	U	5	U	3	J	5	U
Zinc	11		3	J	7	J	3	J	13		26	

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PQL = Practical Quantitative Limit
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NA = Not Analyzed.
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Metals Analyses

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW06S		MW06S Field Filtered		MW06S		MW06S Field Filtered		MW06S		MW06S Field Filtered	
GROUNDWATER CLASS:	I		I		I		I		I		I	
SAMPLE DATE:	12/6/2000				3/5/2001				8/8/2001			
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aluminum	5000		100	U	1200		790		150000		470	
Antimony	5	U	5	U	5	U	5		5	U	5	U
Arsenic	19		35		41		37		43		18	
Barium	160		160		170		150		540		150	
Beryllium	0.4	J	0.3	J	1	U	1		4.1		1	U
Boron	630		630		540		580		1100		930	
Cadmium	0.5	U	0.5	U	0.1	J	0.5		0.4	J	0.5	U
Calcium	64000		64000		81000		79000		460000		87000	
Chromium, Hexavalent	5	U	5	U	5	U	5	U	5	U	5	U
Chromium, Total	13		4	J	9.6		2	J	200		4	J
Cobalt	6		2	J	3	J	1	J	68		5	U
Copper	4	J	2	J	8.2		4	J	120		3	J
Iron	**9600**		3700		4500		2900		**270000**		610	
Lead	3.2		3	U	3		3	U	100		3	U
Magnesium	32000		30000		33000		32000		220000		35000	
Manganese	**770**		**300**		**170**		150		**4700**		130	
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Nickel	**230**		82		30		21		**260**		29	
Potassium	5400		3300		3100		2900		42000		4600	
Selenium	4	J	5	U	4	J	5	U	9.4		17	
Silver	0.2	J	0.5	U	0.3	J	0.5	U	0.56		0.5	U
Sodium	71000		77000		110000		110000		110000		100000	
Thallium	0.1	J	5	U	0.9	J	5	U	5	U	5	U
Vanadium	1	J	5	U	8		5	U	120		5	U
Zinc	11		4	J	17		730		430		4	J

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per liter (ug/L) or parts per billion (ppb).
NA = Not Analyzed.
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Metals Analyses

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW07D		MW07D Field Filtered		MW07D		MW07D DUP		MW07D Field Filtered		MW07D Field Filtered (DUP)	
GROUNDWATER CLASS:	I		I		I		I		I		I	
SAMPLE DATE:	12/5/2000				3/6/2001							
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aluminum	230		100	U	370		300		100	U	100	U
Antimony	5	U	5	U	5	U	5	U	5	U	5	U
Arsenic	13		14		12		12		13		7.6	
Barium	340		330		400		380		380		380	
Beryllium	1	U	1	U	0.3	J	1	U	0.3	J	1	U
Boron	1400		1500		1700		1600		1600		1600	
Cadmium	0.5	U	0.5	U	0.2	J	0.5	U	0.5	U	0.5	U
Calcium	73000		74000		92000		91000		87000		87000	
Chromium, Hexavalent	5	U	5	U	5	U	5	U	5	U	5	U
Chromium, Total	6		3	J	6.3		5.4		3	J	.2	J
Cobalt	5	U	2	J	2	J	2	J	1	J	1	J
Copper	26		9.9		9.1		8		4	J	4	J
Iron	**7100**		**5800**		**8200**		**8000**		**6300**		**6600**	
Lead	3	U	3	U	1	J	1	J	3	U	3	U
Magnesium	26000		27000		31000		31000		30000		30000	
Manganese	150		**210**		120		100		100	U	100	U
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Nickel	24		22		16		15		14		12	
Potassium	2800		2900		2400		2400		2200		2300	
Selenium	7.3		4	J	5	U	5	U	5	U	5	U
Silver	0.5	U	0.5	U	0.5	U	0.2	J	0.3	J	0.5	U
Sodium	87000		82000		110000		110000		110000		110000	
Thallium	5	U	5	U	5	U	5	U	5	U	5	U
Vanadium	5	U	5	U	5	U	5	U	5	U	5	U
Zinc	10		6	J	40		15		8	J	5	J

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per liter (ug/L) or parts per billion (ppb).
NA = Not Analyzed.
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Metals Analyses

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW07D		MW07D DUP		MW07D Field Filtered		MW07D Field Filtered (DUP)	
GROUNDWATER CLASS:	I		I		I		I	
SAMPLE DATE:	8/8/2001							
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aluminum	620		290		100		60	U
Antimony	5	U	5	U	5	U	5	U
Arsenic	15		15		14		12	
Barium	390		380		370		370	
Beryllium	1	U	1	U	1	U	1	U
Boron	1800		1700		1800		1700	
Cadmium	0.5	U	0.5	U	0.5	U	0.5	U
Calcium	73000		72000		68000		69000	
Chromium, Hexavalent	5	U	5	U	5	U	5	U
Chromium, Total	8.1		5	J	2	J	3	J
Cobalt	5	U	5	U	5	U	5	U
Copper	5.8		4	J	5	U	2	J
Iron	**6400**		**6000**		4600		4400	
Lead	1	J	3	U	3	U	3	U
Magnesium	30000		30000		28000		28000	
Manganese	15	U	15	U	15	U	15	U
Mercury	0.2	U	0.2	U	0.2	U	0.2	U
Nickel	11		7.8		7.2		6.8	
Potassium	2200		1800		2100		1700	
Selenium	13		16		9		5	U
Silver	0.5	U	0.5	U	0.5	U	0.5	U
Sodium	110000		110000		110000		110000	
Thallium	5	U	5	U	5	U	5	U
Vanadium	5	U	5	U	5	U	5	U
Zinc	150		15		7	J	24	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
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Results are in micrograms per liter (ug/L) or parts per billion (ppb).
NA = Not Analyzed.
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Metals Analyses

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW07S		MW07S Field Filtered		MW07S		MW07S Field Filtered		MW07S		MW07S Field Filtered	
GROUNDWATER CLASS:	I		I		I		I		I		I	
SAMPLE DATE:	12/5/2000				3/6/2001				8/8/2001			
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aluminum	850		100	U	6600		100	U	3700		350	
Antimony	5	U	5	U	5	U	5	U	5	U	5	U
Arsenic	15		14		8.7		5	J	7.7		5	J
Barium	260		230		250		200		220		210	
Beryllium	0.9	J	1	U	0.2	J	0.5	J	1	U	1	U
Boron	410		340		240		270		270		260	
Cadmium	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Calcium	110000		100000		130000		110000		95000		95000	
Chromium, Hexavalent	5	U	5	U	5	U	5	U	5	U	5	U
Chromium, Total	27		3	J	22		3	J	10		3	J
Cobalt	5		1	J	6.1		2	J	5.1		5	U
Copper	9.5		4	J	13		4	J	7.1		3	J
Iron	**7700**		**6700**		**16000**		2100		**8800**		**6700**	
Lead	3.8		3	U	5		3	U	2	J	3	U
Magnesium	37000		33000		46000		39000		40000		37000	
Manganese	**250**		**160**		**340**		**290**		**290**		120	
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Nickel	32		15		35		24		21		8.3	
Potassium	4000		3300		5100		3200		5600		4400	
Selenium	3	J	5	U	2	J	5	U	9		4	J
Silver	0.5	U	0.5	U	0.5	U	0.3	J	0.5	U	0.5	U
Sodium	79000		77000		100000		100000		97000		96000	
Thallium	5	U	5	U	5	U	5	U	5	U	5	U
Vanadium	12		5	U	6.9		5	U	6.7		4	J
Zinc	16		1	J	37		11		14		7	J

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per liter (ug/L) or parts per billion (ppb).
NA = Not Analyzed.
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Metals Analyses

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW08D		MW08D Field Filtered		MW08D		MW08D Field Filtered		MW08D		MW08D Field Filtered	
GROUNDWATER CLASS:	I		I		I		I		I		I	
SAMPLE DATE:	12/13/2000				3/8/2001				8/10/2001			
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aluminum	3000		100	U	900		100	U	1000		270	
Antimony	5	U	5	U	5	U	5	U	5	U	5	U
Arsenic	10		7		6		3	J	3	J	3	J
Barium	210		190		170		170		190		210	
Beryllium	1	U	1	U	0.1	J	1	U	0.3	J	1	U
Boron	1300		1400		1200		1200		1000		950	
Cadmium	0.5	U	0.5	U	0.3	J	0.5	U	0.5	U	0.5	U
Calcium	51000		47000		40000		41000		51000		50000	
Chromium, Hexavalent	5	U	5	U	5	U	5	U	5	U	5	U
Chromium, Total	12		3	J	6.7		3	J	5	J	5	U
Cobalt	3	J	5	U	1	J	5	U	5	U	5	U
Copper	13		2	J	5.9		2	J	4	J	2	J
Iron	**6700**		970		2700		1300		3500		2100	
Lead	7.2		3	U	2	J	3	U	1	J	3	U
Magnesium	19000		17000		17000		16000		17000		17000	
Manganese	**210**		110		100		100	U	50	U	50	U
Mercury	0.21		0.24		0.2	U	0.2	U	0.2	U	0.2	U
Nickel	25		10		17		9.6		8.9		4	J
Potassium	2300		1400		2100		1900		2000		1900	
Selenium	4	J	2	J	4	J	5	U	5	U	2	J
Silver	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Sodium	86000		84000		89000		87000		80000		78000	
Thallium	5	U	5	U	5	U	5	U	5	U	5	U
Vanadium	5.7		5	U	5	U	5	U	5	U	5	U
Zinc	34		2	J	12		6	J	6	J	6	J

NOTES: DQ = Data Qualifier
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J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per liter (ug/L) or parts per billion (ppb).
NA = Not Analyzed.
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Metals Analyses

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW08S		MW08S Field Filtered		MW08S		MW08S Field Filtered		MW08S		MW08S Field Filtered	
GROUNDWATER CLASS:	II		II		II		II		II		II	
SAMPLE DATE:	12/13/2000				3/7/2001				8/10/2001			
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aluminum	170		100	U	100		100	U	1800		570	
Antimony	5	U	5	U	5	U	5	U	5	U	5	U
Arsenic	7.5		5.6		5	U	5	U	5	U	5	U
Barium	88		44		73		73		130		83	
Beryllium	1	U	1	U	1	U	1	U	0.4	J	1	U
Boron	150		130		100	U	100	U	50	U	50	U
Cadmium	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Calcium	80000		40000		71000		83000		140000		97000	
Chromium, Hexavalent	5	U	5	U	5	U	5	U	5	U	5	U
Chromium, Total	7		6.7		4	J	4	J	6.2		5	U
Cobalt	5	U	5	U	5	U	5	U	5	U	5	U
Copper	5	J	5.8		5.8		4	J	9.1		3	J
Iron	370		100	U	120		100	U	2000		100	U
Lead	3	U	3	U	3	U	3	U	2	J	3	U
Magnesium	31000		20000		31000		35000		36000		33000	
Manganese	240		100	U	100	U	100	U	50	U	50	U
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Nickel	9.2		6.9		8.3		8.8		11		5.8	
Potassium	1700		1700		1600		1700		2100		1600	
Selenium	5.6		5	U	5	U	1	J	5	U	5	U
Silver	1.2		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Sodium	12000		14000		8500		8700		6200		5900	
Thallium	5	U	5	U	5	U	5	U	5	U	5	U
Vanadium	5	U	1	J	5	U	5	U	3	J	5	U
Zinc	2	J	10	U	19		2	J	8	J	10	J

NOTES: DQ = Data Qualifier
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TABLE H-5
Groundwater
Metals Analyses

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW09D		MW09D Field Filtered		MW09D		MW09D Field Filtered		MW09D		MW09D Field Filtered	
GROUNDWATER CLASS:	I		I		I		I		I		I	
SAMPLE DATE:	12/12/2000				3/9/2001				8/9/2001			
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aluminum	100	U	100	U	180		110		60	U	60	U
Antimony	5	U	5	U	5	U	5	U	5	U	5	U
Arsenic	10		7.4		7.8		13		5.3		10	
Barium	170		170		170		170		170		190	
Beryllium	1	U	1	U	0.3	J	1	U	1	U	1	U
Boron	1800		1900		1600		1800		2000		**2200**	
Cadmium	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Calcium	45000		46000		40000		42000		48000		51000	
Chromium, Hexavalent	5	U	5	U	5	U	5	U	5	U	5	U
Chromium, Total	11		4	J	3	J	2	J	4	J	5	U
Cobalt	5	U	5	U	1	J	1	J	5	U	5	U
Copper	5.4		5.2		9.1		3	J	4	J	3	J
Iron	780		750		2800		2300		3800		3400	
Lead	3	U	3	U	0.5	J	3	U	3	U	3	U
Magnesium	19000		20000		17000		18000		19000		20000	
Manganese	100		100	U	140		100		100		50	U
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Nickel	20		15		31		21		17		10	
Potassium	5800		5500		8100		7300		6300		4700	
Selenium	1	J	5	U	4	J	5.1		5	U	2	J
Silver	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Sodium	100000		100000		97000		98000		100000		110000	
Thallium	5	U	5	U	0.3	J	0.7	J	5	U	5	U
Vanadium	5	U	5	U	5	U	5	U	5	U	5	U
Zinc	6	J	5	J	8	J	3	J	13		7	J

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NA = Not Analyzed.
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Metals Analyses

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW09S		MW09S Field Filtered		MW09S		MW09S Field Filtered		MW09S		MW09S Field Filtered	
GROUNDWATER CLASS:	II		II		II		II		II		II	
SAMPLE DATE:	12/12/2000				3/7/2001				8/9/2001			
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aluminum	12000		100	U	370		100	U	970		60	U
Antimony	5	U	5	U	5	U	5	U	5	U	5	U
Arsenic	7.6		4	J	5	U	5	U	5	U	5	U
Barium	150		72		69		67		88		81	
Beryllium	1	U	1	U	0.2	J	0.3	J	1	U	1	U
Boron	100	U	100		100	U	100	U	200		120	
Cadmium	0.4	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Calcium	110000		85000		90000		87000		110000		100000	
Chromium, Hexavalent	5	U	5	U	5	U	5	U	5	U	5	U
Chromium, Total	21		4	J	3	J	3	J	4	J	3	J
Cobalt	8		5	U	5	U	5	U	5	U	5	U
Copper	74		9.1		6.1		5.4		6.2		3	J
Iron	**19000**		100	U	300		100	U	1100		100	U
Lead	10		3	U	3	U	3	U	1	J	3	U
Magnesium	54000		37000		37000		36000		44000		42000	
Manganese	330		100	U	100	U	100	U	50	U	50	U
Mercury	0.2	U	0.3		0.2	U	0.2	U	0.2	U	0.2	U
Nickel	32		8		8		7.4		4	J	4	J
Potassium	3400		500	U	570		500	J	500	U	500	U
Selenium	2	J	5	U	5	U	5	U	12		5	U
Silver	0.2	J	0.5	U	0.3	J	0.2	J	0.5	U	0.5	U
Sodium	6200		5900		6100		5400		7100		6600	
Thallium	5	U	5	U	5	U	5	U	5	U	5	U
Vanadium	17		5	U	5	U	5	U	5	U	5	U
Zinc	63		2	J	4	J	14		33		18	

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PQL = Practical Quantitative Limit
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NA = Not Analyzed.
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
Metals Analyses

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW10*		MW10* DUP		MW10* Field Filtered		MW10* Field Filtered (DUP)		MW11*		MW11* Field Filtered	
GROUNDWATER CLASS:	II		II		II		II		I		I	
SAMPLE DATE:	8/9/2001								8/9/2001			
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aluminum	580		950		60	U	270		1100		60	U
Antimony	5	U	5	U	5	U	5	U	5	U	5	U
Arsenic	5	U	5	U	5	U	5	U	6.5		12	
Barium	92		100		98		91		140		140	
Beryllium	1	U	1	U	1	U	1	U	1	U	1	U
Boron	50	U	50	U	50	U	50	U	1900		1700	
Cadmium	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Calcium	140000		140000		140000		140000		65000		54000	
Chromium, Hexavalent	5	U	NA		5	U	NA		5	U	5	U
Chromium, Total	3	J	3	J	3	J	3	J	13		4	J
Cobalt	5	U	2	J	5	U	5	U	3	J	5	U
Copper	5	J	11		5.1		5.9		13		4	J
Iron	100	U	470		100	U	100	U	4200		950	
Lead	3	U	1	J	3	U	3	U	3.5		3	U
Magnesium	59000		57000		57000		52000		27000		23000	
Manganese	1300		1600		1100		1100		**600**		**380**	
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Nickel	10		13		11		9		35		22	
Potassium	1900		1900		1700		1700		3100		2800	
Selenium	4	J	5	U	5	U	5	U	5	U	9.5	
Silver	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Sodium	16000		17000		16000		15000		110000		100000	
Thallium	5	U	5	U	5	U	5	U	5	U	5	U
Vanadium	5	U	5	U	5	U	5	U	5	U	5	U
Zinc	8	J	1400		10	U	10	U	78		42	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per liter (ug/L) or parts per billion (ppb).
NA = Not Analyzed.
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
General Chemistry

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW01D		MW01D DUP		MW01D Field Filtered		MW01D Field Filtered (DUP)		MW01D		MW01D Field Filtered		MW01D		MW01D Field Filtered	
GROUNDWATER CLASS:	I		I		I		I		I		I		I		I	
SAMPLE DATE:	12/11/2000								3/8/2001				8/7/2001			
Compound (mg/L)	**Result**	**DQ**	**Result**	**DQ**	**Result**	**DQ**	**Result**	**DQ**	**Result**	**DQ**	**Result**	**DQ**	**Result**	**DQ**	**Result**	**DQ**
Alkalinity, Total (As $CaCO_3$)	350		360		380		350		350		280		350		340	
Biochemical Oxygen Demand	12		12		NA		NA		14		NA		29		NA	
Chemical Oxygen Demand	31		47		20	J	28		40		40		28		21	
Chloride	14		15		14		15		12		13		10		4.1	
Cyanide	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
Fluoride	0.6		0.6		0.6		0.6		0.6		0.5		0.49		0.55	
Hardness	220		200		210		190		290		150		210		180	
Nitrogen, Ammonia (As N)	1.5		1.4		1.3		1.3		1.6		1.5		2		2.1	
Nitrogen, Nitrate	0.44		0.19		0.41		0.42		0.14		0.1	U	0.1	U	0.1	U
Sulfate	3		3		3		3		2		4		1	U	1.1	
Sulfide	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Suspended Solids	22		27		NA		NA		180		NA		41		NA	
Total Dissolved Solids	440		420		NA		NA		330		NA		400		NA	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
H = Analysis of this compound performed beyond recommended holding time.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in milligrams per liter (mg/L) or parts per million (ppm).
NA = Not Analyzed
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
General Chemistry

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW01S		MW01S Field Filtered		MW01S		MW01S Field Filtered		MW01S		MW01S Field Filtered	
GROUNDWATER CLASS:	I		I		I		I		I		I	
SAMPLE DATE:	12/7/2000				3/7/2001				8/7/2001			
Compound (mg/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Alkalinity, Total (As $CaCO_3$)	280		280		340		350		380		360	
Biochemical Oxygen Demand	3.2	H	NA		2	U	NA		25		NA	
Chemical Oxygen Demand	10	U	12		10		10	U	15		12	
Chloride	13		13		14		14		12		12	
Cyanide	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
Fluoride	0.8		0.8		0.6		0.6		0.35		0.36	
Hardness	360		360		760		780		790		740	
Nitrogen, Ammonia (As N)	1	U	1	U	1.2		1.1		1.5		1.5	
Nitrogen, Nitrate	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Sulfate	270		230		**440**		**440**		**610**		**650**	
Sulfide	1	U	1	U	1	U	1	U	1	U	1	U
Suspended Solids	10		NA		13		NA		33		NA	
Total Dissolved Solids	1100		NA		1100		NA		1200		NA	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
H = Analysis of this compound performed beyond recommended holding time.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in milligrams per liter (mg/L) or parts per million (ppm).
NA = Not Analyzed
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
General Chemistry

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW02D		MW02D Field Filtered		MW02D		MW02D Field Filtered		MW02D		MW02D Field Filtered	
GROUNDWATER CLASS:	I		I		I		I		I		I	
SAMPLE DATE:	12/7/2000				3/7/2001				8/6/2001			
Compound (mg/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Alkalinity, Total (As $CaCO_3$)	320		320		330		320		330		310	
Biochemical Oxygen Demand	8.7		NA		3.1		NA		15		NA	
Chemical Oxygen Demand	15		15		10	U	20		10	U	10	U
Chloride	9		9		10		10		7.8		11	
Cyanide	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
Fluoride	0.6		0.6		0.53		0.5		0.38		0.39	
Hardness	180		160		190		190		170		150	
Nitrogen, Ammonia (As N)	1.1		1.1		1.3		1	U	1.6		1.4	
Nitrogen, Nitrate	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Sulfate	1	U	1	U	3		3		1.9		4.5	
Sulfide	1	U	1	U	1	U	1	U	1	U	1	U
Suspended Solids	33		NA		58		NA		5		NA	
Total Dissolved Solids	370		NA		350		NA		370		NA	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
H = Analysis of this compound performed beyond recommended holding time.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in milligrams per liter (mg/L) or parts per million (ppm).
NA = Not Analyzed
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
General Chemistry

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW02S		MW02S Field Filtered		MW02S		MW02S Field Filtered		MW02S		MW02S Field Filtered	
GROUNDWATER CLASS:	II		II		II		II		II		II	
SAMPLE DATE:	12/7/2000				3/6/2001				8/6/2001			
Compound (mg/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Alkalinity, Total (As $CaCO_3$)	370		370		420		360		380		370	
Biochemical Oxygen Demand	2	U	NA		2	U	NA		2	U	NA	
Chemical Oxygen Demand	21		36		40		10		27		10	U
Chloride	14		14		21		21		15		15	
Cyanide	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
Fluoride	0.6		0.6		0.5		0.5		0.4	U	0.4	U
Hardness	520		530		680		640		650		540	
Nitrogen, Ammonia (As N)	1	U	1	U	1	U	1	U	1	U	1	U
Nitrogen, Nitrate	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Sulfate	26		26		240		250		250		260	
Sulfide	1	U	1	U	1	U	1	U	1	U	1	U
Suspended Solids	30		NA		360		NA		30		NA	
Total Dissolved Solids	320	B	NA		730		NA		790		NA	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
H = Analysis of this compound performed beyond recommended holding time.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in milligrams per liter (mg/L) or parts per million (ppm).
NA = Not Analyzed
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
General Chemistry

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW03D		MW03D Field Filtered		MW03D		MW03D Field Filtered		MW03D		MW03D Field Filtered	
GROUNDWATER CLASS:	I		I		I		I		I		I	
SAMPLE DATE:	12/11/2000				3/8/2001				8/8/2001			
Compound (mg/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Alkalinity, Total (As $CaCO_3$)	350		360		330		310		380		330	
Biochemical Oxygen Demand	25		NA		18		NA		34		NA	
Chemical Oxygen Demand	25		10	J	50		30		12		12	
Chloride	42		42		42		42		42		48	
Cyanide	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
Fluoride	0.6		0.6		0.6		0.6		0.51		0.49	
Hardness	210		200		220		200		180		180	
Nitrogen, Ammonia (As N)	1.6		1.9		1.7		1.8		2.1		2.2	
Nitrogen, Nitrate	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Sulfate	2		2		1	U	1		2.6		3.1	
Sulfide	1	U	1	U	1	U	1	U	1	U	1	U
Suspended Solids	14		NA		80		NA		19		NA	
Total Dissolved Solids	440		NA		420		NA		450		NA	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
H = Analysis of this compound performed beyond recommended holding time.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in milligrams per liter (mg/L) or parts per million (ppm).
NA = Not Analyzed
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
General Chemistry

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW03S		MW03S DUP		MW03S Field Filtered		MW03S Field Filtered (DUP)		MW03S		MW03S DUP		MW03S Field Filtered		MW03S Field Filtered (DUP)		MW03S		MW03S Field Filtered	
GROUNDWATER CLASS:	II		II		II		II		II		II		II		II		II		II	
SAMPLE DATE:	12/11/2000								3/6/2001								8/9/2001			
Compound (mg/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Alkalinity, Total (As $CaCO_3$)	490		500		490		500		490		490		500		490		540		520	
Biochemical Oxygen Demand	35		31		NA		NA		48		46		NA		NA		14		NA	
Chemical Oxygen Demand	120		120		120		120		120		120		140		140		270		300	
Chloride	**2700**		**2600**		**260**	H	**250**	H	**290**		**290**		**280**		**280**		57		**560**	
Cyanide	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
Fluoride	0.2		0.2	U	0.2	U	0.2	U	2	U	2	U	2	U	2	U	0.2	U	0.2	U
Hardness	810		820		810		810		890		870		850		890		1200		1100	
Nitrogen, Ammonia (As N)	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	
Nitrogen, Nitrate	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	1	U	0.1	U	1	U	0.1	U	0.1	U
Sulfate	**4300**		**4300**		**430**		**440**		370		380		360		370		**5000**		**470**	
Sulfide	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Suspended Solids	37		40		NA		NA		49		41		NA		NA		62		NA	
Total Dissolved Solids	**1700**		**1700**		NA		NA		**1600**		**1800**		NA		NA		**2100**		NA	

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PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
H = Analysis of this compound performed beyond recommended holding time.
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U = Compound not detected at or above the PQL.
Results are in milligrams per liter (mg/L) or parts per million (ppm).
NA = Not Analyzed
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
General Chemistry

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW04D		MW04D Field Filtered		MW04D		MW04D Field Filtered		MW04D		MW04D Field Filtered	
GROUNDWATER CLASS:	I		I		I		I		I		I	
SAMPLE DATE:	12/4/2000				3/5/2001				8/7/2001			
Compound (mg/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Alkalinity, Total (As $CaCO_3$)	350		360		350		350		350		340	
Biochemical Oxygen Demand	35		NA		39000		NA		64		NA	
Chemical Oxygen Demand	48		39		50		20		22		10	U
Chloride	46		47		48		48		65		64	
Cyanide	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
Fluoride	0.58		0.62		0.6		0.67		0.38		0.4	
Hardness	210		200		260		190		200		170	
Nitrogen, Ammonia (As N)	1.4		1.3		2		2		2		2.1	
Nitrogen, Nitrate	0.1	U	0.1	U	0.11		0.1	U	0.1	U	0.1	U
Sulfate	0.5	J	0.6	J	1	U	1	U	1	U	1	U
Sulfide	1	U	1	U	1	U	1	U	1	U	1	U
Suspended Solids	8		NA		380		NA		130		NA	
Total Dissolved Solids	450		NA		470		NA		480		NA	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
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U = Compound not detected at or above the PQL.
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NA = Not Analyzed
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TABLE H-5
Groundwater
General Chemistry

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW04S		MW04S Field Filtered		MW04S		MW04S Field Filtered		MW04S		MW04S Field Filtered	
GROUNDWATER CLASS:	II		II		II		II		II		II	
SAMPLE DATE:	12/5/2000				3/6/2001				8/7/2001			
Compound (mg/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Alkalinity, Total (As $CaCO_3$)	500		500		890		930		670		810	
Biochemical Oxygen Demand	2	U	NA		5.7		NA		2	U	NA	
Chemical Oxygen Demand	33		30		720		910		650		550	
Chloride	80		76		13		13		28		30	
Cyanide	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
Fluoride	0.43		0.59		4	U	4	U	0.2	U	0.2	U
Hardness	560		600		2900		3100		2300		2400	
Nitrogen, Ammonia (As N)	1	U	1	U	1	U	1	U	1	U	1	
Nitrogen, Nitrate	0.1	U	0.1	U	1.3		1.5		0.11		0.13	
Sulfate	93		100		**2500**		**2500**		**1600**		**1500**	
Sulfide	1	U	1	U	1	U	1	U	1	U	1	U
Suspended Solids	15		NA		20		NA		11		NA	
Total Dissolved Solids	750		NA		420	H	NA		**3300**	H	NA	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
H = Analysis of this compound performed beyond recommended holding time.
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U = Compound not detected at or above the PQL.
Results are in milligrams per liter (mg/L) or parts per million (ppm).
NA = Not Analyzed
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
General Chemistry

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW05D		MW05D Field Filtered		MW05D		MW05D Field Filtered		MW05D		MW05D Field Filtered	
GROUNDWATER CLASS:	I		I		I		I		I		I	
SAMPLE DATE:	12/6/2000				3/5/2001				8/7/2001			
Compound (mg/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Alkalinity, Total (As $CaCO_3$)	420		410		420		410		410		420	
Biochemical Oxygen Demand	25		NA		28		NA		34		NA	
Chemical Oxygen Demand	42		39		50		40		19		22	
Chloride	39		40		42		42		74		54	
Cyanide	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
Fluoride	0.65		0.65		0.7		0.7		0.37		0.78	
Hardness	210		210		240		230		210		220	
Nitrogen, Ammonia (As N)	1.6		1.3		2.4		2.1		2.4		2.2	
Nitrogen, Nitrate	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Sulfate	1.2		2		1	U	1	U	1	U	1	U
Sulfide	1	U	1	U	1	U	1	U	1	U	1	U
Suspended Solids	14		NA		21		NA		13		NA	
Total Dissolved Solids	540		NA		510		NA		530		NA	

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B = Compound found in the laboratory method blank.
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U = Compound not detected at or above the PQL.
Results are in milligrams per liter (mg/L) or parts per million (ppm).
NA = Not Analyzed
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
General Chemistry

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW05S		MW05S Field Filtered		MW05S		MW05S Field Filtered		MW05S		MW05S Field Filtered	
GROUNDWATER CLASS:	II		II		II		II		II		II	
SAMPLE DATE:	12/6/2000				3/5/2001				8/7/2001			
Compound (mg/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Alkalinity, Total (As $CaCO_3$)	600		620		620		620		600		610	
Biochemical Oxygen Demand	2	U	NA		6		NA		6.3		NA	
Chemical Oxygen Demand	33		12		30		60		13		10	U
Chloride	41		41		40		40		46		36	
Cyanide	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
Fluoride	0.35		0.32		3	U	3	U	0.2	U	0.2	U
Hardness	2000		2000		2700		2300		2100		2100	
Nitrogen, Ammonia (As N)	1	U	1	U	1	U	1	U	1	U	1	U
Nitrogen, Nitrate	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.3	U
Sulfate	**1800**		**1900**		**1900**		**2000**		**1900**		**1900**	
Sulfide	1	U	1	U	1	U	1	U	1	U	NA	
Suspended Solids	63		NA		430		NA		84		NA	
Total Dissolved Solids	**3000**	B	NA		**3100**		NA		**3300**	H	NA	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
H = Analysis of this compound performed beyond recommended holding time.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in milligrams per liter (mg/L) or parts per million (ppm).
NA = Not Analyzed
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
General Chemistry

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW06D		MW06D Field Filtered		MW06D		MW06D Field Filtered		MW06D		MW06D Field Filtered	
GROUNDWATER CLASS:	I		I		I		I		I		I	
SAMPLE DATE:	12/6/2000				3/6/2001				8/8/2001			
Compound (mg/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Alkalinity, Total (As $CaCO_3$)	520		520		530		520		520		530	
Biochemical Oxygen Demand	32		NA		18		NA		37		NA	
Chemical Oxygen Demand	48		39		50		40		40		40	
Chloride	38		38		37		38		46		37	
Cyanide	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
Fluoride	0.74		0.74		0.5		0.5		0.44		0.43	
Hardness	290		280		380		350		300		290	
Nitrogen, Ammonia (As N)	3		3.4		6.3		3.5		4.8		4.6	
Nitrogen, Nitrate	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Sulfate	0.4	J	1	U	1	U	1	U	1	U	1	U
Sulfide	1	U	1	U	1	U	1	U	1.4		1	U
Suspended Solids	41		NA		64		NA		46		NA	
Total Dissolved Solids	810		NA		610		NA		590		NA	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
H = Analysis of this compound performed beyond recommended holding time.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in milligrams per liter (mg/L) or parts per million (ppm).
NA = Not Analyzed
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TABLE H-5
Groundwater
General Chemistry

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW06S		MW06S Field Filtered		MW06S		MW06S Field Filtered		MW06S		MW06S Field Filtered	
GROUNDWATER CLASS:	I		I		I		I		I		I	
SAMPLE DATE:	12/6/2000				3/5/2001				8/8/2001			
Compound (mg/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Alkalinity, Total (As $CaCO_3$)	510		510		500		510		550		510	
Biochemical Oxygen Demand	6.9		NA		10		NA		8.1		NA	
Chemical Oxygen Demand	69		48		60		30		930		43	
Chloride	25		25		25		24		22		22	
Cyanide	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
Fluoride	0.9		0.9		0.9		0.9		0.64		0.65	
Hardness	290		280		330		330		2100		370	
Nitrogen, Ammonia (As N)	1.6		1.9		2.7		2.8		2.5		2.4	
Nitrogen, Nitrate	0.1	U	0.1	U	0.11		0.1	U	0.1	U	0.1	U
Sulfate	7		5		4		8		3.7		4.5	
Sulfide	1	U	1	U	1	U	1	U	1	U	1	U
Suspended Solids	110		NA		110		NA		1400		NA	
Total Dissolved Solids	610		NA		610		NA		620		NA	

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PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
H = Analysis of this compound performed beyond recommended holding time.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in milligrams per liter (mg/L) or parts per million (ppm).
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TABLE H-5
Groundwater
General Chemistry

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW07D		MW07D Field Filtered		MW07D		MW07D DUP		MW07D Field Filtered		MW07D Field Filtered (DUP)		MW07D		MW07D DUP		MW07D Field Filtered		MW07D Field Filtered (DUP)	
GROUNDWATER CLASS:	I		I		I		I		I		I		I		I		I		I	
SAMPLE DATE:	12/5/2000				3/6/2001								8/8/2001							
Compound (mg/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Alkalinity, Total (As $CaCO_3$)	490		480		510		520		500		520		540		540		530		520	
Biochemical Oxygen Demand	24		NA		28		25		NA		NA		38		36		NA		NA	
Chemical Oxygen Demand	60		66		60		40		50		40		40		40		37		34	
Chloride	29		29		28		27		27		28		26		34		27		27	
Cyanide	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
Fluoride	0.5		0.54		0.5		0.5		0.5		0.5		0.35		0.35		0.39		0.38	
Hardness	290		290		360		360		340		340		300		300		290		290	
Nitrogen, Ammonia (As N)	2.1		1.7		2.5		4.6		2.5		4.7		3.8		3.8		3.8		3.7	
Nitrogen, Nitrate	0.54		0.62		0.1	U	0.12		0.1	U	0.1		0.1	U	0.1	U	0.1	U	0.1	U
Sulfate	4		4.2		1		1		2		1		1	U	1		1	U	1	U
Sulfide	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Suspended Solids	33		NA		66		59		NA		NA		46		42		NA		NA	
Total Dissolved Solids	580		NA		580		410		NA		NA		640		630		NA		NA	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
H = Analysis of this compound performed beyond recommended holding time.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in milligrams per liter (mg/L) or parts per million (ppm).
NA = Not Analyzed
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
General Chemistry

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW07S		MW07S Field Filtered		MW07S		MW07S Field Filtered		MW07S		MW07S Field Filtered	
GROUNDWATER CLASS:	I		I		I		I		I		I	
SAMPLE DATE:	12/5/2000				3/6/2001				8/8/2001			
Compound (mg/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Alkalinity, Total (As $CaCO_3$)	590		590		620		600		580		560	
Biochemical Oxygen Demand	4.1		NA		6.9		NA		28		NA	
Chemical Oxygen Demand	170		63		90		70		96		68	
Chloride	35		35		33		33		40		39	
Cyanide	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
Fluoride	0.6		0.68		0.52		0.52		0.36		0.4	
Hardness	430		380		510		430		410		390	
Nitrogen, Ammonia (As N)	4.9		4.8		5.6		5.2		6		6.3	
Nitrogen, Nitrate	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Sulfate	5.1		4		8		2.4		2.5		18	
Sulfide	1	U	1	U	1	U	1	U	1	U	1	U
Suspended Solids	120		NA		50		NA		270		NA	
Total Dissolved Solids	730		NA		730		NA		740		NA	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
H = Analysis of this compound performed beyond recommended holding time.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in milligrams per liter (mg/L) or parts per million (ppm).
NA = Not Analyzed
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
General Chemistry

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW08D		MW08D Field Filtered		MW08D		MW08D Field Filtered		MW08D		MW08D Field Filtered	
GROUNDWATER CLASS:	I		I		I		I		I		I	
SAMPLE DATE:	12/13/2000				3/8/2001				8/10/2001			
Compound (mg/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Alkalinity, Total (As $CaCO_3$)	310		320		280		280		310		330	
Biochemical Oxygen Demand	14		NA		24				30	H	NA	
Chemical Oxygen Demand	36		24		40		20		31		25	
Chloride	45		45		44		45		45		44	
Cyanide	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
Fluoride	0.8		0.8		0.7		0.8		0.69		0.68	
Hardness	210		190		170		170		200		200	
Nitrogen, Ammonia (As N)	2		2		1.8		1.9		2.1		2	
Nitrogen, Nitrate	0.12		0.13		0.1	U	0.1	U	0.1	U	0.1	U
Sulfate	10		9		10		8		4.4		2.9	
Sulfide	1	U	1	U	1	U	1	U	1	U	1	U
Suspended Solids	200		NA		63		290		40		NA	
Total Dissolved Solids	440		NA		360		30		450		NA	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
H = Analysis of this compound performed beyond recommended holding time.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in milligrams per liter (mg/L) or parts per million (ppm).
NA = Not Analyzed
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
General Chemistry

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW08S		MW08S Field Filtered		MW08S		MW08S Field Filtered		MW08S		MW08S Field Filtered	
GROUNDWATER CLASS:	II		II		II		II		II		II	
SAMPLE DATE:	12/13/2000				3/7/2001				8/10/2001			
Compound (mg/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Alkalinity, Total (As $CaCO_3$)	290		210		310		290		560		330	
Biochemical Oxygen Demand	2	U	NA		2	U	NA		3.1	H	NA	
Chemical Oxygen Demand	15		10	U	10	U	30		16		10	U
Chloride	13		13		10		10		10		10	
Cyanide	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
Fluoride	0.3		0.3		0.2	U	0.2	U	0.22		0.22	
Hardness	330		180		310		350		490		380	
Nitrogen, Ammonia (As N)	1	U	1	U	1	U	1	U	1	U	1	U
Nitrogen, Nitrate	0.44		0.36		1		1.1		0.84		0.94	
Sulfate	30		28		31		29		33		32	
Sulfide	1	U	1	U	1	U	1	U	1	U	1	U
Suspended Solids	43		NA		4	J	NA		630		NA	
Total Dissolved Solids	330		NA		370		NA		440		NA	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
H = Analysis of this compound performed beyond recommended holding time.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in milligrams per liter (mg/L) or parts per million (ppm).
NA = Not Analyzed
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
General Chemistry

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW09D		MW09D Field Filtered		MW09D		MW09D Field Filtered		MW09D		MW09D Field Filtered	
GROUNDWATER CLASS:	I		I		I		I		I		I	
SAMPLE DATE:	12/12/2000				3/9/2001				8/9/2001			
Compound (mg/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Alkalinity, Total (As $CaCO_3$)	360		360		330		330		360		370	
Biochemical Oxygen Demand	19		NA		35	H	NA		28		NA	
Chemical Oxygen Demand	65		20	J	30		20		13		10	U
Chloride	44		44		42		43		50		52	
Cyanide	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
Fluoride	0.7		0.7		0.6		0.64		0.52		0.49	
Hardness	190		190		170		180		200		210	
Nitrogen, Ammonia (As N)	3.3		1	U	3.1		3.1		3.9		4.2	
Nitrogen, Nitrate	0.5		0.4		0.1	U	0.1	U	0.1	U	0.1	U
Sulfate	15		18	H	15		12		7.1		4.7	
Sulfide	1	U	1	U	1	U	1	U	1	U	1	U
Suspended Solids	5		NA		8		NA		5		NA	
Total Dissolved Solids	490		NA		**4200**		NA		460		NA	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
H = Analysis of this compound performed beyond recommended holding time.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in milligrams per liter (mg/L) or parts per million (ppm).
NA = Not Analyzed
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
General Chemistry

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW09S		MW09S Field Filtered		MW09S		MW09S Field Filtered		MW09S		MW09S Field Filtered	
GROUNDWATER CLASS:	II		II		II		II		II		II	
SAMPLE DATE:	12/12/2000				3/7/2001				8/9/2001			
Compound (mg/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Alkalinity, Total (As $CaCO_3$)	260		250		230		230		280		280	
Biochemical Oxygen Demand	2	U	NA		2	U	NA		2	U	NA	
Chemical Oxygen Demand	20	U	20	U	10		10	U	10	U	10	U
Chloride	28		28		28		29		30		60	
Cyanide	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
Fluoride	0.3		0.3		0.2		0.2	U	0.23		0.24	
Hardness	490		360		370		370		450		430	
Nitrogen, Ammonia (As N)	1	U	1	U	1	U	1	U	1	U	1	U
Nitrogen, Nitrate	8.7		8.4		13		13		10		10	
Sulfate	63		62		59		59		61		120	
Sulfide	1	U	1	U	1	U	1	U	1	U	1	U
Suspended Solids	520		NA		7.2		NA		22		NA	
Total Dissolved Solids	500		NA		470		NA		420		NA	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
H = Analysis of this compound performed beyond recommended holding time.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in milligrams per liter (mg/L) or parts per million (ppm).
NA = Not Analyzed
* = Monitoring wells MW10 and MW11 not installed until July 2001.

TABLE H-5
Groundwater
General Chemistry

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	MW10*		MW10* DUP		MW10* Field Filtered		MW10* Field Filtered (DUP)		MW11*		MW11* Field Filtered	
GROUNDWATER CLASS:	II		II		II		II		I		I	
SAMPLE DATE:	8/9/2001								8/9/2001			
Compound (mg/L)	**Result**	**DQ**	**Result**	**DQ**	**Result**	**DQ**	**Result**	**DQ**	**Result**	**DQ**	**Result**	**DQ**
Alkalinity, Total (As $CaCO_3$)	460		450		480		470		380		390	
Biochemical Oxygen Demand	2	U	2	U	NA		NA		28		NA	
Chemical Oxygen Demand	10	U	19		10	U	10	U	19		19	
Chloride	21		20		21		20		48		49	
Cyanide	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
Fluoride	0.2	U	0.2	U	0.2	U	0.2	U	0.35		0.36	
Hardness	590		580		580		570		270		230	
Nitrogen, Ammonia (As N)	1	U	1	U	1	U	1	U	1.6		1.7	
Nitrogen, Nitrate	0.1	U	NA		0.1	U	NA		0.25		0.28	
Sulfate	110		110		110		110		8		11	
Sulfide	1	U	1	U	1	U	1	U	1	U	1	U
Suspended Solids	8		93		NA		NA		260		NA	
Total Dissolved Solids	700		730		NA		NA		490		NA	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
B = Compound found in the laboratory method blank.
H = Analysis of this compound performed beyond recommended holding time.
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in milligrams per liter (mg/L) or parts per million (ppm).
NA = Not Analyzed
* = Monitoring wells MW10 and MW11 not installed until July 2001.

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GROUP SERVICES

APPENDIX H-5A

POTABLE WATER WELLS

TABLE H-5A
Potable Water Wells
Metals Analyses

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	13		14		19		21		22		E	
SAMPLE DATE:	9/6/2001		9/6/2001		9/5/2001		9/5/2001		9/5/2001		9/5/2001	
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aluminum	60	U	60	U	60	U	60	U	110		60	U
Antimony	5	U	5	U	5	U	5	U	5	U	5	U
Arsenic	22		12		4	J	20		18		25	
Barium	5	U	110		7.6		270		260		580	
Beryllium	1	U	1	U	1	U	1	U	1	U	1	U
Boron	790		280		1600		930		1800		680	
Cadmium	0.5	U	0.5	U	0.4	J	1.4		1.6		0.5	U
Calcium	660		58000		1600		59000		61000		100000	
Chromium, Total	3	J	2	J	3	J	3	J	7.7		5	U
Cobalt	5	U	5	U	5	U	5	U	5	U	5	U
Copper	4	J	8.3		12		16		26		6.6	
Iron	100	U	**5100**		140		2500		2600		3600	
Lead	3	U	2	J	6.3		**8.7**		**13**		3	U
Magnesium	90	U	23000		510		25000		22000		38000	
Manganese	50	U	10	J	50	U	50	U	50	U	50	U
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Nickel	5	U	3	J	5	U	3	J	10		4	J
Potassium	500	U	1600		500	U	500	U	500	U	2300	
Selenium	5	U	5.1		4	J	5	U	5	U	5	U
Silver	0.5	U	0.5	U	0.5	U	0.5	U	1.2		0.5	U
Sodium	250000		20000		190000		77000		90000		120000	
Thallium	5	U	5	U	5	U	5	U	5	U	5	U
Vanadium	5	U	5	U	5	U	5	U	5	U	5	U
Zinc	9	J	5	J	20		270		120		130	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per liter (ug/L) or parts per billion (ppb).

TABLE H-5A
Potable Water Wells
Metals Analyses

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	F		K		M		N		O	
SAMPLE DATE:	9/5/2001		9/5/2001		9/6/2001		9/5/2001		9/6/2001	
Compound (ug/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Aluminum	60	U	60	U	60	U	180		60	U
Antimony	5	U	5	U	5	U	5	U	5	U
Arsenic	9.6		32		20		26		11	
Barium	310		330		330		440		190	
Beryllium	1	U	1	U	1	U	1	U	1	U
Boron	1300		1100		880		800		1400	
Cadmium	0.5	U	0.5	U	0.5	U	0.5	U	0.81	
Calcium	83000		100000		77000		85000		55000	
Chromium, Total	2	J	3	J	5	U	3	J	3	J
Cobalt	5	U	5	U	5	U	5	U	5	U
Copper	2	J	7.1		6.7		5.6		8.8	
Iron	3400		**5400**		3500		4400		1500	
Lead	3	U	1	J	3	U	1	J	5	
Magnesium	29000		42000		29000		34000		21000	
Manganese	50	U	50		40	J	50		50	U
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Nickel	3	J	5	J	4	J	5	J	3	J
Potassium	1700		2100		1500		1700		570	
Selenium	5	U	5	U	5	U	5	U	5	U
Silver	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Sodium	84000		75000		100000		110000		100000	
Thallium	5	U	5	U	5	U	5	U	5	U
Vanadium	5	U	5	U	5	U	5	U	5	U
Zinc	4	J	8	J	7	J	25		76	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
J = Estimated value. Compound detected below the PQL.
U = Compound not detected at or above the PQL.
Results are in micrograms per liter (ug/L) or parts per billion (ppb).

TABLE H-5A
Potable Water Wells
General Chemistry

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	13		14		19		21		22		E	
SAMPLE DATE:	9/6/2001		9/6/2001		9/5/2001		9/5/2001		9/5/2001		9/5/2001	
Compound (mg/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Alkalinity, Total (As $CaCO_3$)	480		200		350		370		360		680	
Chemical Oxygen Demand	30		320		12		15		21		52	
Chloride	26		19		41		37		36		34	
Cyanide	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
Fluoride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Nitrogen, Ammonia (As N)	1	U	1	U	1	U	1.7		1.9		5.7	
Sulfate	1	U	23		1	U	1	U	1	U	1	U
Sulfide	1	U	1	U	1	U	1	U	1	U	1	U
Total Dissolved Solids	610		330		470		380		420		680	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
U = Compound not detected at or above the PQL.
Results are in milligrams per liter (mg/L) or parts per million (ppm).

TABLE H-5A
Potable Water Wells
General Chemistry

ILD 005078126 -- Douglas County -- 0418080002
Millennium Petrochemicals / Tuscola, Illinois

SAMPLE LOCATION:	F		K		M		N		O	
SAMPLE DATE:	9/5/2001		9/5/2001		9/6/2001		9/5/2001		9/6/2001	
Compound (mg/L)	Result	DQ	Result	DQ	Result	DQ	Result	DQ	Result	DQ
Alkalinity, Total (As $CaCO_3$)	520		590		480		550		390	
Chemical Oxygen Demand	27		40		30		40		15	
Chloride	15		15		27		31		42	
Cyanide	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
Fluoride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Nitrogen, Ammonia (As N)	5		7.4		3.2		3		1.4	
Sulfate	1	U	1	U	1	U	1	U	8	
Sulfide	1	U	1	U	1	U	1	U	1	U
Total Dissolved Solids	510		630		540		560		460	

NOTES: DQ = Data Qualifier
PQL = Practical Quantitative Limit
U = Compound not detected at or above the PQL.
Results are in milligrams per liter (mg/L) or parts per million (ppm).

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APPENDIX H-6

SUMMARY OF GEOTECHNICAL TESTING RESULTS

TABLE H-6
Summary of Geotechnical Testing Results
Soil

ILD 005 078 162 -- Douglas County -- 041 808 0002
Millennium Petrochemicals / Tuscola, Illinois

Sample Location	Sample Depth (ft bgs)	Group Lithology	Saturated / Unsaturated Zone	Additional Lithology	Geotechnical Data								
					Grain Size (%)				Bulk Density	pH	Moisture	Total Organic Carbon	Non-Volatile Organic Carbon
					Gravel	Sand	Silt	Clay	(pcf)	(units)	(%)	(mg/kg-dry)	(%)
Upper Glacial Till													
SB01	7	Silty Clay	Unsaturated	Trace Gravel	1.7	31.4	36.6	30.3	138.8	9.0	6.9	1,560	NA
SB04	23.5	Silty Clay	Unsaturated	Trace Gravel	0.5	29.5	35.8	34.2	131.7	8.2	13.0	2,400	NA
SB06	5	Silty Clay	Unsaturated	Trace Gravel	1.0	27.6	33	38.4	128.9	8.4	16.0	1,650	NA
SB11	24	Silty Clay	Unsaturated	Some Sand, Trace Gravel	1.6	29.1	39.2	30.1	*	7.4	12.9	29,000 [1]	NA
Average					1.2	29.4	36.2	33.3	133.1	NA	12.2	1,870 [2]	NA
Interglacial													
SB01	53	Poorly Graded Sand	Saturated	Some Silt	1.9	72.2	19.2	6.7	*	8.7	11.0	NA	0.187
SB04	58	Poorly Graded Sand	Saturated	Trace Silt, Some Sand	8.3	65.9	18.7	7.1	*	8.6	10.0	NA	0.835
SB06	35.5	Silt	Saturated	Trace Sand and Gravel	0.8	11.7	68.8	18.7	126.4	8.2	17.0	NA	1.160
SB11	69.5	Clayey Silt	Saturated	Little Sand	0.0	13.7	59.1	27.2	*	7.3	22.5	NA	0.200
Average					2.8	40.9	41.5	14.9	NA	NA	15.1	NA	0.596
Middle Glacial Till													
SB01	67	Silty Clay	Unsaturated	Trace Sand and Gravel	3.5	47.7	34.5	14.3	147.9	8.8	5.5	12,400	NA
SB04	66	Clayey Silt	Unsaturated	Trace Sand and Gravel	3.8	47.2	29.9	19.1	146.6	8.2	8.9	3,660	NA
SB06	42	Clayey Silt	Unsaturated	Trace Sand and Gravel	6.2	49.7	29.6	14.5	143.6	8.6	2.9	1,960	NA
SB11	85	Silty Sand	Unsaturated	Little Clay, Trace Gravel	2.1	52.7	27.5	17.7	142.7	7.5	7.3	23,000 [1]	NA
Average					3.9	49.3	30.4	16.4	145.2	NA	6.2	6,007 [2]	NA
Sand Aquifer													
SB01	78	Poorly Graded Sand	Saturated	Trace Silt and Gravel	14.4	76.2	5.9	3.5	*	8.7	12.0	NA	1.028
SB04	83-86	Poorly Graded Sand	Saturated	Trace gravel	1.0	88.4	8.3	2.3	*	8.5	16.0	NA	0.404
SB06	66	Well Graded Sand	Saturated	Gravel	17.8	79.5	1.7	1.0	*	8.7	5.8	NA	1.383
SB11	101	Well Graded Sand	Saturated	Little Gravel, Trace Fines	11.3	80.9	7.7	0.1	*	7.4	15.9	NA	0.110
Average					11.1	81.3	5.9	1.7	NA	NA	12.4	NA	0.731

NOTES:

NA = Not Applicable

* = Test could not be performed due to disturbed condition of bulk samples.

1 = Samples SB11 (24FT & 85FT) were analyzed using ASTM D2974, method A & C. Samples SB01(7FT & 67FT), SB04(23.5FT & 66 FT), SB06(5FT & 42FT) were analyzed using EPA Method 9060

2 = Average was calculated from the results of the samples analyzed using the EPA Method 9060

APPENDIX I

LABORATORY STATEMENT OF DATA QUALIFICATIONS

Clayton Statement of Data Qualifications

concerning the

MILLENNIUM PETROCHEMICALS, INC.
Tuscola, Illinois Facility

Clayton Group Services
Detroit Regional Laboratory

October 9, 2001

Clayton
GROUP SERVICES

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Clayton GROUP SERVICES

STATEMENT OF DATA QUALIFICATIONS

Client: CLAYTON GROUP SERVICES
Project: 15-00116.01/MILLENNIUM PETROCHEMICALS, INC.

Introduction:

This QA/QC review has been updated to include Millennium Petrochemicals, Inc. samples collected and analyzed by Clayton Group Services in August and September 2001. The information contained in this review was obtained from a review of the analytical and QC reports. The samples affected by this review are listed in Appendix F.

Chain-of-Custody:

1. All soil samples were received on ice. Appendix A contains a list of sample collection dates and sample temperatures recorded by the laboratory at the time of sample receipt.

2. All water samples were received on ice. Appendix B contains a list of sample collection dates and sample temperatures recorded by the laboratory at the time of sample receipt. Additionally, all water samples, requiring acid or base preservation, were received by the laboratory at the proper pH except for:
   - Ammonia/COD samples 00120004-001 through 00120004-009 were received at a neutral pH. The pH of the samples was adjusted by the addition of one milliliter of concentrated sulfuric acid.
   - Ammonia samples 00120170-001, 00120170-002, 00120192-001, 00120192-002, 000120236-001, 00120236-0020120247-001, 00120247-002, 00120243-001, 00120243-002, were received at a neutral pH. The pH of the samples was adjusted by the addition of one half milliliter of concentrated sulfuric acid.
   - Cyanide samples 00120236-001 and 00120236-002 required the addition of sodium hydroxide to correct the pH.

3. Sample SL907HA-001113 (Clayton # 00110689-011) received on 11/17/2000 was not listed on the chain-of-custody.

Atlanta • Boston • Chicago • Cleveland • Dallas • Danbury • Denver • Detroit • Ft. Lauderdale • Honolulu • Indianapolis
Los Angeles • Minneapolis • New York • Oklahoma City • Philadelphia • Portland • San Antonio • San Francisco • Seattle • Wichita

4. Sample RB-1 (Clayton #00120004-009) received on 12/01/2000 was not originally listed in the chain-of-custody.

5. The laboratory did not receive sample SL13HB-001128, which was listed on the chain-of-custody. The client was notified at the time of sample receipt.

6. Sample SS03-001205 (Clayton # 00120310-001) received on 12/08/2000 was not listed on the chain-of-custody.

Volatile Organic Compounds:

1. An internal standard was outside acceptance criteria for samples 0010628-003, 00110685-007, 00110685-009, 00110689-001, 00110689-007, 00110689-008, 00110731-001, 00110731-002, 00110833-001, 00110833-002, 00110833-003, 00110833-005, 00110833-008, 00120016-003, 00120016-004, 00120016-005, 00120016-006, 00120016-007, 00120016-008, 00120021-001, and 00120021-003. This did not affect the sample results.

2. Lower reporting limits could not be achieved because of the concentration of one or more target compounds. The samples affected by this are 00110689-009, 00110731-005, 00110731-006, 00110787-001, 00110787-002, and 00110833-009.

3. For sample 00117044-003, the internal standards were outside criteria. The results for toluene and total xylenes represent maximum values.

4. For sample 00120016-001, the internal standards were outside of acceptance criteria. The results for toluene, ethylbenzene, and total xylenes represent maximum values.

5. For sample 00120021-008, the internal standards were outside of acceptance criteria. The results for acetone, methylene chloride, benzene, and toluene represent maximum values.

6. In batch R3117, the 1,1,2,2-Tetrachloroethane matrix spike/matrix spike duplicate (Clayton # 00120431-001) recovered outside acceptance criteria.

7. One VOA vial for sample MW01S-010307 (Clayton #01030206-007) was received broken. The other VOA vials provided the laboratory with sufficient sample volume to perform the required analysis.

Semivolatile Organic Compounds:

1. Lowering reporting limits could not be achieved because of matrix interference. Sample affected by this are 00110685-001, 00110685-004, 00110685-006, 00110685-007, 00110685-008, 00110689-007, 00110689-008, 00110689-009, 00110731-005, 00110731-006, 00110787-001, 00110787-003, 00120016-001, 00120016-002, 00120016-003, 00120016-004, 00120016-005, 00120016-006, 00120018-008, 00120021-002, 00120021-005, 00120021-006, and 00120021-010.

2. Many samples contained large hydrocarbon peaks. Dilutions were required to quantify surrogates and compounds of interest. The reporting limits were elevated based on the dilutions. The PNA/SVOC sample extracts were very dark in color. The only technique available to cleanup PNA/SVOC extracts in GPC. GPC cleanup was not performed on these extracts. The laboratory does not normally investigate these unknown compounds or the interfering hydrocarbon peaks. The laboratory only looks for compounds of interest.

   It has been Clayton's experience that the GPC cleanup procedure does not effectively eliminate midrange unknown hydrocarbons. Additionally, Clayton analyzed these samples using reasonable care applicable to all environmental laboratories following SW846 8270C. The standard laboratory procedure used when confronted with matrix interference due to unknown hydrocarbons is to dilute the sample, if necessary, and reanalyze the sample, to confirm the matrix interference. The samples affected by matrix interference are sludge and soil samples. These samples are listed in Attachment C. Clayton Group Services will review the corresponding PNA/SVOC chromatograms to identify, if possible, the compound(s) causing the matrix interference.

   All samples from 2000.

3. For sample 00110689-011, lower reporting limits could not be achieved due to sample matrix. Please note that the recovery of the internal standard was outside acceptance criteria and it did not affect the validity and correctness of the data.

4. In batch 641, the acenaphthylene, dibenzo(a,h)anthracene, and pyrene matrix spike/matrix spike duplicate (MS/MSD) (Clayton #00110689-001) recovered outside acceptance criteria. Additionally, the naphthalene, acenaphthene, fluorene, and benzo(g,h,i) perylene MSD and anthracene matrix spike recovered outside acceptance criteria. The laboratory control standard (LCS) extracted and analyzed with the sample recovered within acceptance criteria for all applicable compounds.

5. For Method PNA SIM, lower reporting limits could not be achieved due to matrix interference. Sample affected by this are 00110685-001, 00110685-004, 00110685-006, 001100685-007, 00110685-008, 00110731-005, 00110731-006, 00110833-002, 00110833-006, 00110833-008, 00120016-001, 00120016-002, 00120016-003, 00120016-004, 00120016-005, and 00120016-008.

6. For sample 00110833-006, most compounds in the matrix spike and matrix spike duplicate recovered outside acceptance criteria due to matrix interference. All compounds in the LCS/LCS duplicate extracted and analyzed with the MS/MSD recovered within acceptance criteria.

7. For sample 00110833-009, dibenzofuran and 2,4-dinitrotoluene results are estimated because an internal standard co-eluted with an unknown compound. This caused the internal standard to recover outside acceptance criteria.

8. For sample 00110833-009, lower reporting limits could not be achieved due to the concentrations of one or more of the target compounds over instrument linear range.

9. In batch 814, the 2,4-dinitrotoluene LCS duplicate analyzed with samples from workorder 00120114 recovered outside acceptance criteria.

10. For workorders 00120236, 00120243, 00120247, and 00120250, all surrogates in client samples and QC samples were double spiked. During sample extraction, the laboratory accidentally added a double amount of surrogate to the client and QC samples. When calculated as a double spike, most surrogates were above the acceptance criteria, indicating a probable high bias to the sample results.

11. N-Nitroso-di-n-porpylamine in the matrix spike Sample # 00120253-004) recovered outside acceptance criteria. This MS/MSD was performed on another client's sample

12. In batch 934, workorder 00120439, the naphthalene LCS recovered outside acceptance criteria. In addition, the relative percent difference was outside the acceptance criteria.

13. In batch 1772 (workorder # 01030261), PNA SIM, the naphthalene LCS recovered outside acceptance criteria. The LCS duplicate recovered within acceptance criteria.

14. In batch 1772, SVOC 8270C, 2,4-dinitrotoluene and phenol in the MS/MSD recovered outside acceptance criteria. The MS/MSD provides sample specific information from a different project's sample processed in the same batch as the Millennium Petrochemicals samples. The information obtained from this MS/MSD is not specifically applicable to the Millennium Petrochemicals, Inc. samples.

15. In batch 1749, PNA SIM, naphthalene in the matrix spike (Clayton # 01030176-016) recovered outside acceptance criteria. Additionally, benzo(g,h,i)perylene in the matrix spike duplicate recovered outside acceptance criteria.

16. In batch 1749, SVOC 8270C, the 2-chlorophenol, 1,4-dichlorobenzene, 1,2,4-trichlorobenzene, and 2,4-dinitrotoluene matrix spike (Clayton # 01030176-016) recovered outside acceptance criteria.

17. In batch 1813, PNA SIM, the naphthalene matrix spike recovered outside acceptance criteria. Naphthalene in the matrix spike duplicate recovered within acceptance criteria.

18. For sample 01030176-022, an internal standard was outside of acceptance criteria. The results for bis(2-ethylhexyl)phthalate and di-n-octyl phthalate represent maximum values.

19. Analytical Comments for Method 8270PNASINW, workorder 01080181: The naphthalene laboratory control sample (LCS2) recovered within acceptance criteria (32-99.5%). This criteria listed on the "Spiked Recovery & RPD Summary Report" is a default limit.

20. Analytical Comment for Method 8270W, sample 01080321-015: Bis(2-ethylhexyl)phthalate was found in the blank at 45 ug/L.

21. Analytical Comments for 8270W, workorder 01080398: 2,4-Dinitrotoluene recovered outside acceptance criteria in the LCS-1 and LCS-2. This did not affect the sample results.

22. Analytical Comments for Method 8270W, sample 01080398-001: Reporting limits could not be achieved due to limited sample volume. understood

PCBs:

1. The Aroclor 1016 and Aroclor 1260 MS/MSD (Clayton # 00110689-010) recovered outside acceptance criteria due to matrix interference.

2. For sample 00120016-008, Aroclor 1016 did not recover in the matrix spike and matrix spike duplicate due to matrix interference.

3. Lower reporting limits could not be achieved due to matrix interference for samples 00120016-001, 00120016-002, 00120016-003,

Metals:

1. All metals soil/sludge samples were digested in an "as received" state following EPA 3050 protocol to use a representative "wet aliquot." The procedure Clayton followed attempts to take the best representative aliquot of the entire sample. Depending on the non-homogeneity of the aliquot of sample taken, the MS/MSD may vary from the non-spiked sample. This can affect QC results. While Appendix Q in the R5 Model QAPP may improve the QC results, it does not guarantee a better representation of the sample. A review of the QC data associated with the Millennium Petrochemical samples indicates that the sample matrix caused the MS/MSD recovery outliers; however, overall precision was good. The soil/sludge samples chosen for the MS/MSD contained high concentration of metals.

2. In batch 4584, method 6010, the aluminum, calcium, iron, and magnesium MS/MSD and manganese matrix spike digested and analyzed with samples from workorder 00110689 recovered outside acceptance criteria due to matrix interference.

3. In batch 4585, method 6020, the barium, copper, and silver LCS digested and analyzed with samples from workorder 00110689 recovered outside statistically derived acceptance criteria but within the method specific acceptance criteria.

4. For both method 6010 and 6020, most of the metals in the matrix spike and matrix spike duplicate digested and analyzed with the samples from workorders 00110685, 00110689, and 00120016 recovered outside method acceptance criteria due matrix interference. The matrix spike/matrix spike duplicate was performed on another client's sample.

5. In batch 627, method 6020, beryllium in the LCS digested and analyzed with samples from workorder 00110685 recovered outside statistically derived acceptance criteria but within the method specific acceptance criteria.

6. In batch 669, method 6020, the beryllium and selenium LCS digested and analyzed with samples from workorder 00110731 and 00110744 recovered outside the statistically derived acceptance criteria but within the method specific acceptance criteria.

7. For both methods 6010 and 6020, most metals in the MS/MSDs performed on Millennium Petrochemicals samples 00110731-001, 00110787-005, 00110833-006, 00120310-001, and 00120253-004 recovered outside method acceptance criteria due matrix interference.

8. In batch 774, method 6020, the arsenic, nickel, and vanadium LCS digested and analyzed with samples from workorder 00120004 recovered outside the statistically derived acceptance criteria but within the method specific acceptance criteria.

9. For method 6010, the calcium, magnesium, and sodium MS/MSD (Clayton #00120004-003 and 00120236-001) recovered outside acceptance criteria. The sample concentration was four times greater than the spike amount.

10. For method 6010, the potassium matrix spike (Clayton # 00120004-003) recovered outside the statistically derived acceptance criteria but within the method specific acceptance criteria.

11. For method 6020, the arsenic and vanadium MS/MSD (Clayton # 00120004-003) recovered outside the statistically derived acceptance criteria but within the method specific acceptance criteria.

12. For method 6020, the zinc matrix spike (Clayton #00120004-003) recovered outside acceptance criteria. The sample concentration was four times greater than the spike concentration.

13. For method 6020, the arsenic LCS digested and analyzed with samples from workorders 00120114 (batch 829), 00120170 (batch 868), 00120179 (batch 868), 00120243 (batch 885), 00120247 (batch 868) recovered outside statistically derived acceptance criteria but within the method specific acceptance criteria.

14. For method 6020, the chromium matrix spike (Clayton #00120114-001) recovered outside acceptance criteria. The sample concentration was four times greater than the spike concentration.

15. For method 6020, the arsenic (Clayton # 00120114-001, 00120243-001, 00120431 001, 00120433-002), antimony (Clayton # 00120431-001), nickel (Clayton # 00120243-001), and arsenic, chromium, and nickel (Clayton # 00120170-001) matrix spike and matrix spike duplicates recovered outside statistically derived acceptance criteria but within method specified acceptance criteria.

16. For method 6010, the calcium, magnesium, and sodium MS/MSD performed on Millennium Petrochemicals (Clayton # 00120170-001) recovered outside acceptance criteria due matrix interference

17. For method 6010, the calcium matrix spike (Clayton # 00120433-002) recovered outside statistically derived acceptance criteria but within method specified acceptance criteria.

18. In batch 1743, the calcium magnesium, manganese, and sodium MS/MSD performed on Millennium Petrochemicals (Clayton # 01030136-001) recovered outside acceptance criteria. The sample concentration was greater than four times the spike amount.

19. In batch 1743, the aluminum and iron matrix spike recovered outside acceptance criteria. Additionally, nickel and zinc in the matrix spike duplicate recovered outside acceptance criteria.

20. For method 6010, the calcium and sodium MS/MSD performed on Millennium Petrochemicals sample 01030312-001 recovered outside acceptance criteria. The sample concentration was greater than four times the spike amount.

21. For Method 6020W_S, sample 01080181-003: Actual value of selenium blank is 2 ug/L. All samples were non-detect for selenium.

22. For Method 6010W_S, workorder 01080181: The potassium laboratory control sample recovered (103%) outside statistically derived acceptance criteria (90-120%), but within method specific acceptance criteria (75-125%). OK

23. For Method 6020W_S, workorder 01080181: The zinc laboratory control sample recovered (138%) outside statistically derived acceptance criteria (86-134%). OK

MW F025

24. For Method 6010W_S, sample 01080181-002: The boron (88.6%) and calcium (805) matrix spike recovered outside statistically derived acceptance criteria (90-109%) and (94-122%) respectively, but within method specific criteria (75-125%). Do they mean 80-5%? If so, OK.

25. For Method 6010W_S, sample 01080181-002: The magnesium (70%) and Sodium (70%) matrix spike recovered outside statistically derived acceptance criteria and method specific criteria because the sample concentration, which is greater than four times the spike value, masked the matrix spike recovery. OK

26. For Method 6010W_S, sample 01080181-002: The calcium (86%), magnesium (84%) and sodium (86%) matrix spike duplicate recovered outside statistically derived acceptance criteria, (94-122%), (87-113%), and (94-115%) respectively, but within method specific criteria (75-125%). OK

27. For Method 6020W_S, sample 01080181-002: The copper matrix spike (94.6%) recovered outside statistically derived acceptance criteria (96.7-113%), but within method specific criteria (75-125%). OK

28. For Method 6020W_S, sample 01080181-002: The zinc relative percent difference (RPD) was outside acceptance criteria; however, both matrix spike and matrix spike duplicate recoveries are within acceptance criteria. OK

MW F055

29. For Method 6010W_S, sample 01080231-009: The potassium matrix spike and matrix spike duplicate (103% and 102%) recovered outside statistically derived acceptance criteria (90.7-101.7%), but within method specific criteria (75-125%). OK

GW Samples (MW-02) → 01080181

MWF035

30. For Method 6010W_S, sample 01080231-009: The calcium matrix spike and the magnesium and sodium matrix spike /matrix spike duplicates recovered outside acceptance criteria because the sample concentration if greater than four times the spike value and masked the matrix spike recovery. by how much? probably OK

MW035

31. For Method 6020W_S, sample 01080321-013: The copper matrix spike and matrix spike duplicate (91.3% and 89%) recovered outside statistically derived acceptance criteria (96.7-113%), but within method specific criteria (75-125%). OK

MW F035

32. For Method 6020W_S, sample 01080321-016: The copper matrix spike and matrix spike duplicate (91.7 and 96.7%) recovered outside statistically derived acceptance criteria (96.7-113%), but within method specific criteria (75-125%). OK

33. For Method 6020W_S, sample 01080321-016: The selenium matrix spike recovered outside for method criteria. by how much?

GW

34. For Method 6020W, workorder 01080265: The zinc laboratory control sample recovered outside acceptance criteria. by how much?

GW

23. For Method 6010W, workorder 01080321: The calcium laboratory control sample (122%) recovered outside statistically derived acceptance criteria (82.6-119%), but within method specific acceptance criteria (75-125%). OK

GW

24. For Method 6020W, workorder 01080321: The zinc laboratory control sample (138%) recovered outside acceptance criteria. OK

GW

25. For Method 6010W, samples 01080321-013 and 01080321-016: The potassium matrix spike (112% and 111%, respectively) recovered outside statistically derived acceptance criteria (90.7-101.7%), but within method specific acceptance criteria (75-125%). OK

GW

26. For Method 6010W, samples 01080321-013 and 01080321-016: The calcium, magnesium, and sodium matrix spike/matrix spike duplicates and the iron matrix spike duplicate recovered outside acceptance criteria because the sample concentrations are greater than four times the spike values and masked the matrix spike recovery. by how much? probably OK

GW

27. For Method 6010W, sample 01080321-013: The magnesium and potassium matrix spike duplicates (84.8% and 107%, respectively) recovered outside statistically derived acceptance criteria (90.1-108.4% and 90.7-101.7%, respectively), but within method specific acceptance criteria (75-125%). OK

GW

28. For Method 6010W, sample 01080321-016: The boron, magnesium, and potassium matrix spike duplicates (117% , 116%, and 116%, respectively) recovered outside statistically derived acceptance criteria (89.9-109.9%, 90.1-108.4% and 90.7-101.7%, respectively), but within method specific acceptance criteria(75-125%). OK

29. For Method 6010W_S, sample 01080398-013: Magnesium and sodium were found in the laboratory blank. This did not affect the sample results because all samples contained magnesium and sodium at concentrations greater than ten times the laboratory blank concentration. OK

30. For method 6010W_S, sample 01080398-021: The calcium matrix spike and matrix spike duplicate (84% and 82%, respectively) recovered outside the statistically generated acceptance criteria (94-122%), but within method acceptance criteria (75-125%). OK

31. For Method 6020W_S, sample 01080398-020: The copper matrix spike and matrix spike duplicate (86% and 87%, respectively) recovered outside the statistically derived acceptance criteria (97-113%), but within method acceptance criteria (75-125%). OK

32. For Method 6010W, sample 01090146-001: The calcium, magnesium, and sodium matrix spike/matrix spike duplicate recovered outside acceptance criteria because the sample concentration is greater than four times the spike value and masked the spike recovery. by how much? probably OK

33. For Method 6020W, sample 01090146-001: The vanadium matrix spike duplicate recovered outside statistically derived acceptance criteria not within method specific criteria. by how much?

General Chemistry:

1. All soil samples were subcontracted to AAC Trinity in Farmington Hills, MI for alkalinity, chloride, fluoride, sulfate, BOD, COD, ammonia, cyanide, and sulfide analyses. Analyses (with the exception of cyanide) were performed on a neutral leachate (ASTM 3987 Neutral Leach Extraction Procedure) of the soil sample submitted. Results obtained from the leachate were converted to mg/kg of soil by applying the extraction factor of 20 to the aqueous concentrations.

2. All water samples were subcontracted to AAC Trinity in Farmington Hills, MI for BOD analysis. The following samples were subcontracted to AAC Trinity in Farmington Hills, MI for BOD analysis: 00120170-001, 00120170-002, 00120179-001, 00120179-002, 00120236-001, 00120236-002, 00120236-001, 00120236-002, 00120243-001, 00120243-002, 00120247-001, 00120247-002, 00120250-001, 00120250-002, 00120274-001, 00120274-002, 00120275-001, and 00120275-002.

3. Samples 00120236-001 and 01030312-001 were received, by the laboratory, past the EPA recommended hold time for BOD analysis.

4. Chloride and fluoride analyses were completed past the EPA recommended hold time for samples 00120434-003 and 00120434-004.

5. The general chemistry sample concentrations are reported in wet weight for samples 00110685-001 through 00110685-009, 00110689-001 through 00110689-011, 00110744-001 through 00110744-006, 00110787-001 through 00110787-005, and 00120310-001.

6. Analytical Comments for METHOD EPA_405.1 (BOD): Results for all samples reflect the BOD present in the leachate of the soil sample and are not calculated to represent the BOD in the original sample matrix. BOD results are reported as mg/L of leachable BOD.

7. For workorder number 00110744, the cyanide results are reported as mg/kg-dry and have been calculated as dry-weight using the percent moisture result.

8. For workorders 00110787 and 00110833, the cyanide LCS recovered outside acceptance criteria. The cyanide MS/MSD recovered within acceptance criteria.

9. For samples 00120004-001 through 00120004-009, sulfide and TDS analyses were completed past the EPA recommended hold time.

10. Sulfide analysis was performed past the EPA recommended hold time for the following samples: 00120170-001, 00120179-001, 00120179-002, 00120179-003, 00120192-001, 00120192-002, 00120192-003, 00120236-001, 00120236-002, 00120243-001, 00120243-002, 00120247-001, 00120247-002, 00120250-001, 00120250-002, 00120274-001, 00120274-002, 00120275-001, 00120275-002, 00120326-001, 0012326-002, and 00120424-002.

11. The samples 00120004-001 through 00120004-009 and 00120310-001 were received past the EPA recommended hold time for pH analysis.

12. TDS was present in the laboratory blank and rinse blank. These results should not affect the sample results because the sample results were greater than ten times both blank results. The following samples were affected: 00120004-001 through 00120004-009, 00120170-001, 00120179-001, 00120179-003, 00120192-001, 00120192-003, 00120236-001, 00120236-003, 00120243-001, 00120243-004, 00120247-001, 00120247-003, 00120274-001, 00120274-003, 00120275-001, 00120275-003, 00120326-001, and 00120326-003.

13. In batch R3073, workorder 00120004, the sulfide LCS recovered outside acceptance criteria.

14. The fluoride matrix spikes performed on samples Millennium Petrochemicals samples 00120004-003 and 00120170-002 recovered outside acceptance criteria.

15. The sulfate matrix spikes performed on Millennium Petrochemicals samples 00120179-002 and 00120192-002 recovered outside acceptance criteria.

16. The fluoride matrix spike and matrix spike duplicate performed on Millennium Petrochemicals samples 00120236-001 and 00120245-001 recovered outside acceptance criteria.

17. In batch R6438, workorder 01030312 and 01030206, the COD LCS recovered outside acceptance criteria. The batch also contained two additional LCSs, which recovered within acceptance criteria.

18. For the following samples, the fluoride reporting limit has been raised because a sample dilution was required prior to analysis: 01030176-004, 01030176-005, 01030176-010, 01030176-011, 01030176-022, and 01030176-023.

19. Sample 01030176-022 was reanalyzed past the EPA recommended hold time because of a high sample concentration.

GW MW02S

20. For Method 300.0_W, sample 01080181-001and 01080181-002: The reporting limit for fluoride has been raised due to matrix interference. OK

MW02D MW05S

21. For Method TDS_W, samples 01080231-001 and 01080231-008: TDS analysis was completed past the EPA recommended hold time. By how much? not summarized on holding the report?

MW02D

22. For Method TSS_W, samples 01080231-001: TSS analysis was completed past the EPA recommended hold time.

MWF05S

23. For Method 300.0_W, samples 01080231-009: Sample was received past the EPA recommended hold time for nitrate analysis. The client instructed the laboratory to analyze the sample.

MWF05S Water sample ??

24. For Cr6_W, sample 01080231-009: Sample was received past the EPA recommended hold time for hexavalent analysis. The client instructed the laboratory to analyze the sample. chromium ?? ~~may not have~~ MW04S ~~used adequate~~ preservation method Trip Blank *OK

25. For Method 376.1W, sample 01080398-001 and 01080398-003: samples were analyzed past the EPA recommended hold time for sulfide analysis. OK

MW04S

26. For Method TDS_W, and TSS_W, sample 01080398-001: The sample was analyzed past the recommended EPA hold time for TDS and TSS analyses. by OK

by how much? (probably OK)

27. For Method 335.2, workorder 01090146: The cyanide mid level distillation standard recovered outside acceptance criteria. The matrix spike/matrix spike duplicate and initial calibration verification standard analyzed with the samples and the mid level distillation standard recovered within acceptance criteria.

28. For Method TDS_W, sample 01090146-018: The TDS laboratory blank (concentration of 6.0mg/L) did not affect the sample results because all sample concentration were greater than ten times the reporting limit. OK

General Comments:

1. Please note that all samples were highly reactive. During the semivolatile and PCB extraction process, the samples exhibited a rise in temperature. During the volatile preparation process, the samples foamed and fizzed when coming into contact with sodium bisulfate. During metals digestion, the samples exploded when coming into contact with the concentrated nitric acid required in the digestion process. After this initial difficulty with the sample digestion, the analyst re-digested the samples and added the acid in small quantities so that splattering would not occur. All additional samples were digested in the same way with acid being added in small amounts. With these extra precautions, it was not expected that any recoveries outside acceptance criteria would be due to splattering.

   The EPA suggests that this reaction could be due to the samples being alkaline in nature. An alkaline soil is defined as a soil with a pH of 8.0 or greater. Approximately one half of the soil/sludge samples analyzed had a pH of greater than or equal to 8.0. Additionally, the samples contained high concentrations of calcium, potassium, magnesium, and sodium, which could indicate high concentrations of carbonate (a counter ion to these metals, which would react violently to acid.) Attachment D contains the associated pH and Metals data.

2. After the analyses had already begun, the laboratory discovered that sample 001202341-003 was supposed to be a matrix spike/matrix spike duplicate sample. The client should use the results reported for this sample as a duplicate analysis. The MS/MSD was performed on sample 00120431-001 for volatiles, metals (by method 6020), mercury and BOD.

3. Samples 00110691-001, 00110691-003, 00110691-005, 00110691-007, 001691-009 and 00110691-011 were subcontracted to Southwest Laboratory of Oklahoma, Inc. in Broken Arrow, OK for TOC analysis.

4. Samples 00110691-002, 00110691-004, 00110691-006, 00110691-008, 001691-010 and 00110691-012 were subcontracted to The University of Michigan, Department of Civil and Environmental Engineering in Ann Arbor, MI for Nonvolatile Organic Carbon analysis.

5. The laboratory generates and uses statistically derived acceptance criteria, which are stricter than the method specific criteria. The majority of Clayton Group Services' QC data for the Millennium Petrochemicals samples falls within the statistically derived acceptance criteria; however, there are a few QC data points that fall outside the acceptance range. The methods, used in the analysis of the samples, state that either statistically derived acceptance criteria or method specific acceptance criteria may be used to evaluate the analysis.

6. After further review of the QC data associated with the Millennium Petrochemical samples, the MS/MSD recovery outliers were due to sample matrix. The PNA MS/MSD samples recovered outside acceptance criteria because a dilution was necessary due to the high concentration of unknown hydrocarbons. The soil/sludge samples chosen for the metals MS/MSD contained high concentrations of metals that masked the spike concentration in the MS/MSD.

Clayton GROUP SERVICES

APPENDIX A

SOIL SAMPLE TEMPERATURES

Sample Collection Date	Sample Temperature at Sample Receipt (°C)
11/14/2000	3.5
11/15/2000	3.5
11/15/2000	2.5
11/16/2000	2.5
11/16/2000	4.5
11/17/2000	4.5
11/17/2000	3.9 - 10.7
11/20/2000	5
11/20/2000	3
11/20/2000	3
11/28/2000	4.0 - 6.8
11/28/2000	4.6 - 7.0
11/29/2000	4.6 - 7.0

Compilation of sample collection dates and sample temperatures recorded on the time of sample receipt.

Clayton GROUP SERVICES

APPENDIX B

WATER SAMPLE TEMPERATURES

Sample Collection Date	Sample Temperature at Sample Receipt (°C)
11/29/2000	4.0 - 6.2
12/04/2000	-0.5
12/04/2000	1
12/05/2000	0
12/05/2000	1
12/06/2000	3
12/06/2000	2
12/06/2000	2
12/06/2000	1
12/07/2000	4
12/07/2000	2
12/11/2000	1.7
12/11/2000	2
12/11/2000	3
12/11/2000	1
12/12/2000	2.8
12/12/2000	1.5
12/13/2000	1
12/13/2000	2.5
03/05/2001	2.7 - 4.3
03/06/2001	1.4
03/07/2001	1.4
03/07/2001	2.6
03/08/2001	2.6
03/09/2001	1.2
08/06/2001	4.3
08/06/2001	4.6
08/07/2001	4.6
08/07/2001	3.4
08/08/2001	3.4
08/08/2001	1.3

Compilation of sample collection dates and sample temperatures recorded on the time of sample receipt.

Clayton GROUP SERVICES

APPENDIX B

WATER SAMPLE TEMPERATURES

Sample Collection Date	Sample Temperature at Sample Receipt (°C)
08/09/2001	1.3
08/09/2001	6.3
08/10/2001	6.3
09/05/2001	2.3
09/06/2001	2.3

Compilation of sample collection dates and sample temperatures recorded on the time of sample receipt.

Clayton GROUP SERVICES

APPENDIX C

SAMPLES WITH ELEVATED REPORTING LIMITS

Laboratory ID	Client Sample ID	Analysis
00110685-001	SL01MA-001114	PNA/Semivolatile
00110685-004	SL02MB-001115	PNA/Semivolatile
00110685-006	SL04MB-001115	PNA/Semivolatile
00110685-007	SL904MB-001115	PNA/Semivolatile
00110685-008	SL05MA-001115	PNA/Semivolatile
00110689-007	SL08LA-001116	Semivolatiles
00110689-008	SL08LB-001116	Semivolatiles
00110689-009	SL07HA-001116	Semivolatiles
00110731-005	SL08HA-001116	PNA/Semivolatile
00110731-006	SL08HB-001116	PNA/Semivolatile
00110787-001	SL10HA-001120	PNA/Semivolatile
00110787-003	SL10HB-001120	Semivolatile
00110833-002	SL18HA-001120	PNA/Semivolatile
00110833-008	SL17HB-001121	PNA/Semivolatile
00120016-001	SL14HA-001128	PNA/Semivolatile
00120016-002	SL14HB-001128	PNA/Semivolatile
00120016-003	SL13HA-001128	PNA/Semivolatile
00120016-004	SL12HA-001128	PNA/Semivolatile
00120016-005	SL19HA-001128	PNA/Semivolatile
00120016-006	SL12HB-001128	PNA/Semivolatile
00120016-008	SL16HB-001128	PNA/Semivolatile
00120021-002	SS02-001128	Semivolatiles
00120021-005	SS06-001129	Semivolatiles
00120021-006	SS07-001129	Semivolatiles
00120021-010	SS907-001129	Semivolatiles

WWTP Sludge

River/Intermittent Stream Sediments

Clayton GROUP SERVICES

APPENDIX D

AKALINE SAMPLE DATA

Laboratory ID	Client Sample ID	pH	Calcium (mg/kg)	Magnesium (mg/kg)	Potassium (mg/kg)	Sodium (mg/kg)	Hardness (mg/kg)
00110685-001	SL01MA-001114	8.0	4,300	4,000	1,100	320	27,000
00110685-002	SL01MB-001114	7.7	6,600	4,900	1,100	380	37,000
00110685-003	SL02MA-001114	7.8	6,100	3,500	900	320	30,000
00110685-004	SL02MB-001115	8.2	66,000	30,000	1,300	230	290,000
00110685-005	SL04MA-001115	8.0	15,000	3,200	800	280	51,000
00110685-006	SL04MB-001115	8.2	49,000	4,100	670	250	140,000
00110685-007	SL904MB-001115	8.0	47,000	6,300	1,100	1,400	140,000
00110685-008	SL05MA-001115	8.1	21,000	6,100	950	470	78,000
00110685-009	SL05MB-001115	8.1	72,000	14,000	1,900	880	240,000
00110689-001	SL03MB-001115	8.1	99,000	9,300	1,200	660	290,000
00110689-002	SL03MA-001115	8.2	94,000	7,600	1,000	1,200	260,000
00110689-003	SL07LA-001115	8.0	26,000	8,800	660	180	100,000
00110689-004	SL07LB-001115	7.9	41,000	17,000	1,200	300	170,000
00110689-005	SL06MB-001115	7.6	48,000	3,600	560	320	140,000
00110689-006	SL06MA-001115	7.9	8,400	3,500	710	490	35,000
00110689-007	SL08LA-001116	8.8	160,000	26,000	620	1,200	500,000
00110689-008	SL08LB-001116	8.9	45,000	11,000	1,100	800	160,000
00110689-009	SL07HA-001116	8.1	220,000	12,000	330	440	590,000
00110689-010	SL07HB-001116	8.5	28,000	7,200	670	200	99,000
00110689-011	SL907HA-001116	8.3	200,000	12,000	270	400,000	560,000
00110731-001	SL11HB-001116	7.8	280,000	17,000	290	620	760,000
00110731-002	SL11HB-001116	8.0	260,000	6,800	170	140	650,000
00110731-004	SL11HB-001116 (DP)	7.6	210,000	11,000	230	290	580,000
00110731-005	SL08HA-001116	7.9	170,000	9,600	230	320	470,000
00110731-006	SL08HB-001116	8.0	140,000	7,700	260	290	390,000
00110731-007	SL19HA-001117	5.9	2,000	3,200	650	210	18,000
00110731-008	SL19HB-001117	7.6	11,000	9,300	970	240	66,000
00110744-001	SL20HA-001117	8.0	59,000	4,900	610	300	170,000
00110744-002	SL20HB-001117	8.4	70,000	4,700	410	200	190,000
00110744-003	SL01HA-001117	8.0	61,000	3,800	310	690	170,000
00110744-004	SL01HB-001117	7.5	140,000	11,000	1,200	490	400,000
00110744-005	SL02HA-001117	8.1	430,000	33,000	750	880	1,200,000
00110744-006	SL02HB-001117	9.3	150,000	12,000	210	330	440,000
00110787-001	SL10HA-001120	8.1	200,000	8,900	450	730	540,000
00110787-002	SL910HA-001120	7.7	220,000	7,800	330	770	570,000
00110787-003	SL10HB-001120	7.6	270,000	7,300	270	710	710,000
00110787-004	SL15HB-001120	8.0	170,000	7,800	690	420	450,000
00110787-005	SL15HA-001120	7.7	260,000	13,000	360	420	700,000

Clayton GROUP SERVICES

AKALINE SAMPLE DATA

Laboratory ID	Client Sample ID	pH	Calcium (mg/kg)	Magnesium (mg/kg)	Potassium (mg/kg)	Sodium (mg/kg)	Hardness (mg/kg)
00110833-001	SL18HB-001120	11.7	270,000	9,100	130	160	700,000
00110833-002	SL18HA-001120	7.7	310,000	8,500	200	330	800,000
00110833-003	SL09HA-001121	8.3	390,000	26,000	1,000	900	1,100,000
00110833-004	SL909HA-001121	8.2	320,000	21,000	500	910	890,000
00110833-005	SL17HA-001121	7.7	390,000	7,200	200	650	1,000,000
00110833-008	SL17HB-001121	7.7	170,000	12,000	940	740	480,000
00110833-009	SL09HB-001121	8.2	160,000	15,000	700	460	450,000
00120016-001	SL14HA-001128	8.1	190,000	7,200	800	760	510,000
00120016-002	SL14HB-001128	8.3	29,000	3,600	630	1,000	87,000
00120016-003	SL13HA-001128	8.2	110,000	7,600	790	1,100	310,000
00120016-004	SL12HA-001128	7.6	200,000	21,000	280	860	580,000
00120016-005	SL19HA-001128	7.9	230,000	22,000	260	1,000	680,000
00120016-006	SL12HB-001128	8.1	250,000	38,000	180	1,400	770,000
00120016-007	SL16HA-001128	7.4	150,000	6,100	480	660	400,000
00120016-008	SL16HB-001128	7.3	310,000	13,000	710	1,100	830,000
00120021-001	SS01-001128	8.1	53,000	16,000	980	140	200,000
00120021-002	SS02-001128	8.4	45,000	15,000	550	110	180,000
00120021-003	SS04-001129	7.9	26,000	8,600	910	110	100,000
00120021-004	SS05-001129	7.8	2,800	2,600	440	67	18,000
00120021-005	SS06-001129	7.7	33,000	2,700	2,000	280	94,000
00120021-006	SS07-001129	7.7	18,000	6,800	840	98	74,000
00120021-007	SS08-001129	8.4	36,000	20,000	230	54	170,000
00120021-008	SS09-001129	7.4	7,300	3,900	200	38	34,000
00120021-009	SS10-001129	7.3	14,000	6,000	410	63	60,000
00120021-010	SS907-001129	7.5	20,000	7,100	700	97	80,000
00120310-001	SS03-001205	7.7	3,400	3,300	760	52	22,000

Clayton GROUP SERVICES

APPENDIX E

HOLDING TIME REPORT

Sample ID	Analysis	Date Collected	Date Analyzed
00120326-001	BOD	12/07/2000	12/13/2000
01030312-001	BOD	03/09/2001	03/13/2001
00120434-003	Chloride	12/11/2000	01/19/2001
	Fluoride	12/11/2000	01/09/2001
00120434-004	Chloride	12/11/2000	01/19/2001
	Fluoride	12/11/2000	01/09/2001
00120004-001	Sulfide	11/29/2000	12/15/2000
	TDS	11/29/2000	12/07/2000
00120004-002	Sulfide	11/29/2000	12/15/2000
	TDS	11/29/2000	12/07/2000
00120004-003	Sulfide	11/29/2000	12/15/2000
	TDS	11/29/2000	12/07/2000
00120004-004	Sulfide	11/29/2000	12/15/2000
	TDS	11/29/2000	12/07/2000
00120004-005	Sulfide	11/29/2000	12/15/2000
	TDS	11/29/2000	12/07/2000
00120004-006	Sulfide	11/29/2000	12/15/2000
	TDS	11/29/2000	12/07/2000
00120004-007	Sulfide	11/29/2000	12/15/2000
	TDS	11/29/2000	12/07/2000
00120004-008	Sulfide	11/29/2000	12/15/2000
	TDS	11/29/2000	12/07/2000
00120004-009	Sulfide	11/29/2000	12/15/2000
	TDS	11/29/2000	12/07/2000
00120170-001	Sulfide	12/05/2000	12/18/2000
00120179-001	Sulfide	12/05/2000	12/18/2000
00120179-002	Sulfide	12/05/2000	12/18/2000
00120179-003	Sulfide	12/05/2000	12/18/2000
00120192-001	Sulfide	12/05/2000	12/18/2000
00120192-002	Sulfide	12/05/2000	12/18/2000
00120192-003	Sulfide	12/05/2000	12/18/2000
00120236-001	Sulfide	12/06/2000	12/18/2000
00120236-002	Sulfide	12/06/2000	12/18/2000
00120243-001	Sulfide	12/06/2000	12/18/2000
00120243-002	Sulfide	12/06/2000	12/18/2000
00120247-001	Sulfide	12/06/2000	12/18/2000
00120247-002	Sulfide	12/06/2000	12/18/2000
00120250-001	Sulfide	12/06/2000	12/18/2000
00120250-002	Sulfide	12/06/2000	12/18/2000
00120274-001	Sulfide	12/07/2000	12/18/2000
00120274-002	Sulfide	12/07/2000	12/18/2000

Clayton GROUP SERVICES

Sample ID	Analysis	Date Collected	Date Analyzed
00120275-001	Sulfide	12/07/2000	12/18/2000
00120275-002	Sulfide	12/07/2000	12/18/2000
00120236-001	Sulfide	12/07/2000	12/18/2000
00120236-002	Sulfide	12/07/2000	12/18/2000
00120424-002	Sulfide	12/12/2000	12/18/2000
01080398-001	Sulfide	08/07/2001	08/16/2001
01080398-002	Sulfide	08/07/2001	08/16/2001
00120004-001	pH	11/29/2000	12/01/2000
00120004-002	pH	11/29/2000	12/01/2000
00120004-003	pH	11/29/2000	12/01/2000
00120004-004	pH	11/29/2000	12/01/2000
00120004-005	pH	11/29/2000	12/01/2000
00120004-006	pH	11/29/2000	12/01/2000
00120004-007	pH	11/29/2000	12/01/2000
00120004-008	pH	11/29/2000	12/01/2000
00120004-009	pH	11/29/2000	12/01/2000
00120310-001	pH	11/29/2000	12/01/2000
01080398-001	TDS	08/07/2001	08/15/2001
	TSS	08/07/2001	08/15/2001
01080231-001	TDS	08/06/2001	08/14/2001
	TSS	08/06/2001	08/14/2001
01080231-008	TDS	08/07/2001	08/16/2001
01080231-009	Nitrate	08/06/2001	08/09/2001
	Hexavalent Chromium	08/06/2001	08/08/2001

sulfide too??
-001 - 003

Appendix F

Clayton

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/Millenium Petrochemical
Lab Order: 00110685
Date Received: 11/17/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00110685-001A	SL01MA-001114		11/14/2000 2:50:00 PM
00110685-001B	SL01MA-001114		11/14/2000 2:50:00 PM
00110685-001C	SL01MA-001114		11/14/2000 2:50:00 PM
00110685-001D	SL01MA-001114		11/14/2000 2:50:00 PM
00110685-002A	SL01MB-001114		11/14/2000 3:40:00 PM
00110685-002B	SL01MB-001114		11/14/2000 3:40:00 PM
00110685-002C	SL01MB-001114		11/14/2000 3:40:00 PM
00110685-002D	SL01MB-001114		11/14/2000 3:40:00 PM
00110685-003A	SL02MA-001114		11/14/2000 4:10:00 PM
00110685-003B	SL02MA-001114		11/14/2000 4:10:00 PM
00110685-003C	SL02MA-001114		11/14/2000 4:10:00 PM
00110685-003D	SL02MA-001114		11/14/2000 4:10:00 PM
00110685-004A	SL02MB-001115		11/15/2000 8:05:00 AM
00110685-004B	SL02MB-001115		11/15/2000 8:05:00 AM
00110685-004C	SL02MB-001115		11/15/2000 8:05:00 AM
00110685-004D	SL02MB-001115		11/15/2000 8:05:00 AM
00110685-005A	SL04MA-001115		11/15/2000 11:00:00 AM
00110685-005B	SL04MA-001115		11/15/2000 11:00:00 AM
00110685-005C	SL04MA-001115		11/15/2000 11:00:00 AM
00110685-005D	SL04MA-001115		11/15/2000 11:00:00 AM
00110685-006A	SL04MB-001115		11/15/2000 11:35:00 AM
00110685-006B	SL04MB-001115		11/15/2000 11:35:00 AM
00110685-006C	SL04MB-001115		11/15/2000 11:35:00 AM
00110685-006D	SL04MB-001115		11/15/2000 11:35:00 AM
00110685-007A	SL904MB-001115		11/15/2000 11:35:00 AM
00110685-007B	SL904MB-001115		11/15/2000 11:35:00 AM
00110685-007C	SL904MB-001115		11/15/2000 11:35:00 AM
00110685-007D	SL904MB-001115		11/15/2000 11:35:00 AM
00110685-008A	SL05MA-001115		11/15/2000 9:10:00 AM
00110685-008B	SL05MA-001115		11/15/2000 9:10:00 AM
00110685-008C	SL05MA-001115		11/15/2000 9:10:00 AM
00110685-008D	SL05MA-001115		11/15/2000 9:10:00 AM
00110685-009A	SL05MB-001115		11/15/2000 9:35:00 AM
00110685-009B	SL05MB-001115		11/15/2000 9:35:00 AM
00110685-009C	SL05MB-001115		11/15/2000 9:35:00 AM
00110685-009D	SL05MB-001115		11/15/2000 9:35:00 AM
00110685-010A	LAB BLANK		11/15/2000

Clayton GROUP SERVICES

CLIENT:	CLAYTON GROUP SERVICES
Project:	15-00116.01/Millenium Petrochemical
Lab Order:	00110685
Date Received:	11/17/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00110685-010B	LAB BLANK		11/15/2000
00110685-010C	LAB BLANK		11/15/2000

Clayton GROUP SERVICES

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/Millenium Petrochemical
Lab Order: 00110689
Date Received: 11/17/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00110689-001A	SL03MB-001115		11/15/2000 2:00:00 PM
00110689-001B	SL03MB-001115		11/15/2000 2:00:00 PM
00110689-001C	SL03MB-001115		11/15/2000 2:00:00 PM
00110689-001D	SL03MB-001115		11/15/2000 2:00:00 PM
00110689-002A	SL03MA-001115		11/15/2000 2:20:00 PM
00110689-002B	SL03MA-001115		11/15/2000 2:20:00 PM
00110689-002C	SL03MA-001115		11/15/2000 2:20:00 PM
00110689-002D	SL03MA-001115		11/15/2000 2:20:00 PM
00110689-003A	SL07LA-001115		11/15/2000 3:45:00 PM
00110689-003B	SL07LA-001115		11/15/2000 3:45:00 PM
00110689-003C	SL07LA-001115		11/15/2000 3:45:00 PM
00110689-003D	SL07LA-001115		11/15/2000 3:45:00 PM
00110689-004A	SL07LB-001115		11/15/2000 4:15:00 PM
00110689-004B	SL07LB-001115		11/15/2000 4:15:00 PM
00110689-004C	SL07LB-001115		11/15/2000 4:15:00 PM
00110689-004D	SL07LB-001115		11/15/2000 4:15:00 PM
00110689-005A	SL06MB-001115		11/15/2000 4:35:00 PM
00110689-005B	SL06MB-001115		11/15/2000 4:35:00 PM
00110689-005C	SL06MB-001115		11/15/2000 4:35:00 PM
00110689-005D	SL06MB-001115		11/15/2000 4:35:00 PM
00110689-006A	SL06MA-001115		11/15/2000 4:45:00 PM
00110689-006B	SL06MA-001115		11/15/2000 4:45:00 PM
00110689-006C	SL06MA-001115		11/15/2000 4:45:00 PM
00110689-006D	SL06MA-001115		11/15/2000 4:45:00 PM
00110689-007A	SL08LA-001116		11/16/2000 8:00:00 AM
00110689-007B	SL08LA-001116		11/16/2000 8:00:00 AM
00110689-007C	SL08LA-001116		11/16/2000 8:00:00 AM
00110689-007D	SL08LA-001116		11/16/2000 8:00:00 AM
00110689-008A	SL08LB-001116		11/16/2000 8:35:00 AM
00110689-008B	SL08LB-001116		11/16/2000 8:35:00 AM
00110689-008C	SL08LB-001116		11/16/2000 8:35:00 AM
00110689-008D	SL08LB-001116		11/16/2000 8:35:00 AM
00110689-009A	SL07HA-001116		11/16/2000 10:00:00 AM
00110689-009B	SL07HA-001116		11/16/2000 10:00:00 AM
00110689-009C	SL07HA-001116		11/16/2000 10:00:00 AM
00110689-009D	SL07HA-001116		11/16/2000 10:00:00 AM
00110689-010A	SL07HB-001116		11/16/2000 10:40:00 AM

Clayton

CLIENT:	CLAYTON GROUP SERVICES
Project:	15-00116.01/Millenium Petrochemical
Lab Order:	00110689
Date Received:	11/17/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00110689-010B	SL07HB-001116		11/16/2000 10:40:00 AM
00110689-010C	SL07HB-001116		11/16/2000 10:40:00 AM
00110689-010D	SL07HB-001116		11/16/2000 10:40:00 AM
00110689-011A	SL907HA-001113		11/13/2000 10:00:00 AM
00110689-011B	SL907HA-001116		11/16/2000 10:00:00 AM
00110689-011C	SL907HA-001116		11/16/2000 10:00:00 AM
00110689-011D	SL907HA-001116		11/16/2000 10:00:00 AM
00110689-012A	LAB BLANK		11/15/2000

Clayton

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/Millenium Petrochemical
Lab Order: 00110691
Date Received: 11/17/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00110691-001A	SB01/7FT-001113		11/13/2000
00110691-002A	SB01/53FT-001113		11/13/2000
00110691-003A	SB01/67FT-001113		11/13/2000
00110691-004A	SB01/78FT-001113		11/13/2000
00110691-005A	SB04/23.5FT-001113		11/13/2000
00110691-006A	SB04/58FT-001113		11/13/2000
00110691-007A	SB04/66FT-001113		11/13/2000
00110691-008A	SB04/83-86FT-001113		11/13/2000
00110691-009A	SB06/5FT-001113		11/13/2000
00110691-010A	SB06/35.5FT-001113		11/13/2000
00110691-011A	SB06/42FT-001113		11/13/2000
00110691-012A	SB06/66FT-001113		11/13/2000

Clayton GROUP SERVICES

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/Millenium Petrochemical
Lab Order: 00110731
Date Received: 11/18/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00110731-001A	SL11HA-001116		11/16/2000 3:15:00 PM
00110731-001B	SL11HA-001116		11/16/2000 3:15:00 PM
00110731-001C	SL11HA-001116		11/16/2000 3:15:00 PM
00110731-002A	SL11HB-001116		11/16/2000 2:30:00 PM
00110731-002B	SL11HB-001116		11/16/2000 2:30:00 PM
00110731-002C	SL11HB-001116		11/16/2000 2:30:00 PM
00110731-004A	SL11HB-001116 (DUP)		11/16/2000 2:30:00 PM
00110731-004B	SL11HB-001116 (DUP)		11/16/2000 2:30:00 PM
00110731-004C	SL11HB-001116 (DUP)		11/16/2000 2:30:00 PM
00110731-005A	SL08HA-001116		11/16/2000 4:30:00 PM
00110731-005B	SL08HA-001116		11/16/2000 4:30:00 PM
00110731-005C	SL08HA-001116		11/16/2000 4:30:00 PM
00110731-006A	SL08HB-001116		11/16/2000 4:50:00 PM
00110731-006B	SL08HB-001116		11/16/2000 4:50:00 PM
00110731-006C	SL08HB-001116		11/16/2000 4:50:00 PM
00110731-007A	SL19HA-001117		11/17/2000 9:00:00 AM
00110731-007B	SL19HA-001117		11/17/2000 9:00:00 AM
00110731-007C	SL19HA-001117		11/17/2000 9:00:00 AM
00110731-007D	SL19HA-001117		11/17/2000 9:00:00 AM
00110731-008A	SL19HB-001117		11/17/2000 9:30:00 AM
00110731-008B	SL19HB-001117		11/17/2000 9:30:00 AM
00110731-008C	SL19HB-001117		11/17/2000 9:30:00 AM
00110731-008D	SL19HB-001117		11/17/2000 9:30:00 AM
00110731-009A	LAB BLANK		11/17/2000

Clayton GROUP SERVICES

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/Millenium Petrochemical
Lab Order: 00110744
Date Received: 11/18/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00110744-001A	SL20HA-001117		11/17/2000 10:45:00 AM
00110744-001B	SL20HA-001117		11/17/2000 10:45:00 AM
00110744-001C	SL20HA-001117		11/17/2000 10:45:00 AM
00110744-001D	SL20HA-001117		11/17/2000 10:45:00 AM
00110744-002A	SL20HB-001117		11/17/2000 11:15:00 AM
00110744-002B	SL20HB-001117		11/17/2000 11:15:00 AM
00110744-002C	SL20HB-001117		11/17/2000 11:15:00 AM
00110744-002D	SL20HB-001117		11/17/2000 11:15:00 AM
00110744-003A	SL01HA-001117		11/17/2000 1:45:00 PM
00110744-003B	SL01HA-001117		11/17/2000 1:45:00 PM
00110744-003C	SL01HA-001117		11/17/2000 1:45:00 PM
00110744-003D	SL01HA-001117		11/17/2000 1:45:00 PM
00110744-004A	SL01HB-001117		11/17/2000 2:00:00 PM
00110744-004B	SL01HB-001117		11/17/2000 2:00:00 PM
00110744-004C	SL01HB-001117		11/17/2000 2:00:00 PM
00110744-004D	SL01HB-001117		11/17/2000 2:00:00 PM
00110744-005A	SL02HA-001117		11/17/2000 2:55:00 PM
00110744-005B	SL02HA-001117		11/17/2000 2:55:00 PM
00110744-005C	SL02HA-001117		11/17/2000 2:55:00 PM
00110744-005D	SL02HA-001117		11/17/2000 2:55:00 PM
00110744-006A	SL02HB-001117		11/17/2000 2:30:00 PM
00110744-006B	SL02HB-001117		11/17/2000 2:30:00 PM
00110744-006C	SL02HB-001117		11/17/2000 2:30:00 PM
00110744-006D	SL02HB-001117		11/17/2000 2:30:00 PM
00110744-007A	LAB BLANK		11/17/2000

Clayton GROUP SERVICES

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/ MILLENIUM PETROCHEMICA
Lab Order: 00110787
Date Received: 11/21/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00110787-001A	SL10HA-001120		11/20/2000 10:30:00 AM
00110787-001B	SL10HA-001120		11/20/2000 10:30:00 AM
00110787-001C	SL10HA-001120		11/20/2000 10:30:00 AM
00110787-001D	SL10HA-001120		11/20/2000 10:30:00 AM
00110787-002A	SL910HA-001120		11/20/2000 10:30:00 AM
00110787-002B	SL910HA-001120		11/20/2000 10:30:00 AM
00110787-002C	SL910HA-001120		11/20/2000 10:30:00 AM
00110787-002D	SL910HA-001120		11/20/2000 10:30:00 AM
00110787-003A	SL10HB-001120		11/20/2000 8:30:00 AM
00110787-003B	SL10HB-001120		11/20/2000 8:30:00 AM
00110787-003C	SL10HB-001120		11/20/2000 8:30:00 AM
00110787-003D	SL10HB-001120		11/20/2000 8:30:00 AM
00110787-004A	SL15HB-001120		11/20/2000 11:50:00 AM
00110787-004B	SL15HB-001120		11/20/2000 11:50:00 AM
00110787-004C	SL15HB-001120		11/20/2000 11:50:00 AM
00110787-004D	SL15HB-001120		11/20/2000 11:50:00 AM
00110787-005A	SL15HA-001120		11/20/2000 2:15:00 PM
00110787-005B	SL15HA-001120		11/20/2000 2:15:00 PM
00110787-005C	SL15HA-001120		11/20/2000 2:15:00 PM
00110787-005D	SL15HA-001120		11/20/2000 2:15:00 PM
00110787-006A	LAB BLANK		11/20/2000 2:15:00 PM

Clayton

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/MILLENIUM PETROCHEMICA
Lab Order: 00110833
Date Received: 11/22/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00110833-001A	SL18HB-001120		11/20/2000 3:00:00 PM
00110833-001B	SL18HB-001120		11/20/2000 3:00:00 PM
00110833-001C	SL18HB-001120		11/20/2000 3:00:00 PM
00110833-001D	SL18HB-001120		11/20/2000 3:00:00 PM
00110833-002A	SL18HA-001120		11/20/2000 4:30:00 PM
00110833-002B	SL18HA-001120		11/20/2000 4:30:00 PM
00110833-002C	SL18HA-001120		11/20/2000 4:30:00 PM
00110833-002D	SL18HA-001120		11/20/2000 4:30:00 PM
00110833-003A	SL09HA-001121		11/21/2000 9:30:00 AM
00110833-003B	SL09HA-001121		11/21/2000 9:30:00 AM
00110833-003C	SL09HA-001121		11/21/2000 9:30:00 AM
00110833-003D	SL09HA-001121		11/21/2000 9:30:00 AM
00110833-004A	SL909HA-001121		11/21/2000 9:30:00 AM
00110833-004B	SL909HA-001121		11/21/2000 9:30:00 AM
00110833-004C	SL909HA-001121		11/21/2000 9:30:00 AM
00110833-004D	SL909HA-001121		11/21/2000 9:30:00 AM
00110833-005A	SL17HA-001121		11/21/2000 11:45:00 AM
00110833-005B	SL17HA-001121		11/21/2000 11:45:00 AM
00110833-005C	SL17HA-001121		11/21/2000 11:45:00 AM
00110833-005D	SL17HA-001121		11/21/2000 11:45:00 AM
00110833-006A	SLMS17HA-001121		11/21/2000 11:45:00 AM
00110833-006B	SLMS17HA-001121		11/21/2000 11:45:00 AM
00110833-006C	SLMS17HA-001121		11/21/2000 11:45:00 AM
00110833-006D	SLMS17HA-001121		11/21/2000 11:45:00 AM
00110833-007A	SLMS17HA-001121 (DUP)		11/21/2000 11:45:00 AM
00110833-007B	SLMS17HA-001121 (DUP)		11/21/2000 11:45:00 AM
00110833-007C	SLMS17HA-001121 (DUP)		11/21/2000 11:45:00 AM
00110833-007D	SLMS17HA-001121 (DUP)		11/21/2000 11:45:00 AM
00110833-008A	SL17HB-001121		11/21/2000 2:10:00 PM
00110833-008B	SL17HB-001121		11/21/2000 2:10:00 PM
00110833-008C	SL17HB-001121		11/21/2000 2:10:00 PM
00110833-008D	SL17HB-001121		11/21/2000 2:10:00 PM
00110833-009A	SL09HB-001121		11/21/2000 9:00:00 AM
00110833-009B	SL09HB-001121		11/21/2000 9:00:00 AM
00110833-009C	SL09HB-001121		11/21/2000 9:00:00 AM
00110833-009D	SL09HB-001121		11/21/2000 9:00:00 AM
00110833-010A	LAB BLANK		11/21/2000

Clayton GROUP SERVICES

CLIENT:	CLAYTON GROUP SERVICES
Project:	15-00116.01/MILLENIUM PETROCHEMICA
Lab Order:	00110833
Date Received:	11/22/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00110833-010B	LAB BLANK		11/21/2000
00110833-010C	LAB BLANK		11/21/2000

Clayton

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/Millenium Petrochemical
Lab Order: 00120004
Date Received: 12/01/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00120004-001A	SW04-001129		11/29/2000 9:30:00 AM
00120004-001B	SW04-001129		11/29/2000 9:30:00 AM
00120004-001C	SW04-001129		11/29/2000 9:30:00 AM
00120004-001D	SW04-001129		11/29/2000 9:30:00 AM
00120004-001E	SW04-001129		11/29/2000 9:30:00 AM
00120004-001F	SW04-001129		11/29/2000 9:30:00 AM
00120004-001G	SW04-001129		11/29/2000 9:30:00 AM
00120004-001H	SW04-001129		11/29/2000 9:30:00 AM
00120004-001I	SW04-001129		11/29/2000 9:30:00 AM
00120004-001J	SW04-001129		11/29/2000 9:30:00 AM
00120004-002A	SW05-001129		11/29/2000 10:00:00 AM
00120004-002B	SW05-001129		11/29/2000 10:00:00 AM
00120004-002C	SW05-001129		11/29/2000 10:00:00 AM
00120004-002D	SW05-001129		11/29/2000 10:00:00 AM
00120004-002E	SW05-001129		11/29/2000 10:00:00 AM
00120004-002F	SW05-001129		11/29/2000 10:00:00 AM
00120004-002G	SW05-001129		11/29/2000 10:00:00 AM
00120004-002H	SW05-001129		11/29/2000 10:00:00 AM
00120004-002I	SW05-001129		11/29/2000 10:00:00 AM
00120004-002J	SW05-001129		11/29/2000 10:00:00 AM
00120004-003A	SW06-001129		11/29/2000 2:01:00 PM
00120004-003B	SW06-001129		11/29/2000 2:01:00 PM
00120004-003C	SW06-001129		11/29/2000 2:01:00 PM
00120004-003D	SW06-001129		11/29/2000 2:01:00 PM
00120004-003E	SW06-001129		11/29/2000 2:01:00 PM
00120004-003F	SW06-001129		11/29/2000 2:01:00 PM
00120004-003G	SW06-001129		11/29/2000 2:01:00 PM
00120004-003H	SW06-001129		11/29/2000 2:01:00 PM
00120004-003I	SW06-001129		11/29/2000 2:01:00 PM
00120004-003J	SW06-001129		11/29/2000 2:01:00 PM
00120004-004A	SW07-001129		11/29/2000 11:30:00 AM
00120004-004B	SW07-001129		11/29/2000 11:30:00 AM
00120004-004C	SW07-001129		11/29/2000 11:30:00 AM
00120004-004D	SW07-001129 11:30		11/29/2000 11:30:00 AM
00120004-004E	SW07-001129		11/29/2000 11:30:00 AM
00120004-004F	SW07-001129		11/29/2000 11:30:00 AM
00120004-004G	SW07-001129		11/29/2000 11:30:00 AM

Clayton

CLIENT:	CLAYTON GROUP SERVICES
Project:	15-00116.01/Millenium Petrochemical
Lab Order:	00120004
Date Received:	12/01/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00120004-004H	SW07-001129		11/29/2000 11:30:00 AM
00120004-004I	SW07-001129		11/29/2000 11:30:00 AM
00120004-004J	SW07-001129		11/29/2000 11:30:00 AM
00120004-005A	SW08-001129		11/29/2000 12:00:00 PM
00120004-005B	SW08-001129		11/29/2000 12:00:00 PM
00120004-005C	SW08-001129 12:00		11/29/2000 12:00:00 PM
00120004-005D	SW08-001129		11/29/2000 12:00:00 PM
00120004-005E	SW08-001129		11/29/2000 12:00:00 PM
00120004-005F	SW08-001129		11/29/2000 12:00:00 PM
00120004-005G	SW08-001129		11/29/2000 12:00:00 PM
00120004-005H	SW08-001129		11/29/2000 12:00:00 PM
00120004-005I	SW08-001129		11/29/2000 12:00:00 PM
00120004-005J	SW08-001129		11/29/2000 12:00:00 PM
00120004-006A	SW09-001129		11/29/2000 12:45:00 PM
00120004-006B	SW09-001129		11/29/2000 12:45:00 PM
00120004-006C	SW09-001129		11/29/2000 12:45:00 PM
00120004-006D	SW09-001129		11/29/2000 12:45:00 PM
00120004-006E	SW09-001129		11/29/2000 12:45:00 PM
00120004-006F	SW09-001129		11/29/2000 12:45:00 PM
00120004-006G	SW09-001129		11/29/2000 12:45:00 PM
00120004-006H	SW09-001129		11/29/2000 12:45:00 PM
00120004-006I	SW09-001129		11/29/2000 12:45:00 PM
00120004-006J	SW09-001129		11/29/2000 12:45:00 PM
00120004-007A	SW909-001129		11/29/2000 12:45:00 PM
00120004-007B	SW909-001129		11/29/2000 12:45:00 PM
00120004-007C	SW909-001129		11/29/2000 12:45:00 PM
00120004-007D	SW909-001129		11/29/2000 12:45:00 PM
00120004-007E	SW909-001129		11/29/2000 12:45:00 PM
00120004-007F	SW909-001129		11/29/2000 12:45:00 PM
00120004-007G	SW909-001129		11/29/2000 12:45:00 PM
00120004-007H	SW909-001129		11/29/2000 12:45:00 PM
00120004-007I	SW909-001129		11/29/2000 12:45:00 PM
00120004-007J	SW909-001129		11/29/2000 12:45:00 PM
00120004-008A	SW10-001129		11/29/2000 1:10:00 PM
00120004-008B	SW10-001129 13:10		11/29/2000 1:10:00 PM
00120004-008C	SW10-001129		11/29/2000 1:10:00 PM
00120004-008D	SW10-001129		11/29/2000 1:10:00 PM
00120004-008E	SW10-001129		11/29/2000 1:10:00 PM
00120004-008F	SW10-001129		11/29/2000 1:10:00 PM

Clayton GROUP SERVICES

CLIENT:	CLAYTON GROUP SERVICES
Project:	15-00116.01/Millenium Petrochemical
Lab Order:	00120004
Date Received:	12/01/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00120004-008G	SW10-001129		11/29/2000 1:10:00 PM
00120004-008H	SW10-001129		11/29/2000 1:10:00 PM
00120004-008I	SW10-001129		11/29/2000 1:10:00 PM
00120004-008J	SW10-001129		11/29/2000 1:10:00 PM
00120004-009A	RB-1		11/29/2000
00120004-009B	RB-1		11/29/2000
00120004-009C	RB-1		11/29/2000
00120004-009D	RB-1		11/29/2000
00120004-009E	RB-1		11/29/2000
00120004-009F	RB-1		11/29/2000
00120004-009G	RB-1		11/29/2000
00120004-009H	RB-1		11/29/2000
00120004-009I	RB-1		11/29/2000
00120004-009J	RB-1		11/29/2000
00120004-010A	LAB BLANK		11/29/2000
00120004-010B	LAB BLANK		11/29/2000
00120004-010C	LAB BLANK		11/29/2000
00120004-010D	LAB BLANK		11/29/2000
00120004-010E	LAB BLANK		11/29/2000
00120004-010F	LAB BLANK		11/29/2000
00120004-010G	LAB BLANK		11/29/2000
00120004-010H	LAB BLANK		11/29/2000
00120004-010I	LAB BLANK		11/29/2000
00120004-010J	LAB BLANK		11/29/2000

Clayton

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/Millenium Petrochemical
Lab Order: 00120016
Date Received: 12/01/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00120016-001A	SL14HA-001128		11/28/2000 8:30:00 AM
00120016-001B	SL14HA-001128		11/28/2000 8:30:00 AM
00120016-001C	SL14HA-001128		11/28/2000 8:30:00 AM
00120016-001D	SL14HA-001128		11/28/2000 8:30:00 AM
00120016-002A	SL14HB-001128		11/28/2000 8:30:00 AM
00120016-002B	SL14HB-001128		11/28/2000 9:00:00 AM
00120016-002C	SL14HB-001128		11/28/200 9:00:00 AM
00120016-002D	SL14HB-001128		11/28/2000 9:00:00 AM
00120016-003A	SL13HA-001128		11/28/2000 10:15:00 AM
00120016-003B	SL13HA-001128		11/28/2000 10:15:00 AM
00120016-003C	SL13HA-001128		11/28/2000 10:15:00 AM
00120016-003D	SL13HA-001128		11/28/2000 10:15:00 AM
00120016-004A	SL12HA-001128		11/28/2000 10:40:00 AM
00120016-004B	SL12HA-001128		11/28/2000 10:40:00 AM
00120016-004C	SL12HA-001128		11/28/2000 10:40:00 AM
00120016-004D	SL12HA-001128		11/28/2000 10:40:00 AM
00120016-005A	SL912HA-001128		11/28/2000 10:40:00 AM
00120016-005B	SL912HA-001128		11/28/2000 10:40:00 AM
00120016-005C	SL912HA-001128		11/28/2000 10:40:00 AM
00120016-005D	SL912HA-001128		11/28/2000 10:40:00 AM
00120016-006A	SL12HB-001128		11/28/2000 11:20:00 AM
00120016-006B	SL12HB-001128		11/28/2000 11:20:00 AM
00120016-006C	SL12HB-001128		11/28/2000 11:20:00 AM
00120016-006D	SL12HB-001128		11/28/2000 11:20:00 AM
00120016-007A	SL16HA-001128		11/28/2000 2:00:00 PM
00120016-007B	SL16HA-001128		11/28/2000 2:00:00 PM
00120016-007C	SL16HA-001128		11/28/2000 2:00:00 PM
00120016-007D	SL16HA-001128		11/28/2000 2:00:00 PM
00120016-008A	SL16HB-001128		11/28/2000 2:25:00 PM
00120016-008B	SL16HB-001128		11/28/2000 2:25:00 PM
00120016-008C	SL16HB-001128		11/28/2000 2:25:00 PM
00120016-008D	SL16HB-001128		11/28/2000 2:25:00 PM
00120016-010B	LAB BLANK		11/28/2000
00120016-010C	LAB BLANK		11/28/2000

Clayton GROUP SERVICES

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/Millenium Petrochemical
Lab Order: 00120021
Date Received: 12/01/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00120021-001A	SS01-001128		11/28/2000 4:10:00 PM
00120021-001B	SS01-001128		11/28/2000 4:10:00 PM
00120021-001C	SS01-001128		11/28/2000 4:10:00 PM
00120021-001D	SS01-001128		11/28/2000 4:10:00 PM
00120021-002A	SS02-001128		11/28/2000 4:50:00 PM
00120021-002B	SS02-001128		11/28/2000 4:50:00 PM
00120021-002C	SS02-001128		11/28/2000 4:50:00 PM
00120021-002D	SS02-001128		11/28/2000 4:50:00 PM
00120021-003A	SS04-001129		11/29/2000
00120021-003B	SS04-001129		11/29/2000
00120021-003C	SS04-001129		11/29/2000
00120021-003D	SS04-001129		11/29/2000
00120021-004A	SS05-001129		11/29/2000
00120021-004B	SS05-001129		11/29/2000
00120021-004C	SS05-001129		11/29/2000
00120021-004D	SS05-001129		11/29/2000
00120021-005A	SS06-001129		11/29/2000
00120021-005B	SS06-001129		11/29/2000
00120021-005C	SS06-001129		11/29/2000
00120021-005D	SS06-001129		11/29/2000
00120021-006A	SS07-001129		11/29/2000
00120021-006B	SS07-001129		11/29/2000
00120021-006C	SS07-001129		11/29/2000
00120021-006D	SS07-001129		11/29/2000
00120021-007A	SS08-001129		11/29/2000
00120021-007B	SS08-001129		11/29/2000
00120021-007C	SS08-001129		11/29/2000
00120021-007D	SS08-001129		11/29/2000
00120021-008A	SS09-001129		11/29/2000
00120021-008B	SS09-001129		11/29/2000
00120021-008C	SS09-001129		11/29/2000
00120021-008D	SS09-001129		11/29/2000
00120021-009A	SS10-001129		11/29/2000
00120021-009B	SS10-001129		11/29/2000
00120021-009C	SS10-001129		11/29/2000
00120021-009D	SS10-001129		11/29/2000
00120021-010A	SS907-001129		11/29/2000

Clayton GROUP SERVICES

CLIENT:	CLAYTON GROUP SERVICES
Project:	15-00116.01/Millenium Petrochemical
Lab Order:	00120021
Date Received:	12/01/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00120021-010B	SS907-001129		11/29/2000
00120021-010C	SS907-001129		11/29/2000
00120021-010D	SS907-001129		11/29/2000
00120021-011B	LAB BLANK		11/29/2000
00120021-011D	LAB BLANK		11/29/2000

Clayton GROUP SERVICES

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/Millenium Petrochemical
Lab Order: 00120114
Date Received: 12/05/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00120114-001A	MW04D-001204		12/04/2000 1:30:00 PM
00120114-001B	MW04D-001204		12/04/2000 1:30:00 PM
00120114-001C	MW04D-001204		12/04/2000 1:30:00 PM
00120114-001D	MW04D-001204		12/04/2000 1:30:00 PM
00120114-001E	MW04D-001204		12/04/2000 1:30:00 PM
00120114-001F	MW04D-001204		12/04/2000 1:30:00 PM
00120114-001G	MW04D-001204		12/04/2000 1:30:00 PM
00120114-001H	MW04D-001204		12/04/2000 1:30:00 PM
00120114-001I	MW04D-001204		12/04/2000 1:30:00 PM
00120114-002A	MWF04D-001204		12/04/2000 1:30:00 PM
00120114-002B	MWF04D-001204		12/04/2000 1:30:00 PM
00120114-002C	MWF04D-001204		12/04/2000 1:30:00 PM
00120114-002D	MWF04D-001204		12/04/2000 1:30:00 PM
00120114-002E	MWF04D-001204		12/04/2000 1:30:00 PM
00120114-003A	LAB BLANK		12/04/2000

Clayton

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.00/Millenium Petrochemical
Lab Order: 00120170
Date Received: 12/06/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00120170-001A	MW04S-001205/001204		12/05/2000
00120170-001B	MW04S-001205/001204		12/05/2000
00120170-001C	MW04S-001205/001204		12/05/2000
00120170-001D	MW04S-001205/001204		12/05/2000
00120170-001E	MW04S-001205/001204		12/05/2000
00120170-001F	MW04S-001205/001204		12/05/2000
00120170-001G	MW04S-001205/001204		12/05/2000
00120170-001H	MW04S-001205/001204		12/05/2000
00120170-002A	MWF04S-001205		12/05/2000
00120170-002B	MWF04S-001205		12/05/2000
00120170-002C	MWF04S-001205		12/05/2000
00120170-002D	MWF04S-001205		12/05/2000
00120170-002E	MWF04S-001205		12/05/2000
00120170-003A	LAB BLANK		12/05/2000

Clayton GROUP SERVICES

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/Millenium Petrochemical
Lab Order: 00120179
Date Received: 12/06/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00120179-001A	MW07D-001205		12/05/2000 12:00:00 PM
00120179-001B	MW07D-001205		12/05/2000 12:00:00 PM
00120179-001C	MW07D-001205		12/05/2000 12:00:00 PM
00120179-001D	MW07D-001205		12/05/2000 12:00:00 PM
00120179-001E	MW07D-001205		12/05/2000 12:00:00 PM
00120179-001F	MW07D-001205		12/05/2000 12:00:00 PM
00120179-001G	MW07D-001205		12/05/2000 12:00:00 PM
00120179-001H	MW07D-001205		12/05/2000 12:00:00 PM
00120179-001I	MW07D-001205		12/05/2000 12:00:00 PM
00120179-002A	MWF07D-001205		12/05/2000 12:00:00 PM
00120179-002B	MWF07D-001205		12/05/2000 12:00:00 PM
00120179-002C	MWF07D-001205		12/05/2000 12:00:00 PM
00120179-002D	MWF07D-001205		12/05/2000 12:00:00 PM
00120179-002E	MWF07D-001205		12/05/2000 12:00:00 PM
00120179-003A	LAB BLANK		12/05/2000

Clayton

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/Millenium Petrochemical
Lab Order: 00120192
Date Received: 12/06/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00120192-001A	MW07S-001205		12/05/2000 12:55:00 PM
00120192-001B	MW07S-001205		12/05/2000 12:55:00 PM
00120192-001C	MW07S-001205		12/05/2000 12:55:00 PM
00120192-001D	MW07S-001205		12/05/2000 12:55:00 PM
00120192-001E	MW07S-001205		12/05/2000 12:55:00 PM
00120192-001F	MW07S-001205		12/05/2000 12:55:00 PM
00120192-001G	MW07S-001205		12/05/2000 12:55:00 PM
00120192-001H	MW07S-001205		12/05/2000 12:55:00 PM
00120192-001I	MW07S-001205		12/05/2000 12:55:00 PM
00120192-002A	MWF07S-001205		12/05/2000 12:55:00 PM
00120192-002B	MWF07S-001205		12/05/2000 12:55:00 PM
00120192-002C	MWF07S-001205		12/05/2000 12:55:00 PM
00120192-002D	MWF07S-001205		12/05/2000 12:55:00 PM
00120192-002E	MWF07S-001205		12/05/2000 12:55:00 PM
00120192-003A	LAB BLANK		12/05/2000
00120192-003B	LAB BLANK		12/05/2000
00120192-003D	LAB BLANK		12/05/2000
00120192-003E	LAB BLANK		12/05/2000
00120192-003G	LAB BLANK		12/05/2000
00120192-003H	LAB BLANK		12/05/2000
00120192-003I	LAB BLANK		12/05/2000

Clayton

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/MILLENIUM PETROCHEMICA
Lab Order: 00120236
Date Received: 12/07/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00120236-001A	MW05S-001206		12/06/2000 4:00:00 PM
00120236-001B	MW05S-001206		12/06/2000 4:00:00 PM
00120236-001C	MW05S-001206		12/06/2000 4:00:00 PM
00120236-001D	MW05S-001206		12/06/2000 4:00:00 PM
00120236-001E	MW05S-001206		12/06/2000 4:00:00 PM
00120236-001F	MW05S-001206		12/06/2000 4:00:00 PM
00120236-001G	MW05S-001206		12/06/2000 4:00:00 PM
00120236-001H	MW05S-001206		12/06/2000 4:00:00 PM
00120236-001I	MW05S-001206		12/06/2000 4:00:00 PM
00120236-002A	MWF05S-001206		12/06/2000 4:00:00 PM
00120236-002B	MWF05S-001206		12/06/2000 4:00:00 PM
00120236-002C	MWF05S-001206		12/06/2000 4:00:00 PM
00120236-002D	MWF05S-001206		12/06/2000 4:00:00 PM
00120236-002E	MWF05S-001206		12/06/2000 4:00:00 PM
00120236-003A	LAB BLANK		12/06/2000

Clayton GROUP SERVICES

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/Millenium Petrochemical
Lab Order: 00120243
Date Received: 12/07/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00120243-001A	MW06S-001206		12/06/2000 11:00:00 AM
00120243-001B	MW06S-001206		12/06/2000 11:00:00 AM
00120243-001C	MW06S-001206		12/06/2000 11:00:00 AM
00120243-001D	MW06S-001206		12/06/2000 11:00:00 AM
00120243-001E	MW06S-001206		12/06/2000 11:00:00 AM
00120243-001F	MW06S-001206		12/06/2000 11:00:00 AM
00120243-001G	MW06S-001206		12/06/2000 11:00:00 AM
00120243-001H	MW06S-001206		12/06/2000 11:00:00 AM
00120243-001I	MW06S-001206		12/06/2000 11:00:00 AM
00120243-002A	MWF06S-001206		12/06/2000 11:00:00 AM
00120243-002B	MWF06S-001206		12/06/2000 11:00:00 AM
00120243-002C	MWF06S-001206		12/06/2000 11:00:00 AM
00120243-002D	MWF06S-001206		12/06/2000 11:00:00 AM
00120243-002E	MWF06S-001206		12/06/2000 11:00:00 AM
00120243-003A	MW04S-001206		12/06/2000 8:27:00 AM
00120243-004A	LAB BLANK		12/06/2000 11:00:00 AM

Clayton

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/Millenium Petrochemical
Lab Order: 00120247
Date Received: 12/07/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00120247-001A	MW06D-001206		12/06/2000 10:00:00 AM
00120247-001B	MW06D-001206		12/06/2000 10:00:00 AM
00120247-001C	MW06D-001206		12/06/2000 10:00:00 AM
00120247-001D	MW06D-001206		12/06/2000 10:00:00 AM
00120247-001E	MW06D-001206		12/06/2000 10:00:00 AM
00120247-001F	MW06D-001206		12/06/2000 10:00:00 AM
00120247-001G	MW06D-001206		12/06/2000 10:00:00 AM
00120247-001H	MW06D-001206		12/06/2000 10:00:00 AM
00120247-001I	MW06D-001206		12/06/2000 10:00:00 AM
00120247-002A	MWF06D-001206		12/06/2000 10:01:00 AM
00120247-002B	MWF06D-001206		12/06/2000 10:01:00 AM
00120247-002C	MWF06D-001206		12/06/2000 10:01:00 AM
00120247-002D	MWF06D-001206		12/06/2000 10:01:00 AM
00120247-002E	MWF06D-001206		12/06/2000 10:01:00 AM
00120247-003A	LAB BLANK		12/06/2000

Clayton

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/Millenium Petrochemical
Lab Order: 00120250
Date Received: 12/07/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00120250-001A	MW05D-001206		12/06/2000 2:00:00 PM
00120250-001B	MW05D-001206		12/06/2000 2:00:00 PM
00120250-001C	MW05D-001206		12/06/2000 2:00:00 PM
00120250-001D	MW05D-001206		12/06/2000 2:00:00 PM
00120250-001E	MW05D-001206		12/06/2000 2:00:00 PM
00120250-001F	MW05D-001206		12/06/2000 2:00:00 PM
00120250-001G	MW05D-001206		12/06/2000 2:00:00 PM
00120250-001H	MW05D-001206		12/06/2000 2:00:00 PM
00120250-001I	MW05D-001206		12/06/2000 2:00:00 PM
00120250-002A	MWF05D-001206		12/06/2000 2:00:00 PM
00120250-002B	MWF05D-001206		12/06/2000 2:00:00 PM
00120250-002C	MWF05D-001206		12/06/2000 2:00:00 PM
00120250-002D	MWF05D-001206		12/06/2000 2:00:00 PM
00120250-002E	MWF05D-001206		12/06/2000 2:00:00 PM
00120250-003A	LAB BLANK		12/06/2000

Clayton

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/Millenium Petrochemical
Lab Order: 00120274
Date Received: 12/08/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00120274-001A	MW02S-001207		12/07/2000 10:30:00 AM
00120274-001B	MW02S-001207		12/07/2000 10:30:00 AM
00120274-001C	MW02S-001207		12/07/2000 10:30:00 AM
00120274-001D	MW02S-001207		12/07/2000 10:30:00 AM
00120274-001E	MW02S-001207		12/07/2000 10:30:00 AM
00120274-001F	MW02S-001207		12/07/2000 10:30:00 AM
00120274-001G	MW02S-001207		12/07/2000 10:30:00 AM
00120274-001H	MW02S-001207		12/07/2000 10:30:00 AM
00120274-001I	MW02S-001207		12/07/2000 10:30:00 AM
00120274-002A	MWF02S-001207		12/07/2000 10:30:00 AM
00120274-002B	MWF02S-001207		12/07/2000 10:30:00 AM
00120274-002C	MWF02S-001207		12/07/2000 10:30:00 AM
00120274-002D	MWF02S-001207		12/07/2000 10:30:00 AM
00120274-002E	MWF02S-001207		12/07/2000 10:30:00 AM
00120274-003A	LAB BLANK		12/07/2000

Clayton

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/Millenium Petrochemical
Lab Order: 00120275
Date Received: 12/08/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00120275-001A	MW02D-001207		12/07/2000 4:00:00 PM
00120275-001B	MW02D-001207		12/07/2000 4:00:00 PM
00120275-001C	MW02D-001207		12/07/2000 4:00:00 PM
00120275-001D	MW02D-001207		12/07/2000 4:00:00 PM
00120275-001E	MW02D-001207		12/07/2000 4:00:00 PM
00120275-001F	MW02D-001207		12/07/2000 4:00:00 PM
00120275-001G	MW02D-001207		12/07/2000 4:00:00 PM
00120275-001H	MW02D-001207		12/07/2000 4:00:00 PM
00120275-001I	MW02D-001207		12/07/2000 4:00:00 PM
00120275-002A	MWF02D-001207		12/07/2000 4:00:00 PM
00120275-002B	MWF02D-001207		12/07/2000 4:00:00 PM
00120275-002C	MWF02D-001207		12/07/2000 4:00:00 PM
00120275-002D	MWF02D-001207		12/07/2000 4:00:00 PM
00120275-002E	MWF02D-001207		12/07/2000 4:00:00 PM
00120275-003A	LAB BLANK		12/07/2000

Clayton GROUP SERVICES

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/Millenium Petrochemical
Lab Order: 00120310
Date Received: 12/08/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00120310-001A	SS03-001205		12/05/2000 8:35:00 AM
00120310-001B	SS03-001205		12/05/2000 8:35:00 AM
00120310-001C	SS03-001205		12/05/2000 8:35:00 AM
00120310-001D	SS03-001205		12/05/2000 8:35:00 AM
00120310-002A	LAB BLANK		12/05/2000

Clayton

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: Millenium Petrochemical
Lab Order: 00120326
Date Received: 12/11/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00120326-001A	MW01S-001207		12/07/2000 2:30:00 PM
00120326-001B	MW01S-001207		12/07/2000 2:30:00 PM
00120326-001C	MW01S-001207		12/07/2000 2:30:00 PM
00120326-001D	MW01S-001207		12/07/2000 2:30:00 PM
00120326-001E	MW01S-001207		12/07/2000 2:30:00 PM
00120326-001F	MW01S-001207		12/07/2000 2:30:00 PM
00120326-001G	MW01S-001207		12/07/2000 2:30:00 PM
00120326-001H	MW01S-001207		12/07/2000 2:30:00 PM
00120326-001I	MW01S-001207		12/07/2000 2:30:00 PM
00120326-002A	MWF01S-001207 (FILTERE		12/07/2000 2:30:00 PM
00120326-002B	MWF01S-001207 (FILTERE		12/07/2000 2:30:00 PM
00120326-002C	MWF01S-001207 (FILTERE		12/07/2000 2:30:00 PM
00120326-002D	MWF01S-001207 (FILTERE		12/07/2000 2:30:00 PM
00120326-002E	MWF01S-001207 (FILTERE		12/07/2000 2:30:00 PM
00120326-003A	LAB BLANK		12/07/2000

Clayton

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/Millenium Petrochemical
Lab Order: 00120421
Date Received: 12/13/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00120421-001A	MW901D-001211		12/11/2000 10:00:00 AM
00120421-001B	MW901D-001211		12/11/2000 10:00:00 AM
00120421-001C	MW901D-001211		12/11/2000 10:00:00 AM
00120421-001D	MW901D-001211		12/11/2000 10:00:00 AM
00120421-001E	MW901D-001211		12/11/2000 10:00:00 AM
00120421-001F	MW901D-001211		12/11/2000 10:00:00 AM
00120421-001G	MW901D-001211		12/11/2000 10:00:00 AM
00120421-001H	MW901D-001211		12/11/2000 10:00:00 AM
00120421-001I	MW901D-001211		12/11/2000 10:00:00 AM
00120421-002A	MWF901D-001211		12/11/2000 10:00:00 AM
00120421-002B	MWF901D-001211		12/11/2000 10:00:00 AM
00120421-002C	MWF901D-001211		12/11/2000 10:00:00 AM
00120421-002D	MWF901D-001211		12/11/2000 10:00:00 AM
00120421-002E	MWF901D-001211		12/11/2000 10:00:00 AM
00120421-003A	LAB BLANK		12/11/2000

Clayton

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/Millenium Petrochemical
Lab Order: 00120424
Date Received: 12/13/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00120424-001A	MW09D-001212		12/12/2000 12:30:00 PM
00120424-001B	MW09D-001212		12/12/2000 12:30:00 PM
00120424-001C	MW09D-001212		12/12/2000 12:30:00 PM
00120424-001D	MW09D-001212		12/12/2000 12:30:00 PM
00120424-001E	MW09D-001212		12/12/2000 12:30:00 PM
00120424-001F	MW09D-001212		12/12/2000 12:30:00 PM
00120424-001G	MW09D-001212		12/12/2000 12:30:00 PM
00120424-001H	MW09D-001212		12/12/2000 12:30:00 PM
00120424-001I	MW09D-001212		12/12/2000 12:30:00 PM
00120424-002A	MWF09D-001212		12/12/2000 12:30:00 PM
00120424-002B	MWF09D-001212		12/12/2000 12:30:00 PM
00120424-002C	MWF09D-001212		12/12/2000 12:30:00 PM
00120424-002D	MWF09D-001212		12/12/2000 12:30:00 PM
00120424-002E	MWF09D-001212		12/12/2000 12:30:00 PM
00120424-003A	LAB BLANK		12/12/2000

Clayton

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/Millenium Petrochemical
Lab Order: 00120425
Date Received: 12/13/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00120425-001A	MW03S-001211		12/11/2000 2:35:00 PM
00120425-001B	MW03S-001211		12/11/2000 2:35:00 PM
00120425-001C	MW03S-001211		12/11/2000 2:35:00 PM
00120425-001D	MW03S-001211		12/11/2000 2:35:00 PM
00120425-001E	MW03S-001211		12/11/2000 2:35:00 PM
00120425-001F	MW03S-001211		12/11/2000 2:35:00 PM
00120425-001G	MW03S-001211		12/11/2000 2:35:00 PM
00120425-001H	MW03S-001211		12/11/2000 2:35:00 PM
00120425-001I	MW03S-001211		12/11/2000 2:35:00 PM
00120425-002A	MW903S-001211		12/11/2000 2:35:00 PM
00120425-002B	MW903S-001211		12/11/2000 2:35:00 PM
00120425-002C	MW903S-001211		12/11/2000 2:35:00 PM
00120425-002D	MW903S-001211		12/11/2000 2:35:00 PM
00120425-002E	MW903S-001211		12/11/2000 2:35:00 PM
00120425-002F	MW903S-001211		12/11/2000 2:35:00 PM
00120425-002G	MW903S-001211		12/11/2000 2:35:00 PM
00120425-002H	MW903S-001211		12/11/2000 2:35:00 PM
00120425-002I	MW903S-001211		12/11/2000 2:35:00 PM
00120425-003A	LAB BLANK		12/11/2000

Clayton

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/Millenium Petrochemical
Lab Order: 00120426
Date Received: 12/13/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00120426-001A	MW03D-001211		12/11/2000 2:00:00 PM
00120426-001B	MW03D-001211		12/11/2000 2:00:00 PM
00120426-001C	MW03D-001211		12/11/2000 2:00:00 PM
00120426-001D	MW03D-001211		12/11/2000 2:00:00 PM
00120426-001E	MW03D-001211		12/11/2000 2:00:00 PM
00120426-001F	MW03D-001211		12/11/2000 2:00:00 PM
00120426-001G	MW03D-001211		12/11/2000 2:00:00 PM
00120426-001H	MW03D-001211		12/11/2000 2:00:00 PM
00120426-001I	MW03D-001211		12/11/2000 2:00:00 PM
00120426-002A	MWF03D-001211		12/11/2000 2:00:00 PM
00120426-002B	MWF03D-001211		12/11/2000 2:00:00 PM
00120426-002C	MWF03D-001211		12/11/2000 2:00:00 PM
00120426-002D	MWF03D-001211		12/11/2000 2:00:00 PM
00120426-002E	MWF03D-001211		12/11/2000 2:00:00 PM
00120426-003A	LAB BLANK		12/11/2000

Clayton GROUP SERVICES

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/Millenium Petrochemical
Lab Order: 00120431
Date Received: 12/13/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00120431-001A	MW09S-001212 TOTAL		12/12/2000 10:45:00 AM
00120431-001B	MW09S-001212 TOTAL		12/12/2000 10:45:00 AM
00120431-001C	MW09S-001212 TOTAL		12/12/2000 10:45:00 AM
00120431-001D	MW09S-001212 TOTAL		12/12/2000 10:45:00 AM
00120431-001E	MW09S-001212 TOTAL		12/12/2000 10:45:00 AM
00120431-001F	MW09S-001212 TOTAL		12/12/2000 10:45:00 AM
00120431-001G	MW09S-001212 TOTAL		12/12/2000 10:45:00 AM
00120431-001H	MW09S-001212 TOTAL		12/12/2000 10:45:00 AM
00120431-001I	MW09S-001212 TOTAL		12/12/2000 10:45:00 AM
00120431-002A	MWF09S-001212 (FILTERE		12/12/2000 10:45:00 AM
00120431-002B	MWF09S-001212 (FILTERE		12/12/2000 10:45:00 AM
00120431-002C	MWF09S-001212 (FILTERE		12/12/2000 10:45:00 AM
00120431-002D	MWF09S-001212 (FILTERE		12/12/2000 10:45:00 AM
00120431-002E	MWF09S-001212 (FILTERE		12/12/2000 10:45:00 AM
00120431-003A	MSMW09S-001212 TOTAL		12/12/2000 10:45:00 AM
00120431-003B	MSMW09S-001212 TOTAL		12/12/2000 10:45:00 AM
00120431-003C	MSMW09S-001212 TOTAL		12/12/2000 10:45:00 AM
00120431-003D	MSMW09S-001212 TOTAL		12/12/2000 10:45:00 AM
00120431-003E	MSMW09S-001212 TOTAL		12/12/2000 10:45:00 AM
00120431-003F	MSMW09S-001212 TOTAL		12/12/2000 10:45:00 AM
00120431-003G	MSMW09S-001212 TOTAL		12/12/2000 10:45:00 AM
00120431-003H	MSMW09S-001212 TOTAL		12/12/2000 10:45:00 AM
00120431-003I	MSMW09S-001212 TOTAL		12/12/2000 10:45:00 AM
00120431-004A	LAB BLANK		12/12/2000

Clayton

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/Millenium Petrochemical
Lab Order: 00120433
Date Received: 12/13/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00120433-001A	MSMW09S-001212 dup		12/12/2000 10:45:00 AM
00120433-001B	MSMW09S-001212 dup		12/12/2000 10:45:00 AM
00120433-001C	MSMW09S-001212 dup		12/12/2000 10:45:00 AM
00120433-001D	MSMW09S-001212 dup		12/12/2000 10:45:00 AM
00120433-001E	MSMW09S-001212 dup		12/12/2000 10:45:00 AM
00120433-001F	MSMW09S-001212 dup		12/12/2000 10:45:00 AM
00120433-001G	MSMW09S-001212 dup		12/12/2000 10:45:00 AM
00120433-001H	MSMW09S-001212 dup		12/12/2000 10:45:00 AM
00120433-001I	MSMW09S-001212 dup		12/12/2000 10:45:00 AM
00120433-002A	MSMWF09S-001212		12/12/2000 10:45:00 AM
00120433-002B	MSMWF09S-001212		12/12/2000 10:45:00 AM
00120433-002C	MSMWF09S-001212		12/12/2000 10:45:00 AM
00120433-002E	MSMWF09S-001212		12/12/2000 10:45:00 AM
00120433-003A	MSMWF09S-001212 DUP		12/12/2000 10:45:00 AM
00120433-003B	MSMWF09S-001212 DUP		12/12/2000 10:45:00 AM
00120433-003C	MSMWF09S-001212 DUP		12/12/2000 10:45:00 AM
00120433-003D	MSMWF09S-001212 DUP		12/12/2000 10:45:00 AM
00120433-003E	MSMWF09S-001212 DUP		12/12/2000 10:45:00 AM
00120433-004A	LAB BLANK		12/12/2000

Clayton

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/Millenium Petrochemical
Lab Order: 00120434
Date Received: 12/13/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00120434-001A	MW01D-001211		12/11/2000 10:00:00 AM
00120434-001B	MW01D-001211		12/11/2000 10:00:00 AM
00120434-001C	MW01D-001211		12/11/2000 10:00:00 AM
00120434-001D	MW01D-001211		12/11/2000 10:00:00 AM
00120434-001E	MW01D-001211		12/11/2000 10:00:00 AM
00120434-001F	MW01D-001211		12/11/2000 10:00:00 AM
00120434-001G	MW01D-001211		12/11/2000 10:00:00 AM
00120434-001H	MW01D-001211		12/11/2000 10:00:00 AM
00120434-001I	MW01D-001211		12/11/2000 10:00:00 AM
00120434-002A	MWF01D-001211		12/11/2000 10:00:00 AM
00120434-002B	MWF01D-001211		12/11/2000 10:00:00 AM
00120434-002C	MWF01D-001211		12/11/2000 10:00:00 AM
00120434-002D	MWF01D-001211		12/11/2000 10:00:00 AM
00120434-002E	MWF01D-001211		12/11/2000 10:00:00 AM
00120434-003A	MWF03S-001211		12/11/2000 2:35:00 PM
00120434-003B	MWF03S-001211		12/11/2000 2:35:00 PM
00120434-003C	MWF03S-001211		12/11/2000 2:35:00 PM
00120434-003D	MWF03S-001211		12/11/2000 2:35:00 PM
00120434-003E	MWF03S-001211		12/11/2000 2:35:00 PM
00120434-004A	MWF903S-001211		12/11/2000 2:35:00 PM
00120434-004B	MWF903S-001211		12/11/2000 2:35:00 PM
00120434-004C	MWF903S-001211		12/11/2000 2:35:00 PM
00120434-004D	MWF903S-001211		12/11/2000 2:35:00 PM
00120434-004E	MWF903S-001211		12/11/2000 2:35:00 PM
00120434-005A	LAB BLANK		12/11/2000

Clayton

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/Millenium Petrochemical
Lab Order: 00120439
Date Received: 12/14/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00120439-001A	MW08D-001213		12/13/2000 11:00:00 AM
00120439-001B	MW08D-001213		12/13/2000 11:00:00 AM
00120439-001C	MW08D-001213		12/13/2000 11:00:00 AM
00120439-001D	MW08D-001213		12/13/2000 11:00:00 AM
00120439-001E	MW08D-001213		12/13/2000 11:00:00 AM
00120439-001F	MW08D-001213		12/13/2000 11:00:00 AM
00120439-001G	MW08D-001213		12/13/2000 11:00:00 AM
00120439-001H	MW08D-001213		12/13/2000 11:00:00 AM
00120439-001I	MW08D-001213		12/13/2000 11:00:00 AM
00120439-002A	MWF08D-001213		12/13/2000 11:00:00 AM
00120439-002B	MWF08D-001213		12/13/2000 11:00:00 AM
00120439-002C	MWF08D-001213		12/13/2000 11:00:00 AM
00120439-002D	MWF08D-001213		12/13/2000 11:00:00 AM
00120439-002E	MWF08D-001213		12/13/2000 11:00:00 AM
00120439-003A	LAB BLANK		12/13/2000

Clayton

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/Millenium Petrochemical
Lab Order: 00120441
Date Received: 12/14/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00120441-001A	MW08S-001213		12/13/2000 11:00:00 AM
00120441-001B	MW08S-001213		12/13/2000 11:00:00 AM
00120441-001C	MW08S-001213		12/13/2000 11:00:00 AM
00120441-001D	MW08S-001213		12/13/2000 11:00:00 AM
00120441-001E	MW08S-001213		12/13/2000 11:00:00 AM
00120441-001F	MW08S-001213		12/13/2000 11:00:00 AM
00120441-001G	MW08S-001213		12/13/2000 11:00:00 AM
00120441-001H	MW08S-001213		12/13/2000 11:00:00 AM
00120441-001I	MW08S-001213		12/13/2000 11:00:00 AM
00120441-002A	MWF08S-001213		12/13/2000 11:00:00 AM
00120441-002B	MWF08S-001213		12/13/2000 11:00:00 AM
00120441-002C	MWF08S-001213		12/13/2000 11:00:00 AM
00120441-002D	MWF08S-001213		12/13/2000 11:00:00 AM
00120441-002E	MWF08S-001213		12/13/2000 11:00:00 AM
00120441-003A	LAB BLANK		12/13/2000

Clayton

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/Millenium Petrochemical
Lab Order: 00120446
Date Received: 12/14/2000

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
00120446-001A	EB01-001213		12/13/2000 12:00:00 PM
00120446-001B	EB01-001213		12/13/2000 12:00:00 PM
00120446-001C	EB01-001213		12/13/2000 12:00:00 PM
00120446-001D	EB01-001213		12/13/2000 12:00:00 PM
00120446-001E	EB01-001213		12/13/2000 12:00:00 PM
00120446-001F	EB01-001213		12/13/2000 12:00:00 PM
00120446-001G	EB01-001213		12/13/2000 12:00:00 PM
00120446-001H	EB01-001213		12/13/2000 12:00:00 PM
00120446-001I	EB01-001213		12/13/2000 12:00:00 PM
00120446-002A	LAB BLANK		12/13/2000

Clayton

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/Millenium Petrochemical
Lab Order: 01030136
Date Received: 03/06/2001

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
01030136-001A	MW06S-010305		03/05/2001 3:30:00 PM
01030136-001B	MW06S-010305		03/05/2001 3:30:00 PM
01030136-001C	MW06S-010305		03/05/2001 3:30:00 PM
01030136-001D	MW06S-010305		03/05/2001 3:30:00 PM
01030136-001E	MW06S-010305		03/05/2001 3:30:00 PM
01030136-001F	MW06S-010305		03/05/2001 3:30:00 PM
01030136-001G	MW06S-010305		03/05/2001 3:30:00 PM
01030136-001H	MW06S-010305		03/05/2001 3:30:00 PM
01030136-001I	MW06S-010305		03/05/2001 3:30:00 PM
01030136-002A	MWF06S-010305		03/05/2001 3:30:00 PM
01030136-002B	MWF06S-010305		03/05/2001 3:30:00 PM
01030136-002C	MWF06S-010305		03/05/2001 3:30:00 PM
01030136-002D	MWF06S-010305		03/05/2001 3:30:00 PM
01030136-002E	MWF06S-010305		03/05/2001 3:30:00 PM
01030136-003A	TRIP BLANK		03/05/2001
01030136-004A	MW05D-010305		03/05/2001 2:25:00 PM
01030136-004B	MW05D-010305		03/05/2001 2:25:00 PM
01030136-004C	MW05D-010305		03/05/2001 2:25:00 PM
01030136-004D	MW05D-010305		03/05/2001 2:25:00 PM
01030136-004E	MW05D-010305		03/05/2001 2:25:00 PM
01030136-004F	MW05D-010305		03/05/2001 2:25:00 PM
01030136-004G	MW05D-010305		03/05/2001 2:25:00 PM
01030136-004H	MW05D-010305		03/05/2001 2:25:00 PM
01030136-004I	MW05D-010305		03/05/2001 2:25:00 PM
01030136-005A	MWF05D-010305		03/05/2001 2:25:00 PM
01030136-005B	MWF05D-010305		03/05/2001 2:25:00 PM
01030136-005C	MWF05D-010305		03/05/2001 2:25:00 PM
01030136-005D	MWF05D-010305		03/05/2001 2:25:00 PM
01030136-005E	MWF05D-010305		03/05/2001 2:25:00 PM
01030136-006A	TRIP BLANK		03/05/2001
01030136-007A	MW04D-010305		03/05/2001 12:15:00 PM
01030136-007B	MW04D-010305		03/05/2001 12:15:00 PM
01030136-007C	MW04D-010305		03/05/2001 12:15:00 PM
01030136-007D	MW04D-010305		03/05/2001 12:15:00 PM
01030136-007E	MW04D-010305		03/05/2001 12:15:00 PM
01030136-007F	MW04D-010305		03/05/2001 12:15:00 PM
01030136-007G	MW04D-010305		03/05/2001 12:15:00 PM

Clayton GROUP SERVICES

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/Millenium Petrochemical
Lab Order: 01030136
Date Received: 03/06/2001

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
01030136-007H	MW04D-010305		03/05/2001 12:15:00 PM
01030136-007I	MW04D-010305		03/05/2001 12:15:00 PM
01030136-008A	MWF04D-010305		03/05/2001 12:15:00 PM
01030136-008B	MWF04D-010305		03/05/2001 12:15:00 PM
01030136-008C	MWF04D-010305		03/05/2001 12:15:00 PM
01030136-008D	MWF04D-010305		03/05/2001 12:15:00 PM
01030136-008E	MWF04D-010305		03/05/2001 12:15:00 PM
01030136-009A	TRIP BLANK		03/05/2001
01030136-010A	MW05S-010305		03/05/2001 11:10:00 AM
01030136-010B	MW05S-010305		03/05/2001 11:10:00 AM
01030136-010C	MW05S-010305		03/05/2001 11:10:00 AM
01030136-010D	MW05S-010305		03/05/2001 11:10:00 AM
01030136-010E	MW05S-010305		03/05/2001 11:10:00 AM
01030136-010F	MW05S-010305		03/05/2001 11:10:00 AM
01030136-010G	MW05S-010305		03/05/2001 11:10:00 AM
01030136-010H	MW05S-010305		03/05/2001 11:10:00 AM
01030136-010I	MW05S-010305		03/05/2001 11:10:00 AM
01030136-011A	MWF05S-010305		03/05/2001 11:10:00 AM
01030136-011B	MWF05S-010305		03/05/2001 11:10:00 AM
01030136-011C	MWF05S-010305		03/05/2001 11:10:00 AM
01030136-011D	MWF05S-010305		03/05/2001 11:10:00 AM
01030136-011E	MWF05S-010305		03/05/2001 11:10:00 AM
01030136-012A	TRIP BLANK		03/05/2001
01030136-013A	LAB BLANK		03/05/2001

Clayton GROUP SERVICES

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/Millenium Petrochemical
Lab Order: 01030176
Date Received: 03/07/2001

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
01030176-001A	MW02S-010306		03/06/2001 3:40:00 PM
01030176-001B	MW02S-010306		03/06/2001 3:40:00 PM
01030176-001C	MW02S-010306		03/06/2001 3:40:00 PM
01030176-001D	MW02S-010306		03/06/2001 3:40:00 PM
01030176-001E	MW02S-010306		03/06/2001 3:40:00 PM
01030176-001F	MW02S-010306		03/06/2001 3:40:00 PM
01030176-001G	MW02S-010306		03/06/2001 3:40:00 PM
01030176-001H	MW02S-010306		03/06/2001 3:40:00 PM
01030176-001I	MW02S-010306		03/06/2001 3:40:00 PM
01030176-002A	MWF02S-010306 (FILTERE		03/06/2001 3:40:00 PM
01030176-002B	MWF02S-010306 (FILTERE		03/06/2001 3:40:00 PM
01030176-002C	MWF02S-010306 (FILTERE		03/06/2001 3:40:00 PM
01030176-002D	MWF02S-010306 (FILTERE		03/06/2001 3:40:00 PM
01030176-002E	MWF02S-010306 (FILTERE		03/06/2001 3:40:00 PM
01030176-003A	TRIP BLANK TB-2S		03/06/2001
01030176-004A	MW903S-010306		03/06/2001 1:00:00 PM
01030176-004B	MW903S-010306		03/06/2001 1:00:00 PM
01030176-004C	MW903S-010306		03/06/2001 1:00:00 PM
01030176-004D	MW903S-010306		03/06/2001 1:00:00 PM
01030176-004E	MW903S-010306		03/06/2001 1:00:00 PM
01030176-004F	MW903S-010306		03/06/2001 1:00:00 PM
01030176-004G	MW903S-010306		03/06/2001 1:00:00 PM
01030176-004H	MW903S-010306		03/06/2001 1:00:00 PM
01030176-004I	MW903S-010306		03/06/2001 1:00:00 PM
01030176-004J	MW903S-010306		03/06/2001 1:00:00 PM
01030176-005A	MWF903S-010306 (FILTER		03/06/2001 1:00:00 PM
01030176-005B	MWF903S-010306 (FILTER		03/06/2001 1:00:00 PM
01030176-005C	MWF903S-010306 (FILTER		03/06/2001 1:00:00 PM
01030176-005D	MWF903S-010306 (FILTER		03/06/2001 1:00:00 PM
01030176-005E	MWF903S-010306 (FILTER		03/06/2001 1:00:00 PM
01030176-005F	MWF903S-010306 (FILTER		03/06/2001 1:00:00 PM
01030176-006A	TRIP BLANK TB-903S		03/06/2001
01030176-007A	MW907D-010306		03/06/2001 2:30:00 PM
01030176-007B	MW907D-010306		03/06/2001 2:30:00 PM
01030176-007C	MW907D-010306		03/06/2001 2:30:00 PM
01030176-007D	MW907D-010306		03/06/2001 2:30:00 PM
01030176-007E	MW907D-010306		03/06/2001 2:30:00 PM

Clayton GROUP SERVICES

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/Millenium Petrochemical
Lab Order: 01030176
Date Received: 03/07/2001

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
01030176-007F	MW907D-010306		03/06/2001 2:30:00 PM
01030176-007G	MW907D-010306		03/06/2001 2:30:00 PM
01030176-007H	MW907D-010306		03/06/2001 2:30:00 PM
01030176-007I	MW907D-010306		03/06/2001 2:30:00 PM
01030176-008A	MWF907D-010306 (FILTER		03/06/2001 2:30:00 PM
01030176-008B	MWF907D-010306 (FILTER		03/06/2001 2:30:00 PM
01030176-008C	MWF907D-010306 (FILTER		03/06/2001 2:30:00 PM
01030176-008D	MWF907D-010306 (FILTER		03/06/2001 2:30:00 PM
01030176-008E	MWF907D-010306 (FILTER		03/06/2001 2:30:00 PM
01030176-009A	TRIP BLANK TB-907D		03/06/2001
01030176-010A	MW03S-010306		03/06/2001 12:46:00 PM
01030176-010B	MW03S-010306		03/06/2001 12:46:00 PM
01030176-010C	MW03S-010306		03/06/2001 12:46:00 PM
01030176-010D	MW03S-010306		03/06/2001 12:46:00 PM
01030176-010E	MW03S-010306		03/06/2001 12:46:00 PM
01030176-010F	MW03S-010306		03/06/2001 12:46:00 PM
01030176-010G	MW03S-010306		03/06/2001 12:46:00 PM
01030176-010H	MW03S-010306		03/06/2001 12:46:00 PM
01030176-010I	MW03S-010306		03/06/2001 12:46:00 PM
01030176-011A	MWF03S-010306 (FILTERE		03/06/2001 12:46:00 PM
01030176-011B	MWF03S-010306 (FILTERE		03/06/2001 12:46:00 PM
01030176-011C	MWF03S-010306 (FILTERE		03/06/2001 12:46:00 PM
01030176-011D	MWF03S-010306 (FILTERE		03/06/2001 12:46:00 PM
01030176-011E	MWF03S-010306 (FILTERE		03/06/2001 12:46:00 PM
01030176-012A	TRIP BLANK TB-3S		03/06/2001
01030176-013A	MW06D-010306		03/06/2001 8:30:00 AM
01030176-013B	MW06D-010306		03/06/2001 8:30:00 AM
01030176-013C	MW06D-010306		03/06/2001 8:30:00 AM
01030176-013D	MW06D-010306		03/06/2001 8:30:00 AM
01030176-013E	MW06D-010306		03/06/2001 8:30:00 AM
01030176-013F	MW06D-010306		03/06/2001 8:30:00 AM
01030176-013G	MW06D-010306		03/06/2001 8:30:00 AM
01030176-013H	MW06D-010306		03/06/2001 8:30:00 AM
01030176-013I	MW06D-010306		03/06/2001 8:30:00 AM
01030176-014A	MWF06D-010306 (FILTERE		03/06/2001 8:30:00 AM
01030176-014B	MWF06D-010306 (FILTERE		03/06/2001 8:30:00 AM
01030176-014C	MWF06D-010306 (FILTERE		03/06/2001 8:30:00 AM
01030176-014D	MWF06D-010306 (FILTERE		03/06/2001 8:30:00 AM
01030176-014E	MWF06D-010306 (FILTERE		03/06/2001 8:30:00 AM

Clayton GROUP SERVICES

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/Millenium Petrochemical
Lab Order: 01030176
Date Received: 03/07/2001

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
01030176-015A	TRIP BLANK TB-6D		03/06/2001
01030176-016A	MW07S-010306		03/06/2001 9:31:00 AM
01030176-016B	MW07S-010306		03/06/2001 9:31:00 AM
01030176-016C	MW07S-010306		03/06/2001 9:31:00 AM
01030176-016D	MW07S-010306		03/06/2001 9:31:00 AM
01030176-016E	MW07S-010306		03/06/2001 9:31:00 AM
01030176-016F	MW07S-010306		03/06/2001 9:31:00 AM
01030176-016G	MW07S-010306		03/06/2001 9:31:00 AM
01030176-016H	MW07S-010306		03/06/2001 9:31:00 AM
01030176-016I	MW07S-010306		03/06/2001 9:31:00 AM
01030176-017A	MWF07S-01036 (FILTERE		03/06/2001 9:31:00 AM
01030176-017B	MWF07S-01036 (FILTERE		03/06/2001 9:31:00 AM
01030176-017C	MWF07S-01036 (FILTERE		03/06/2001 9:31:00 AM
01030176-017D	MWF07S-01036 (FILTERE		03/06/2001 9:31:00 AM
01030176-017E	MWF07S-01036 (FILTERE		03/06/2001 9:31:00 AM
01030176-018A	TRIP BLANK TB-7S		03/06/2001
01030176-019A	MW07D-010306		03/06/2001 1:30:00 PM
01030176-019B	MW07D-010306		03/06/2001 1:30:00 PM
01030176-019C	MW07D-010306		03/06/2001 1:30:00 PM
01030176-019D	MW07D-010306		03/06/2001 1:30:00 PM
01030176-019E	MW07D-010306		03/06/2001 1:30:00 PM
01030176-019F	MW07D-010306		03/06/2001 1:30:00 PM
01030176-019G	MW07D-010306		03/06/2001 1:30:00 PM
01030176-019H	MW07D-010306		03/06/2001 1:30:00 PM
01030176-019I	MW07D-010306		03/06/2001 1:30:00 PM
01030176-020A	MWF07D-010306 (FILTERE		03/06/2001 1:30:00 PM
01030176-020B	MWF07D-010306 (FILTERE		03/06/2001 1:30:00 PM
01030176-020C	MWF07D-010306 (FILTERE		03/06/2001 1:30:00 PM
01030176-020D	MWF07D-010306 (FILTERE		03/06/2001 1:30:00 PM
01030176-020E	MWF07D-010306 (FILTERE		03/06/2001 1:30:00 PM
01030176-021A	TRIP BLANK TB-7D		03/06/2001
01030176-022A	MW04S-010305		03/06/2001 3:45:00 PM
01030176-022B	MW04S-010305		03/06/2001 3:45:00 PM
01030176-022C	MW04S-010305		03/06/2001 3:45:00 PM
01030176-022D	MW04S-010305		03/06/2001 3:45:00 PM
01030176-022E	MW04S-010305		03/06/2001 3:45:00 PM
01030176-022F	MW04S-010305		03/06/2001 3:45:00 PM
01030176-022G	MW04S-010305		03/06/2001 3:45:00 PM
01030176-022H	MW04S-010305		03/06/2001 3:45:00 PM

Clayton GROUP SERVICES

CLIENT:	CLAYTON GROUP SERVICES
Project:	15-00116.01/Millenium Petrochemical
Lab Order:	01030176
Date Received:	03/07/2001

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
01030176-022I	MW04S-010305		03/06/2001 3:45:00 PM
01030176-023A	MWF04S-010305 (FILTERE		03/06/2001 3:45:00 PM
01030176-023B	MWF04S-010305 (FILTERE		03/06/2001 3:45:00 PM
01030176-023C	MWF04S-010305 (FILTERE		03/06/2001 3:45:00 PM
01030176-023D	MWF04S-010305 (FILTERE		03/06/2001 3:45:00 PM
01030176-023E	MWF04S-010305 (FILTERE		03/06/2001 3:45:00 PM
01030176-024A	TRIP BLANK		03/06/2001
01030176-025A	LAB BLANK		03/06/2001
01030176-025B	LAB BLANK		03/06/2001
01030176-025C	LAB BLANK		03/06/2001
01030176-025D	LAB BLANK		03/06/2001
01030176-025E	LAB BLANK		03/06/2001
01030176-025F	LAB BLANK		03/06/2001
01030176-025G	LAB BLANK		03/06/2001
01030176-025H	LAB BLANK		03/06/2001

Clayton GROUP SERVICES

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/Millenium Petrochemical
Lab Order: 01030206
Date Received: 03/08/2001

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
01030206-001A	MW08S-010307		03/07/2001 12:25:00 PM
01030206-001B	MW08S-010307		03/07/2001 12:25:00 PM
01030206-001C	MW08S-010307		03/07/2001 12:25:00 PM
01030206-001D	MW08S-010307		03/07/2001 12:25:00 PM
01030206-001E	MW08S-010307		03/07/2001 12:25:00 PM
01030206-001F	MW08S-010307		03/07/2001 12:25:00 PM
01030206-001G	MW08S-010307		03/07/2001 12:25:00 PM
01030206-001H	MW08S-010307		03/07/2001 12:25:00 PM
01030206-001I	MW08S-010307		03/07/2001 12:25:00 PM
01030206-002A	MWF08S-010307		03/07/2001 12:25:00 PM
01030206-002B	MWF08S-010307		03/07/2001 12:25:00 PM
01030206-002C	MWF08S-010307		03/07/2001 12:25:00 PM
01030206-002D	MWF08S-010307		03/07/2001 12:25:00 PM
01030206-002E	MWF08S-010307		03/07/2001 12:25:00 PM
01030206-003A	TB-8S		03/07/2001
01030206-004A	MW02D-010307		03/07/2001 11:30:00 AM
01030206-004B	MW02D-010307		03/07/2001 11:30:00 AM
01030206-004C	MW02D-010307		03/07/2001 11:30:00 AM
01030206-004D	MW02D-010307		03/07/2001 11:30:00 AM
01030206-004G	MW02D-010307		03/07/2001 11:30:00 AM
01030206-005A	MWF02D-010307		03/07/2001 11:30:00 AM
01030206-005D	MWF02D-010307		03/07/2001 11:30:00 AM
01030206-005E	MWF02D-010307		03/07/2001 11:30:00 AM
01030206-006A	TB-2D		03/07/2001
01030206-007A	MW01S-010307		03/07/2001 10:30:00 AM
01030206-007B	MW01S-010307		03/07/2001 10:30:00 AM
01030206-007C	MW01S-010307		03/07/2001 10:30:00 AM
01030206-007D	MW01S-010307		03/07/2001 10:30:00 AM
01030206-007E	MW01S-010307		03/07/2001 10:30:00 AM
01030206-007F	MW01S-010307		03/07/2001 10:30:00 AM
01030206-007G	MW01S-010307		03/07/2001 10:30:00 AM
01030206-007H	MW01S-010307		03/07/2001 10:30:00 AM
01030206-007I	MW01S-010307		03/07/2001 10:30:00 AM
01030206-008A	MWF01S-010307		03/07/2001 10:30:00 AM
01030206-008B	MWF01S-010307		03/07/2001 10:30:00 AM
01030206-008C	MWF01S-010307		03/07/2001 10:30:00 AM
01030206-008D	MWF01S-010307		03/07/2001 10:30:00 AM

Clayton GROUP SERVICES

CLIENT:	CLAYTON GROUP SERVICES
Project:	15-00116.01/Millenium Petrochemical
Lab Order:	01030206
Date Received:	03/08/2001

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
01030206-008E	MWF01S-010307		03/07/2001 10:30:00 AM
01030206-009A	TB-1S		03/07/2001
01030206-010A	MW09S-010307		03/07/2001 8:55:00 AM
01030206-010B	MW09S-010307		03/07/2001 8:55:00 AM
01030206-010C	MW09S-010307		03/07/2001 8:55:00 AM
01030206-010D	MW09S-010307		03/07/2001 8:55:00 AM
01030206-010E	MW09S-010307		03/07/2001 8:55:00 AM
01030206-010F	MW09S-010307		03/07/2001 8:55:00 AM
01030206-010G	MW09S-010307		03/07/2001 8:55:00 AM
01030206-010H	MW09S-010307		03/07/2001 8:55:00 AM
01030206-010I	MW09S-010307		03/07/2001 8:55:00 AM
01030206-011A	MWF09S-010307		03/07/2001 8:55:00 AM
01030206-011B	MWF09S-010307		03/07/2001 8:55:00 AM
01030206-011C	MWF09S-010307		03/07/2001 8:55:00 AM
01030206-011D	MWF09S-010307		03/07/2001 8:55:00 AM
01030206-011E	MWF09S-010307		03/07/2001 8:55:00 AM
01030206-012A	TB-9S		
01030206-013A	LAB BLANK		03/07/2001

Clayton GROUP SERVICES

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/Millenium Petrochemical
Lab Order: 01030261
Date Received: 03/09/2001

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
01030261-001A	MW01D-010308		03/08/2001 11:00:00 AM
01030261-001B	MW01D-010308		03/08/2001 11:00:00 AM
01030261-001C	MW01D-010308		03/08/2001 11:00:00 AM
01030261-001D	MW01D-010308		03/08/2001 11:00:00 AM
01030261-001E	MW01D-010308		03/08/2001 11:00:00 AM
01030261-001F	MW01D-010308		03/08/2001 11:00:00 AM
01030261-001G	MW01D-010308		03/08/2001 11:00:00 AM
01030261-001H	MW01D-010308		03/08/2001 11:00:00 AM
01030261-001I	MW01D-010308		03/08/2001 11:00:00 AM
01030261-002A	MWF01D-010308 (FILTERE		03/08/2001 11:00:00 AM
01030261-002B	MWF01D-010308 (FILTERE		03/08/2001 11:00:00 AM
01030261-002C	MWF01D-010308 (FILTERE		03/08/2001 11:00:00 AM
01030261-002D	MWF01D-010308 (FILTERE		03/08/2001 11:00:00 AM
01030261-002E	MWF01D-010308 (FILTERE		03/08/2001 11:00:00 AM
01030261-003A	TB-1D		03/08/2001
01030261-004A	MW08D-010308		03/08/2001 2:30:00 PM
01030261-004B	MW08D-010308		03/08/2001 2:30:00 PM
01030261-004C	MW08D-010308		03/08/2001 2:30:00 PM
01030261-004D	MW08D-010308		03/08/2001 2:30:00 PM
01030261-004E	MW08D-010308		03/08/2001 2:30:00 PM
01030261-004F	MW08D-010308		03/08/2001 2:30:00 PM
01030261-004G	MW08D-010308		03/08/2001 2:30:00 PM
01030261-004H	MW08D-010308		03/08/2001 2:30:00 PM
01030261-004I	MW08D-010308		03/08/2001 2:30:00 PM
01030261-005A	MWF08D-010308 (FILTERE		03/08/2001 2:30:00 PM
01030261-005B	MWF08D-010308 (FILTERE		03/08/2001 2:30:00 PM
01030261-005C	MWF08D-010308 (FILTERE		03/08/2001 2:30:00 PM
01030261-005D	MWF08D-010308 (FILTERE		03/08/2001 2:30:00 PM
01030261-005E	MWF08D-010308 (FILTERE		03/08/2001 2:30:00 PM
01030261-006A	TB-8D		03/08/2001
01030261-007A	MW03D-010308		03/08/2001 8:00:00 AM
01030261-007B	MW03D-010308		03/08/2001 8:00:00 AM
01030261-007C	MW03D-010308		03/08/2001 8:00:00 AM
01030261-007D	MW03D-010308		03/08/2001 8:00:00 AM
01030261-007E	MW03D-010308		03/08/2001 8:00:00 AM
01030261-007F	MW03D-010308		03/08/2001 8:00:00 AM
01030261-007G	MW03D-010308		03/08/2001 8:00:00 AM

Clayton GROUP SERVICES

CLIENT:	CLAYTON GROUP SERVICES
Project:	15-00116.01/Millenium Petrochemical
Lab Order:	01030261
Date Received:	03/09/2001

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
01030261-007H	MW03D-010308		03/08/2001 8:00:00 AM
01030261-007I	MW03D-010308		03/08/2001 8:00:00 AM
01030261-008A	MWF03D-010308 (FILTERE		03/08/2001 8:00:00 AM
01030261-008B	MWF03D-010308 (FILTERE		03/08/2001 8:00:00 AM
01030261-008C	MWF03D-010308 (FILTERE		03/08/2001 8:00:00 AM
01030261-008D	MWF03D-010308 (FILTERE		03/08/2001 8:00:00 AM
01030261-008E	MWF03D-010308 (FILTERE		03/08/2001 8:00:00 AM
01030261-009A	MW02D-010307		03/07/2001 11:30:00 AM
01030261-009B	MW02D-010307		03/07/2001 11:30:00 AM
01030261-009C	MW02D-010307		03/07/2001 11:30:00 AM
01030261-009D	MW02D-010307		03/07/2001 11:30:00 AM
01030261-010A	MWF02D-010307 (FILTERE		03/07/2001 11:30:00 AM
01030261-010B	MWF02D-010307 (FILTERE		03/07/2001 11:30:00 AM
01030261-011A	TB-3D		03/07/2001
01030261-012A	RB03-010308		03/08/2001 12:15:00 PM
01030261-012B	RB03-010308		03/08/2001 12:15:00 PM
01030261-012C	RB03-010308		03/08/2001 12:15:00 PM
01030261-012D	RB03-010308		03/08/2001 12:15:00 PM
01030261-012E	RB03-010308		03/08/2001 12:15:00 PM
01030261-012F	RB03-010308		03/08/2001 12:15:00 PM
01030261-012G	RB03-010308		03/08/2001 12:15:00 PM
01030261-012H	RB03-010308		03/08/2001 12:15:00 PM
01030261-012I	RB03-010308		03/08/2001 12:15:00 PM
01030261-013A	LAB BLANK		03/08/2001

Clayton GROUP SERVICES

Clayton Group Services

Date: *12-Jun-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.01/Millenium Petrochemical
Lab Order: 01030312
Date Received: 03/12/2001

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
01030312-001A	MW09D-010309		03/09/2001 10:30:00 AM
01030312-001B	MW09D-010309		03/09/2001 10:30:00 AM
01030312-001C	MW09D-010309		03/09/2001 10:30:00 AM
01030312-001D	MW09D-010309		03/09/2001 10:30:00 AM
01030312-001E	MW09D-010309		03/09/2001 10:30:00 AM
01030312-001F	MW09D-010309		03/09/2001 10:30:00 AM
01030312-001G	MW09D-010309		03/09/2001 10:30:00 AM
01030312-001H	MW09D-010309		03/09/2001 10:30:00 AM
01030312-001I	MW09D-010309		03/09/2001 10:30:00 AM
01030312-002A	MWF09D-010309		03/09/2001 10:30:00 AM
01030312-002B	MWF09D-010309		03/09/2001 10:30:00 AM
01030312-002C	MWF09D-010309		03/09/2001 10:30:00 AM
01030312-002D	MWF09D-010309		03/09/2001 10:30:00 AM
01030312-002E	MWF09D-010309		03/09/2001 10:30:00 AM
01030312-003A	LAB BLANK		03/09/2001

Clayton GROUP SERVICES

Work Order Sample Summary

Date: *09-Oct-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.03/Millenium Petrochemical
Work Order: 01080181
Date Received: 08/07/2001

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
01080181-001A	MW02S-010806		08/06/2001 12:30:00 PM
01080181-001B	MW02S-010806		08/06/2001 12:30:00 PM
01080181-001C	MW02S-010806		08/06/2001 12:30:00 PM
01080181-001D	MW02S-010806		08/06/2001 12:30:00 PM
01080181-001E	MW02S-010806		08/06/2001 12:30:00 PM
01080181-001F	MW02S-010806		08/06/2001 12:30:00 PM
01080181-001G	MW02S-010806		08/06/2001 12:30:00 PM
01080181-001H	MW02S-010806		08/06/2001 12:30:00 PM
01080181-001I	MW02S-010806		08/06/2001 12:30:00 PM
01080181-002A	MWF02S-010806		08/06/2001 12:30:00 PM
01080181-002B	MWF02S-010806		08/06/2001 12:30:00 PM
01080181-002C	MWF02S-010806		08/06/2001 12:30:00 PM
01080181-002D	MWF02S-010806		08/06/2001 12:30:00 PM
01080181-002E	MWF02S-010806		08/06/2001 12:30:00 PM
01080181-003A	LAB BLANK		08/06/2001

Clayton GROUP SERVICES

Work Order Sample Summary

Date: *09-Oct-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.003/Millenium Petrochemical
Work Order: 01080231
Date Received: 08/08/2001

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
01080231-001A	MW02D-010806		08/06/2001 12:15:00 PM
01080231-001B	MW02D-010806		08/06/2001 12:15:00 PM
01080231-001C	MW02D-010806		08/06/2001 12:15:00 PM
01080231-001D	MW02D-010806		08/06/2001 12:15:00 PM
01080231-001E	MW02D-010806		08/06/2001 12:15:00 PM
01080231-001F	MW02D-010806		08/06/2001 12:15:00 PM
01080231-001G	MW02D-010806		08/06/2001 12:15:00 PM
01080231-001H	MW02D-010806		08/06/2001 12:15:00 PM
01080231-001I	MW02D-010806		08/06/2001 12:15:00 PM
01080231-002A	MWF02D-010806 (FILTERE		08/06/2001 12:15:00 PM
01080231-002B	MWF02D-010806 (FILTERE		08/06/2001 12:15:00 PM
01080231-002C	MWF02D-010806 (FILTERE		08/06/2001 12:15:00 PM
01080231-002D	MWF02D-010806 (FILTERE		08/06/2001 12:15:00 PM
01080231-002E	MWF02D-010806 (FILTERE		08/06/2001 12:15:00 PM
01080231-003A	MW04D-010807		08/07/2001 9:00:00 AM
01080231-003B	MW04D-010807		08/07/2001 9:00:00 AM
01080231-003C	MW04D-010807		08/07/2001 9:00:00 AM
01080231-003D	MW04D-010807		08/07/2001 9:00:00 AM
01080231-003E	MW04D-010807		08/07/2001 9:00:00 AM
01080231-003F	MW04D-010807		08/07/2001 9:00:00 AM
01080231-003G	MW04D-010807		08/07/2001 9:00:00 AM
01080231-003H	MW04D-010807		08/07/2001 9:00:00 AM
01080231-003I	MW04D-010807		08/07/2001 9:00:00 AM
01080231-004A	MWF04D-010807 (FILTERE		08/07/2001 9:00:00 AM
01080231-004B	MWF04D-010807 (FILTERE		08/07/2001 9:00:00 AM
01080231-004C	MWF04D-010807 (FILTERE		08/07/2001 9:00:00 AM
01080231-004D	MWF04D-010807 (FILTERE		08/07/2001 9:00:00 AM
01080231-004E	MWF04D-010807 (FILTERE		08/07/2001 9:00:00 AM
01080231-005A	TRIP BLANK 010807		08/07/2001
01080231-006A	MW05D-010807		08/07/2001 12:45:00 PM
01080231-006B	MW05D-010807		08/07/2001 12:45:00 PM
01080231-006C	MW05D-010807		08/07/2001 12:45:00 PM
01080231-006D	MW05D-010807		08/07/2001 12:45:00 PM
01080231-006E	MW05D-010807		08/07/2001 12:45:00 PM
01080231-006F	MW05D-010807		08/07/2001 12:45:00 PM
01080231-006G	MW05D-010807		08/07/2001 12:45:00 PM
01080231-006H	MW05D-010807		08/07/2001 12:45:00 PM

Clayton GROUP SERVICES

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.003/Millenium Petrochemical
Work Order: 01080231
Date Received: 08/08/2001

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
01080231-006I	MW05D-010807		08/07/2001 12:45:00 PM
01080231-007A	MWF05D-010807 (FILTERE		08/07/2001 12:45:00 PM
01080231-007B	MWF05D-010807 (FILTERE		08/07/2001 12:45:00 PM
01080231-007C	MWF05D-010807 (FILTERE		08/07/2001 12:45:00 PM
01080231-007D	MWF05D-010807 (FILTERE		08/07/2001 12:45:00 PM
01080231-007E	MWF05D-010807 (FILTERE		08/07/2001 12:45:00 PM
01080231-008A	MW05S-010807		08/07/2001 1:00:00 PM
01080231-008B	MW05S-010807		08/07/2001 1:00:00 PM
01080231-008C	MW05S-010807		08/07/2001 1:00:00 PM
01080231-008D	MW05S-010807		08/07/2001 1:00:00 PM
01080231-008E	MW05S-010807		08/07/2001 1:00:00 PM
01080231-008F	MW05S-010807		08/07/2001 1:00:00 PM
01080231-008G	MW05S-010807		08/07/2001 1:00:00 PM
01080231-008H	MW05S-010807		08/07/2001 1:00:00 PM
01080231-008I	MW05S-010807		08/07/2001 1:00:00 PM
01080231-009A	MWF05S-010807 (FILTERE		08/06/2001 1:00:00 PM
01080231-009B	MWF05S-010807 (FILTERE		08/06/2001 1:00:00 PM
01080231-009C	MWF05S-010807 (FILTERE		08/06/2001 1:00:00 PM
01080231-009D	MWF05S-010807 (FILTERE		08/06/2001 1:00:00 PM
01080231-009E	MWF05S-010807 (FILTERE		08/06/2001 1:00:00 PM
01080231-010A	TRIP BLANK		08/07/2001
01080231-011A	LAB BLANK		08/07/2001

Clayton GROUP SERVICES

Work Order Sample Summary

Date: *09-Oct-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.03/Millenium Petrochemical
Work Order: 01080265
Date Received: 08/09/2001

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
01080265-001A	MW01D-010807		08/07/2001 4:00:00 PM
01080265-001B	MW01D-010807		08/07/2001 4:00:00 PM
01080265-001C	MW01D-010807		08/07/2001 4:00:00 PM
01080265-001D	MW01D-010807		08/07/2001 4:00:00 PM
01080265-001E	MW01D-010807		08/07/2001 4:00:00 PM
01080265-001F	MW01D-010807		08/07/2001 4:00:00 PM
01080265-001G	MW01D-010807		08/07/2001 4:00:00 PM
01080265-001H	MW01D-010807		08/07/2001 4:00:00 PM
01080265-001I	MW01D-010807		08/07/2001 4:00:00 PM
01080265-002A	MWF01D-010807 FILTERE		08/07/2001 4:00:00 PM
01080265-002B	MWF01D-010807 FILTERE		08/07/2001 4:00:00 PM
01080265-002C	MWF01D-010807 FILTERE		08/07/2001 4:00:00 PM
01080265-002D	MWF01D-010807 FILTERE		08/07/2001 4:00:00 PM
01080265-002E	MWF01D-010807 FILTERE		08/07/2001 4:00:00 PM
01080265-003A	TRIP BLANK		08/07/2001
01080265-004A	MW03D-010808		08/08/2001 4:00:00 PM
01080265-004B	MW03D-010808		08/08/2001 4:00:00 PM
01080265-004C	MW03D-010808		08/08/2001 4:00:00 PM
01080265-004D	MW03D-010808		08/08/2001 4:00:00 PM
01080265-004E	MW03D-010808		08/08/2001 4:00:00 PM
01080265-004F	MW03D-010808		08/08/2001 4:00:00 PM
01080265-004G	MW03D-010808		08/08/2001 4:00:00 PM
01080265-004H	MW03D-010808		08/08/2001 4:00:00 PM
01080265-004I	MW03D-010808		08/08/2001 4:00:00 PM
01080265-005A	MWF03D-010808		08/08/2001 4:00:00 PM
01080265-005B	MWF03D-010808		08/08/2001 4:00:00 PM
01080265-005C	MWF03D-010808		08/08/2001 4:00:00 PM
01080265-005D	MWF03D-010808		08/08/2001 4:00:00 PM
01080265-005E	MWF03D-010808		08/08/2001 4:00:00 PM
01080265-006A	MW07S-010808		08/08/2001 10:00:00 AM
01080265-006B	MW07S-010808		08/08/2001 10:00:00 AM
01080265-006C	MW07S-010808		08/08/2001 10:00:00 AM
01080265-006D	MW07S-010808		08/08/2001 10:00:00 AM
01080265-006E	MW07S-010808		08/08/2001 10:00:00 AM
01080265-006F	MW07S-010808		08/08/2001 10:00:00 AM
01080265-006G	MW07S-010808		08/08/2001 10:00:00 AM
01080265-006H	MW07S-010808		08/08/2001 10:00:00 AM

Clayton GROUP SERVICES

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.03/Millenium Petrochemical
Work Order: 01080265
Date Received: 08/09/2001

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
01080265-006I	MW07S-010808		08/08/2001 10:00:00 AM
01080265-007A	MWF07S-010808 FILTERE		08/08/2001 10:00:00 AM
01080265-007B	MWF07S-010808 FILTERE		08/08/2001 10:00:00 AM
01080265-007C	MWF07S-010808 FILTERE		08/08/2001 10:00:00 AM
01080265-007D	MWF07S-010808 FILTERE		08/08/2001 10:00:00 AM
01080265-007E	MWF07S-010808 FILTERE		08/08/2001 10:00:00 AM
01080265-008A	TRIP BLANK		08/08/2001
01080265-009A	MW907D-010808		08/08/2001 10:00:00 AM
01080265-009B	MW907D-010808		08/08/2001 10:00:00 AM
01080265-009C	MW907D-010808		08/08/2001 10:00:00 AM
01080265-009D	MW907D-010808		08/08/2001 10:00:00 AM
01080265-009E	MW907D-010808		08/08/2001 10:00:00 AM
01080265-009F	MW907D-010808		08/08/2001 10:00:00 AM
01080265-009G	MW907D-010808		08/08/2001 10:00:00 AM
01080265-009H	MW907D-010808		08/08/2001 10:00:00 AM
01080265-009I	MW907D-010808		08/08/2001 10:00:00 AM
01080265-010A	MWF907D-010808 FILTER		08/08/2001 10:00:00 AM
01080265-010B	MWF907D-010808 FILTER		08/08/2001 10:00:00 AM
01080265-010C	MWF907D-010808 FILTER		08/08/2001 10:00:00 AM
01080265-010D	MWF907D-010808 FILTER		08/08/2001 10:00:00 AM
01080265-010E	MWF907D-010808 FILTER		08/08/2001 10:00:00 AM
01080265-011A	TRIP BLANK		08/08/2001
01080265-012A	MW07D-010808		08/08/2001 10:00:00 AM
01080265-012B	MW07D-010808		08/08/2001 10:00:00 AM
01080265-012C	MW07D-010808		08/08/2001 10:00:00 AM
01080265-012D	MW07D-010808		08/08/2001 10:00:00 AM
01080265-012E	MW07D-010808		08/08/2001 10:00:00 AM
01080265-012F	MW07D-010808		08/08/2001 10:00:00 AM
01080265-012G	MW07D-010808		08/08/2001 10:00:00 AM
01080265-012H	MW07D-010808		08/08/2001 10:00:00 AM
01080265-012I	MW07D-010808		08/08/2001 10:00:00 AM
01080265-013A	MWF07D-010808 FILTERE		08/08/2001 10:00:00 AM
01080265-013B	MWF07D-010808 FILTERE		08/08/2001 10:00:00 AM
01080265-013C	MWF07D-010808 FILTERE		08/08/2001 10:00:00 AM
01080265-013D	MWF07D-010808 FILTERE		08/08/2001 10:00:00 AM
01080265-013E	MWF07D-010808 FILTERE		08/08/2001 10:00:00 AM
01080265-014A	TRIP BLANK		08/08/2001
01080265-015A	MW01S-010807		08/07/2001 5:30:00 PM
01080265-015B	MW01S-010807		08/07/2001 5:30:00 PM

Clayton GROUP SERVICES

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.03/Millenium Petrochemical
Work Order: 01080265
Date Received: 08/09/2001

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
01080265-015C	MW01S-010807		08/07/2001 5:30:00 PM
01080265-015D	MW01S-010807		08/07/2001 5:30:00 PM
01080265-015E	MW01S-010807		08/07/2001 5:30:00 PM
01080265-015F	MW01S-010807		08/07/2001 5:30:00 PM
01080265-015G	MW01S-010807		08/07/2001 5:30:00 PM
01080265-015H	MW01S-010807		08/07/2001 5:30:00 PM
01080265-015I	MW01S-010807		08/07/2001 5:30:00 PM
01080265-016A	MWF01S-010807 FILTERE		08/07/2001 5:30:00 PM
01080265-016B	MWF01S-010807 FILTERE		08/07/2001 5:30:00 PM
01080265-016C	MWF01S-010807 FILTERE		08/07/2001 5:30:00 PM
01080265-016D	MWF01S-010807 FILTERE		08/07/2001 5:30:00 PM
01080265-016E	MWF01S-010807 FILTERE		08/07/2001 5:30:00 PM
01080265-017A	TRIP BLANK		08/07/2001
01080265-018A	MW06D-010808		08/08/2001 1:30:00 PM
01080265-018B	MW06D-010808		08/08/2001 1:30:00 PM
01080265-018C	MW06D-010808		08/08/2001 1:30:00 PM
01080265-018D	MW06D-010808		08/08/2001 1:30:00 PM
01080265-018E	MW06D-010808		08/08/2001 1:30:00 PM
01080265-018F	MW06D-010808		08/08/2001 1:30:00 PM
01080265-018G	MW06D-010808		08/08/2001 1:30:00 PM
01080265-018H	MW06D-010808		08/08/2001 1:30:00 PM
01080265-018I	MW06D-010808		08/08/2001 1:30:00 PM
01080265-019A	MWF06D-010808 FILTERE		08/08/2001 1:30:00 PM
01080265-019B	MWF06D-010808 FILTERE		08/08/2001 1:30:00 PM
01080265-019C	MWF06D-010808 FILTERE		08/08/2001 1:30:00 PM
01080265-019D	MWF06D-010808 FILTERE		08/08/2001 1:30:00 PM
01080265-019E	MWF06D-010808 FILTERE		08/08/2001 1:30:00 PM
01080265-020A	TRIP BLANK		08/08/2001
01080265-021A	LAB BLANK		08/08/2001

Clayton GROUP SERVICES

Work Order Sample Summary

Date: *09-Oct-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.03/Millenium Petrochemical
Work Order: 01080321
Date Received: 08/10/2001

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
01080321-001A	MW09S-010809		08/09/2001 9:00:00 AM
01080321-001B	MW09S-010809		08/09/2001 9:00:00 AM
01080321-001C	MW09S-010809		08/09/2001 9:00:00 AM
01080321-001D	MW09S-010809		08/09/2001 9:00:00 AM
01080321-001E	MW09S-010809		08/09/2001 9:00:00 AM
01080321-001F	MW09S-010809		08/09/2001 9:00:00 AM
01080321-001G	MW09S-010809		08/09/2001 9:00:00 AM
01080321-001H	MW09S-010809		08/09/2001 9:00:00 AM
01080321-001I	MW09S-010809		08/09/2001 9:00:00 AM
01080321-002A	MWF09S-010809		08/09/2001 9:00:00 AM
01080321-002B	MWF09S-010809		08/09/2001 9:00:00 AM
01080321-002C	MWF09S-010809		08/09/2001 9:00:00 AM
01080321-002D	MWF09S-010809		08/09/2001 9:00:00 AM
01080321-002E	MWF09S-010809		08/09/2001 9:00:00 AM
01080321-003A	TRIP BLANK		08/09/2001
01080321-004A	MW09D-010809		08/09/2001 9:30:00 AM
01080321-004B	MW09D-010809		08/09/2001 9:30:00 AM
01080321-004C	MW09D-010809		08/09/2001 9:30:00 AM
01080321-004D	MW09D-010809		08/09/2001 9:30:00 AM
01080321-004E	MW09D-010809		08/09/2001 9:30:00 AM
01080321-004F	MW09D-010809		08/09/2001 9:30:00 AM
01080321-004G	MW09D-010809		08/09/2001 9:30:00 AM
01080321-004H	MW09D-010809		08/09/2001 9:30:00 AM
01080321-004I	MW09D-010809		08/09/2001 9:30:00 AM
01080321-005A	MWF09D-010809 FILTERE		08/09/2001 9:30:00 AM
01080321-005B	MWF09D-010809 FILTERE		08/09/2001 9:30:00 AM
01080321-005C	MWF09D-010809 FILTERE		08/09/2001 9:30:00 AM
01080321-005D	MWF09D-010809 FILTERE		08/09/2001 9:30:00 AM
01080321-005E	MWF09D-010809 FILTERE		08/09/2001 9:30:00 AM
01080321-006A	TRIP BLANK		08/09/2001
01080321-007A	MW11-010809		08/09/2001 2:30:00 PM
01080321-007B	MW11-010809		08/09/2001 2:30:00 PM
01080321-007C	MW11-010809		08/09/2001 2:30:00 PM
01080321-007D	MW11-010809		08/09/2001 2:30:00 PM
01080321-007E	MW11-010809		08/09/2001 2:30:00 PM
01080321-007F	MW11-010809		08/09/2001 2:30:00 PM
01080321-007G	MW11-010809		08/09/2001 2:30:00 PM

Clayton GROUP SERVICES

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.03/Millenium Petrochemical
Work Order: 01080321
Date Received: 08/10/2001

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
01080321-007H	MW11-010809		08/09/2001 2:30:00 PM
01080321-007I	MW11-010809		08/09/2001 2:30:00 PM
01080321-008A	MWF11-010809		08/09/2001 2:30:00 PM
01080321-008B	MWF11-010809		08/09/2001 2:30:00 PM
01080321-008C	MWF11-010809		08/09/2001 2:30:00 PM
01080321-008D	MWF11-010809		08/09/2001 2:30:00 PM
01080321-008E	MWF11-010809		08/09/2001 2:30:00 PM
01080321-009A	TRIP BLANK		08/09/2001
01080321-010A	MW06S-010808		08/08/2001 3:30:00 PM
01080321-010B	MW06S-010808		08/08/2001 3:30:00 PM
01080321-010C	MW06S-010808		08/08/2001 3:30:00 PM
01080321-010D	MW06S-010808		08/08/2001 3:30:00 PM
01080321-010E	MW06S-010808		08/08/2001 3:30:00 PM
01080321-010F	MW06S-010808		08/08/2001 3:30:00 PM
01080321-010G	MW06S-010808		08/08/2001 3:30:00 PM
01080321-010H	MW06S-010808		08/08/2001 3:30:00 PM
01080321-010I	MW06S-010808		08/08/2001 3:30:00 PM
01080321-011A	MWF06S-010808 FILTERE		08/08/2001 3:30:00 PM
01080321-011B	MWF06S-010808 FILTERE		08/08/2001 3:30:00 PM
01080321-011C	MWF06S-010808 FILTERE		08/08/2001 3:30:00 PM
01080321-011D	MWF06S-010808 FILTERE		08/08/2001 3:30:00 PM
01080321-011E	MWF06S-010808 FILTERE		08/08/2001 3:30:00 PM
01080321-012A	TRIP BLANK		08/08/2001
01080321-013A	MW03S-010809		08/09/2001 1:00:00 PM
01080321-013B	MW03S-010809		08/09/2001 1:00:00 PM
01080321-013C	MW03S-010809		08/09/2001 1:00:00 PM
01080321-013D	MW03S-010809		08/09/2001 1:00:00 PM
01080321-013E	MW03S-010809		08/09/2001 1:00:00 PM
01080321-013F	MW03S-010809		08/09/2001 1:00:00 PM
01080321-013G	MW03S-010809		08/09/2001 1:00:00 PM
01080321-013H	MW03S-010809		08/09/2001 1:00:00 PM
01080321-013I	MW03S-010809		08/09/2001 1:00:00 PM
01080321-013J	MW03S-010809		08/09/2001 1:00:00 PM
01080321-014A	TRIP BLANK		08/09/2001 1:00:00 PM
01080321-015A	LAB BLANK		08/09/2001 1:00:00 PM
01080321-016A	MWF03S-010809		08/09/2001
01080321-016B	MWF03S-010809		08/09/2001
01080321-016C	MWF03S-010809		08/09/2001
01080321-016D	MWF03S-010809		08/09/2001

Clayton GROUP SERVICES

CLIENT:	CLAYTON GROUP SERVICES
Project:	15-00116.03/Millenium Petrochemical
Work Order:	01080321
Date Received:	08/10/2001

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
01080321-016E	MWF03S-010809		08/09/2001

Clayton GROUP SERVICES

Work Order Sample Summary

Date: *09-Oct-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.03/Millenium Petrochemical
Work Order: 01080398
Date Received: 08/13/2001

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
01080398-001A	MW04S-010807		08/07/2001
01080398-001B	MW04S-010807		08/07/2001
01080398-001C	MW04S-010807		08/07/2001
01080398-001D	MW04S-010807		08/07/2001
01080398-001E	MW04S-010807		08/07/2001
01080398-001F	MW04S-010807		08/07/2001
01080398-001G	MW04S-010807		08/07/2001
01080398-001H	MW04S-010807		08/07/2001
01080398-001I	MW04S-010807		08/07/2001
01080398-002A	MWF04S-010807 (FILTERE		08/07/2001
01080398-002B	MWF04S-010807 (FILTERE		08/07/2001
01080398-002C	MWF04S-010807 (FILTERE		08/07/2001
01080398-002D	MWF04S-010807 (FILTERE		08/07/2001
01080398-002E	MWF04S-010807 (FILTERE		08/07/2001
01080398-003A	TRIP BLANK		08/07/2001
01080398-004A	MW10-010809		08/09/2001 4:15:00 PM
01080398-004B	MW10-010809		08/09/2001 4:15:00 PM
01080398-004C	MW10-010809		08/09/2001 4:15:00 PM
01080398-004D	MW10-010809		08/09/2001 4:15:00 PM
01080398-004E	MW10-010809		08/09/2001 4:15:00 PM
01080398-004F	MW10-010809		08/09/2001 4:15:00 PM
01080398-004G	MW10-010809		08/09/2001 4:15:00 PM
01080398-004H	MW10-010809		08/09/2001 4:15:00 PM
01080398-004I	MW10-010809		08/09/2001 4:15:00 PM
01080398-005A	MWF10-010809 FILTERED		08/09/2001 4:15:00 PM
01080398-005B	MWF10-010809 FILTERED		08/09/2001 4:15:00 PM
01080398-005C	MWF10-010809 FILTERED		08/09/2001 4:15:00 PM
01080398-005D	MWF10-010809 FILTERED		08/09/2001 4:15:00 PM
01080398-005E	MWF10-010809 FILTERED		08/09/2001 4:15:00 PM
01080398-006A	MW910-010809		08/09/2001 4:15:00 PM
01080398-006B	MW910-010809		08/09/2001 4:15:00 PM
01080398-006C	MW910-010809		08/09/2001 4:15:00 PM
01080398-006D	MW910-010809		08/09/2001 4:15:00 PM
01080398-006E	MW910-010809		08/09/2001 4:15:00 PM
01080398-006F	MW910-010809		08/09/2001 4:15:00 PM
01080398-006G	MW910-010809		08/09/2001 4:15:00 PM
01080398-006H	MW910-010809		08/09/2001 4:15:00 PM

Clayton GROUP SERVICES

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.03/Millenium Petrochemical
Work Order: 01080398
Date Received: 08/13/2001

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
01080398-006I	MW910-010809		08/09/2001 4:15:00 PM
01080398-007A	MWF910-010809 FILTERE		08/09/2001 4:15:00 PM
01080398-007B	MWF910-010809 FILTERE		08/09/2001 4:15:00 PM
01080398-007C	MWF910-010809 FILTERE		08/09/2001 4:15:00 PM
01080398-007D	MWF910-010809 FILTERE		08/09/2001 4:15:00 PM
01080398-007E	MWF910-010809 FILTERE		08/09/2001 4:15:00 PM
01080398-008A	MW08S-010810		08/10/2001 10:00:00 AM
01080398-008B	MW08S-010810		08/10/2001 10:00:00 AM
01080398-008C	MW08S-010810		08/10/2001 10:00:00 AM
01080398-008D	MW08S-010810		08/10/2001 10:00:00 AM
01080398-008E	MW08S-010810		08/10/2001 10:00:00 AM
01080398-008F	MW08S-010810		08/10/2001 10:00:00 AM
01080398-008G	MW08S-010810		08/10/2001 10:00:00 AM
01080398-008H	MW08S-010810		08/10/2001 10:00:00 AM
01080398-008I	MW08S-010810		08/10/2001 10:00:00 AM
01080398-009A	MWF08S-010810		08/10/2001 10:00:00 AM
01080398-009B	MWF08S-010810		08/10/2001 10:00:00 AM
01080398-009C	MWF08S-010810		08/10/2001 10:00:00 AM
01080398-009D	MWF08S-010810		08/10/2001 10:00:00 AM
01080398-009E	MWF08S-010810		08/10/2001 10:00:00 AM
01080398-010A	MW08D-010810		08/10/2001 10:30:00 AM
01080398-010B	MW08D-010810		08/10/2001 10:30:00 AM
01080398-010C	MW08D-010810		08/10/2001 10:30:00 AM
01080398-010D	MW08D-010810		08/10/2001 10:30:00 AM
01080398-010E	MW08D-010810		08/10/2001 10:30:00 AM
01080398-010F	MW08D-010810		08/10/2001 10:30:00 AM
01080398-010G	MW08D-010810		08/10/2001 10:30:00 AM
01080398-010H	MW08D-010810		08/10/2001 10:30:00 AM
01080398-010I	MW08D-010810		08/10/2001 10:30:00 AM
01080398-011A	MWF08D-010810		08/10/2001 10:30:00 AM
01080398-011B	MWF08D-010810		08/10/2001 10:30:00 AM
01080398-011C	MWF08D-010810		08/10/2001 10:30:00 AM
01080398-011D	MWF08D-010810		08/10/2001 10:30:00 AM
01080398-011E	MWF08D-010810		08/10/2001 10:30:00 AM
01080398-012A	EQ3-010810		08/10/2001 11:30:00 AM
01080398-012B	EQ3-010810		08/10/2001 11:30:00 AM
01080398-012C	EQ3-010810		08/10/2001 11:30:00 AM
01080398-012D	EQ3-010810		08/10/2001 11:30:00 AM
01080398-012E	EQ3-010810		08/10/2001 11:30:00 AM

Clayton GROUP SERVICES

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.03/Millenium Petrochemical
Work Order: 01080398
Date Received: 08/13/2001

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
01080398-012F	EQ3-010810		08/10/2001 11:30:00 AM
01080398-012G	EQ3-010810		08/10/2001 11:30:00 AM
01080398-012H	EQ3-010810		08/10/2001 11:30:00 AM
01080398-012I	EQ3-010810		08/10/2001 11:30:00 AM
01080398-013A	LAB BLANK		08/10/2001

Clayton GROUP SERVICES

Work Order Sample Summary

Date: *09-Oct-01*

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.03/Millenium Petrochemical
Work Order: 01090146
Date Received: 09/07/2001

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
01090146-001A	E-010905		09/05/2001 2:35:00 PM
01090146-001B	E-010905		09/05/2001 2:35:00 PM
01090146-001C	E-010905		09/05/2001 2:35:00 PM
01090146-001D	E-010905		09/05/2001 2:35:00 PM
01090146-001E	E-010905		09/05/2001 2:35:00 PM
01090146-001F	E-010905		09/05/2001 2:35:00 PM
01090146-001G	E-010905		09/05/2001 2:35:00 PM
01090146-002A	19-010905		09/05/2001 3:25:00 PM
01090146-002B	19-010905		09/05/2001 3:25:00 PM
01090146-002C	19-010905		09/05/2001 3:25:00 PM
01090146-002D	19-010905		09/05/2001 3:25:00 PM
01090146-002E	19-010905		09/05/2001 3:25:00 PM
01090146-002F	19-010905		09/05/2001 3:25:00 PM
01090146-002G	19-010905		09/05/2001 3:25:00 PM
01090146-003A	TRIP BLANK		09/05/2001
01090146-004A	N-010905		09/05/2001 7:30:00 PM
01090146-004B	N-010905		09/05/2001 7:30:00 PM
01090146-004C	N-010905		09/05/2001 7:30:00 PM
01090146-004D	N-010905		09/05/2001 7:30:00 PM
01090146-004E	N-010905		09/05/2001 7:30:00 PM
01090146-004F	N-010905		09/05/2001 7:30:00 PM
01090146-004G	N-010905		09/05/2001 7:30:00 PM
01090146-005A	M-010906		09/06/2001 8:25:00 AM
01090146-005B	M-010906		09/06/2001 8:25:00 AM
01090146-005C	M-010906		09/06/2001 8:25:00 AM
01090146-005D	M-010906		09/06/2001 8:25:00 AM
01090146-005E	M-010906		09/06/2001 8:25:00 AM
01090146-005F	M-010906		09/06/2001 8:25:00 AM
01090146-005G	M-010906		09/06/2001 8:25:00 AM
01090146-006A	TRIP BLANK		09/06/2001
01090146-007A	14-010906		09/06/2001 9:15:00 AM
01090146-007B	14-010906		09/06/2001 9:15:00 AM
01090146-007C	14-010906		09/06/2001 9:15:00 AM
01090146-007D	14-010906		09/06/2001 9:15:00 AM
01090146-007E	14-010906		09/06/2001 9:15:00 AM
01090146-007F	14-010906		09/06/2001 9:15:00 AM
01090146-007G	14-010906		09/06/2001 9:15:00 AM

Clayton GROUP SERVICES

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.03/Millenium Petrochemical
Work Order: 01090146
Date Received: 09/07/2001

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
01090146-008A	13-010906		09/06/2001 10:05:00 AM
01090146-008B	13-010906		09/06/2001 10:05:00 AM
01090146-008C	13-010906		09/06/2001 10:05:00 AM
01090146-008D	13-010906		09/06/2001 10:05:00 AM
01090146-008E	13-010906		09/06/2001 10:05:00 AM
01090146-008F	13-010906		09/06/2001 10:05:00 AM
01090146-008G	13-010906		09/06/2001 10:05:00 AM
01090146-009A	TRIP BLANK		09/06/2001
01090146-010A	0-010906		09/06/2001 11:05:00 AM
01090146-010B	0-010906		09/06/2001 11:05:00 AM
01090146-010C	0-010906		09/06/2001 11:05:00 AM
01090146-010D	0-010906		09/06/2001 11:05:00 AM
01090146-010E	0-010906		09/06/2001 11:05:00 AM
01090146-010F	0-010906		09/06/2001 11:05:00 AM
01090146-010G	0-010906		09/06/2001 11:05:00 AM
01090146-011A	TRIP BLANK		09/06/2001
01090146-012A	K-010905		09/05/2001 6:10:00 PM
01090146-012B	K-010905		09/05/2001 6:10:00 PM
01090146-012C	K-010905		09/05/2001 6:10:00 PM
01090146-012D	K-010905		09/05/2001 6:10:00 PM
01090146-012E	K-010905		09/05/2001 6:10:00 PM
01090146-012F	K-010905		09/05/2001 6:10:00 PM
01090146-012G	K-010905		09/05/2001 6:10:00 PM
01090146-013A	F-010905		09/05/2001 6:50:00 PM
01090146-013B	F-010905		09/05/2001 6:50:00 PM
01090146-013C	F-010905		09/05/2001 6:50:00 PM
01090146-013D	F-010905		09/05/2001 6:50:00 PM
01090146-013E	F-010905		09/05/2001 6:50:00 PM
01090146-013F	F-010905		09/05/2001 6:50:00 PM
01090146-013G	F-010905		09/05/2001 6:50:00 PM
01090146-014A	TRIP BLANK		09/05/2001
01090146-015A	21-010905		09/05/2001 4:20:00 PM
01090146-015B	21-010905		09/05/2001 4:20:00 PM
01090146-015C	21-010905		09/05/2001 4:20:00 PM
01090146-015D	21-010905		09/05/2001 4:20:00 PM
01090146-015E	21-010905		09/05/2001 4:20:00 PM
01090146-015F	21-010905		09/05/2001 4:20:00 PM
01090146-015G	21-010905		09/05/2001 4:20:00 PM
01090146-016A	22-010905		09/05/2001 5:00:00 PM

Clayton GROUP SERVICES

CLIENT: CLAYTON GROUP SERVICES
Project: 15-00116.03/Millenium Petrochemical
Work Order: 01090146
Date Received: 09/07/2001

Lab Sample ID	Client Sample ID	Tag Number	Collection Date
01090146-016B	22-010905		09/05/2001 5:00:00 PM
01090146-016C	22-010905		09/05/2001 5:00:00 PM
01090146-016D	22-010905		09/05/2001 5:00:00 PM
01090146-016E	22-010905		09/05/2001 5:00:00 PM
01090146-016F	22-010905		09/05/2001 5:00:00 PM
01090146-016G	22-010905		09/05/2001 5:00:00 PM
01090146-017A	TRIP BLANK		09/05/2001
01090146-018A	LAB BLANK		09/05/2001

APPENDIX J

PRECIPITATION DATA FROM ILLINOIS SWS STATION, CHAMPAIGN, ILLINOIS

CHAMPAIGN, IL LOCAL CLIMATOLOGICAL DATA JANUARY 1996
ILLINOIS STATE WATER SURVEY SUMMARY

DATE	TEMP X	TEMP N	PRECIP (IN)	SNOW (IN)	DPTH	WEATHER TYPES	WIND D	WIND S	SKY COV	DEGREE DAYS H	DEGREE DAYS C
01/01/96	35	33	0.01	0.0	2	L,F	NE	8.7	CLDY	31	0*
01/02/96	34	21	0.37	5.7*	T	S,SW-,BS	NE	14.9	CLDY	37	0
01/03/96	25	4	0.00	0.0	6		N	5.3	CLR	50	0
01/04/96	21	3	0.24	3.6	6	SW-,S	SE	4.6	CLDY	53	0
01/05/96	21	9	0.00	0.0	8	SW-	NE	5.0	CLDY	50	0
01/06/96	18	8	0.07	1.4	6	SW-,S	N	7.3	CLDY	52	0
01/07/96	20	8	0.00	0.0	7	SW-,S,BS	N	11.8	PC	51	0
01/08/96	21	-2	0.00	0.0	7		SW	9.8	CLR	55	0
01/09/96	35	20	0.00	0.0	7		NW	9.5	CLR	37	0
01/10/96	26	12	0.00	0.0	6		SE	4.0	PC	46	0
01/11/96	28	22	0.22	3.4	7	S,SW-	SE	7.4	CLDY	40	0
01/12/96	28	20	0.00	0.0	9*	SW-	SW	6.7	CLDY	41	0
01/13/96	38	16	0.00	0.0	7	F	S	4.6	PC	38	0
01/14/96	46	27	0.00	0.0	6		SW	6.8	CLR	28	0
01/15/96	33	19	0.00	0.0	6		NE	7.6	CLDY	39	0
01/16/96	42	22	0.00	0.0	6	ZL,L,F	S	9.0	CLDY	33	0
01/17/96	56	37	0.02	0.0	3	L,F	SE	8.7	CLDY	18	0
01/18/96	59*	4	0.48*	0.0	0	R,L,ZL,SW-,IP	W	20.1	CLDY	33	0
01/19/96	11	-1	0.00	0.0	T		W	11.5	PC	60	0
01/20/96	22	9	0.02	0.3	T	SW-	SE	5.2	PC	49	0
01/21/96	32	10	0.00	0.0	T	F	S	6.6	CLDY	44	0
01/22/96	37	27	0.01	0.0	T	R,L	S	12.3	CLDY	33	0
01/23/96	43	27	0.38	0.0	0	R,L,R-,F	SE	7.9	CLDY	30	0
01/24/96	27	12	0.01	0.1	T	SW-	W	9.5	CLDY	45	0
01/25/96	35	9	0.00	0.0	T		SE	9.2	CLDY	43	0
01/26/96	42	18	0.16	0.0	T	R,RW,L,SW-,ZL	SE	13.9	CLDY	35	0
01/27/96	26	13	0.00	0.0	T	SW-	W	17.3	PC	45	0
01/28/96	32	12	0.00	0.0	0		SE	9.4	CLDY	43	0
01/29/96	37	9	0.00	0.0	0		W	12.5	CLDY	42	0
01/30/96	10	-3	0.05	1.5	0	S	N	9.0	CLDY	61	0
01/31/96	4	-9*	0.00	0.0	1		W	5.4	CLR	68*	0
TOT/AVE	30.5	13.4	2.04	16.0			SE	9.1		1,330	0
DEP	-1.2	-2.6	+0.21	+7.9			W	+0.8		+47	+0

NUMBER OF DAYS AND DEPARTURE

	MAX TEMP >=90	MAX TEMP <=32	MIN TEMP <=32	MIN TEMP <=0	PRECIPITATION >=T	>=.01	>=.10	>=.50	>=1.00	SNOW >=1.0
TOTAL	0	17	29	4	18	13	6	0	0	5
DEP	0	+1	+0	+0	-	+4	+1	-1	+0	+2

	SKY COVER CLR	PC	CLDY	WEATHER TYPES F	T	IP	A	R	L	S	Z	D	H	BS
TOTAL	5	6	20	6	0	1	0	4	7	13	3	0	0	2
DEP	-3	-3	+6	+2	-1	-	+0	-1	+4	+3	+1	-	-	-

SEASONAL HEAT DEGREE DAYS	SEASONAL COOL DEGREE DAYS	JAN- JAN PRECIPITATION
3816	0	2.04
+281	+0	+0.21

WEATHER TYPES: F=Fog;T=Thunder;IP=Ice Pellets;A=Hail;R=Rain;S=Snow;Z=Freezing Precip;D=Dust;H=Haze;BS=Blowing Snow;RW=Rain Showers;SW=Snow Showers;L=Drizzle; T=Trace;L=Drizzle;Intensities:+ heavy; - light;no symbol indicates moderate. Degree days:Heat and Cool base 65F;Corn growing base 50F.Averages 1961-1990. Snow depth at 7 AM LST. Sky 7 AM - 7 PM LST.Other data mid-mid. Heat DD season Jul-Jun;Cool season Jan-Dec.

* Denotes highest or lowest values for the month

REMARKS: 59F on 18th tied rec high.Jan 18-19, 60 degree drop from 59F to -1F, in 20 hours, 2nd largest temp drop from one date to next in C-U.

CHAMPAIGN, IL LOCAL CLIMATOLOGICAL DATA FEBRUARY 1996
ILLINOIS STATE WATER SURVEY SUMMARY

DATE	TEMP X	TEMP N	PRECIP (IN)	SNOW (IN)	DPTH	WEATHER TYPES	WIND D	WIND S	SKY COV	DEGREE DAYS H	DEGREE DAYS C
02/01/96	15	-2	0.00	0.0	1		W	6.3	PC	58	0
02/02/96	0	-11	0.00	0.0	1		N	8.5	CLR	71	0
02/03/96	1	-17	0.00	0.0	1		NW	6.9	CLR	73	0
02/04/96	5	-14	0.00	0.0	1		W	6.5	CLR	70	0
02/05/96	27	-2	0.00	0.0	1		SW	8.7	PC	52	0
02/06/96	35	6	0.00	0.0	T		S	7.8	PC	44	0
02/07/96	41	28	0.00	0.0	0	L,F	S	13.3	CLDY	30	0
02/08/96	54	34	0.01	0.0	0	L	W	10.1	CLDY	21	0
02/09/96	52	30	0.00	0.0	0		W	6.5	CLR	24	0
02/10/96	60	35	0.00	0.0	0		W	12.9	PC	17	0
02/11/96	38	30	0.03	0.5	0	S,SW	NW	11.7	CLDY	31	0
02/12/96	28	25	0.02	0.2	1	S,SW	NW	6.3	CLDY	38	0
02/13/96	39	22	0.00	0.0	1		S	10.2	CLDY	34	0
02/14/96	36	29	0.00	0.0	0	S	NW	6.1	CLDY	32	0
02/15/96	30	22	0.05	1.0	T	S	W	5.8	CLDY	39	0
02/16/96	27	14	0.00	0.0	1		N	8.5	PC	44	0
02/17/96	34	16	0.02	0.2	T	S	N	11.1	CLDY	40	0
02/18/96	33	10	0.00	0.0	0		SSE	5.6	CLDY	43	0
02/19/96	50	26	0.00	0.0	0		SE	5.6	CLR	27	0
02/20/96	56	35	0.00	0.0	0	L,F	S	7.8	PC	19	0
02/21/96	39	33	0.02	0.0	0	L,F	NE	7.3	CLDY	29	0
02/22/96	49	36	0.02	0.0	0	L,F	NE	5.7	CLDY	22	0
02/23/96	64	39	0.00	0.0	0	F	W	12.6	CLDY	13	0
02/24/96	61	31	0.00	0.0	0		SW	9.0	CLR	19	0
02/25/96	65	35	0.00	0.0	0		S	7.0	CLDY	15	0
02/26/96	71	47	0.91	0.0	0	TRW,R	S	5.4	CLDY	6	0
02/27/96	64	27	0.35	0.0	0	TRW,R	NW	9.4	CLDY	19	0
02/28/96	27	14	0.00	0.0	T	SW-	NW	11.9	CLDY	44	0
02/29/96	24	13	0.00	0.0	T	SW-	W	6.6	PC	46	0
TOT/AVE	38.8	20.4	1.43	1.9			W	8.3		1,020	0
DEP	+2.5	+0.1	-0.54	-5.1			S	+0.3		-19	+0

NUMBER OF DAYS AND DEPARTURE

	MAX TEMP >=90	MAX TEMP <=32	MIN TEMP <=32	MIN TEMP <=0	PRECIPITATION >=T	>=.01	>=.10	>=.50	>=1.00	SNOW >=1.0
TOTAL	0	16	21	5	14	9	2	1	0	1
DEP	0	+5	-3	+3	-	+0	-2	+0	+0	-1

	SKY COVER CLR	PC	CLDY	WEATHER TYPES F	T	IP	A	R	L	S	Z	D	H	BS
TOTAL	6	7	16	4	2	0	0	2	5	7	0	0	0	0
DEP	-2	+0	+3	+0	+2	-	+0	-3	+2	-2	-1	-	-	-

SEASONAL HEAT DEGREE DAYS	SEASONAL COOL DEGREE DAYS	JAN- FEB PRECIPITATION
4836	0	3.47
+259	+0	-.033

WEATHER TYPES: F=Fog;T=Thunder;IP=Ice Pellets;A=Hail;R=Rain;S=Snow;Z=Freezing Precip;D=Dust;H=Haze;BS=Blowing Snow;RW=Rain Showers;SW=Snow Showers;L=Drizzle; T=Trace;L=Drizzle;Intensities:+ heavy; - light;no symbol indicates moderate.
Degree days:Heat and Cool base 65F;Corn growing base 50F.Averages 1961-1990.
Snow depth at 7 AM LST. Sky 7 AM - 7 PM LST.Other data mid-mid.
Heat DD season Jul-Jun;Cool season Jan-Dec.
* Denotes highest or lowest values for the month

REMARKS: New rec high on 23rd (old rec 63/1943), new rec high on 26th (old rec 64/1932). High on 26th also ties highest max temp ever in Feb, first set on 2/29/1972. high temps on 2,3,4 were new low max temps, new rec min on 3rd (old rec -14/1902), tied rec low on 4th. Peak gust 36.7 mph, from the west on 23rd.

CHAMPAIGN, IL LOCAL CLIMATOLOGICAL DATA MARCH 1996
ILLINOIS STATE WATER SURVEY SUMMARY

DATE	TEMP MX	TEMP MN	PRECIP INCH	PRECIP T	SNOW INCH	SNOW T	SNOW DEP	WEATHER TYPES	WIND D	WIND S	SKY COV	DEGREE DAYS H	DEGREE DAYS C
03/01/96	40	15		T		T	0	S-	SW	11.3	PC	37	0
03/02/96	33	12		T		T	0	S-	W	11.9	PC	42	0
03/03/96	28	6	.00		.0		0		SW	6.6	CLR	48	0
03/04/96	48	16	.00		.0		0		SE	9.6	CLDY	33	0
03/05/96	52	32	0.68		.0		0	TRW,R	NE	10.1	CLDY	23	0
03/06/96	32	14	0.05		0.2		0	ZL,SW-,F	N	13.1	CLDY	42	0
03/07/96	19	8		T		T	T	SW-	NW	10.8	PC	51	0
03/08/96	15	2*	.00		.0		T		W	11.0	PC	56*	0
03/09/96	28	10	.00		.0		0		W	4.1	CLR	46	0
03/10/96	40	15	.00		.0		0		SSE	6.3	PC	37	0
03/11/96	48	26	.00		.0		0		SE	5.6	CLR	28	0
03/12/96	54	27	.00		.0		0		SE	5.7	CLR	24	0
03/13/96	59	30		T	.0		0	RW-	SSE	5.2	CLDY	20	0
03/14/96	70*	33	.00		.0		0	F	SW	4.1	CLDY	13	0
03/15/96	58	34	.00		.0		0	F	N	7.8	CLR	19	0
03/16/96	53	28	.00		.0		0		NE	4.7	PC	24	0
03/17/96	51	28	0.01		.0		0	R-,L	NNE	4.9	CLDY	25	0
03/18/96	52	26	.00		.0		0	F	N	4.7	PC	26	0
03/19/96	37	31	0.15		1.5*		0	S,ZL	NNW	13.7	CLDY	31	0
03/20/96	37	27		T		T	2*	SW-	N	14.4	CLDY	33	0
03/21/96	38	24	.00		.0		T		NW	7.7	PC	34	0
03/22/96	47	23	.00		.0		T		NW	6.0	CLR	30	0
03/23/96	52	22	0.02		.0		0	RW-,L	SSE	7.3	PC	28	0
03/24/96	60	36	0.12		.0		0	TRW	S	15.7	CLDY	17	0
03/25/96	53	18	0.01			T	0	RW-,SW-	W	19.6	CLDY	29	0
03/26/96	33	15	.00		.0		0		W	8.3	CLR	41	0
03/27/96	44	17	.00		.0		0		NE	5.0	PC	34	0
03/28/96	48	33	0.15		.0		0	R-,L	NE	7.9	CLDY	24	0
03/29/96	54	36		T	.0		0	L	E	4.8	CLDY	20	0
03/30/96	56	44	.00		.0		0		SE	4.6	CLDY	15	0
03/31/96	47	33	1.00*		.0		0	TRW-,R,L	N	12.3	CLDY	25	0
TOT/AVE	44.7	23.3	2.19		1.7				N	8.5		955	0
DEP	-4.1	-7.8	-1.11		-2.4				S	-0.1		+170	-1

NUMBER OF DAYS AND DEPARTURE

	MAX TEMP >=90	MAX TEMP <=32	MIN TEMP <=32	MIN TEMP <=0	PRECIPITATION >=T	>=.01	>=.10	>=.50	>=1.00
TOTAL	0	5	24	0	15	9	5	2	1
DEP	+0	+2	+6	+0	-	-3	-2	+0	+0

	SNOW >=1.0	SKY COVER CLR	PC	CLDY	WEATHER TYPES F	T	IP	A	R	L	S	Z	D	H	BS
TOTAL	1	7	10	14	4	3	0	0	8	5	7	2	0	0	0
DEP	+0	+0	+1	-1	+0	+0	-	-1	-2	+1	+1	+1	-	-	-

	SEASONAL HEAT DD	SEASONAL COOL DD	JAN- MAR PRECITITATION
TOTAL	5791	0	5.66
DEP	+429	-1	-1.44

WEATHER TYPES:F=Fog;T=Thunder;IP=Ice Pellets;A=Hail;R=Rain;S=Snow;Z=Freezing Precip;D=Dust;H=Haze;BS=Blowing Snow; RW=Rain Showers;SW=Snow Showers; L=Drizzle;T=Trace. Intensities: + heavy; - light; absence of symbol indicates moderate. Degree days:Heat and Cool base 65F,Corn Growing base 50F. Averages based on 1961-1990 data.Snow depth at 7 AM LST. Sky 7 AM - 7 PM LST. Other data mid-mid. Heat DD season Jul-Jun; Cool and Corn season Jan-Dec.

REMARKS: Rec low mean temp on 8th, old rec 10/1943. Tied 4th lowest ave. mon. mean temp, rec 18.0/1960. Seasonal total HDD through the end of Mar, 11th highest total for that same period. Peak gust 41.1 mph, from the west, on the 25th.

CHAMPAIGN, IL LOCAL CLIMATOLOGICAL DATA APRIL 1996
ILLINOIS STATE WATER SURVEY SUMMARY

DATE	TEMP MX	TEMP MN	PRECIP INCH	PRECIP T	SNOW INCH	SNOW T	SNOW DEP	WEATHER TYPES	WIND D	WIND S	SKY COV	DEGREE DAYS H	DEGREE DAYS C	DEGREE DAYS CORN
04/01/96	49	31	.00		.0	0			N	8.9	PC	25	0*	0
04/02/96	59	29	.00		.0	0			S	11.7	CLR	21	0	5
04/03/96	74	42	.00		.0	0			S	15.2	CLR	7	0	12
04/04/96	55	32	0.02		.0	0		L	NW	10.9	CLDY	21	0	3
04/05/96	45	28		T	.0	0		L	N	7.3	PC	28	0	0
04/06/96	44	27		T		T*	0	SW-	N	7.4	PC	29*	0	0
04/07/96	45	26		T		T*	0	SW-	NE	4.7	CLDY	29*	0	0
04/08/96	47	24*	.00		.0	0			NE	5.5	PC	29	0	0
04/09/96	51	24*	.00		.0	0			N	6.0	PC	27	0	1
04/10/96	63	26	.00		.0	0			W	6.4	PC	20	0	7
04/11/96	76	36	.00		.0	0			S	15.1	PC	9	0	13
04/12/96	77*	50	.00		.0	0			SW	16.4	CLDY	1	0	*14
04/13/96	53	31	0.03		.0	0		R-,L	NW	7.7	CLDY	23	0	2
04/14/96	59	31		T	.0	0		L	E	7.3	CLDY	20	0	5
04/15/96	52	34	0.30		.0	0		TRW,R,R-,L,F	W	8.6	CLDY	22	0	1
04/16/96	52	32	.00		.0	0			NW	7.1	PC	23	0	1
04/17/96	69	30	.00		.0	0			SE	8.0	CLR	15	0	10
04/18/96	73	41	0.08		.0	0		TRW	S	16.0	CLDY	8	0	12
04/19/96	77*	49	0.45		.0	0		TRW+,A,F	S	11.0	CLDY	2	0	*14
04/20/96	62	44	.00		.0	0			W	11.9	PC	12	0	6
04/21/96	68	36	0.25		.0	0		TRW+	SE	4.3	CLDY	13	0	9
04/22/96	61	48	0.98		.0	0		TRW+,R,R-,L	N	7.1	CLDY	10	0	6
04/23/96	54	39	.00		.0	0			N	9.2	CLDY	18	0	2
04/24/96	63	40		T	.0	0		R-	S	11.8	CLDY	13	0	7
04/25/96	71	51	0.08		.0	0		R	SW	15.3	CLDY	4	0	11
04/26/96	51	35		T	.0	0		R-	NW	9.0	CLDY	22	0	1
04/27/96	62	32	.00		.0	0			W	7.3	CLDY	18	0	6
04/28/96	54	48	1.21*		.0	0		TRW,R,R-	E	5.1	CLDY	14	0	2
04/29/96	58	37	0.18		.0	0		R,R-,L	W	11.1	CLDY	17	0	4
04/30/96	58	37		T	.0	0		L	W	14.7	PC	17	0	4
TOT/AVE	59.4	35.7	3.58		0.0				S	9.6		517	0	158
DEP	-3.0	-5.7	-0.36		-1.0				S	+1.1		+106	-10	-48

NUMBER OF DAYS AND DEPARTURE

	MAX TEMP >=90	MAX TEMP <=32	MIN TEMP <=32	MIN TEMP <=0	PRECIPITATION >=T	>=.01	>=.10	>=.50	>=1.00
TOTAL	0	0	14	0	17	10	6	2	1
DEP	+0	+0	+9	+0	-	-2	-2	+0	+0

	SNOW >=1.0	SKY COVER CLR	PC	CLDY	WEATHER TYPES F	T	IP	A	R	L	S	Z	D	H	BS
TOTAL	0	3	10	17	2	6	0	1	11	8	2	0	0	0	0
DEP	+0	-5	+1	+4	-1	+1	-	+0	-2	+4	+0	+0	-	-	-

	SEASONAL HEAT DD	SEASONAL COOL DD	SEASONAL CORN GDD	JAN- APR PRECITITATION
TOTAL	6308	0	255	9.24
DEP	+535	-11	-41	-1.80

WEATHER TYPES:F=Fog;T=Thunder;IP=Ice Pellets;A=Hail;R=Rain;S=Snow;Z=Freezing Precip;D=Dust;H=Haze;BS=Blowing Snow; RW=Rain Showers;SW=Snow Showers; L=Drizzle;T=Trace. Intensities: + heavy; - light; absence of symbol indicates moderate. Degree days:Heat and Cool base 65F,Corn Growing base 50F. Averages based on 1961-1990 data.Snow depth at 7 AM LST. Sky 7 AM - 7 PM LST. Other data mid-mid. Heat DD season Jul-Jun; Cool and Corn season Jan-Dec.

REMARKS: F3 tornado in SE Urbana, 4/19/96. Hail on 19th was 1/4" - 1/2". 4th coldest ave mon min temp (rec 33.2F, 1907). 9th coldest ave mon mean temp of 47.6F (rec is 42.5F, 1907). 10th highest monthly total HDD (rec 669, 1907). 16th highest seasonal total (with 2 months left in current season). Rec is 6893, 1903-1904. Highest number of days with min <=32F since 1961. Peak gust

CHAMPAIGN, IL — LOCAL CLIMATOLOGICAL DATA — JUNE 1996
ILLINOIS STATE WATER SURVEY — SUMMARY

DATE	TEMP MX	TEMP MN	PRECIP INCH	PRECIP T	SNOW INCH	SNOW T	SNOW DEP	WEATHER TYPES	WIND D	WIND S	SKY COV	DEGREE DAYS H	DEGREE DAYS C	DEGREE DAYS CORN
06/01/96	71	57	0.50		0.0	0		R,R-	SE	8.5	CLDY	1	0	14
06/02/96	79	57	0.35		0.0	0		TRW,R	W	7.2	PC	0	3	18
06/03/96	68	55	0.02		0.0	0		R	W	6.7	PC	3	0	12
06/04/96	65	47		T	0.0	0		R-,L	W	6.5	CLDY	9	0	8
06/05/96	77	46*	.00		0.0	0			S	5.5	CLR	3	0	14
06/06/96	75	64	0.20		0.0	0		R,R-,L,F	S	7.1	CLDY	0	5	20
06/07/96	73	56	.00		0.0	0			W	7.4	CLDY	0	0	15
06/08/96	70	54	0.17		0.0	0		RW,R,F	N	4.2	CLDY	3	0	12
06/09/96	71	57	0.32		0.0	0		TRW,RW,R,F	N	6.9	CLDY	1	0	14
06/10/96	67	58	0.50		0.0	0		TRW,F	SE	5.0	CLDY	2	0	13
06/11/96	76	58		T	0.0	0		L,F	W	3.4	CLDY	0	2	17
06/12/96	81	56	.00		0.0	0		F	NW	1.8	PC	0	4	19
06/13/96	86	61	.00		0.0	0		F	SW	3.2	PC	0	9	24
06/14/96	91	66	.00		0.0	0			W	4.1	CLDY	0	14	26
06/15/96	89	64	.00		0.0	0			NE	2.6	CLR	0	12	25
06/16/96	90	64	2.39*		0.0	0		TRW+,TRW,R,L	SE	3.7	PC	0	12	25
06/17/96	89	69	0.11		0.0	0		TRW,F	S	7.9	CLDY	0	14	28
06/18/96	83	66	.00		0.0	0			SW	6.0	CLDY	0	10	25
06/19/96	85	64	.00		0.0	0			W	3.7	PC	0	10	25
06/20/96	88	69	.00		0.0	0			N	2.8	PC	0	14	28
06/21/96	90	69	.00		0.0	0			SW	5.8	CLDY	0	15	28
06/22/96	89	69	0.14		0.0	0		TRW+	NW	4.6	CLDY	0	14	28
06/23/96	91	65	0.91		0.0	0		TRW+,R,L	SE	3.6	CLDY	0	13	26
06/24/96	84	60	0.04		0.0	0		RW	W	6.0	PC	0	7	22
06/25/96	77	57	.00		0.0	0			NE	4.1	CLR	0	2	17
06/26/96	83	56	.00		0.0	0			ESE	2.6	CLR	0	5	20
06/27/96	89	60	.00		0.0	0			SE	1.9	CLR	0	10	23
06/28/96	92	62	.00		0.0	0		H	SW	3.0	CLR	0	12	24
06/29/96	92	67	.00		0.0	0		H	SW	6.5	CLR	0	15	27
06/30/96	94*	73	.00		0.0	0		H	NW	4.4	CLR	0	19*	30*
TOT/AVE	81.8	60.9	5.65		0.0				W	4.9		22	221	627
DEP	-1.1	+0.1	+1.58		+0.0				SW	-1.1		+6	+7	-1

NUMBER OF DAYS AND DEPARTURE

	MAX TEMP >=90	MAX TEMP <=32	MIN TEMP <=32	MIN TEMP <=0	PRECIPITATION >=T	>=.01	>=.10	>=.50	>=1.00
TOTAL	7	0	0	0	14	12	10	4	1
DEP	+1	+0	+0	+0	-	+3	+4	+1	-1

	SNOW >=1.0	SKY COVER CLR	PC	CLDY	WEATHER TYPES F	T	IP	A	R	L	S	Z	D	H	BS
TOTAL	0	8	8	14	8	7	0	0	13	5	0	0	0	3	0
DEP	+0	+0	-4	+4	+6	+1	-	-1	+2	+4	+0	+0	-	-	-

	SEASONAL HEAT DD	SEASONAL COOL DD	SEASONAL CORN GDD	JAN- JUN PRECITITATION
TOTAL	6527	288	1263	23.15
DEP	+588	-8	-84	+4.07

WEATHER TYPES:F=Fog;T=Thunder;IP=Ice Pellets;A=Hail;R=Rain;S=Snow;Z=Freezing Precip;D=Dust;H=Haze;BS=Blowing Snow; RW=Rain Showers;SW=Snow Showers; L=Drizzle;T=Trace. Intensities: + heavy; - light; absence of symbol indicates moderate. Degree days:Heat and Cool base 65F,Corn Growing base 50F. Averages based on 1961-1990 data.Snow depth at 7 AM LST. Sky 7 AM - 7 PM LST. Other data mid-mid. Heat DD season Jul-Jun; Cool and Corn season Jan-Dec.

REMARKS: Seasonal total heating degree days is the 6th highest total in Champaign-Urbana. Record highest is 6893, set in 1903-1904. Peak gust was 28.1 mph, from the west, on the 23rd.

CHAMPAIGN, IL LOCAL CLIMATOLOGICAL DATA JULY 1996
ILLINOIS STATE WATER SURVEY SUMMARY

DATE	TEMP MX	TEMP MN	PRECIP INCH	PRECIP T	SNOW INCH	SNOW T	SNOW DEP	WEATHER TYPES	WIND D	WIND S	SKY COV	DEGREE DAYS H	DEGREE DAYS C	DEGREE DAYS CORN
07/01/96	89	68	.00		0.0		0		N	3.5	PC	0	14	27
07/02/96	91	63	.00		0.0		0		NE	5.9	PC	0	12	25
07/03/96	80	57	.00		0.0		0		N	5.4	CLR	0	4	19
07/04/96	80	52*	.00		0.0		0		NE	2.6	PC	0	1	16
07/05/96	85	55	.00		0.0		0		SSE	1.9	CLR	0	5	20
07/06/96	88	60		T	0.0		0	L	S	3.3	CLR	0	9	23
07/07/96	92	68	.00		0.0		0		NNW	3.4	PC	0	15	27
07/08/96	87	63		T	0.0		0	L	NW	4.8	PC	0	10	25
07/09/96	78	56	0.02		0.0		0	RW-	NW	4.6	PC	0	2	17
07/10/96	78	52*	.00		0.0		0		N	2.3	CLR	0	0	15
07/11/96	83	55	.00		0.0		0		SE	3.0	CLR	0	4	19
07/12/96	85	56	.00		0.0		0		SW	3.9	PC	0	6	21
07/13/96	85	65	.00		0.0		0		W	5.2	PC	0	10	25
07/14/96	78	62	0.36		0.0		0	TRW,R,L	NNW	2.6	CLDY	0	5	20
07/15/96	83	61	.00		0.0		0	F	W	6.5	PC	0	7	22
07/16/96	87	68	0.06		0.0		0	RW	W	5.8	PC	0	13	27
07/17/96	91	66	.00		0.0		0		S	7.4	CLDY	0	14	26
07/18/96	95*	77	.00		0.0		0		SW	9.9	CLDY	0	21*	32*
07/19/96	92	62	.00		0.0		0		W	8.1	CLDY	0	12	24
07/20/96	80	62	.00		0.0		0		NE	3.5	CLDY	0	6	21
07/21/96	66	58	1.62*		0.0		0	TRW+,TRW,R,L	E	4.2	CLDY	3*	0	12
07/22/96	76	58	.00		0.0		0		N	3.4	PC	0	2	17
07/23/96	82	62	0.14		0.0		0	R,L,F	W	5.2	CLDY	0	7	22
07/24/96	85	63	0.34		0.0		0	TRW,RW,R,L	SW	5.5	CLDY	0	9	24
07/25/96	78	59	.00		0.0		0		W	4.6	PC	0	4	19
07/26/96	82	58	.00		0.0		0		NW	3.0	PC	0	5	20
07/27/96	82	63		T	0.0		0	R-,L	SW	2.8	CLDY	0	8	23
07/28/96	82	64	0.66		0.0		0	TRW+	S	3.6	CLDY	0	8	23
07/29/96	81	65	.00		0.0		0	F	W	5.0	CLDY	0	8	23
07/30/96	79	62	0.12		0.0		0	TRW	NW	4.6	CLDY	0	6	21
07/31/96	79	56	0.04		0.0		0	RW-	W	4.5	CLR	0	3	18
TOT/AVE	83.2	61.2	3.36		0.0				W	4.5		3	230	673
DEP	-2.1	-3.6	-1.12		+0.0				SW	-0.4		+1	-75	-65

NUMBER OF DAYS AND DEPARTURE

	MAX TEMP >=90	MAX TEMP <=32	MIN TEMP <=32	MIN TEMP <=0	PRECIPITATION >=T	>=.01	>=.10	>=.50	>=1.00
TOTAL	5	0	0	0	12	9	6	2	1
DEP	+1	+0	+0	+0	-	+0	-1	-1	+0

	SNOW >=1.0	SKY COVER CLR	PC	CLDY	WEATHER TYPES F	T	IP	A	R	L	S	Z	D	H	BS
TOTAL	0	6	13	12	3	5	0	0	10	7	0	0	0	0	0
DEP	+0	-4	+0	+4	-1	-2	-	+0	-1	+6	+0	+0	-	-	-

	SEASONAL HEAT DD	SEASONAL COOL DD	SEASONAL CORN GDD	JAN- JUL PRECITITATION
TOTAL	3	518	1936	26.51
DEP	+1	-83	-149	+2.95

WEATHER TYPES:F=Fog;T=Thunder;IP=Ice Pellets;A=Hail;R=Rain;S=Snow;Z=Freezing Precip;D=Dust;H=Haze;BS=Blowing Snow; RW=Rain Showers;SW=Snow Showers; L=Drizzle;T=Trace. Intensities: + heavy; - light; absence of symbol indicates moderate. Degree days:Heat and Cool base 65F,Corn Growing base 50F. Averages based on 1961-1990 data.Snow depth at 7 AM LST. Sky 7 AM - 7 PM LST. Other data mid-mid. Heat DD season Jul-Jun; Cool and Corn season Jan-Dec.

REMARKS: new rec low max temp on 21st (old rec 70/1958).6th lowest mean temp of 72.2 (rec is 71.0/1909), tied 7th lowest min temp (rec 55.9/1891), and tied 11th lowest max temp (rec 80.1/1909,1915). Peak gust 22.7mph, from the west, on the 18th.

CHAMPAIGN, IL LOCAL CLIMATOLOGICAL DATA AUGUST 1996
ILLINOIS STATE WATER SURVEY SUMMARY

DATE	TEMP MX	TEMP MN	PRECIP INCH	PRECIP T	SNOW INCH	SNOW T	SNOW DEP	WEATHER TYPES	WIND D	WIND S	SKY COV	DEGREE DAYS H	DEGREE DAYS C	DEGREE DAYS CORN
08/01/96	78	60	.00		0.0	0			W	2.2	CLR	0*	4	19
08/02/96	81	60		T	0.0	0		RW-,F	NE	2.0	PC	0	6	21
08/03/96	83	62	.00		0.0	0		F	SE	2.2	CLR	0	8	23
08/04/96	84	63	.00		0.0	0		H	SE	3.5	PC	0	9	24
08/05/96	91	68	.00		0.0	0		F	S	6.5	PC	0	15	27
08/06/96	92	70	.00		0.0	0		F	S	5.0	CLR	0	16	28
08/07/96	94*	70		T	0.0	0		TRW-,F	SW	4.3	PC	0	17*	28
08/08/96	85	67	.00		0.0	0			N	5.0	CLR	0	11	26
08/09/96	82	59	.00		0.0	0			N	3.0	CLR	0	6	21
08/10/96	81	57*	.00		0.0	0			SE	1.9	CLDY	0	4	19
08/11/96	77	64	.00		0.0	0			NE	3.7	CLDY	0	6	21
08/12/96	83	63	.00		0.0	0			N	4.0	PC	0	8	23
08/13/96	85	62	.00		0.0	0			W	2.9	CLR	0	9	24
08/14/96	87	59	.00		0.0	0		F	SW	5.3	CLR	0	8	23
08/15/96	83	63	.00		0.0	0		F	W	4.3	CLR	0	8	23
08/16/96	81	56	.00		0.0	0			NE	1.8	PC	0	4	19
08/17/96	73	64	0.53*		0.0	0		TRW,R,L	E	2.3	CLDY	0	4	19
08/18/96	79	66	0.40		0.0	0		TRW+,R,R-,L,F	SE	3.0	CLDY	0	8	23
08/19/96	88	65	.00		0.0	0		F	S	5.0	CLR	0	12	26
08/20/96	89	72	.00		0.0	0		F	SW	4.6	CLR	0	16	29*
08/21/96	90	69	.00		0.0	0		F	SW	2.7	CLR	0	15	28
08/22/96	89	70	.00		0.0	0		F	SW	4.6	CLR	0	15	28
08/23/96	85	65	0.16		0.0	0		TRW,RW	NE	3.8	CLDY	0	10	25
08/24/96	83	61	.00		0.0	0			NE	3.3	CLR	0	7	22
08/25/96	83	61	.00		0.0	0			SSE	2.1	CLR	0	7	22
08/26/96	84	62	0.25		0.0	0		TRW,RW	SE	1.7	PC	0	8	23
08/27/96	82	65	0.08		0.0	0		TRW,RW,R-,L	NE	3.7	CLDY	0	9	24
08/28/96	81	62	.00		0.0	0		F	N	3.3	CLR	0	7	22
08/29/96	81	61	.00		0.0	0			N	3.1	CLR	0	6	21
08/30/96	81	60	.00		0.0	0		F	NE	2.1	CLR	0	6	21
08/31/96	84	63	.00		0.0	0		F	ESE	2.4	CLR	0	9	24
TOT/AVE	83.8	63.5	1.42		0.0				NE	3.4		0	278	726
DEP	+0.8	+1.1	-2.60		+0.0				SW	-1.3		-7	+40	+47

NUMBER OF DAYS AND DEPARTURE

	MAX TEMP >=90	MAX TEMP <=32	MIN TEMP <=32	MIN TEMP <=0	PRECIPITATION >=T	>=.01	>=.10	>=.50	>=1.00
TOTAL	4	0	0	0	7	5	4	1	0
DEP	+0	+0	+0	+0	-	-4	-2	-2	-1

	SNOW >=1.0	SKY COVER CLR	PC	CLDY	WEATHER TYPES F	T	IP	A	R	L	S	Z	D	H	BS
TOTAL	0	18	7	6	15	6	0	0	7	3	0	0	0	1	0
DEP	+0	+8	-5	-3	+9	+0	-	+0	-4	+2	+0	+0	-	-	-

	SEASONAL HEAT DD	SEASONAL COOL DD	SEASONAL CORN GDD	JAN- AUG PRECITITATION
TOTAL	3	796	2662	27.93
DEP	-6	-43	-102	+0.35

WEATHER TYPES:F=Fog;T=Thunder;IP=Ice Pellets;A=Hail;R=Rain;S=Snow;Z=Freezing Precip;D=Dust;H=Haze;BS=Blowing Snow; RW=Rain Showers;SW=Snow Showers; L=Drizzle;T=Trace. Intensities: + heavy; - light; absence of symbol indicates moderate. Degree days:Heat and Cool base 65F,Corn Growing base 50F. Averages based on 1961-1990 data.Snow depth at 7 AM LST. Sky 7 AM - 7 PM LST. Other data mid-mid. Heat DD season Jul-Jun; Cool and Corn season Jan-Dec.

REMARKS: Tied ninth driest Aug in C-U (1986). Peak gust was 18.4 mph, from the south, on the 5th.
Summer (J,J,A) Stats: mean temp 72.4F (-1.0F), total precip 10.43 inches (-2.14 inches), number days max temp greater than or equal to 90F

CHAMPAIGN, IL LOCAL CLIMATOLOGICAL DATA SEPTEMBER 1996
ILLINOIS STATE WATER SURVEY SUMMARY

DATE	TEMP MX	TEMP MN	PRECIP INCH	PRECIP T	SNOW INCH	SNOW T	SNOW DEP	WEATHER TYPES	WIND D	WIND S	SKY COV	DEGREE DAYS H	DEGREE DAYS C	DEGREE DAYS CORN
09/01/96	84	62	.00		0.0		0		NE	1.9	CLR	0	8	23
09/02/96	85	62	.00		0.0		0		NE	2.1	PC	0	9	24
09/03/96	84	65		T	0.0		0	R-,L-,F	E	1.1	CLDY	0	10	25
09/04/96	85	63	.00		0.0		0		NE	2.8	CLR	0	9	24
09/05/96	85	67	.00		0.0		0	F	NE	3.9	PC	0	11	26
09/06/96	86*	67		T	0.0		0	R-,L-,F	NE	3.4	CLDY	0	12*	27*
09/07/96	79	66	1.73*		0.0		0	TRW+,RW,H	SW	1.8	CLDY	0	8	23
09/08/96	83	63	0.17		0.0		0	TRW,RW,H	S	2.3	CLDY	0	8	23
09/09/96	79	64	.00		0.0		0	F	NW	3.0	PC	0	7	22
09/10/96	82	60	.00		0.0		0	F	N	1.7	CLR	0	6	21
09/11/96	83	59		T	0.0		0	R-	W	4.6	PC	0	6	21
09/12/96	71	51	.00		0.0		0		NW	5.5	CLR	4	0	11
09/13/96	66	45	.00		0.0		0		NW	4.7	CLR	9	0	8
09/14/96	67	42*	.00		0.0		0		W	5.0	CLR	10*	0	9
09/15/96	70	45		T	0.0		0	R-	W	2.7	CLDY	7	0	10
09/16/96	66	52	0.18		0.0		0	R,L	NE	6.2	CLDY	6	0	9
09/17/96	72	51	.00		0.0		0		N	5.8	PC	3	0	12
09/18/96	74	49	.00		0.0		0		NE	3.4	CLR	3	0	12
09/19/96	75	47	.00		0.0		0	F	SE	1.9	CLR	4	0	13
09/20/96	70	50	0.07		0.0		0	R,R-,L	SE	3.7	CLDY	5	0	10
09/21/96	74	54	0.04		0.0		0	R,R-,L	W	2.7	CLDY	1	0	14
09/22/96	79	48	.00		0.0		0		W	5.7	CLR	1	0	15
09/23/96	65	52	0.03		0.0		0	TRW-	SE	2.1	PC	6	0	9
09/24/96	73	52	.00		0.0		0		NW	3.9	CLR	2	0	13
09/25/96	70	47		T	0.0		0	R-,L-	SE	3.6	CLDY	6	0	10
09/26/96	70	55	0.72		0.0		0	R,RW,R-,L-	SE	9.0	CLDY	2	0	13
09/27/96	64	49	0.46		0.0		0	R,L	W	6.4	CLDY	8	0	7
09/28/96	66	43	.00		0.0		0		W	5.9	CLR	10*	0	8
09/29/96	75	43	.00		0.0		0		SW	4.2	CLR	6	0	13
09/30/96	76	45	.00		0.0		0		SE	3.2	CLR	4	0	13
TOT/AVE	75.3	53.9	3.40		0.0				NE	3.8		97	94	468
DEP	-2.4	-1.3	+0.04		+0.0				SW	-1.3		+16	-23	-32

NUMBER OF DAYS AND DEPARTURE

	MAX TEMP >=90	MAX TEMP <=32	MIN TEMP <=32	MIN TEMP <=0	PRECIPITATION >=T	>=.01	>=.10	>=.50	>=1.00
TOTAL	0	0	0	0	13	8	5	2	1
DEP	-2	+0	+0	+0	-	-1	+0	+0	+2

	SNOW >=1.0	SKY COVER CLR	PC	CLDY	WEATHER TYPES F	T	IP	A	R	L	S	Z	D	H	BS
TOTAL	0	6	13	11	8	3	0	0	13	8	0	0	0	2	0
DEP	+0	-5	+4	+1	+3	-1	-	+0	+3	+5	+0	+0	-	-	-

	SEASONAL HEAT DD	SEASONAL COOL DD	SEASONAL CORN GDD	JAN- SEP PRECITITATION
TOTAL	100	890	3130	31.33
DEP	+10	-66	-134	+0.39

WEATHER TYPES:F=Fog;T=Thunder;IP=Ice Pellets;A=Hail;R=Rain;S=Snow;Z=Freezing Precip;D=Dust;H=Haze;BS=Blowing Snow; RW=Rain Showers;SW=Snow Showers; L=Drizzle;T=Trace. Intensities: + heavy; - light; absence of symbol indicates moderate. Degree days:Heat and Cool base 65F,Corn Growing base 50F. Averages based on 1961-1990 data.Snow depth at 7 AM LST. Sky 7 AM - 7 PM LST. Other data mid-mid. Heat DD season Jul-Jun; Cool and Corn season Jan-Dec.

REMARKS: No temperature or precipitation records set this month.
Peak gust was 29.3 mph from the south on the 26th.

CHAMPAIGN, IL LOCAL CLIMATOLOGICAL DATA OCTOBER 1996
ILLINOIS STATE WATER SURVEY SUMMARY

DATE	TEMP MX	TEMP MN	PRECIP INCH	PRECIP T	SNOW INCH	SNOW T	SNOW DEP	WEATHER TYPES	WIND D	WIND S	SKY COV	DEGREE DAYS H	DEGREE DAYS C
10/01/96	78	46	.00		0.0	0		F	S	5.9	CLR	3	0
10/02/96	77	47	.00		0.0	0		F	SW	7.2	PC	3	0
10/03/96	58	40	.00		0.0	0			NE	5.2	CLR	16	0
10/04/96	64	38	.00		0.0	0			E	2.9	PC	14	0
10/05/96	74	42	.00		0.0	0			SE	3.4	PC	7	0
10/06/96	76	45	.00		0.0	0			S	3.7	CLR	4	0
10/07/96	76	44	.00		0.0	0			N	4.2	PC	5	0
10/08/96	50	42	0.16		0.0	0		R,R-,L	N	4.5	CLDY	19	0
10/09/96	62	35		T	0.0	0		R-,L	W	3.3	CLDY	16	0
10/10/96	53	36		T	0.0	0		L	N	4.6	PC	20	0
10/11/96	61	31	.00		0.0	0		F	S	4.6	CLR	19	0
10/12/96	74	45	.00		0.0	0			S	8.2	PC	5	0
10/13/96	81*	52	.00		0.0	0			SW	7.4	PC	0	2*
10/14/96	81*	53	.00		0.0	0			NE	1.9	CLR	0	2*
10/15/96	79	49	.00		0.0	0		F	SW	5.2	CLR	1	0
10/16/96	76	50	.00		0.0	0		F	S	4.8	PC	2	0
10/17/96	78	45	0.41		0.0	0		TRW+,TRW,R,L	S	9.5	PC	3	0
10/18/96	58	34	.00		0.0	0			W	7.6	CLR	19	0
10/19/96	59	31	.00		0.0	0			NW	2.2	CLR	20	0
10/20/96	63	32	.00		0.0	0			SE	3.0	PC	17	0
10/21/96	67	51	.00		0.0	0			SE	3.1	CLDY	6	0
10/22/96	62	40	0.58		0.0	0		R,R-,L	SE	8.3	CLDY	14	0
10/23/96	45	36	0.15		0.0	0		R,L,IP,R-	WSW	11.0	CLDY	24	0
10/24/96	64	36	.00		0.0	0			W	5.3	CLR	15	0
10/25/96	68	38	.00		0.0	0			SE	6.6	CLR	12	0
10/26/96	69	54	.00		0.0	0			SE	6.5	CLDY	3	0
10/27/96	68	53	0.01		0.0	0		L	SW	5.5	PC	4	0
10/28/96	61	46	.00		0.0	0			NW	3.1	PC	11	0
10/29/96	71	49	0.24		0.0	0		TRW,R,R-,L	SE	12.7	CLDY	5	0
10/30/96	58	32	.00		0.0	0			W	13.9	PC	20	0
10/31/96	48	27*	.00		0.0	0			W	7.4	PC	27*	0
TOT/AVE	66.4	41.9	1.55		0.0				SE	5.9		334	4
DEP	+1.3	-1.9	-1.13		-0.1				S	-0.2		-15	-12

NUMBER OF DAYS AND DEPARTURE

	MAX TEMP >=90	MAX TEMP <=32	MIN TEMP <=32	MIN TEMP <=0	PRECIPITATION >=T	>=.01	>=.10	>=.50	>=1.00
TOTAL	0	0	5	0	8	6	5	1	0
DEP	+0	+0	+2	+0	-	-3	-1	-1	-1

	SNOW >=1.0	SKY COVER CLR	PC	CLDY	WEATHER TYPES F	T	IP	A	R	L	S	Z	D	H	BS
TOTAL	0	10	14	7	5	2	1	0	6	8	0	0	0	0	0
DEP	+0	-2	+6	-4	-1	+0	-	+0	-4	+4	+0	+0	-	-	-

	SEASONAL HEAT DD	SEASONAL COOL DD	JAN- OCT PRECITITATION
TOTAL	434	894	32.88
DEP	-5	-78	-0.74

WEATHER TYPES:F=Fog;T=Thunder;IP=Ice Pellets;A=Hail;R=Rain;S=Snow;Z=Freezing Precip;D=Dust;H=Haze;BS=Blowing Snow; RW=Rain Showers;SW=Snow Showers; L=Drizzle;T=Trace. Intensities: + heavy; - light; absence of symbol indicates moderate. Degree days:Heat and Cool base 65F,Corn Growing base 50F. Averages based on 1961-1990 data.Snow depth at 7 AM LST. Sky 7 AM - 7 PM LST. Other data mid-mid. Heat DD season Jul-Jun; Cool and Corn season Jan-Dec.

REMARKS: No temp or precip records. First fall freeze (32F or lower) was Oct 11 (8 days early). 1996 growing season (last spring freeze to first fall freeze) was 166 days (-19 days), from Apr 27- Oct 11. Peak gust was 44.8 mph from the west on the 30th. Last time we had wind gust of 30 mph or greater

CHAMPAIGN, IL LOCAL CLIMATOLOGICAL DATA NOVEMBER 1996
ILLINOIS STATE WATER SURVEY SUMMARY

DATE	TEMP MX	TEMP MN	PRECIP INCH	PRECIP T	SNOW INCH	SNOW T	SNOW DEP	WEATHER TYPES	WIND D	WIND S	SKY COV	DEGREE DAYS H	DEGREE DAYS C
11/01/96	43	27	.00		.0		0		W	5.7	CLR	30	0
11/02/96	31	22	.00		.0		0		NW	4.6	PC	38	0
11/03/96	48	20	.00		.0		0		WSW	5.6	CLR	31	0
11/04/96	51	28		T	.0		0	L	S	7.6	CLDY	25	0
11/05/96	62	44		T	.0		0	L	S	4.5	CLDY	12	0
11/06/96	68*	46	1.02*		.0		0	TRW,R,L	S	10.0	CLDY	8	0
11/07/96	58	36	0.95		.0		0	R,L,ZL	N	6.8	CLDY	18	0
11/08/96	43	31		T	.0		0	L,F	NW	6.7	CLDY	28	0
11/09/96	40	30		T		T	0	SW-	W	7.1	PC	30	0
11/10/96	33	26		T		T	0	SW-	NW	5.4	CLDY	35	0
11/11/96	34	25	.00		.0		0		NW	4.9	PC	35	0
11/12/96	31	18	.00		.0		0		NW	3.8	PC	40	0
11/13/96	31	24		T		T	0	SW-	NE	3.6	CLDY	37	0
11/14/96	38	19	.00		.0		0		NE	4.9	PC	36	0
11/15/96	43	26		T	.0		0	ZL	SE	9.2	CLDY	30	0
11/16/96	53	34	.00		.0		0	F	SE	11.3	PC	21	0
11/17/96	54	29	0.38		.0		0	R,L	S	10.9	CLDY	23	0
11/18/96	41	30	.00		.0		0		N	2.7	CLDY	29	0
11/19/96	37	30		T		T	0	IP,SW-	NE	4.0	CLDY	31	0
11/20/96	39	32		T	.0		0	IP,L	NE	4.5	CLDY	29	0
11/21/96	37	29	0.07			T	0	R-,ZL,IP,SW-	NE	7.1	CLDY	32	0
11/22/96	40	26	.00		.0		0		SE	4.6	PC	32	0
11/23/96	41	30		T	.0		0	L,F	S	6.0	CLDY	29	0
11/24/96	40	35	0.53		.0		0	R,L,F	N	6.6	CLDY	27	0
11/25/96	35	24	0.59		2.0*		0	R,L,ZL,ZR,IP,SW	N	7.1	CLDY	35	0
11/26/96	26	16	.00		.0		2		NW	4.6	PC	44*	0
11/27/96	28	14*	.00		.0		1		NW	2.8	CLR	44*	0
11/28/96	37	21	.00		.0		1		S	5.1	CLR	36	0
11/29/96	44	25	0.41		.0		T	R,R-,L	SE	6.5	CLDY	30	0
11/30/96	48	41	0.19		.0		0	R,L	W	5.5	CLDY	20	0
TOT/AVE	41.8	27.9	4.14		2.0				NW	6.0		895	0
DEP	-8.5	-5.9	+1.04		-0.2				SW	-1.5		+199	+0

NUMBER OF DAYS AND DEPARTURE

	MAX TEMP >=90	MAX TEMP <=32	MIN TEMP <=32	MIN TEMP <=0	PRECIPITATION >=T	>=.01	>=.10	>=.50	>=1.00
TOTAL	0	5	24	0	18	8	7	4	1
DEP	+0	+4	+10	+0	-	-2	+1	+2	+0

	SNOW >=1.0	SKY COVER CLR	PC	CLDY	WEATHER TYPES F	T	IP	A	R	L	S	Z	D	H	BS
TOTAL	1	4	8	18	4	1	4	0	8	12	6	4	0	0	0
DEP	+0	-3	+0	+3	+0	+0	-	+0	-1	+7	+2	+3	-	-	-

	SEASONAL HEAT DD	SEASONAL COOL DD	JAN- NOV PRECITITATION
TOTAL	1329	894	37.02
DEP	+194	-78	-0.30

WEATHER TYPES:F=Fog;T=Thunder;IP=Ice Pellets;A=Hail;R=Rain;S=Snow;Z=Freezing Precip;D=Dust;H=Haze;BS=Blowing Snow; RW=Rain Showers;SW=Snow Showers; L=Drizzle;T=Trace. Intensities: + heavy; - light; absence of symbol indicates moderate. Degree days:Heat and Cool base 65F,Corn Growing base 50F. Averages based on 1961-1990 data.Snow depth at 7 AM LST. Sky 7 AM - 7 PM LST. Other data mid-mid. Heat DD season Jul-Jun; Cool and Corn season Jan-Dec.

REMARKS: Tied fourth coldest Nov on rec (coldest was 34.1F,1976).Record coldest ave. monthly max temp, 10th coldest ave mo. min temp (rec 24.7F,1967) Peak gust 29.0, from south, on 17th.
Fall (S,O,N) stats:mean temp 51.2F (-3.2F, tied 6th coldest fall). Precip was 9.09 inches (-0.04 inch), and snowfall was 2.0 inches (-0.1 inch)

CHAMPAIGN, IL LOCAL CLIMATOLOGICAL DATA DECEMBER 1996
ILLINOIS STATE WATER SURVEY SUMMARY

DATE	TEMP MX	TEMP MN	PRECIP INCH	PRECIP T	SNOW INCH	SNOW T	SNOW DEP	WEATHER TYPES	WIND D	WIND S	SKY COV	DEGREE DAYS H	DEGREE DAYS C
12/01/96	41	22	0.24		1.0	1		R,SW	W	8.8	CLDY	33	0
12/02/96	42	23	.00		.0	1		F	SE	5.2	PC	32	0
12/03/96	40	24		T		T	0	SW-	W	12.0	CLDY	33	0
12/04/96	35	18	.00		.0.	0			SE	4.7	CLR	38	0
12/05/96	34	30	0.27		4.6*	4*		S,SW,L,ZL	SE	10.5	CLDY	33	0
12/06/96	39	27	.00		.0	3			SE	6.0	CLDY	32	0
12/07/96	45	28	.00		.0	2			W	5.2	CLDY	28	0
12/08/96	33	26		T		T	T	SW-	NW	9.5	CLDY	35	0
12/09/96	33	24	.00		.0	T			S	6.9	CLDY	36	0
12/10/96	56	31	.00		.0	T			S	5.3	PC	21	0
12/11/96	55	39	0.05		.0	0		L,F	N	4.8	CLDY	18	0
12/12/96	40	37		T	.0	0		L	NW	6.0	CLDY	26	0
12/13/96	45	28	.00		.0	0		F	SE	3.5	PC	28	0
12/14/96	46	33	.00		.0	0			SE	8.0	CLDY	25	0
12/15/96	44	30	0.28		.0	0		R,L	W	9.8	CLDY	28	0
12/16/96	31	29		T		T	0	SW-	N	4.1	CLDY	35	0
12/17/96	30	18	0.01		0.2	0		SW	W	8.3	CLDY	41	0
12/18/96	18	9		T		T	T	SW	W	10.0	CLDY	51	0
12/19/96	12	4*		T		T	T	SW-	W	11.3	PC	57*	0
12/20/96	19	7	.00		.0	T			S	7.7	PC	52	0
12/21/96	36	16		T	.0	T		L	S	13.8	CLDY	39	0
12/22/96	43	34		T	.0	0		L	SE	5.6	CLDY	26	0
12/23/96	58*	25	0.40*		.0	0		TRW,R,R-,L	S	14.0	CLDY	23	0
12/24/96	25	10	0.02		0.3	T		SW,F	W	13.1	CLDY	47	0
12/25/96	18	8		T		T	T	SW-	W	4.1	PC	52	0
12/26/96	31	16	0.12		1.3	T		SW	SE	3.9	CLDY	41	0
12/27/96	40	25		T	.0	1		L,F	SE	5.1	PC	32	0
12/28/96	48	40	.00		.0	T		F	SW	6.8	CLDY	21	0
12/29/96	42	30	.00		.0	0		F	NW	4.8	CLDY	29	0
12/30/96	37	28		T	.0	0		L,F	SE	4.0	CLDY	32	0
12/31/96	38	32	.00		.0	0		F	E	4.5	CLDY	30	0
TOT/AVE	37.2	24.2	1.39		7.4				W	7.3		1,054	0
DEP	+0.7	+2.2	-1.63		+1.4				S	-0.6		-63	+0

NUMBER OF DAYS AND DEPARTURE

	MAX TEMP >=90	MAX TEMP <=32	MIN TEMP <=32	MIN TEMP <=0	PRECIPITATION >=T	>=.01	>=.10	>=.50	>=1.00
TOTAL	0	8	26	0	19	8	5	0	0
DEP	+0	-3	+0	-2	-	-3	-1	-2	-1

	SNOW >=1.0	SKY COVER CLR	PC	CLDY	WEATHER TYPES F	T	IP	A	R	L	S	Z	D	H	BS
TOTAL	2	1	7	23	9	1	0	0	3	9	11	1	0	0	0
DEP	+0	-6	+0	+6	+3	+0	-	+0	-5	+6	+2	-2	-	-	-

	SEASONAL HEAT DD	SEASONAL COOL DD	JAN- DEC PRECITITATION
TOTAL	2383	894	38.41
DEP	+131	-78	-1.33

WEATHER TYPES:F=Fog;T=Thunder;IP=Ice Pellets;A=Hail;R=Rain;S=Snow;Z=Freezing Precip;D=Dust;H=Haze;BS=Blowing Snow; RW=Rain Showers;SW=Snow Showers; L=Drizzle;T=Trace. Intensities: + heavy; - light; absence of symbol indicates moderate. Degree days:Heat and Cool base 65F,Corn Growing base 50F. Averages based on 1961-1990 data.Snow depth at 7 AM LST. Sky 7 AM - 7 PM LST. Other data mid-mid. Heat DD season Jul-Jun; Cool and Corn season Jan-Dec.

REMARKS: Tornado watch on 23rd. Peak wind gust was 35.9 mph, from the south, on the 23rd.

CHAMPAIGN, IL LOCAL CLIMATOLOGICAL DATA JANUARY 1997
ILLINOIS STATE WATER SURVEY SUMMARY

DATE	TEMP MX	TEMP MN	PRECIP INCH	PRECIP T	SNOW INCH	SNOW T	SNOW DEP	WEATHER TYPES	WIND D	WIND S	SKY COV	DEGREE DAYS H	DEGREE DAYS C
01/01/97	49	35	0.01		.0		0	L,F	SW	8.3	CLDY	23	0*
01/02/97	62	49		T	.0		0	L,F	SW	11.0	CLDY	9	0
01/03/97	56	47		T	.0		0	L,F	SW	5.1	CLDY	13	0
01/04/97	64*	40	0.21		.0		0	TRW+	S	14.4	CLDY	13	0
01/05/97	40	22		T		T	0	SW-	W	14.8	CLDY	34	0
01/06/97	24	12		T		T	0	SW-	W	8.6	CLDY	47	0
01/07/97	29	12	.00		.0		0		NW	4.6	PC	44	0
01/08/97	27	13		T		T	0	S,BS	NE	3.4	CLDY	45	0
01/09/97	25	20	0.34		4.6		2	SW,BS	W	8.6	CLDY	42	0
01/10/97	20	0	0.01		1.0		5	S,BS	W	17.2	CLDY	55	0
01/11/97	2	-4	.00		.0		6		W	10.9	PC	66	0
01/12/97	2	-8	.00		.0		6		W	6.9	CLR	68	0
01/13/97	8	-6	.00		.0		6		W	4.8	CLR	64	0
01/14/97	17	-4	.00		.0		6		SW	3.3	CLR	58	0
01/15/97	30	8	0.62*		5.3*		9	SW,IP,ZR-	SSE	9.7	CLDY	46	0
01/16/97	18	-3	.00		.0		12*		W	14.2	CLR	57	0
01/17/97	4	-12*	.00		.0		12		W	8.6	CLR	69*	0
01/18/97	11	-8	0.01		0.1		12	SW-	W	8.4	PC	63	0
01/19/97	26	11	.00		.0		12		S	6.2	CLDY	46	0
01/20/97	44	20	.00		.0		12		SW	4.4	CLR	33	0
01/21/97	43	25	0.26		.0		10	R-,L,F	SE	9.8	PC	31	0
01/22/97	47	27	0.25		.0		4	TRW,R,L,F	W	11.6	PC	28	0
01/23/97	28	20		T		T	2	SW-	E	5.1	CLDY	41	0
01/24/97	36	21	0.23			T	2	R,SW-	W	8.7	CLDY	36	0
01/25/97	21	6		T		T	2	SW-	W	12.1	CLDY	51	0
01/26/97	26	5	0.16		2.5		2	S	E	4.2	CLDY	49	0
01/27/97	32	3	0.40		2.0		3	ZR,IP,S	E	5.7	CLDY	47	0
01/28/97	8	-7	.00		.0		4		NW	5.0	CLR	64	0
01/29/97	22	-3	.00		.0		4		SE	3.1	PC	55	0
01/30/97	28	10	.00		.0		4		S	5.3	PC	46	0
01/31/97	42	28	.00		.0		3		SW	9.1	PC	30	0
TOT/AVE	28.7	12.2	2.50		15.5				W	8.2		1,373	0
DEP	-3.0	-4.7	+0.67		+7.4				W	-0.1		+90	+0

NUMBER OF DAYS AND DEPARTURE

	MAX TEMP >=90	MAX TEMP <=32	MIN TEMP <=32	MIN TEMP <=0	PRECIPITATION >=T	>=.01	>=.10	>=.50	>=1.00
TOTAL	0	21	27	9	18	11	8	1	0
DEP	+0	+5	-2	+5	-	+2	+3	+0	+0

	SNOW >=1.0	SKY COVER CLR	PC	CLDY	WEATHER TYPES F	T	IP	A	R	L	S	Z	D	H	BS
TOTAL	5	7	8	16	5	2	2	0	4	5	12	2	0	0	3
DEP	+2	-1	-1	+2	+1	+1	-	+0	-1	+2	+2	+0	-	-	-

	SEASONAL HEAT DD	SEASONAL COOL DD	JAN- JAN PRECITITATION
TOTAL	3756	0	2.50
DEP	+221	+0	+0.67

WEATHER TYPES:F=Fog;T=Thunder;IP=Ice Pellets;A=Hail;R=Rain;S=Snow;Z=Freezing Precip;D=Dust;H=Haze;BS=Blowing Snow; RW=Rain Showers;SW=Snow Showers; L=Drizzle;T=Trace. Intensities: + heavy; - light; absence of symbol indicates moderate. Degree days:Heat and Cool base 65F,Corn Growing base 50F. Averages based on 1961-1990 data.Snow depth at 7 AM LST. Sky 7 AM - 7 PM LST. Other data mid-mid. Heat DD season Jul-Jun; Cool and Corn season Jan-Dec.

REMARKS: 8th snowiest Jan in C-U (rec 28.3/1979). New rec max temps on 2nd (old rec 60/1950) and 4th (old rec 56/1922). Peak gust 33.3 mph from the west on the 5th. Jan 5-29 was 25th coldest 25-day period in C-U.

CHAMPAIGN, IL LOCAL CLIMATOLOGICAL DATA FEBRUARY 1997
ILLINOIS STATE WATER SURVEY SUMMARY

DATE	TEMP MX	TEMP MN	PRECIP INCH	PRECIP T	SNOW INCH	SNOW T	SNOW DEP	WEATHER TYPES	WIND D	WIND S	SKY COV	DEGREE DAYS H	DEGREE DAYS C
02/01/97	40	30		T	.0		2	L,R-,F	SE	2.3	CLDY	30	0
02/02/97	49	31	.00		.0		T		N	4.9	PC	25	0
02/03/97	35	30	0.40		.0		T	R,L	NE	6.5	CLDY	32	0
02/04/97	39	32	0.06			T	T	R,L,SW-,F	W	10.4	CLDY	29	0
02/05/97	36	28		T		T	T	SW-,	NW	7.7	CLDY	33	0
02/06/97	29	27		T		T	T	SW-,S	W	4.6	CLDY	37	0
02/07/97	29	25		T		T	T	SW-	NE	4.6	CLDY	38	0
02/08/97	34	28	.00		.0		T		N	5.9	CLDY	34	0
02/09/97	35	30		T		T	T	SW-	SW	2.1	CLDY	32	0
02/10/97	33	26	0.01		0.1		T	S-,SW-	W	4.7	CLDY	35	0
02/11/97	28	26		T		T	T	SW-	W	6.7	CLDY	38	0
02/12/97	29	19	.00		.0		T		NE	7.1	CLDY	41	0
02/13/97	31	16	.00		.0		0		E	4.0	CLDY	41	0
02/14/97	36	24		T		T	0	SW-	W	6.6	CLDY	35	0
02/15/97	30	16		T		T	T	S	NW	5.8	CLR	42*	0
02/16/97	35	15*	0.08		1.0*		T	S	NW	8.8	PC	40	0
02/17/97	46	18	.00		.0		T		S	13.0	CLR	33	0
02/18/97	61*	37	.00		.0		0		S	14.8	CLDY	16	0
02/19/97	50	29	0.04		.0		0	R,R-,L	W	7.7	CLDY	25	0
02/20/97	57	29	0.78		.0		0	RW+,R,L-,F	SE	5.4	CLDY	22	0
02/21/97	60	32	0.36		.0		0	R,R-,L,S	S	14.9	CLDY	19	0
02/22/97	36	30		T		T	0	SW-	NW	7.4	CLDY	32	0
02/23/97	41	26		T		T	0	SW-	NW	6.5	PC	31	0
02/24/97	35	22	.00		.0		0		NW	4.4	CLDY	36	0
02/25/97	42	18	.00		.0		0		SW	5.5	CLR	35	0
02/26/97	44	36	1.72*		.0		0	R,RW,RW-,L-	SE	5.6	CLDY	25	0
02/27/97	53	34	.00		.0		0		W	10.6	PC	21	0
02/28/97	56	30	0.06		.0		0	RW-	SE	5.1	CLR	22	0
TOT/AVE	40.3	26.6	3.51		1.1				W	6.9		879	0
DEP	+4.0	+6.3	+1.54		-5.9				S	-1.1		-163	+0

NUMBER OF DAYS AND DEPARTURE

	MAX TEMP >=90	MAX TEMP <=32	MIN TEMP <=32	MIN TEMP <=0	PRECIPITATION >=T	>=.01	>=.10	>=.50	>=1.00
TOTAL	0	6	25	0	19	9	4	1	1
DEP	+0	-5	+1	-2	-	+0	+0	+0	+0

	SNOW >=1.0	SKY COVER CLR	PC	CLDY	WEATHER TYPES F	T	IP	A	R	L	S	Z	D	H	BS
TOTAL	1	4	4	20	3	0	0	0	8	7	13	0	0	0	0
DEP	-1	-4	-3	+7	-1	+0	-	+0	+3	+4	+4	-2	-	-	-

	SEASONAL HEAT DD	SEASONAL COOL DD	JAN- FEB PRECITITATION
TOTAL	4635	0	6.01
DEP	+58	+0	+2.21

WEATHER TYPES:F=Fog;T=Thunder;IP=Ice Pellets;A=Hail;R=Rain;S=Snow;Z=Freezing Precip;D=Dust;H=Haze;BS=Blowing Snow; RW=Rain Showers;SW=Snow Showers; L=Drizzle;T=Trace. Intensities: + heavy; - light; absence of symbol indicates moderate. Degree days:Heat and Cool base 65F,Corn Growing base 50F. Averages based on 1961-1990 data.Snow depth at 7 AM LST. Sky 7 AM - 7 PM LST. Other data mid-mid. Heat DD season Jul-Jun; Cool and Corn season Jan-Dec.

REMARKS: No temp or precip records set this month. Peak gust was 35.6mph, from the southwest, on the 27th. Winter Stats (D,J,F): mean temp 28.2F (-1.1), precip total 7.40 inches (+0.58), snowfall totaled 24.0 inches (+2.9 inches).

CHAMPAIGN, IL LOCAL CLIMATOLOGICAL DATA MARCH 1997
ILLINOIS STATE WATER SURVEY SUMMARY

DATE	TEMP MX	TEMP MN	PRECIP INCH	PRECIP T	SNOW INCH	SNOW T	SNOW DEP	WEATHER TYPES	WIND D	WIND S	SKY COV	DEGREE DAYS H	DEGREE DAYS C
03/01/97	65	38	0.08		.0	0		R	SW	7.4	CLDY	13	0*
03/02/97	43	31	.00		.0	0			NW	7.6	PC	28	0
03/03/97	49	29	.00		.0	0			NE	7.0	PC	26	0
03/04/97	57	35	0.05		.0	0		R-,RW-	W	8.6	CLDY	19	0
03/05/97	37	29	0.08		T*	0		R-,RW-,SW-,IP-	N	9.9	CLDY	32	0
03/06/97	37	25	.00		.0	0			W	8.9	CLR	34	0
03/07/97	54	22	.00		.0	0			S	11.9	PC	27	0
03/08/97	54	35	.00		.0	0			E	5.5	CLR	20	0
03/09/97	53	32	0.86		.0	0		TRW+,R,R-,L-	SE	8.6	CLDY	22	0
03/10/97	55	29	.00		.0	0			SW	8.1	CLR	23	0
03/11/97	52	30	.00		.0	0			NE	6.7	PC	24	0
03/12/97	53	28	.00		.0	0			ENE	4.7	CLR	24	0
03/13/97	48	36	1.08*		.0	0		R,R-	E	5.3	CLDY	23	0
03/14/97	38	21	0.03		T*	0		R,R-,SW-	WNW	12.5	CLDY	35	0
03/15/97	30	15*		T	T*	T*		SW-	NW	6.9	CLR	42*	0
03/16/97	39	15*	.00		.0	0			S	7.3	CLR	38	0
03/17/97	54	36	.00		.0	0			SW	7.2	CLDY	20	0
03/18/97	46	34	0.04		.0	0		R,L-	NE	9.1	CLDY	25	0
03/19/97	51	29	.00		.0	0			NE	6.6	CLR	25	0
03/20/97	61	36	.00		.0	0			W	4.1	CLR	16	0
03/21/97	78*	39	.00		.0	0			SW	11.2	CLR	6	0
03/22/97	48	40	.00		.0	0			NW	7.8	CLDY	21	0
03/23/97	52	30	.00		.0	0			NE	6.9	PC	24	0
03/24/97	52	28	0.11		.0	0		TRW-	SE	8.5	CLDY	25	0
03/25/97	53	40	0.19		.0	0		R-,L-	W	10.5	CLDY	18	0
03/26/97	57	29	.00		.0	0			WSW	8.4	CLR	22	0
03/27/97	69	39	.00		.0	0			SW	10.5	CLR	11	0
03/28/97	73	47	0.33		.0	0		TRW,RW,RW-	S	10.8	PC	5	0
03/29/97	48	42	.00		.0	0			W	7.1	CLDY	20	0
03/30/97	50	38	0.03		.0	0		RW-	NW	5.6	CLDY	21	0
03/31/97	53	32	0.05		.0	0		RW	N	5.3	CLR	22	0
TOT/AVE	51.9	31.9	2.93		0.0T				W	8.0		711	0
DEP	+3.1	+0.8	-0.37		-4.1				S	-0.6		-74	-1

NUMBER OF DAYS AND DEPARTURE

	MAX TEMP >=90	MAX TEMP <=32	MIN TEMP <=32	MIN TEMP <=0	PRECIPITATION >=T	>=.01	>=.10	>=.50	>=1.00
TOTAL	0	1	17	0	13	12	5	2	1
DEP	+0	-2	-1	+0	-	+0	-2	+0	+0

	SNOW >=1.0	SKY COVER CLR	PC	CLDY	WEATHER TYPES F	T	IP	A	R	L	S	Z	D	H	BS
TOTAL	0	12	6	13	0	3	1	0	12	3	3	0	0	0	0
DEP	-1	+5	-3	+2	-4	+0	-	-1	+2	-1	-3	-1	-	-	-

	SEASONAL HEAT DD	SEASONAL COOL DD	JAN- MAR PRECITITATION
TOTAL	5346	0	8.94
DEP	-16	-1	+1.84

WEATHER TYPES:F=Fog;T=Thunder;IP=Ice Pellets;A=Hail;R=Rain;S=Snow;Z=Freezing Precip;D=Dust;H=Haze;BS=Blowing Snow; RW=Rain Showers;SW=Snow Showers; L=Drizzle;T=Trace. Intensities: + heavy; - light; absence of symbol indicates moderate. Degree days:Heat and Cool base 65F,Corn Growing base 50F. Averages based on 1961-1990 data.Snow depth at 7 AM LST. Sky 7 AM - 7 PM LST. Other data mid-mid. Heat DD season Jul-Jun; Cool and Corn season Jan-Dec.

REMARKS: No temp or precip records set this month. Peak gust was 32.5mph, from the west, on the 14th.

CHAMPAIGN, IL LOCAL CLIMATOLOGICAL DATA APRIL 1997
ILLINOIS STATE WATER SURVEY SUMMARY

DATE	TEMP MX	TEMP MN	PRECIP INCH	PRECIP T	SNOW INCH	SNOW T	SNOW DEP	WEATHER TYPES	WIND D	WIND S	SKY COV	DEGREE DAYS H	DEGREE DAYS C	DEGREE DAYS CORN
04/01/97	62	28	.00		.0	0			SE	4.4	CLR	20	0*	6
04/02/97	69	36	.00		.0	0			S	5.1	PC	12	0	10
04/03/97	74	43	.00		.0	0			WSW	5.3	PC	6	0	12
04/04/97	72	45	0.18		.0	0		R,R-	SE	10.3	CLDY	6	0	11
04/05/97	67	55	0.12		.0	0		R,R-	S	18.3	CLDY	4	0	11
04/06/97	59	34	.00		.0	0			W	20.5	PC	18	0	5
04/07/97	47	29	.00		.0	0			W	9.3	PC	27	0	0
04/08/97	41	23	.00		.0	0			NW	7.2	PC	33	0	0
04/09/97	42	19*	.00		.0	0			N	4.2	CLR	34*	0	0
04/10/97	46	28	0.06			T*	0	S-,SW-,R-,IP-,F	E	4.3	CLDY	28	0	0
04/11/97	61	34	0.20		.0	0		R,F	NE	7.1	CLDY	17	0	6
04/12/97	44	34	0.02		.0	0		R-,L-,F	W	9.9	CLDY	26	0	0
04/13/97	50	32	.00		.0	0			NW	6.3	PC	24	0	0
04/14/97	55	27	.00		.0	0			SW	3.8	CLR	24	0	3
04/15/97	66	32	.00		.0	0			SW	8.4	PC	16	0	8
04/16/97	55	32	0.02		.0	0		R-	NW	9.1	PC	21	0	3
04/17/97	50	32	.00		.0	0			NW	7.0	CLR	24	0	0
04/18/97	61	30	0.21*		.0	0		TRW-	W	4.5	PC	19	0	6
04/19/97	57	44	0.03		.0	0		RW-	NE	3.9	CLDY	14	0	4
04/20/97	62	38	0.03		.0	0		R-,L-,F	NE	3.7	CLDY	15	0	6
04/21/97	64	44	0.01		.0	0		R-	NE	4.8	PC	11	0	7
04/22/97	58	37	.00		.0	0			NE	8.7	CLR	17	0	4
04/23/97	58	37	.00		.0	0			N	7.4	PC	17	0	4
04/24/97	58	40		T	.0	0		RW-	N	6.0	PC	16	0	4
04/25/97	65	38	.00		.0	0			N	3.9	CLR	13	0	8
04/26/97	69	40	.00		.0	0			E	3.2	PC	10	0	10
04/27/97	55	42	0.13		.0	0		R-,RW-,L-	NE	4.6	CLDY	16	0	3
04/28/97	65	38	.00		.0	0		F	NE	2.8	CLR	13	0	8
04/29/97	72	40	.00		.0	0			S	5.5	CLR	9	0	11
04/30/97	77*	42	0.08		.0	0		TRW, RW	SE	16.8	CLDY	5	0	14*
TOT/AVE	59.4	35.8	1.09		T				NE	7.2		515	0	164
DEP	-3.0	-5.6	-2.85		-1.0				S	-1.2		+104	-10	-42

NUMBER OF DAYS AND DEPARTURE

	MAX TEMP >=90	MAX TEMP <=32	MIN TEMP <=32	MIN TEMP <=0	PRECIPITATION >=T	>=.01	>=.10	>=.50	>=1.00
TOTAL	0	0	11	0	12	11	5	0	0
DEP	+0	+0	+6	+0	-	-1	-3	-2	-1

	SNOW >=1.0	SKY COVER CLR	PC	CLDY	WEATHER TYPES F	T	IP	A	R	L	S	Z	D	H	BS
TOTAL	0	8	13	9	5	2	1	0	13	3	1	0	0	0	0
DEP	+0	+0	+4	-4	+2	-3	-	-1	+0	-1	-1	+0	-	-	-

	SEASONAL HEAT DD	SEASONAL COOL DD	SEASONAL CORN GDD	JAN- APR PRECITITATION
TOTAL	5861	0	273	10.03
DEP	+88	-11	-23	-1.01

WEATHER TYPES:F=Fog;T=Thunder;IP=Ice Pellets;A=Hail;R=Rain;S=Snow;Z=Freezing Precip;D=Dust;H=Haze;BS=Blowing Snow; RW=Rain Showers;SW=Snow Showers; L=Drizzle;T=Trace. Intensities: + heavy; - light; absence of symbol indicates moderate. Degree days:Heat and Cool base 65F,Corn Growing base 50F. Averages based on 1961-1990 data.Snow depth at 7 AM LST. Sky 7 AM - 7 PM LST. Other data mid-mid. Heat DD season Jul-Jun; Cool and Corn season Jan-Dec.

REMARKS: New record min temp on 9th (old rec was 22F/1914). 5th lowest ave mon min temp (re 33.2F/1907), and ties 10th lowest ave mon mean temp, first set in 1996 (rec 42.5F/1907). Peak gust was 48.1 mph, from the west, on the 30th.

CHAMPAIGN, IL LOCAL CLIMATOLOGICAL DATA MAY 1997
ILLINOIS STATE WATER SURVEY SUMMARY

DATE	TEMP MX	TEMP MN	PRECIP INCH	PRECIP T	SNOW INCH	SNOW T	SNOW DEP	WEATHER TYPES	WIND D	WIND S	SKY COV	DEGREE DAYS H	DEGREE DAYS C	DEGREE DAYS CORN
05/01/97	64	41	0.00T		0.0*	0		L	W	8.7	CLDY	12	0	7
05/02/97	59	49	0.91		0.0	0		TRW+,R,RW-,F	SE	7.2	CLDY	11	0	5
05/03/97	56	44	1.15*		0.0	0		TRW+,R,RW-	NW	7.9	CLDY	15	0	3
05/04/97	65	41	0.00		0.0	0			W	7.1	CLR	12	0	8
05/05/97	71	46	0.07		0.0	0		TRW,RW-	SW	12.5	PC	6	0	11
05/06/97	69	47	0.00		0.0	0			NW	5.0	CLR	7	0	10
05/07/97	70	44	0.00		0.0	0			SE	6.1	CLDY	8	0	10
05/08/97	73	51	0.24		0.0	0		R,RW	W	9.2	PC	3	0	12
05/09/97	61	45	0.00		0.0	0			NW	10.0	PC	12	0	6
05/10/97	68	40	0.00		0.0	0			N	4.7	CLR	11	0	9
05/11/97	77	44	0.06		0.0	0		R-	SW	11.0	PC	4	0	14
05/12/97	64	46	0.00		0.0	0			W	9.8	CLR	10	0	7
05/13/97	60	44	0.13		0.0	0		R,R-	W	5.9	CLDY	13	0	5
05/14/97	67	44	0.08		0.0	0		R-	W	9.7	PC	9	0	9
05/15/97	57	38	0.00		0.0	0			NW	8.7	PC	17*	0	4
05/16/97	70	35*	0.01		0.0	0		R-	WSW	9.0	CLR	12	0	10
05/17/97	84	52	0.07		0.0	0		RW,R,R-	SW	6.1	PC	0	3	18
05/18/97	85*	51	0.08		0.0	0		TRW+,R,R-	SW	9.4	CLDY	0	3	18
05/19/97	73	49	0.39		0.0	0		TRW+,R,R-	NW	7.4	CLDY	4	0	12
05/20/97	66	44	0.00		0.0	0			NNW	5.1	CLR	10	0	8
05/21/97	63	43	0.00		0.0	0			NE	5.5	CLR	12	0	7
05/22/97	69	37	0.00		0.0	0			NE	3.0	CLR	12	0	10
05/23/97	76	44	0.00		0.0	0			SE	4.1	PC	5	0	13
05/24/97	83	54	0.15		0.0	0		TRW,RW,R-	SE	5.5	CLDY	0	4*	19*
05/25/97	71	57	0.21		0.0	0		RW+,R,R-,F	NE	6.7	CLDY	1	0	14
05/26/97	57	49	0.56		0.0	0		R,R-,RW	NE	7.1	CLDY	12	0	4
05/27/97	69	48	0.07		0.0	0		R-	NE	6.2	CLDY	6	0	10
05/28/97	63	53	0.13		0.0	0		TRW-,R-,L-,F	SE	4.4	CLDY	7	0	8
05/29/97	63	52	0.00T		0.0	0		R-	W	6.3	CLDY	7	0	8
05/30/97	61	52	0.38		0.0	0		R,R-,F	SW	2.8	CLDY	8	0	7
05/31/97	69	56	0.00		0.0	0		F	NE	7.0	CLDY	2	0	13
TOT/AVE	67.8	46.5	4.69		0.0				W	7.1		248	10	299
DEP	-5.9	-5.2	+0.72		+0.0				S	+0.2		+98	-61	-124

NUMBER OF DAYS AND DEPARTURE

	MAX TEMP >=90	MAX TEMP <=32	MIN TEMP <=32	MIN TEMP <=0	PRECIPITATION >=T	>=.01	>=.10	>=.50	>=1.00
TOTAL	0	0	0	0	19	17	10	3	1
DEP	-1	+0	+0	+0	-	+7	+3	+0	+0

	SNOW >=1.0	SKY COVER CLR	PC	CLDY	WEATHER TYPES F	T	IP	A	R	L	S	Z	D	H	BS
TOTAL	0	8	8	15	5	7	0	0	18	2	0	0	0	0	0
DEP	+0	-2	-3	+5	+2	+1	-	-1	+5	-1	+0	+0	-	-	-

	SEASONAL HEAT DD	SEASONAL COOL DD	SEASONAL CORN GDD	JAN- MAY PRECITITATION
TOTAL	6109	10	572	14.72
DEP	+186	-72	-147	-0.29

WEATHER TYPES:F=Fog;T=Thunder;IP=Ice Pellets;A=Hail;R=Rain;S=Snow;Z=Freezing Precip;D=Dust;H=Haze;BS=Blowing Snow; RW=Rain Showers;SW=Snow Showers; L=Drizzle;T=Trace. Intensities: + heavy; - light; absence of symbol indicates moderate. Degree days:Heat and Cool base 65F,Corn Growing base 50F. Averages based on 1961-1990 data.Snow depth at 7 AM LST. Sky 7 AM - 7 PM LST. Other data mid-mid. Heat DD season Jul-Jun; Cool and Corn season Jan-Dec.

REMARKS: Ave mo. max temp ties the 8th coldest ave mo max for May (rec 65.0 in 1935). 9th coldest ave mo. min (rec 43.1/1891) and 4th coldest ave mo mean (rec 55.4/1907, 1917, 1924). Only 5 days had average temps above the daily average. Peak gust 38.7 mph, from the west on the 14th. Even though air temp

CHAMPAIGN, IL LOCAL CLIMATOLOGICAL DATA JUNE 1997
ILLINOIS STATE WATER SURVEY SUMMARY

DATE	TEMP MX	TEMP MN	PRECIP INCH	PRECIP T	SNOW INCH	SNOW T	SNOW DEP	WEATHER TYPES	WIND D	WIND S	SKY COV	DEGREE DAYS H	DEGREE DAYS C	DEGREE DAYS CORN
06/01/97	60	53	0.40		0.0		0	R,L-,F	N	10.2	CLDY	8*	0	7
06/02/97	71	57		T	0.0		0	RW-,L-	NE	5.1	CLDY	1	0	14
06/03/97	65	56	0.01		0.0		0	L-,F	NE	5.0	CLDY	4	0	11
06/04/97	72	52	.00		0.0		0		NE	4.7	PC	3	0	12
06/05/97	75	53	.00		0.0		0		S	2.3	CLDY	1	0	14
06/06/97	70	58	0.21		0.0		0	TRW-,RW,RW-,F	S	5.0	CLDY	1	0	14
06/07/97	70	58	0.04		0.0		0	R,R-,F	E	2.9	CLDY	1	0	14
06/08/97	64	55	0.37		0.0		0	R,R-,F	NE	5.0	CLDY	5	0	10
06/09/97	76	55	.00		0.0		0	F	NE	4.1	PC	0	1	16
06/10/97	79	54	0.17		0.0		0	RW+,R-	SE	2.9	PC	0	2	17
06/11/97	79	59	.00		0.0		0	F	SW	3.6	PC	0	4	19
06/12/97	77	62	0.65*		0.0		0	TRW+,RW,R-,L-,F	SW	5.0	CLDY	0	5	20
06/13/97	78	57	.00		0.0		0	F	N	2.6	PC	0	3	18
06/14/97	74	58	.00		0.0		0		NE	7.1	CLR	0	1	16
06/15/97	80	51*	.00		0.0		0		S	6.9	PC	0	1	16
06/16/97	81	60	0.04		0.0		0	RW-	W	8.0	CLDY	0	6	21
06/17/97	83	58	.00		0.0		0		NE	3.4	PC	0	6	21
06/18/97	86	63	0.02		0.0		0	RW-	W	3.5	PC	0	10	25
06/19/97	90	61	.00		0.0		0		SW	5.9	PC	0	11	24
06/20/97	88	70	.00		0.0		0		SSW	9.5	PC	0	14	28
06/21/97	86	72	0.02		0.0		0	TRW-,RW-	S	7.0	CLDY	0	14	29*
06/22/97	90	68	.00		0.0		0		SW	2.9	PC	0	14	27
06/23/97	92	67	.00		0.0		0	H	S	3.6	PC	0	15	27
06/24/97	93*	70	.00		0.0		0	H	S	7.2	PC	0	17*	28
06/25/97	92	70	0.35		0.0		0	TRW+,RW+,R-	SW	6.7	PC	0	16	28
06/26/97	85	64	.00		0.0		0		N	4.1	CLR	0	10	25
06/27/97	85	63	.00		0.0		0		NE	2.3	CLR	0	9	24
06/28/97	87	66	.00		0.0		0		SE	3.7	CLR	0	12	26
06/29/97	85	66	.00		0.0		00		S	4.5	PC	0	11	26
06/30/97	86	66	0.09		0.0		0	TRW-	S	4.9	CLDY	0	11	26
TOT/AVE	80.0	60.7	2.37		0.0				NE	5.0		24	193	603
DEP	-2.9	-0.1	-1.70		+0.0				SW	-1.0		+8	-21	-25

NUMBER OF DAYS AND DEPARTURE

	MAX TEMP >=90	MAX TEMP <=32	MIN TEMP <=32	MIN TEMP <=0	PRECIPITATION >=T	>=.01	>=.10	>=.50	>=1.00
TOTAL	5	0	0	0	13	12	6	1	0
DEP	-1	+0	+0	+0	-	+3	+0	-2	-2

	SNOW >=1.0	SKY COVER CLR	PC	CLDY	WEATHER TYPES F	T	IP	A	R	L	S	Z	D	H	BS
TOTAL	0	4	15	11	9	5	0	0	12	4	0	0	0	2	0
DEP	+0	-6	+3	-3	+7	-1	-	-1	+1	+3	+0	+0	-	-	-

	SEASONAL HEAT DD	SEASONAL COOL DD	SEASONAL CORN GDD	JAN- JUN PRECITITATION
TOTAL	6133	203	1175	17.09
DEP	+194	-93	-172	-1.99

WEATHER TYPES:F=Fog;T=Thunder;IP=Ice Pellets;A=Hail;R=Rain;S=Snow;Z=Freezing Precip;D=Dust;H=Haze;BS=Blowing Snow; RW=Rain Showers;SW=Snow Showers; L=Drizzle;T=Trace. Intensities: + heavy; - light; absence of symbol indicates moderate. Degree days:Heat and Cool base 65F,Corn Growing base 50F. Averages based on 1961-1990 data.Snow depth at 7 AM LST. Sky 7 AM - 7 PM LST. Other data mid-mid. Heat DD season Jul-Jun; Cool and Corn season Jan-Dec.

REMARKS: No temp or precip records set this month. Peak gust was 34.6 mph, from the west on the 25th.

CHAMPAIGN, IL — LOCAL CLIMATOLOGICAL DATA — JULY 1997
ILLINOIS STATE WATER SURVEY — SUMMARY

DATE	TEMP MX	TEMP MN	PRECIP INCH	PRECIP T	SNOW INCH	SNOW T	SNOW DEP	WEATHER TYPES	WIND D	WIND S	SKY COV	DEGREE DAYS H	DEGREE DAYS C	DEGREE DAYS CORN
07/01/97	89	65	0.00		0.0	0			W	2.8	CLR	0	12	26
07/02/97	91	66	0.00		0.0	0			W	7.9	CLR	0	14	26
07/03/97	75	60	0.11		0.0	0		TRW-,RW	W	8.8	PC	0	3	18
07/04/97	68	54*		T	0.0	0		RW-	W	5.1	PC	4*	0	11
07/05/97	76	54*	0.00		0.0	0			W	2.0	CLR	0	0	15
07/06/97	82	54*	0.39		0.0	0		TRW,RW-,TRW+	SW	5.6	PC	0	3	18
07/07/97	85	61	0.00		0.0	0			SW	1.7	CLR	0	8	23
07/08/97	88	65	1.00*		0.0	0		TRW+	SW	7.4	PC	0	12	26
07/09/97	72	58	0.00		0.0	0		F	N	5.3	CLDY	0	0	15
07/10/97	78	57	0.00		0.0	0			NE	2.2	CLR	0	3	18
07/11/97	81	58	0.00		0.0	0			SE	2.6	CLR	0	5	20
07/12/97	86	60	0.00		0.0	0			SE	3.3	CLR	0	8	23
07/13/97	93	67	0.00		0.0	0		H	SW	3.9	PC	0	15	27
07/14/97	94	67	0.87		0.0	0		TRW+,H	SW	4.6	PC	0	16	27
07/15/97	87	65	0.00		0.0	0			NW	2.9	CLR	0	11	26
07/16/97	89	66	0.00		0.0	0			SW	4.0	CLR	0	13	26
07/17/97	89	66	0.00		0.0	0			S	4.1	CLR	0	13	26
07/18/97	93	68	0.08		0.0	0		TRW,RW-,H	SW	3.7	PC	0	16	27
07/19/97	88	69	0.00		0.0	0			NE	2.8	PC	0	14	28
07/20/97	89	68	0.00		0.0	0			SE	2.6	PC	0	14	27
07/21/97	87	71	0.41		0.0	0		TRW+,R-,H	E	2.9	CLDY	0	14	29
07/22/97	82	70	0.04		0.0	0		RW-,R-,F	NE	3.0	CLDY	0	11	26
07/23/97	79	67		T	0.0	0		RW-,F	N	3.6	CLDY	0	8	23
07/24/97	85	64	0.00		0.0	0		H	N	1.8	CLR	0	10	25
07/25/97	88	66	0.00		0.0	0		F	S	4.3	CLR	0	12	26
07/26/97	96*	76	0.00		0.0	0			W	6.6	CLR	0	21*	31*
07/27/97	96*	76	0.00		0.0	0		H	W	5.1	CLR	0	21*	31*
07/28/97	87	66	0.00		0.0	0			N	5.1	PC	0	12	26
07/29/97	77	61	0.00		0.0	0			NE	8.0	CLR	0	4	19
07/30/97	78	59	0.00		0.0	0			NE	5.7	CLR	0	4	19
07/31/97	83	58	0.00		0.0	0			NE	3.1	CLR	0	6	21
TOT/AVE	84.9	63.9	2.90		0.0				W	4.3		4	303	729
DEP	-0.4	-0.9	-1.58		+0.0				SW	-0.6		+2	-2	-9

NUMBER OF DAYS AND DEPARTURE

	MAX TEMP >=90	MAX TEMP <=32	MIN TEMP <=32	MIN TEMP <=0	PRECIPITATION >=T	>=.01	>=.10	>=.50	>=1.00
TOTAL	6	0	0	0	9	7	5	2	1
DEP	-1	+0	+0	+0	-	-2	-2	-1	+0

	SNOW >=1.0	SKY COVER CLR	PC	CLDY	WEATHER TYPES F	T	IP	A	R	L	S	Z	D	H	BS
TOTAL	0	17	10	4	5	6	0	0	9	0	0	0	0	6	0
DEP	+0	+7	-3	-4	+1	-1	-	+0	-2	-1	+0	+0	-	-	-

	SEASONAL HEAT DD	SEASONAL COOL DD	SEASONAL CORN GDD	JAN- JUL PRECITITATION
TOTAL	4	506	1909	19.99
DEP	+2	-95	-176	-3.57

WEATHER TYPES:F=Fog;T=Thunder;IP=Ice Pellets;A=Hail;R=Rain;S=Snow;Z=Freezing Precip;D=Dust;H=Haze;BS=Blowing Snow; RW=Rain Showers;SW=Snow Showers; L=Drizzle;T=Trace. Intensities: + heavy; - light; absence of symbol indicates moderate. Degree days:Heat and Cool base 65F,Corn Growing base 50F. Averages based on 1961-1990 data.Snow depth at 7 AM LST. Sky 7 AM - 7 PM LST. Other data mid-mid. Heat DD season Jul-Jun; Cool and Corn season Jan-Dec.

REMARKS: Record low max on the 4th of July. Peak gust was 32.1 mph, from the west on the 14th.

CHAMPAIGN, IL LOCAL CLIMATOLOGICAL DATA AUGUST 1997
ILLINOIS STATE WATER SURVEY SUMMARY

DATE	TEMP MX	TEMP MN	PRECIP INCH	PRECIP T	SNOW INCH	SNOW T	SNOW DEP	WEATHER TYPES	WIND D	WIND S	SKY COV	DEGREE DAYS H	DEGREE DAYS C	DEGREE DAYS CORN
08/01/97	85	57	0.00		0.0		0		SW	3.2	CLR	0	6	21
08/02/97	88	68	0.00		0.0		0		W	4.8	PC	0	13	27
08/03/97	92	64	0.00	T	0.0		0	RW-,F	SW	3.4	CLR	0	13	25
08/04/97	85	64	0.16		0.0		0	TRW,R-	N	4.8	PC	0	10	25
08/05/97	76	57	0.00		0.0		0		N	6.0	CLR	0	2	17
08/06/97	77	51	0.00		0.0		0		N	2.5	CLR	1	0	14
08/07/97	81	54	0.00		0.0		0		NE	2.1	PC	0	3	18
08/08/97	83	56	0.00		0.0		0		SE	3.6	CLDY	0	5	20
08/09/97	70	66	0.34		0.0		0	R,R-,L-,F	SSE	4.9	CLDY	0	3	18
08/10/97	79	66	0.00		0.0		0	F	S	3.3	CLDY	0	8	23
08/11/97	82	66	0.10		0.0		0	RW,R-,F	S	2.7	CLDY	0	9	24
08/12/97	83	67	0.60		0.0		0	RW+,RW,T,L,F	SW	4.2	CLDY	0	10	25
08/13/97	76	63	0.00	T	0.0		0	L,F	N	3.0	CLDY	0	5	20
08/14/97	81	59	0.00		0.0		0		SSE	4.0	PC	0	5	20
08/15/97	86	68	0.32		0.0		0	TRW+,R,R-	SW	9.2	PC	0	12	27
08/16/97	92	66	0.84		0.0		0	TRW+	SW	8.6	CLDY	0	14	26
08/17/97	77	65	2.99		0.0		0	TRW+,R+,R,L-	E	3.4	CLDY	0	6	21
08/18/97	73	60	0.00	T	0.0		0	L-	N	3.8	CLDY	0	2	17
08/19/97	66	59	0.39		0.0		0	R	NE	2.6	CLDY	2	0	13
08/20/97	73	60	0.01		0.0		0	L-,F	W	4.3	CLDY	0	2	17
08/21/97	73	55	0.05		0.0		0	TRW-	NW	4.5	PC	1	0	14
08/22/97	74	55	0.00		0.0		0		N	3.3	CLR	0	0	15
08/23/97	76	51	0.00		0.0		0		SW	3.0	PC	1	0	14
08/24/97	73	61	1.21		0.0		0	TRW+,RW+,A,F	SW	4.8	CLDY	0	2	17
08/25/97	78	61	0.00		0.0		0	F	NE	2.0	CLDY	0	5	20
08/26/97	84	62	0.00		0.0		0	F	SW	3.4	PC	0	8	23
08/27/97	82	68	0.00		0.0		0	F	NNW	2.8	PC	0	10	25
08/28/97	85	62	0.00		0.0		0	F	W	3.6	PC	0	9	24
08/29/97	79	59	0.00		0.0		0		NE	2.3	CLR	0	4	19
08/30/97	78	59	0.01		0.0		0	RW-	SE	3.4	PC	0	4	19
08/31/97	84	64	0.00		0.0		0		NE	2.4	PC	0	9	24
TOT/AVE	79.7	61.1	7.02		0.0				NE	3.9		5	179	632
DEP	-3.3	-1.3	+3.00		+0.0				SW	-0.8		-2	-59	-47

NUMBER OF DAYS AND DEPARTURE

	MAX TEMP >=90	MAX TEMP <=32	MIN TEMP <=32	MIN TEMP <=0	PRECIPITATION >=T	>=.01	>=.10	>=.50	>=1.00
TOTAL	2	0	0	0	15	12	9	4	2
DEP	-2	+0	+0	+0	-	+3	+3	+1	+1

	SNOW >=1.0	SKY COVER CLR	PC	CLDY	WEATHER TYPES F	T	IP	A	R	L	S	Z	D	H	BS
TOTAL	0	6	12	13	12	6	0	1	11	6	0	0	0	0	0
DEP	+0	-4	+0	+4	+6	+0	-	+0	+0	+5	+0	+0	-	-	-

	SEASONAL HEAT DD	SEASONAL COOL DD	SEASONAL CORN GDD	JAN- AUG PRECITITATION
TOTAL	9	685	2541	27.01
DEP	+0	-154	-223	-0.57

WEATHER TYPES:F=Fog;T=Thunder;IP=Ice Pellets;A=Hail;R=Rain;S=Snow;Z=Freezing Precip;D=Dust;H=Haze;BS=Blowing Snow; RW=Rain Showers;SW=Snow Showers; L=Drizzle;T=Trace. Intensities: + heavy; - light; absence of symbol indicates moderate. Degree days:Heat and Cool base 65F,Corn Growing base 50F. Averages based on 1961-1990 data.Snow depth at 7 AM LST. Sky 7 AM - 7 PM LST. Other data mid-mid. Heat DD season Jul-Jun; Cool and Corn season Jan-Dec.

REMARKS: Storm on 15-16, 3.83 inches in 10-hour period, had a return freq. of 1 in 15 years. Hail on 24th was 1/4" to 3/4" in diameter. Ave mon max temp was 5th coolest for Aug (rec 75.2/1915). Precip total was 6th highest for Aug (rec 10.02/1993). Peak gust was 34.6 mph, from the west, on the 15th.

CHAMPAIGN, IL LOCAL CLIMATOLOGICAL DATA SEPTEMBER 1997
ILLINOIS STATE WATER SURVEY SUMMARY

DATE	TEMP MX	TEMP MN	PRECIP INCH	PRECIP T	SNOW INCH	SNOW T	SNOW DEP	WEATHER TYPES	WIND D	WIND S	SKY COV	DEGREE DAYS H	DEGREE DAYS C	DEGREE DAYS CORN
09/01/97	88	62	0.00		0.0		0		E	1.7	CLR	0	10	24
09/02/97	86	59	1.43*		0.0		0	TRW+,TRW,RW-,F	NE	3.7	PC	0	8	23
09/03/97	69	52	0.00		0.0		0		NE	8.4	CLR	4	0	11
09/04/97	72	48	0.00		0.0		0		NE	2.2	CLR	5	0	11
09/05/97	73	47	0.00		0.0		0		SW	3.5	CLR	5	0	12
09/06/97	82	56	0.00		0.0		0		SW	5.2	CLR	0	4	19
09/07/97	85	60	0.23		0.0		0	TRW,R-	W	3.2	PC	0	8	23
09/08/97	77	65	0.50		0.0		0	TRW,R-,RW-,L-F	NE	2.2	CLDY	0	6	21
09/09/97	74	60	0.52		0.0		0	TRW,R,L-,F	N	2.5	CLDY	0	2	17
09/10/97	72	54	0.00		0.0		0	F	N	4.2	PC	2	0	13
09/11/97	73	52	0.00		0.0		0		NW	2.5	PC	2	0	13
09/12/97	76	51	0.00		0.0		0		E	1.4	PC	1	0	14
09/13/97	79	52	0.00	T	0.0		0	L-	SE	2.3	CLDY	0	1	16
09/14/97	81	64	0.00		0.0		0		SE	2.8	CLDY	0	8	23
09/15/97	84	63	0.00		0.0		0	F	SE	3.8	PC	0	9	24
09/16/97	87	64	0.00		0.0		0	F	S	7.0	PC	0	11*	25*
09/17/97	82	56	0.16		0.0		0	R,R-,L-	NW	4.6	PC	0	4	19
09/18/97	83	53	0.00		0.0		0		S	4.9	CLR	0	3	18
09/19/97	89*	63	0.24		0.0		0	TRW+,TRW,R-	SW	7.1	PC	0	11*	25*
09/20/97	73	52	0.00		0.0		0		N	5.2	PC	2	0	13
09/21/97	68	49	0.00		0.0		0		NE	3.1	PC	6*	0	9
09/22/97	72	49	0.00		0.0		0		E	1.7	CLDY	4	0	11
09/23/97	63	54	0.29		0.0		0	R,R-,L-	NE	3.5	CLDY	6*	0	9
09/24/97	72	48	0.00		0.0		0		NE	2.6	CLDY	5	0	11
09/25/97	79	46*	0.00		0.0		0		W	4.4	CLR	2	0	15
09/26/97	77	52	0.00		0.0		0		NE	2.4	CLR	0	0	15
09/27/97	79	50	0.00		0.0		0		SE	3.3	CLR	0	0	15
09/28/97	70	50	0.03		0.0		0	R-,L-	W	4.2	PC	5	0	10
09/29/97	81	48	0.00		0.0		0		W	11.3	CLR	0	0	16
09/30/97	73	52	0.00		0.0		0		NW	5.6	CLR	2	0	13
TOT/AVE	77.3	54.4	3.40		0.0				NE	4.0		51	85	488
DEP	-0.4	-0.8	+0.04		+0.0				SW	-1.1		-30	-32	-12

NUMBER OF DAYS AND DEPARTURE

	MAX TEMP >=90	MAX TEMP <=32	MIN TEMP <=32	MIN TEMP <=0	PRECIPITATION >=T	>=.01	>=.10	>=.50	>=1.00
TOTAL	0	0	0	0	9	8	7	3	1
DEP	-2	+0	+0	+0	-	-1	+2	+1	+0

	SNOW >=1.0	SKY COVER CLR	PC	CLDY	WEATHER TYPES F	T	IP	A	R	L	S	Z	D	H	BS
TOTAL	0	11	12	7	6	5	0	0	8	6	0	0	0	0	0
DEP	+0	+0	+3	-3	+1	+1	-	+0	-2	+3	+0	+0	-	-	-

	SEASONAL HEAT DD	SEASONAL COOL DD	SEASONAL CORN GDD	JAN- SEP PRECITITATION
TOTAL	60	770	3029	30.41
DEP	-30	-186	-235	-0.53

WEATHER TYPES:F=Fog;T=Thunder;IP=Ice Pellets;A=Hail;R=Rain;S=Snow;Z=Freezing Precip;D=Dust;H=Haze;BS=Blowing Snow; RW=Rain Showers;SW=Snow Showers; L=Drizzle;T=Trace. Intensities: + heavy; - light; absence of symbol indicates moderate. Degree days:Heat and Cool base 65F,Corn Growing base 50F. Averages based on 1961-1990 data.Snow depth at 7 AM LST. Sky 7 AM - 7 PM LST. Other data mid-mid. Heat DD season Jul-Jun; Cool and Corn season Jan-Dec.

REMARKS: Fairly average September. Seasonal Cooling Degree Days are 20% less than average. No temp or precip records ser this month. Peak wind gust was 43.6 mph, from the west on the 29th.

CHAMPAIGN, IL LOCAL CLIMATOLOGICAL DATA OCTOBER 1997
ILLINOIS STATE WATER SURVEY SUMMARY

DATE	TEMP MX	TEMP MN	PRECIP INCH	PRECIP T	SNOW INCH	SNOW T	SNOW DEP	WEATHER TYPES	WIND D	WIND S	SKY COV	DEGREE DAYS H	DEGREE DAYS C
10/01/97	68	44	.00	0.0	0				N	2.9	CLR	9	0
10/02/97	77	42	.00	0.0	0				S	6.7	PC	5	0
10/03/97	85	56	.00	0.0	0				SSW	7.1	CLR	0	6
10/04/97	82	60	.00	0.0	0				SW	5.1	PC	0	6
10/05/97	86*	56	.00	0.0	0				SW	6.7	PC	0	6
10/06/97	84	54	.00	0.0	0			F	SW	4.9	CLR	0	4
10/07/97	85	57	.00	0.0	0			F	SE	3.8	CLDY	0	6
10/08/97	85	60	.00	0.0	0			F	S	6.9	CLDY	0	8*
10/09/97	75	53	0.34	0.0	0			RW+,R	S	7.0	CLDY	1	0
10/10/97	75	45	.00	0.0	0				NE	2.0	CLR	5	0
10/11/97	78	47	.00	0.0	0				S	4.3	PC	2	0
10/12/97	82	58	.00	0.0	0				SE*	8.6e	PC	0	5
10/13/97	70	42	0.62	0.0	0			R,RW	SWb	7.2be	CLR	9	0
10/14/97	54	34	.00	0.0	0				Nb	4.3be	CLR	21	0
10/15/97	54	33	.00	0.0	0				ENEb	2.1be	PC	21	0
10/16/97	57	43	.00	0.0	0				Nb	4.2be	CLDY	15	0
10/17/97	56	39	.00	0.0	0				Nb	3.7be	CLR	17	0
10/18/97	59	35	.00	0.0	0				Eb	1.8be	CLR	18	0
10/19/97	65	33	.00	0.0	0				SW	3.7e	CLR	16	0
10/20/97	58	40	.00	0.0	0				N	3.4	CLR	16	0
10/21/97	52	34	.00	0.0	0				W	4.8	CLR	22	0
10/22/97	47	30	.00	0.0	0				N	2.9	CLR	26	0
10/23/97	58	34	T	0.0	0			L-	N	6.2	CLDY	19	0
10/24/97	53	41	0.05	0.0	0			R,R-	NE	3.4	CLDY	18	0
10/25/97	55	43	.00	0.0	0				NE	5.5	CLDY	16	0
10/26/97	44	35	0.95*	0.0	0			R,R-,RW,L-	NE	7.6	CLDY	25	0
10/27/97	43	28*	T		*T	0		SW-	N	4.8	PC	29*	0
10/28/97	53	28*	.00	0.0	0				S	6.4	CLR	24	0
10/29/97	61	35	.00	0.0	0				WSW	2.3	CLR	17	0
10/30/97	63	36	.00	0.0	0			F	S	8.6	CLDY	15	0
10/31/97	67	52	T	0.0	0			L-	S	8.7	PC	5	0
TOT/AVE	65.5	42.8	1.96		T				NE*	5.1be		371	41
DEP	-0.4	-1.0	-0.72		-0.1				S	-1.0		+22	+25

NUMBER OF DAYS AND DEPARTURE

	MAX TEMP >=90	MAX TEMP <=32	MIN TEMP <=32	MIN TEMP <=0	PRECIPITATION >=T	>=.01	>=.10	>=.50	>=1.00
TOTAL	0	0	3	0	7	4	3	2	0
DEP	+0	+0	+0	+0	-	-5	-3	+0	-1

	SNOW >=1.0	SKY COVER CLR	PC	CLDY	WEATHER TYPES F	T	IP	A	R	L	S	Z	D	H	BS
TOTAL	0	14	8	9	4	0	0	0	4	3	1	0	0	0	0
DEP	+0	+2	+0	-2	+0	-2	-	+0	-6	-1	+0	+0	-	-	-

	SEASONAL HEAT DD	SEASONAL COOL DD	JAN- OCT PRECITITATION
TOTAL	431	811	32.37
DEP	-8	-161	-1.25

WEATHER TYPES:F=Fog;T=Thunder;IP=Ice Pellets;A=Hail;R=Rain;S=Snow;Z=Freezing Precip;D=Dust;H=Haze;BS=Blowing Snow; RW=Rain Showers;SW=Snow Showers; L=Drizzle;T=Trace. Intensities: + heavy; - light; absence of symbol indicates moderate. Degree days:Heat and Cool base 65F,Corn Growing base 50F. Averages based on 1961-1990 data.Snow depth at 7 AM LST. Sky 7 AM - 7 PM LST. Other data mid-mid. Heat DD season Jul-Jun; Cool and Corn season Jan-Dec.

REMARKS: Scattered frost on grd on 14th, first day of <=32F on 10/22 (ave date 10/19). 6 consecutive days of >=80F, record is 8 in 1963. Daily ave mean temp ranged from +17F to -14F from 30-year ave daily mean temp. Anemometer problem 10/12-19. * contains CMI and Bondville data, b bondville data, be estimated

CHAMPAIGN, IL LOCAL CLIMATOLOGICAL DATA NOVEMBER 1997
ILLINOIS STATE WATER SURVEY SUMMARY

DATE	TEMP MX	TEMP MN	PRECIP INCH	SNOW INCH	SNOW DEPTH	WEATHER TYPES	WIND D	WIND S	SKY COV	DEGREE DAYS H	DEGREE DAYS C
11/01/97	54	38	0.29	.0	0	R,R-,RW,L-	W	7.0	CLDY	19	0*
11/02/97	44	33	0.18	T	0	R,SW-,IP-	W	7.7	CLDY	26	0
11/03/97	35	31	0.07	0.4	T	SW-,SG-,R-	W	8.6	CLDY	32	0
11/04/97	37	32	T	T	0	SW-,L-	W	4.8	CLDY	30	0
11/05/97	51	32	0.33	.0	0	R,R-,L-	E	2.3	CLDY	23	0
11/06/97	47	38	0.15	.0	0	R-,L-	NE	6.8	CLDY	22	0
11/07/97	48	37	.00	.0	0		N	6.0	PC	22	0
11/08/97	50	38	.00	.0	0		N	5.0	PC	21	0
11/09/97	44	40	.00	.0	0		NW	3.0	CLDY	23	0
11/10/97	42	32	T	.0	0	L-,F	N	4.5	CLDY	28	0
11/11/97	38	26	T	T	0	SW-	N	4.3	CLDY	33	0
11/12/97	36	23	.00	.0	0		N	2.4	PC	35	0
11/13/97	34	27	0.16	1.5*	0	SW,SW-	NE	3.6	CLDY	34	0
11/14/97	37	29	0.01	0.1	2*	SW	N	5.5	CLDY	32	0
11/15/97	32	25	0.13	1.3	2	SW,SW-	W	8.7	PC	36	0
11/16/97	28	16	T	T	T	SW,SW-	NW	6.2	CLDY	43*	0
11/17/97	37	15*	.00	.0	T		SW	7.5	CLR	39	0
11/18/97	44	22	.00	.0	T		NE	7.2	CLR	32	0
11/19/97	45	28	.00	.0	0		NE	3.1	CLR	28	0
11/20/97	54	28	.00	.0	0		NE	6.7	CLDY	24	0
11/21/97	46	37	0.05	.0	0	RW-,F	NE	7.1	CLDY	23	0
11/22/97	44	29	.00	.0	0		NW	4.8	CLDY	28	0
11/23/97	38	22	.00	.0	0		W	6.4	CLR	35	0
11/24/97	39	23	.00	.0	0		NE	4.4	CLR	34	0
11/25/97	57	36	.00	.0	0		NE	11.8	PC	18	0
11/26/97	55	29	.00	.0	0		N	8.8	CLR	23	0
11/27/97	48	23	0.27	.0	0	TRW,R-,L-,F	NE	7.6	CLDY	29	0
11/28/97	58	48	0.39*	.0	0	R,R-,L-,F	E	6.1	CLDY	12	0
11/29/97	64*	50	0.22	.0	0	R,RW-,L-,F	SE	2.2	CLDY	8	0
11/30/97	54	38	0.31	.0	0	R,F	N	10.1	CLDY	19	0
TOT/AVE	44.7	30.8	2.56	3.3			N	6.0		811	0
DEP	-5.6	-3.0	-0.54	+1.1			SW	-1.5		+115	+0

NUMBER OF DAYS AND DEPARTURE

	MAX TEMP >=90	MAX TEMP <=32	MIN TEMP <=32	MIN TEMP <=0	PRECIPITATION >=T	>=.01	>=.10	>=.50	>=1.00
TOTAL	0	2	19	0	17	13	10	0	0
DEP	+0	+1	+5	+0	-	+3	+4	-2	-1

	SNOW >=1.0	SKY COVER CLR	PC	CLDY	WEATHER TYPES F	T	IP	A	R	L	S	Z	D	H	BS
TOTAL	2	6	5	19	5	1	1	0	10	8	8	0	0	0	0
DEP	+1	-1	-3	+4	+1	+0	-	+0	+1	+3	+4	-1	-	-	-

	SEASONAL HEAT DD	SEASONAL COOL DD	JAN- NOV PRECITITATION
TOTAL	1242	811	34.93
DEP	+107	-161	-1.79

WEATHER TYPES:F=Fog;T=Thunder;IP=Ice Pellets;A=Hail;R=Rain;S=Snow;Z=Freezing Precip;D=Dust;H=Haze;BS=Blowing Snow; RW=Rain Showers;SW=Snow Showers; L=Drizzle;T=Trace. Intensities: + heavy; - light; absence of symbol indicates moderate. Degree days:Heat and Cool base 65F,Corn Growing base 50F. Averages based on 1961-1990 data.Snow depth at 7 AM LST. Sky 7 AM - 7 PM LST. Other data mid-mid. Heat DD season Jul-Jun; Cool and Corn season Jan-Dec.

REMARKS: Very early date for first measurable snowfall, only 8 days earlier. Average date for first measurable snowfall is Nov.21. Also, early date for first inch of snowfall, average date for first inch of snowfall is Dec 2. During the month, only 7 days had mean temps above the average for that day. Daily mean temps ranged from 21F below to 23F above the average for the day.

CHAMPAIGN, IL LOCAL CLIMATOLOGICAL DATA DECEMBER 1997
ILLINOIS STATE WATER SURVEY SUMMARY

DATE	TEMP MX	TEMP MN	PRECIP INCH	PRECIP T	SNOW INCH	SNOW T	SNOW DEP	WEATHER TYPES	WIND D	WIND S	SKY COV	DEGREE DAYS H	DEGREE DAYS C
12/01/97	46	31	.00		.0		0		NE	4.8	CLDY	26	0
12/02/97	44	29	.00		.0		0		SE	2.7	CLDY	28	0
12/03/97	41	36	0.03		.0		0	R-,L-	W	6.1	CLDY	26	0
12/04/97	36	26	0.05		0.8		0	S,SW-	W	6.8	CLDY	34	0
12/05/97	26	20	0.02		0.3		1	SW,SW-	W	10.8	CLDY	42	0
12/06/97	27	22	0.01		0.1		1	SW,SW-	W	9.4	CLDY	40	0
12/07/97	29	26		T		T	1	SW,SW-	W	4.6	CLDY	37	0
12/08/97	31	27	0.08		0.9		T	S	SE	4.3	CLDY	36	0
12/09/97	34	29	0.39		0.3		1	R,R-,L-,S,F	NE	3.0	CLDY	33	0
12/10/97	35	33	0.22			T	T	R-,L-,SW-,F	NW	6.9	CLDY	31	0
12/11/97	37	30		T		T	0	SW-	N	6.2	CLDY	31	0
12/12/97	34	25	.00		.0		0		NW	6.8	CLDY	35	0
12/13/97	34	22	.00		.0		0		W	7.3	CLR	37	0
12/14/97	42	19	.00		.0		0		NE	1.6	CLR	34	0
12/15/97	46	24	.00		.0		0		S	6.7	CLR	30	0
12/16/97	50	27	.00		.0		0		SE	5.6	CLR	26	0
12/17/97	47	26	.00		.0		0		N	3.0	CLR	28	0
12/18/97	52	26	.00		.0		0		NE	6.2	CLR	26	0
12/19/97	56*	31	.00		.0		0		NE	2.8	PC	21	0
12/20/97	38	32	.00		.0		0		N	7.6	CLDY	30	0
12/21/97	37	30	0.07		.0		0	R-,L-	E	5.1	CLDY	31	0
12/22/97	37	34	0.45		.0		0	R,R-,L-	W	6.1	CLDY	29	0
12/23/97	39	33		T	.0		0	L-	W	4.3	CLDY	29	0
12/24/97	41	33	0.60*		.0		0	R,R-,L-	ENE	7.3	CLDY	28	0
12/25/97	33	28	.00		.0		0		NW	9.0	CLDY	34	0
12/26/97	37	28	.00		.0		0		W	8.8	CLDY	32	0
12/27/97	33	21	.00		.0		0		W**	3.8**	PC	38	0
12/28/97	35	22	.00		.0		0		S**	8.5**	CLDY	36	0
12/29/97	33	25	0.05		0.5		0	S-	NW	7.3	CLDY	36	0
12/30/97	25	18		T		T	1	SW-	WNW	5.4	CLDY	43	0
12/31/97	24	9*		T		T	1	S-	NW	7.1	CLR	48*	0
TOT/AVE	37.4	26.5	1.97		2.9				W**	6.0**		1,015	0
DEP	+0.9	+4.5	-1.05		-3.1				S	-1.9		-102	+0

NUMBER OF DAYS AND DEPARTURE

	MAX TEMP >=90	MAX TEMP <=32	MIN TEMP <=32	MIN TEMP <=0	PRECIPITATION >=T	>=.01	>=.10	>=.50	>=1.00
TOTAL	0	6	26	0	16	11	4	1	0
DEP	+0	-5	+0	-2	-	+0	-2	-1	-1

	SNOW >=1.0	SKY COVER CLR	PC	CLDY	WEATHER TYPES F	T	IP	A	R	L	S	Z	D	H	BS
TOTAL	0	7	2	22	2	0	0	0	6	7	11	0	0	0	0
DEP	-2	+0	-5	+5	-4	-1	-	+0	-2	+4	+2	-3	-	-	-

	SEASONAL HEAT DD	SEASONAL COOL DD	JAN- DEC PRECITITATION
TOTAL	2257	811	36.90
DEP	+5	-161	-2.84

WEATHER TYPES:F=Fog;T=Thunder;IP=Ice Pellets;A=Hail;R=Rain;S=Snow;Z=Freezing Precip;D=Dust;H=Haze;BS=Blowing Snow; RW=Rain Showers;SW=Snow Showers; L=Drizzle;T=Trace. Intensities: + heavy; - light; absence of symbol indicates moderate. Degree days:Heat and Cool base 65F,Corn Growing base 50F. Averages based on 1961-1990 data.Snow depth at 7 AM LST. Sky 7 AM - 7 PM LST. Other data mid-mid. Heat DD season Jul-Jun; Cool and Corn season Jan-Dec.

REMARKS: No temperature or precipitation records set this month.
** frozen anemometer, wind data combined from Bondville and CMI
Peak gust was 28.7 mph, from the west, on the 5th.

CHAMPAIGN, IL LOCAL CLIMATOLOGICAL DATA JANUARY 1998
ILLINOIS STATE WATER SURVEY SUMMARY

DATE	TEMP MX	TEMP MN	PRECIP INCH	PRECIP T	SNOW INCH	SNOW T	SNOW DEP	WEATHER TYPES	WIND D	WIND S	SKY COV	DEGREE DAYS H	DEGREE DAYS C
01/01/98	44	15	.00		.0		1*		S	15.6	CLR	35	0
01/02/98	49	35	.00		.0		0		S	16.3	CLDY	23	0
01/03/98	56	49	0.10		.0		0	R-,L-	S	16.7	CLDY	12	0
01/04/98	58*	52	0.06		.0		0	R-,RW-,L-	S	10.8	CLDY	10	0
01/05/98	57	52	0.59		.0		0	R-,L-,F	S	7.1	CLDY	10	0
01/06/98	53	50	0.03		.0		0	RW-,L-	NE	4.3	CLDY	13	0
01/07/98	52	36	0.31		.0		0	R,R-,L-	NE	15.1	CLDY	21	0
01/08/98	38	32	0.61*		.0		0	R,R-,L-	NE	11.0	CLDY	30	0
01/09/98	35	30	T		T		0	SW-,ZL-	W	11.5	CLDY	32	0
01/10/98	30	13	.00		.0		0		W	7.4	CLR	43	0
01/11/98	27	16	.00		.0		0		NE	2.6	CLDY	43	0
01/12/98	34	22	T		.0		T	ZL-,L-	NW	4.0	CLDY	37	0
01/13/98	23	6*	0.01		T		T	SW-	NW	5.8	CLDY	50*	0
01/14/98	33	12	0.30		.0		0	R-,ZR-,L-,ZL-	SE	5.1	PC	42	0
01/15/98	30	21	T		T		0	SW-	NNW	4.1	CLDY	39	0
01/16/98	29	25	.00		.0		0		NE	2.0	CLDY	38	0
01/17/98	29	25	0.02		0.2		T	SW,SW-	W	6.3	CLDY	38	0
01/18/98	31	16	.00		.0		0		N	4.5	PC	41	0
01/19/98	22	14	T		T		0	SW-,F	WNW	2.9	CLDY	47	0
01/20/98	28	20	T		T		0	SW-,L-,F	SE	3.0	CLDY	41	0
01/21/98	42	28	0.01		0.1		T	SW-,SG-	SE	5.7	CLDY	30	0
01/22/98	36	32	0.19		1.4*		0	S,SW,F	W	2.2	CLDY	31	0
01/23/98	32	22	T		T		1	SW-	W	5.5	CLDY	38	0
01/24/98	34	14	.00		.0		1		W	1.4	CLDY	41	0
01/25/98	35	26	.00		.0		1		S	7.3	PC	34	0
01/26/98	38	25	T		.0		T	RW-	S	1.9	CLDY	33	0
01/27/98	49	28	.00		.0		0	F	SW	1.8	PC	26	0
01/28/98	54	25	.00		.0		0	F	S	5.6	PC	25	0
01/29/98	40	30	T		.0		0	L-	NW	7.6	CLDY	30	0
01/30/98	40	28	.00		.0		0		NW	4.0	PC	31	0
01/31/98	45	25	.00		.0		0		SE	5.9	CLR	30	0
TOT/AVE	38.8	26.6	2.23		1.7				Sb	6.6b		994	0
DEP	+7.1	+10.6	+0.40		-6.4				W	-1.7		-289	+0

NUMBER OF DAYS AND DEPARTURE

	MAX TEMP >=90	MAX TEMP <=32	MIN TEMP <=32	MIN TEMP <=0	PRECIPITATION >=T	>=.01	>=.10	>=.50	>=1.00
TOTAL	0	10	25	0	18	11	6	2	0
DEP	+0	-6	-4	-4	-	+2	+1	+1	+0

	SNOW >=1.0	SKY COVER CLR	PC	CLDY	WEATHER TYPES F	T	IP	A	R	L	S	Z	D	H	BS
TOTAL	1	3	6	22	5	0	0	0	8	10	9	3	0	0	0
DEP	-2	-5	-3	+8	+1	-1	-	+0	+3	+7	-1	+1	-	-	-

	SEASONAL HEAT DD	SEASONAL COOL DD	JAN- JAN PRECITITATION
TOTAL	3251	0	2.23
DEP	-284	+0	+0.40

WEATHER TYPES:F=Fog;T=Thunder;IP=Ice Pellets;A=Hail;R=Rain;S=Snow;Z=Freezing Precip;D=Dust;H=Haze;BS=Blowing Snow; RW=Rain Showers;SW=Snow Showers; L=Drizzle;T=Trace. Intensities: + heavy; - light; absence of symbol indicates moderate. Degree days:Heat and Cool base 65F,Corn Growing base 50F. Averages based on 1961-1990 data.Snow depth at 7 AM LST. Sky 7 AM - 7 PM LST. Other data mid-mid. Heat DD season Jul-Jun; Cool and Corn season Jan-Dec.

REMARKS: Tied 5th highest ave. mon min temp (rec 29.6/1933). New rec high min temps set on 3,4,5,and 6. Prev rec on 5th established 1890. Problems with anemometer. e=estimated data, b= Bonville data. *=combined data from CMI and

CHAMPAIGN, IL LOCAL CLIMATOLOGICAL DATA FEBRUARY 1998
ILLINOIS STATE WATER SURVEY SUMMARY

DATE	TEMP MX	TEMP MN	PRECIP INCH	PRECIP T	SNOW INCH	SNOW T	SNOW DEP	WEATHER TYPES	WIND D	WIND S	SKY COV	DEGREE DAYS H	DEGREE DAYS C
02/01/98	47	30	.00		.0		0		SE	8.6	PC	26	0*
02/02/98	41	30	.00		.0		0		W	4.2	PC	29	0
02/03/98	40	29	.00		.0		0		NE	6.2	CLDY	30	0
02/04/98	33	30	.00		.0		0		N	12.1	CLDY	33*	0
02/05/98	36	30	.00		.0		0		N	11.2	CLDY	32	0
02/06/98	43	28	.00		.0		0		NE	7.8	PC	29	0
02/07/98	47	26	.00		.0		0		NE	5.3	CLR	28	0
02/08/98	42	25	.00		.0		0	F	N	4.0	PC	31	0
02/09/98	52	22*	.00		.0		0	F	S	3.0	CLR	28	0
02/10/98	49	32	0.03		.0		0	R-,RW-	SE	5.2	CLDY	24	0
02/11/98	49	37	0.57*		.0		0	TRW,R,L-	E	4.6	CLDY	22	0
02/12/98	37	30	.00		.0		0		NW	7.1	CLDY	31	0
02/13/98	39	29	.00		.0		0		SW	4.2	CLDY	31	0
02/14/98	42	26	.00		.0		0		SE	3.1	CLDY	31	0
02/15/98	48	29	.00		.0		0		SE	5.1	PC	26	0
02/16/98	48	39	0.26		.0		0	R-,L-	E	5.2	CLDY	21	0
02/17/98	46	39	0.42		.0		0	R,R-,L	NE	9.0	CLDY	22	0
02/18/98	41	38	0.08		.0		0	L-	NW	6.5	CLDY	25	0
02/19/98	41	37	0.03		.0		0	RW-,R-,L-	W	3.1	CLDY	26	0
02/20/98	44	38	0.05		.0		0	L-	NW	4.1	CLDY	24	0
02/21/98	43	35		T	.0		0	L-	W	2.6	CLDY	26	0
02/22/98	53	31	.00		.0		0		E	3.1	PC	23	0
02/23/98	51	35	.00		.0		0		NNE	5.1	PC	22	0
02/24/98	60	37	0.05		.0		0	RW-,F	NW	6.3	CLR	16	0
02/25/98	61	33	.00		.0		0		SE	8.1	PC	18	0
02/26/98	64*	44	0.11		.0		0	R,RW-,L-	SE	12.4	CLDY	11	0
02/27/98	52	36	0.15		.0		0	R-,RW-,L-	SW	11.2	PC	21	0
02/28/98	49	32	0.05			T*	0	TRW-,SW-	W	5.8	CLDY	24	0
TOT/AVE	46.4	32.4	1.80			T			NE	6.2		710	0
DEP	+10.1	+12.1	-0.17		-7.0				S	-1.8		-332	+0

NUMBER OF DAYS AND DEPARTURE

	MAX TEMP >=90	MAX TEMP <=32	MIN TEMP <=32	MIN TEMP <=0	PRECIPITATION >=T	>=.01	>=.10	>=.50	>=1.00
TOTAL	0	0	16	0	12	11	5	1	0
DEP	+0	-11	-8	-2	-	+2	-1	+0	+0

	SNOW >=1.0	SKY COVER CLR	PC	CLDY	WEATHER TYPES F	T	IP	A	R	L	S	Z	D	H	BS
TOTAL	0	3	9	16	3	2	0	0	9	9	1	0	0	0	0
DEP	-2	-5	+2	+3	-1	-+2	-	+0	+4	+6	-8	-2	-	-	-

	SEASONAL HEAT DD	SEASONAL COOL DD	JAN- FEB PRECITITATION
TOTAL	3961	0	4.03
DEP	-616	+0	+0.23

WEATHER TYPES:F=Fog;T=Thunder;IP=Ice Pellets;A=Hail;R=Rain;S=Snow;Z=Freezing Precip;D=Dust;H=Haze;BS=Blowing Snow; RW=Rain Showers;SW=Snow Showers; L=Drizzle;T=Trace. Intensities: + heavy; - light; absence of symbol indicates moderate. Degree days:Heat and Cool base 65F,Corn Growing base 50F. Averages based on 1961-1990 data.Snow depth at 7 AM LST. Sky 7 AM - 7 PM LST. Other data mid-mid. Heat DD season Jul-Jun; Cool and Corn season Jan-Dec. REMARKS: 2nd warmest Feb in C-U, rec was 40.1F/1954. Ave mo. max 4th highest (rec 49.2/1954), ave mo min was warmest ever for Feb (old rec 31.2/1930). Mon total HDD was 2nd lowest total for Feb (rec 691/1954). Feb snowfall tied with 3 other years for no measurable snowfall. Peak gust 43.8 mph, from the south, on the 26th.

Winter Stats (D,J,F): Third warmest winter ever in C-U. Mean temp was 34.7F +7.6F from 30-year average (rec is 37.8F/1931-32). Ave winter max 40.9F, +6.1F 8th highest . Ave winter min 28.5F, +9.1F, 2nd highest. Snowfall total was

Champaign, Il — Local Climatological Data — March 1998
Water Survey Research Center Illinois State Water Survey — Summary

Date	Temp MX	Temp MN	Precip (In)	Snow (In)	Snow Dep	Weather Types	Ave Wind Dir	Ave Wind Speed	Sky Cover	DD H	DD C
03/01/98	40	32	0.01	0.1	0	SW-	WSW	5.2	CLDY	29	0
03/02/98	37	30	0.02	0.0T	T	SW-	W	6.4	CLDY	31	0
03/03/98	38	34	0.02	0.0T	0	RW-,SW-	W	8.3	CLDY	29	0
03/04/98	39	30	0.05	1.2	0	SW-,S-,S	NW	5.2	CLDY	30	0
03/05/98	38	26	0.00	0.0	0		NE	3.6	PC	33	0
03/06/98	47	31	0.00T	0.0T	0	SW-	NE	4.1	PC	26	0
03/07/98	44	33	0.08	0.0	0	IP-,R,R-,RW-,L-	NE	9.0	CLDY	26	0
03/08/98	48	39	1.19	0.0	0	R,R-,RW,L-	E	7.5	CLDY	21	0
03/09/98	39	17	0.36	4.7	1	R,L-,S,S+,TRW	NNW	14.4	CLDY	37	0
03/10/98	19	11	0.00	0.0	3		NW	7.7	CLR	50	0
03/11/98	20	9	0.00T	0.0T	3	SW-	N	7.7	PC	50	0
03/12/98	23	4	0.00	0.0	3		W	5.1	CLR	51	0
03/13/98	41	16	0.00	0.0	2		SW	11.7	PC	36	0
03/14/98	37	23	0.00	0.0	2		NW	7.6	PC	35	0
03/15/98	37	24	0.00	0.0	1		NE	5.7	CLDY	34	0
03/16/98	41	30	0.04	0.0	T	SG-,R-,L-	E	5.2	CLDY	29	0
03/17/98	50	36	1.01	0.0	0	R,R-,L-	SE	6.5	CLDY	22	0
03/18/98	56	45	0.02	0.0	0	R,R-,L-,F	WSW	8.7	CLDY	14	0
03/19/98	45	37	0.21	0.0	0	R,R-,L-,F	W	7.0	CLDY	24	0
03/20/98	37	31	1.16	0.6	0	R,IP,ZR,S	N	15.7	CLDY	31	0
03/21/98	44	31	0.00	0.0	1		N	10.0	PC	27	0
03/22/98	46	28	0.00	0.0	0		N	4.6	PC	28	0
03/23/98	43	32	0.06	0.0	0	R-,RW-,L-	W	3.9	CLDY	27	0
03/24/98	50	27	0.00	0.0	0		SE	4.4	CLR	26	0
03/25/98	64	42	0.00	0.0	0		S	11.1	PC	12	0
03/26/98	74	56	0.00	0.0	0		S	20.0	PC	0	0
03/27/98	75	51	0.64	0.0	0	R,RW	S	15.5	PC	2	0
03/28/98	66	51	1.03	0.0	0	TRW+	W	11.2	PC	6	0
03/29/98	76	51	0.00	0.0	0		S	12.2	PC	1	0
03/30/98	78	60	0.00	0.0	0		S	15.3	PC	0	4
03/31/98	67	46	0.45	0.0	0	R,RW	S	13.8	CLDY	8	0
Tot/Ave	47.1	32.7	6.35	6.6			S	8.8		775	4
Dep	-1.7	+1.6	+3.05	+2.5			S	+0.2		-10	+3

Number of days and Departure

	Max Temp >=90	Max Temp <=32	Min Temp <=32	Min Temp <=0	Precipitation >=T	Precipitation >=.01	Precipitation >=.10	Precipitation >=.50	Precipitation >=1.00	Snow >=1.0
Total	0	3	18	0	18	16	8	5	4	2
Dep	+0	+0	+0	+0	--	+4	-1	+3	+3	+1

	Sky Cover CLR	Sky Cover PC	Sky Cover CLDY	Weather Types F	T	IP	A	R	L	S	Z
Total	3	13	15	2	2	2	0	13	8	9	1
Dep	-4	+4	+0	-2	-1	-	-1	+3	+4	+3	+0

	Seasonal Heat Degree Days	Seasonal Cool Degree Days	Jan-Mar Precipitation
Total	4736	4	10.38
Dep	-626	+3	+3.28

Weather Types: F=Fog; T=Thunder; IP= Ice Pellets; A=Hail; R=Rain; S=Snow; Z=Freezing Precip; RW=Rain Showers; SW= Snow Showers; L=Drizzle; T=Trace. Intensities: + heavy, - light, absence of symbol indicates moderate. Degree Days: Heat and Cool base 65F, Corn Growing base 50F with a cutoff at 86F. Averages based on 1961-1990 data. Snow depth at 7am LST. Sky Cover 7AM-7PM LST. Other data mid-mid. Heat DD Season Jul=Jun. Cool and Corn Growing DD Season Jan-Dec.

Remarks: Winds during the snowstorm on the 9th averaged 17.7 mph, from the north. New record high minimum temp on the 30th, old record 55/1910. Peak gust for the month was 43.7 mph, from the south, on the 26th.

Champaign, Il — Local Climatological Data — April 1998
Water Survey Research Center — Illinois State Water Survey — Summary

Date	Temp MX	Temp MN	Precip (In)	Sno (In	Snow Dep	Weather Types	Ave Wind Dir	Ave Wind Speed	Sky Cov	Degree Days H	Degree Days C	Degree Days Gr
04/01/98	48	40	0.10	0.0	0	R,R-	SW	13.9	CLDY	21	0*	0
04/02/98	56	39	0.00	0.0	0		W	5.7	CLDY	17	0	3
04/03/98	48	38	0.62	0.0	0	R	NE	9.2	CLDY	22*	0	0
04/04/98	53	38	0.00	0.0	0		NE	9.1	PC	19	0	2
04/05/98	59	33*	0.00	0.0	0		NE	2.7	PC	19	0	5
04/06/98	65	39	0.00	0.0	0		SE	4.5	PC	13	0	8
04/07/98	65	46	0.61	0.0	0	TRW+,TRW,R-,RW-	SE	6.9	CLDY	9	0	8
04/08/98	65	47	0.00	0.0	0		SW	8.2	PC	9	0	8
04/09/98	50	41	0.12	0.0	0	R-,L-	N	8.8	CLDY	19	0	0
04/10/98	57	38	0.00	0.0	0		N	7.1	CLR	17	0	4
04/11/98	66	36	0.00	0.0	0		W	4.4	CLR	14	0	8
04/12/98	70	47	0.00	0.0	0		S	11.7	CLR	6	0	10
04/13/98	63	50	0.56	0.0	0	TRW-,RW+,R-,RW	S	14.6	PC	8	0	7
04/14/98	69	50	0.00	0.0	0		W	7.5	CLR2	5	0	10
04/15/98	67	50	0.00T	0.0	0	TRW-,RW-	S	8.6	CLDY	6	0	9
04/16/98	57	40	0.07	0.0	0	RW-	W	10.0	CLDY	16	0	4
04/17/98	57	34	0.00	0.0	0		NW	4.2	CLR	19	0	4
04/18/98	58	37	0.00	0.0	0		NE	2.7	PC	17	0	4
04/19/98	65	44	0.00	0.0	0		NE	4.2	CLR	10	0	8
04/20/98	65	40	0.27	0.0	0	TRW	S	8.2	PC	12	0	8
04/21/98	57	43	0.00	0.0	0	F	N	2.6	PC	15	0	4
04/22/98	61	48	0.05	0.0	0	RW-,F	N	6.7	CLDY	10	0	6
04/23/98	71	47	0.00	0.0	0		N	5.0	CLR	6	0	11
04/24/98	74	46	0.00	0.0	0		W	6.8	CLR	5	0	12
04/25/98	67	48	0.14	0.0	0	R-,RW-	S	7.9	CLDY	7	0	9
04/26/98	77*	46	0.00	0.0	0		W	10.6	PC	3	0	14*
04/27/98	61	41	0.00	0.0	0		NE	8.2	PC	14	0	6
04/28/98	62	42	0.42	0.0	0	RW+,R-	E	4.1	CLDY	13	0	6
04/29/98	69	50	0.92*	0.0	0	TRW+,RW,R,F	SE	5.2	CLDY	5	0	10
04/30/98	66	55	0.73	0.0	0	R,RW,RW-,F	SE	3.6	CLDY	4	0	11
Tot/Ave	62.3	43.1	4.61	0.0			W	7.1		360	0	199
Dep	-0.1	+1.7	+0.67	-1.0			S	-1.4		-51	-10	-7

==========Number of days and Departure==========

	Max Temp >=90	Max Temp <=32	Min Temp <=32	Min Temp <=0	Precipitation >=T	>=.01	>=.10	>=.50	>=1.00
Total	0	0	0	0	13	12	10	5	0
Dep	+0	+0	-5	+0	-	+0	+2	+3	-1

	Snow >=1.0	Sky Cover CLR	PC	CLDY
Total	0	8	10	12
Dep	+0	+0	+1	-1

	Weather Types F	T	IP	A	R	L	S	Z	Seas.Heat D D	Seas.Cool DD	Seas. Grow D D
Total	4	5	0	0	13	1	0	0	5096	4	329
Dep	+1	+0	-	-1	+0	-3	-2	+0	-677	-7	+33

Jan- Apr
Precipitation
Tot 14.99
Dep +3.95

Weather Types: F=Fog; T=Thunder; IP= Ice Pellets; A=Hail; R=Rain; S=Snow; Z=Freezing Precip; RW=Rain Showers; SW= Snow Showers; L=Drizzle; T=Trace.
Intensities: + heavy, - light, absence of symbol indicates moderate.
Degree Days: Heat and Cool base 65F, Corn Growing base 50F with a cutoff at 86F. Averages based on 1961-1990 data. Snow depth at 7am LST. Sky Cover 7AM-7PM Other data mid-mid. Heat DD Season Jul-Jun. Cool and Corn Growing DD Seaswon Jan-Dec.

Champaign, Il Local Climatological Data May 1998
Water Survey Research Center Illinois State Water Survey Summary

Date	Temp MX	Temp MN	Precip (In)	Sno (In	Snow Dep	Weather Types	Ave Wind Dir	Ave Wind Speed	Sky Cov	Degree Days H	Degree Days C	Degree Days Gr
05/01/98	65	54	0.21	0.0	0	R,RW,R-,L-,F	W	4.5	CLDY	5	0	10
05/02/98	70	51	0.09	0.0	0	TRW-,RW-	NW	4.8	PC	4	0	11
05/03/98	60	49*	1.91*	0.0	0	RW,R	N	8.1	CLDY	10*	0	5
05/04/98	67	53	.00	0.0	0	F	NE	3.4	CLDY	5	0	10
05/05/98	76	49*	.00	0.0	0	F	S	5.2	PC	2	0	13
05/06/98	67	54	0.25	0.0	0	R,R-,L-	SE	4.4	CLDY	4	0	11
05/07/98	65	58	0.30	0.0	0	TRW-,R,R-,L-	NW	4.6	CLDY	3	0	12
05/08/98	72	57	0.34	0.0	0	R,R-,L-	N	9.7	PC	0	0	15
05/09/98	72	54	.00	0.0	0		NE	5.9	PC	2	0	13
05/10/98	73	54	.00	0.0	0		NE	7.8	PC	1	0	14
05/11/98	76	51	.00	0.0	0		N	2.8	CLR	1	0	14
05/12/98	80	52	0.86	0.0	0	TRW+,A,R	S	6.2	PC	0	1	16
05/13/98	80	59	.00	0.0	0	F	N	4.0	CLR	0	5	20
05/14/98	89	59	.00	0.0	0		S	3.6	CLR	0	9	23
05/15/98	83	64	.00	0.0	0	F	NW	7.1	CLR	0	9	24
05/16/98	82	58	.00	0.0	0		N	6.1	CLR	0	5	20
05/17/98	88	55	.00	0.0	0		NW	2.4	CLR	0	7	21
05/18/98	87	57	.00	0.0	0		NW	7.2	CLR	0	7	22
05/19/98	92*	66	1.12	0.0	0	TRW+,A	NW	5.9	CLDY	0	14*	26
05/20/98	79	60	0.04	0.0	0	TRW-,RW-,F	NE	3.3	PC	0	5	20
05/21/98	77	59	.00	0.0	0		E	2.6	CLDY	0	3	18
05/22/98	66	56	0.69	0.0	0	TRW,RW	E	4.5	CLDY	4	0	11
05/23/98	64	55	0.42	0.0	0	TRW,TRW-,RW-	E	3.8	CLDY	5	0	10
05/24/98	75	56	1.47	0.0	0	TRW+,A	W	5.7	PC	0	1	16
05/25/98	72	54	.00	0.0	0		NE	2.3	CLDY	2	0	13
05/26/98	75	53	.00	0.0	0		SE	2.5	CLR	1	0	14
05/27/98	80	59	.00	0.0	0		S	3.6	CLR	0	5	20
05/28/98	87	65	.00	0.0	0		SW	6.3	PC	0	11	26
05/29/98	87	66	0.12	0.0	0	TRW	SW	3.9	PC	0	12	26
05/30/98	88	66	.00	0.0	0	F	S	7.6	CLR	0	12	26
05/31/98	88	67	.00	0.0	0		SW	9.8	PC	0	13	27*
Tot/Ave	76.8	57.1	7.82	0.0			N	5.1		49	119	527
Dep	+3.2	+5.4	+3.85	+0.0			S	-1.8		-101	+48	+104

==========Number of days and Departure==========

	Max Temp >=90	Max Temp <=32	Min Temp <=32	Min Temp <=0	Precipitation >=T	>=.01	>=.10	>=.50	>=1.00
Total	1	0	0	0	13	13	11	5	3
Dep	+0	+0	+0	+0	-	+3	+4	+2	+2

	Snow >=1.0	Sky Cover CLR	PC	CLDY
Total	0	10	11	10
Dep	+0	+0	+0	+0

	Weather Types F	T	IP	A	R	L	S	Z
Total	8	9	0	3	13	4	0	0
Dep	+5	+3	-	+2	+0	+1	+0	+0

Seas.Heat DD	Seas.Cool DD	Seas. Grow DD
5145	123	856
-778	+41	+137

Jan- Apr
Precipitation
Tot 22.81
Dep +7.80

Weather Types: F=Fog; T=Thunder; IP= Ice Pellets; A=Hail; R=Rain; S=Snow; Z=Freezing Precip; RW=Rain Showers; SW= Snow Showers; L=Drizzle; T=Trace.
Intensities: + heavy, - light, absence of symbol indicates moderate.
Degree Days: Heat and Cool base 65F, Corn Growing base 50F with a cutoff at 86F. Averages based on 1961-1990 data. Snow depth at 7am LST. Sky Cover 7AM-7PM Other data mid-mid. Heat DD Season Jul-Jun. Cool and Corn Growing DD

Champaign, Il — Local Climatological Data — June 1998
Water Survey Research Center — Illinois State Water Survey — Summary

Date	Temp MX	Temp MN	Precip (In)	Sno (In	Snow Dep	Weather Types	Ave Wind Dir	Ave Wind Speed	Sky Cov	Degree Days H	Degree Days C	Degree Days Gr
06/01/98	77	56	0.00	0.0	0		N	4.7	CLR	0	2	17
06/02/98	85	58	0.00	0.0	0		WNW	7.5	CLR	0	7	22
06/03/98	66	51	0.17	0.0	0	TRW	N	3.4	CLDY	6	0	9
06/04/98	64	52	0.10	0.0	0	RW,R-	NE	3.3	CLDY	7	0	8
06/05/98	59	47	0.31	0.0	0	RW,RW-,R-,L-	NE	5.7	CLDY	12*	0	5
06/06/98	62	43*	0.11	0.0	0	R	NW	2.4	CLDY	12*	0	6
06/07/98	73	43*	0.00	0.0	0		W	4.0	PC	7	0	12
06/08/98	61	57	0.40	0.0	0	TRW,R,R-	SE	4.7	CLDY	6	0	9
06/09/98	80	57	0.43	0.0	0	TRW,R,R-	SE	6.9	CLDY	0	4	19
06/10/98	81	58	0.02	0.0	0	R-	NW	3.0	PC	0	5	20
06/11/98	82	66	1.56	0.0	0	TRW+,R-	SW	7.8	CLDY	0	9	24
06/12/98	88	64	0.48	0.0	0	TRW+,A,RW	SW	6.4	PC	0	11	25
06/13/98	78	62	0.00	0.0	0		NW	4.8	PC	0	5	20
06/14/98	74	61	1.57*	0.0	0	TRW+	SE	5.1	CLDY	0	3	18
06/15/98	78	62	0.49	0.0	0	TRW+	SSE	3.1	CLDY	0	5	20
06/16/98	77	62	0.47	0.0	0	TRW,RW,R-	W	6.7	CLDY	0	5	20
06/17/98	83	61	0.00	0.0	0		W	4.2	CLR	0	7	22
06/18/98	87	64	0.97	0.0	0	TRW+	S	6.8	CLDY	0	11	25
06/19/98	83	65	0.00	0.0	0		W	7.4	PC	0	9	24
06/20/98	82	65	0.00	0.0	0		S	5.6	CLDY	0	9	24
06/21/98	86	67	0.01	0.0	0	TRW-	SSW	3.3	PC	0	12	27
06/22/98	80	67	1.10	0.0	0	TRW,RW+,RW,F	S	3.3	CLDY	0	9	24
06/23/98	86	65	0.00	0.0	0	F	S	2.6	PC	0	11	26
06/24/98	91	70	0.00	0.0	0		S	6.5	PC	0	16	28
06/25/98	93*	74	0.00	0.0	0		SW	8.3	PC	0	19	30
06/26/98	93*	76	0.00	0.0	0		SW	7.5	PC	0	20*	31*
06/27/98	92	74	0.00	0.0	0		SW	7.3	PC	0	18	30
06/28/98	91	73	0.00	0.0	0	T	SW	5.6	PC	0	17	30
06/29/98	90	68	0.53	0.0	0	TRW,R	SW	5.8	CLDY	0	14	27
06/30/98	82	68	0.00	0.0	0		NW	6.6	CLDY	0	10	25
Tot/Ave	80.1	61.9	8.72	0.0			WSW	5.3		50	238	627
Dep	-2.8	+1.1	+4.65	+0.0			SW	-1.3		+34	+24	-1

==========Number of days and Departure==========

	Max Temp >=90	Max Temp <=32	Min Temp <=32	Min Temp <=0	Precipitation >=T	>=.01	>=.10	>=.50	>=1.00
Total	5	0	0	0	16	16	14	5	3
Dep	-1	+0	+0	+0	-	+7	+8	+2	+1

	Snow >=1.0	Sky Cover CLR	PC	CLDY
Total	0	3	12	15
Dep	+0	-7	+0	+7

	Weather Types F	T	IP	A	R	L	S	Z
Total	2	13	0	1	16	1	0	0
Dep	+0	+7	-	+0	+5	+0	+0	+0

	Seas.Heat D D	Seas.Cool DD	Seas. Grow D D
	5195	361	1483
	-744	+65	+136

Jan- Jun
Precipitation
Tot 31.53
Dep +12.45

Weather Types: F=Fog; T=Thunder; IP= Ice Pellets; A=Hail; R=Rain; S=Snow; Z=Freezing Precip; RW=Rain Showers; SW= Snow Showers; L=Drizzle; T=Trace.
Intensities: + heavy, - light, absence of symbol indicates moderate.
Degree Days: Heat and Cool base 65F, Corn Growing base 50F with a cutoff at 86F. Averages based on 1961-1990 data. Snow depth at 7am LST. Sky Cover 7AM-7PM Other data mid-mid. Heat DD Season Jul-Jun. Cool and Corn Growing DD Season Jan-Dec.

Champaign, Il — Local Climatological Data — July 1998
Water Survey Research Center — Illinois State Water Survey — Summary

Date	Temp MX	Temp MN	Precip (In)	Sno (In	Snow Dep	Weather Types	Ave Wind Dir	Ave Wind Speed	Sky Cov	Degree Days H	Degree Days C	Degree Days Gr
07/01/98	83	64	0.00	0.0	0		W	2.3	PC	0	9	24
07/02/98	84	62	0.00	0.0	0		SE	2.2	PC	0	8	23
07/03/98	89	65	0.06	0.0	0	TRW	SSW	4.5	PC	0	12	26
07/04/98	83	65	0.71	0.0	0	TRW+	N	4.8	PC	0	9	24
07/05/98	83	64	0.00	0.0	0		E	3.2	PC	0	9	24
07/06/98	83	68	0.75	0.0	0	TRW+	SE	3.7	CLDY	0	11	26
07/07/98	81	72	0.75	0.0	0	TRW+,TRW,RW	W	2.4	CLDY	0	12	27
07/08/98	85	71	0.01	0.0	0	L-,F	N	2.2	CLDY	0	13	28
07/09/98	86	69	0.00	0.0	0	F	NW e	2.4e	CLR	0	13	28
07/10/98	84	68	0.00	0.0	0		NE	3.0	CLR	0	11	26
07/11/98	82	61	0.00	0.0	0		NE	3.3	CLR	0	7	22
07/12/98	82	58	0.00	0.0	0		SE	2.3	CLR	0	5	20
07/13/98	84	63	0.00	0.0	0		ESE	2.4	CLDY	0	9	24
07/14/98	85	68	0.00	0.0	0	F	SE	3.6	PC	0	12	27
07/15/98	82	66	0.00	0.0	0	F	SE	2.2	CLDY	0	9	24
07/16/98	88	68	0.00	0.0	0	F	N	3.6	PC	0	13	27
07/17/98	84	65	0.00	0.0	0		W	3.4	CLDY	0	10	25
07/18/98	85	65	0.00	0.0	0		S	2.0	CLR	0	10	25
07/19/98	94	69	0.00T	0.0	0	TRW-	SW	4.3	CLDY	0	17	28
07/20/98	88	76	0.01	0.0	0	RW-	S	4.6	PC	0	17	31
07/21/98	94	77	0.00	0.0	0		SW	7.5	PC	0	21	32
07/22/98	88	69	1.44	0.0	0	TRW+,TRW	SE	4.3	CLDY	0	14	28
07/23/98	82	65	0.00	0.0	0	F	NW	3.4	PC	0	9	24
07/24/98	80	59	0.00	0.0	0		N	2.7	PC	0	5	20
07/25/98	80	58	0.00	0.0	0		N	1.3	CLDY	0	4	19
07/26/98	80	59	0.00	0.0	0		S	2.8	CLDY	0	5	20
07/27/98	81	56	0.00	0.0	0	F	W	2.7	CLR	0	4	19
07/28/98	85	63	0.00	0.0	00	F	SW	5.5	PC	0	9	24
07/29/98	85	70	0.00	0.0	0		NE	3.4	CLR	0	13	28
07/30/98	70	60	0.46	0.0	0	R,R-,L-	NE	2.3	CLDY	0	0	15
07/31/98	81	59	0.00	0.0	0		NE	5.1	CLR	0	5	20
Tot/Ave	83.9	65.2	4.19	0.0			NE	3.3		0	305	758
Dep	-1.4	+0.4	-0.29	+0.0			SW	-1.6		-2	+0	+20

==========Number of days and Departure==========

	Max Temp >=90	Max Temp <=32	Min Temp <=32	Min Temp <=0
Total	2	0	0	0
Dep	-5	+0	+0	+0

	Precipitation >=T	>=.01	>=.10	>=.50	>=1.00
Total	9	8	5	4	1
Dep	-	-1	-2	+1	+0

	Snow >=1.0
Total	0
Dep	+0

	Sky Cover CLR	PC	CLDY
Total	8	12	11
Dep	-2	-1	+3

	Weather Types F	T	IP	A	R	L	S	Z
Total	8	6	0	0	8	2	0	0
Dep	+4	-1	-	+0	-3	+1	+0	+0

	Seas.Heat D D	Seas.Cool DD	Seas. Grow D D
Total	0	666	2241
Dep	-2	+65	+156

Jan- Jun
Precipitation
Tot 35.72
Dep +12.16

Weather Types: F=Fog; T=Thunder; IP= Ice Pellets; A=Hail; R=Rain; S=Snow; Z=Freezing Precip; RW=Rain Showers; SW= Snow Showers; L=Drizzle; T=Trace.

Intensities: + heavy, - light, absence of symbol indicates moderate.
Degree Days: Heat and Cool base 65F, Corn Growing base 50F with a cutoff at 86F. Averages based on 1961-1990 data. Snow depth at 7am LST. Sky Cover 7AM-7PM

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Date	Temp MX	Temp MN	Precip (In)	Sno (In	Snow Dep	Weather Types	Ave Wind Dir	Ave Wind Speed	Sky Cov	Degree Days H	Degree Days C	Degree Days Gr
08/01/98	82	61	0.00	0.0	0		SE	3.2	PC	0*	7	22
08/02/98	82	59	0.00	0.0	0		E	2.1	CLR	0	6	21
08/03/98	82	66	0.22	0.0	0	TRW+	SE	3.0	CLDY	0	9	24
08/04/98	85	67	0.09	0.0	0	TRW-,F	S	4.1	CLDY	0	11	26
08/05/98	83	69	0.28	0.0	0	TRW,RW	S	3.4	CLDY	0	11	26
08/06/98	83	70	0.58*	0.0	0	RW+,F	S	3.7	CLDY	0	12	27
08/07/98	78	69	0.40	0.0	0	RW+,RW-,R-,L-,F	S	2.7	CLDY	0	9	24
08/08/98	81	70	0.00T	0.0	0	R-,L-,F	S	3.1	CLDY	0	11	26
08/09/98	83	69	0.18	0.0	0	TRW,F	W	1.5	CLDY	0	11	26
08/10/98	87	69	0.00	0.0	0	F	W	3.1	CLDY	0	13	28
08/11/98	82	68	0.00	0.0	0		NE	4.0	PC	0	10	25
08/12/98	82	64	0.00	0.0	0		NE	2.9	PC	0	8	23
08/13/98	80	64	0.00	0.0	0		NE	1.6	CLDY	0	7	22
08/14/98	83	59	0.00	0.0	0		W	1.9	PC	0	6	21
08/15/98	87	64	0.04	0.0	0	RW-,F	W	2.8	CLDY	0	11	25
08/16/98	87	66	0.00	0.0	0		NE	2.0	PC	0	12	26
08/17/98	87	65	0.00	0.0	0	F	SW	4.1	CLDY	0	11	26
08/18/98	87	66	0.07	0.0	0	TRW-,F	NE	3.2	CLDY	0	12	26
08/19/98	82	62	0.00	0.0	0	F	E	2.7	PC	0	7	22
08/20/98	86	58*	0.00	0.0	0		S	2.0	CLR	0	7	22
08/21/98	87	61	0.00	0.0	0	F	SW	2.6	CLR	0	9	24
08/22/98	88	67	0.00	0.0	0	F,H	SW	3.3	CLR	0	13	27
08/23/98	90	70	0.00	0.0	0	H	SW	7.1	CLR	0	15	28
08/24/98	93*	72	0.00	0.0	0	F	SW	6.9	CLR	0	18*	29*
08/25/98	88	69	0.00	0.0	0		N	5.2	PC	0	14	28
08/26/98	85	63	0.00	0.0	0		NE	1.8	CLR	0	9	24
08/27/98	86	66	0.00	0.0	0		SE	2.6	PC	0	11	26
08/28/98	82	67	0.08	0.0	0	RW+	WNW	2.9	CLDY	0	10	25
08/29/98	87	65	0.00	0.0	0	F	W	3.9	CLDY	0	11	26
08/30/98	89	66	0.00	0.0	0		W	4.1	PC	0	13	26
08/31/98	82	62	0.00	0.0	0		NE	2.0	CLR	0	7	22
Tot/Ave	84.7	65.6	1.94	0.0			NE	3.2		0	321	773
Dep	+1.7	+2.5	-2.08	+0.0			SW	-1.5		-7	+83	+94

==========Number of days and Departure==========

	Max Temp >=90	Max Temp <=32	Min Temp <=32	Min Temp <=0	Precipitation >=T	>=.01	>=.10	>=.50	>=1.00
Total	2	0	0	0	10	9	5	1	0
Dep	-2	+0	+0	+0	-	+0	-1	-2	-1

	Snow >=1.0	Sky Cover CLR	PC	CLDY
Total	0	8	9	14
Dep	+0	-2	-3	+5

	Weather Types F	T	IP	A	R	L	S	Z	Seas.Heat D D	Seas.Cool DD	Seas. Grow D D
Total	14	5	0	0	10	2	0	0	0	987	3014
Dep	+8	-1	-	+0	-1	+1	+0	+0	-9	+148	+250

Jan- Aug
Precipitation
Tot 37.66
Dep +10.08

Weather Types: F=Fog; T=Thunder; IP= Ice Pellets; A=Hail; R=Rain; S=Snow; Z=Freezing Precip; RW=Rain Showers; SW= Snow Showers; L=Drizzle; T=Trace.
Intensities: + heavy, - light, absence of symbol indicates moderate.

Degree Days: Heat and Cool base 65F, Corn Growing base 50F with a cutoff at

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Date	Temp MX	Temp MN	Precip (In)	Sno (In	Snow Dep	Weather Types	Ave Wind Dir	Ave Wind Speed	Sky Cov	Degree Days H	Degree Days C	Degree Days Gr
09/01/98	81	60	.00	0.0	0		W	2.4	PC	0	6	21
09/02/98	80	58	0.02	0.0	0	R-,L-	W	3.2	CLR	0	4	19
09/03/98	89	58	.00	0.0	0		SW	4.6	CLR	0	9	22
09/04/98	87	62	.00	0.0	0	F	NE	3.9	CLR	0	10	24
09/05/98	94	61	.00	0.0	0		S	4.1	CLR	0	13	24
09/06/98	96*	66	.00	0.0	0		SW	5.7	CLR	0	16*	26
09/07/98	86	57	.00	0.0	0		NE	4.0	PC	0	7	22
09/08/98	75	55	.00	0.0	0		N	4.6	CLR	0	0	15
09/09/98	76	53	.00	0.0	0		NE	2.7	CLR	0	0	15
09/10/98	81	49	.00	0.0	0		S	1.7	CLR	0	0	16
09/11/98	87	51	.00	0.0	0		SW	3.2	CLR	0	4	19
09/12/98	92	53	.00	0.0	0		W	2.7	CLR	0	8	20
09/13/98	92	58	.00	0.0	0		S	2.4	PC	0	10	22
09/14/98	87	69	T	0.0	0	R-,L-	S	8.0	CLDY	0	13	28*
09/15/98	81	68	T	0.0	0	R-,L-	SW	6.2	CLDY	0	10	25
09/16/98	86	67	.00	0.0	0		NE	2.0	CLDY	0	12	27
09/17/98	81	66	T	0.0	0	R-	NE	2.0	CLDY	0	9	24
09/18/98	87	65	.00	0.0	0		E	1.9	CLDY	0	11	26
09/19/98	90	62	.00	0.0	0		SW	2.8	PC	0	11	24
09/20/98	88	62	1.33*	0.0	0	TRW+,TRW,RW,R	SE	2.7	CLDY	0	10	24
09/21/98	82	62	0.01	0.0	0	R-,L-,F	NE	4.0	PC	0	7	22
09/22/98	77	52	.00	0.0	0		N	4.8	PC	0	0	15
09/23/98	71	48*	.00	0.0	0		NE	2.7	CLR	5*	0	11
09/24/98	72	48*	0.33	0.0	0	R,R-,L-,F	SE	3.3	CLDY	5*	0	11
09/25/98	85	61	T	0.0	0	R-,L-,F	SSW	4.5	CLDY	0	8	23
09/26/98	90	66	.00	0.0	0		SW	9.1	CLR	0	13	26
09/27/98	91	65	T	0.0	0	R-	WSW	6.7	PC	0	13	26
09/28/98	82	60	.00	0.0	0	F	ENE	1.9	PC	0	6	21
09/29/98	85	56	0.01	0.0	0	RW-	SE	3.3	PC	0	6	21
09/30/98	79	57	0.49	0.0	0	TRW+,F	N	4.4	CLDY	0	3	18
Tot/Ave	84.3	59.2	2.19	0.0			NE	3.9		10	219	637
Dep	+6.6	+4.0	-1.17	+0.0			SW	-1.2		-71	+102	+137

==========Number of days and Departure==========

	Max Temp >=90	Max Temp <=32	Min Temp <=32	Min Temp <=0	Precipitation >=T	>=.01	>=.10	>=.50	>=1.00
Total	7	0	0	0	11	6	3	1	1
Dep	+5	+0	+0	+0	-	-3	-2	-1	+0

	Snow >=1.0	Sky Cover CLR	PC	CLDY	Jan- Sep precipitation
Total	0	12	9	9	39.85
Dep	+0	+1	+0	-1	+8.91

	Weather Types F	T	IP	A	R	L	S	Z	Seas.Heat D D	Seas.Cool DD	Seas. Grow D D
Total	6	1	0	0	11	6	0	0	10	1206	3651
Dep	+1	-2	-	+0	+1	+3	+0	+0	-80	+250	+387

Weather Types: F=Fog; T=Thunder; IP= Ice Pellets; A=Hail; R=Rain; S=Snow; Z=Freezing Precip; RW=Rain Showers; SW= Snow Showers; L=Drizzle; T=Trace.
Intensities: + heavy, - light, absence of symbol indicates moderate.
Degree Days: Heat and Cool base 65F, Corn Growing base 50F with a cutoff at 86F. Averages based on 1961-1990 data. Snow depth at 7am LST. Sky Cover 7AM-7PM Other data mid-mid. Heat DD Season Jul-Jun. Cool and Corn Growing DD Season Jan-Dec.

Remarks: Warmer than average month. 5th highest average monthly maximum temp (record:86.9F/1897), 7th highest ave monthly minimum temp (record 62.3F/1925) 3rd highest average monthly mean temp (record:72.2F/1925,1933). Tied with

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Date	Temp Max	Temp Min	Precip (in)	Snow (in)	Weather Types	Ave Dir	Wind Speed	Sky Cover	Degree Days Heat	Degree Days Cool
1	65	45	.00	.0		N	4.3	CLR	10	0
2	65	46	T	.0	RW,RW-	NE	3.3	CLDY	9	0
3	55	49	0.15	.0	R-,RW-,L-	NE	4.1	CLDY	13	0
4	64	50	.00	.0		NE	3.6	CLDY	8	0
5	80	59	1.15*	.0	TRW+,RW+,R-,L-,F	SE	7.0	CLDY	0	5
6	74	53	0.34	.0	RW,R-,L-	S	5.9	CLDY	1	0
7	65	52	0.04	.0	R-,L-,F	NW	5.7	CLDY	6	0
8	60	48	.00	.0		N	3.4	CLDY	11	0
9	62	43	.00	.0		N	2.0	CLR	12	0
10	68	39	.00	.0		ESE	1.4	CLR	11	0
11	72	45	.00	.0		SE	2.3	CLR	6	0
12	74	47	.00	.0	F	NW	2.8	PC	4	0
13	66	40	.00	.0		W	4.2	CLR	12	0
14	65	38	.00	.0		E	1.6	CLR	13	0
15	75	47	0.03	.0	RW-	SE	4.9	CLDY	4	0
16	82*	50	T	.0	R-	SE	6.8	CLDY	0	1
17	76	63	0.08	.0	R-,RW-	S	13.3	CLDY	0	5
18	64	43	0.38	.0	R,RW	W	7.5	PC	11	0
19	66	39	.00	.0		W	3.7	CLR	12	0
20	62	39	.00	.0		NW	3.0	CLR	14	0
21	60	38	0.02	.0	R-	N	5.1	CLDY	16	0
22	56	32	.00	.0		N	2.5	CLR	21*	0
23	62	31*	.00	.0		SW	2.9	CLR	18	0
24	66	33	.00	.0		SW	3.7	CLR	15	0
25	71	39	.00	.0		S	3.1	CLR	10	0
26	76	45	.00	.0		SW	3.0	PC	4	0
27	77	49	0.32	.0	TRW,R,R-	SW	5.3	CLDY	2	0
28	65	51	.00	.0		W	3.4	CLDY	7	0
29	71	49	0.42	.0	TRW+,TRW,R-,L-,F	SE	3.8	CLDY	5	0
30	64	53	.00	.0		NW	4.6	CLDY	6	0
31	59	53	0.01	.0	RW-,R-	NNE	3.8	CLDY	10	0
T/Av	67.3	45.4	2.94	0.0		SE	4.3		270	11
Dep	+2.2	+1.6	+0.26	+0.0		S	-1.8		-79	-5

Number of Days and Departure

	Max Temp >=90	Max Temp <=32	Min Temp <=32	Min Temp <=0	Precipitation >=T	>=.01	>=.10	>=.50	>=1.00	Snow >=1.0	Sky Cover CLR	PC	CLDY
Tot	0	0	2	0	13	11	6	1	1	0	12	3	16
Dep	+0	+0	-1	+0	-	+2	+0	-1	+0	+0	+0	-5	+5

	Weather Types F	T	IP	A	R	L	S	Z	Seasonal Heat Degree Days	Seasonal Cool Degree Days	Jan-Oct Precip
Total	4	3	0	0	13	5	0	0	280	1217	42.79
Dep	+0	+1	-	+0	+3	+1	+0	+0	-159	+245	+9.17

Weather Types:F=Fog;T=Thunder;IP=Ice Pellets;A=Hail;R=R=Rain;S=Snow;Z=Freezing Precip;RW=Rain Showers;SW= Snow Showers; L=Drizzle; T=Trace. Intensities: + heavy,- light, absence of symbol indicates moderate.Degree Days: Heat and Cool base 65F,Corn Growing base 50F with a cutoff at 86F. Averages based on 1961-1990 data. Snowdepth at 7am LST. Sky Cover 7AM-7PM LST.Other data mid-mid. Heat DD Season Jul-Jun.Cool and Corn Growing DD Season Jan-Dec.

Remarks:Slightly warmer than average for October. No temperature or precipitation records set this month.

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Day	Temp MX	Temp MN	Precip (in)	Snow (in)	Weather Types	Ave Wind Dir	Ave Wind Sp	Sky Cover	Dg.Days H	Dg.Days C	Peak Gust	Peak Dir
1	58	52	.00	.0		NE	5.4	CLDY	10	0*	15.6	NE
2	52	45	0.74*	.0	R,R-,L-	NE	9.9	CLDY	16	0	25.1	NE
3	45	36	0.39	T*	R,R-,L-,IP	NE	8.4	CLDY	24	0	24.9	NE
4	40	32	.00	.0		NE	5.3	CLDY	29	0	15.7	NE
5	41	36	.00	.0		N	3.7	CLDY	26	0	12.5	NW
6	39	28	.00	.0		NW	3.7	CLR	31*	0	14.4	W
7	42	24	0.04	T*	R-,L-,SW-IP	SSW	1.5	PC	32	0	11.5	SW
8	43	34	0.02	.0	R-,L-	E	1.5	CLDY	26	0	5.8	SE
9	52	40	0.58	.0	TRW,R,R-,L-	SE	7.4	CLDY	19	0	21.1	SE
10	63	40	0.30	.0	TRW+,TRW,R	SW	19.8	CLDY	13	0	40.9	SW*
11	47	31	.00	.0		W	11.0	PC	26	0	29.5	SW
12	56	31	.00	.0		SW	6.1	CLDY	21	0	20.6	SW
13	55	37	.00	.0		SW	4.1	CLR	19	0	12.8	SW
14	64	37	.00	.0		SW	8.9	PC	14	0	25.2	SW
15	44	33	.00	.0		NW	4.6	CLDY	26	0	13.6	NW
16	59	31	.00	.0		NW	9.0	CLDY	20	0	25.5	SW
17	50	35	.00	.0		SE	3.8	PC	22	0	18.3	NW
18	60	32	.00	.0		SE	9.4	PC	19	0	23.9	SE
19	52	39	.00	.0		W	10.3	CLR	19	0	23.4	W
20	45	26	.00	.0		W	6.3	PC	29	0	23.4	W
21	47	21*	.00	.0		W	4.2	CLR	31	0	12.3	S
22	57	32	.00	.0		S	12.8	PC	20	0	31.7	SW
23	64	40	.00	.0		NW	9.3	CLR	13	0	26.3	W
24	58	29	.00	.0		SE	3.8	PC	21	0	12.3	S
25	53	37	0.19	.0	RW,RW-,TRW-	S	6.9	CLDY	20	0	16.9	NW
26	62	33	.00	.0		W	6.8	CLR	17	0	16.2	SW
27	64	32	.00	.0		S	4.2	CLR	17	0	15.1	S
28	68*	37	.00	.0		SSW	6.5	PC	12	0	17.1	SW
29	66	56	.00	.0		S	14.8	CLDY	4	0	30.6	S
30	60	40	0.17	.0	R,R-,L-,F	S	12.8	CLDY	15	0	29.9	SW
T/Av	53.5	35.2	2.43	T		S	7.4		611	0		
Dep	+3.2	+1.4	-0.67	-2.2		SW	-0.1		-85	+0		

Number of Days and Departure

	Max Temp >=90	Max Temp <=32	Min Temp <=32	Min Temp <=0	Precipitation >=T	Precipitation >=.01	Precipitation >=.10	Precipitation >=.50	Precipitation >=1.00	Snow >=1.0	Sky Cover CLR	Sky Cover PC	Sky Cover CLDY
Tot	0	0	12	0	8	8	6	2	0	0	7	9	14
Dep	+0	-1	-2	+0	-	-2	+0	+0	-1	-1	+0	-1	-1

	Weather Types F	T	IP	A	R	L	S	Z	Seasonal Heat Degree Days	Seasonal Cool Degree Days	Jan-Nov Precipitation
Total	1	3	2	0	8	6	1	0	891	1217	45.22
Dep	-3	+2	-	+0	-1	+1	-3	-1	-244	+245	+8.50

Weather Types: F=Fog; T=Thunder; IP= Ice Pellets; A=Hail; R=Rain; S=Snow; Z=Freezing Precip; RW=Rain Showers; SW= Snow Showers; L=Drizzle; T=Trace. Intensities: + heavy, - light, absence of symbol indicates moderate. Degree Days: Heat and Cool base 65F, Corn Growing base 50F with a cutoff at 86F. Averages based on 1961-1990 data. Snow depth at 7am LST. Sky Cover 7AM-7PM LST. Other data midnight-midnight. Heat DD Season Jul-Jun. Cool and Corn Growing DD Season Jan-Dec.

Remarks: Warmer than average November for C-U. Fall Stats (S,O,N): Average temperature 68.4F, 4.0F above the 30-year average, also 6th warmest average high temperature for fall. Record warmest was 70.7F set in 1953. Average minimum temperature was 46.6F, 2.3F above average, also tied for 6th warmest average minimum temperature for fall. Record warmest was 51.2F, set in 1931. Average mean temperature was 57.5F, 3.1F above average, tied for 7th

Champaign, IL — Local Climatological Data — December 1998
Water Survey Research Center — Ill State Water Survey — Summary

Day	Temp MX	Temp MN	Precip (in)	Snow (in)	Snow Dep	Weather Types	Ave Wind Dir	Ave Wind Sp	Sky Cover	Dg.Days H	Dg.Days C	Peak Gust	Peak Dir
1	56	33	.00	.0	0	F	S	6.8	CLR	20	0	17.8	S
2	62	39	.00	.0	0		S	9.4	CLR	14	0	18.5	SW
3	67	52	.00	.0	0		SW	9.6	CLDY	5	0	20.5	SW
4	71*	60	T	.0	0	L-	S	8.0	CLDY	0	1*	17.5	S
5	64	55	T	.0	0	L-	S	9.6	CLDY	5	0	20.5	S
6	69	42	0.30*	.0	0	R-,RW,L-	S	13.1	CLDY	9	0	34.3	S
7	43	38	.00	.0	0		N	6.9	CLDY	24	0	23.1	N
8	42	28	.00	.0	0	F	NW	4.5	PC	30	0	12.4	W
9	47	26	.00	.0	0		W	3.2	CLR	28	0	13.2	W
10	42	26	.00	.0	0		WNW	3.4	PC	31	0	10.2	NW
11	45	21	.00	.0	0		S	2.0	PC	32	0	8.8	S
12	51	24	.00	.0	0		SE	1.5	PC	27	0	7.1	N
13	49	27	.00	.0	0		N	5.0	PC	27	0	15.5	N
14	48	27	.00	.0	0	F	N	2.8	CLR	27	0	9.7	N
15	55	26	.00	.0	0		SW	5.5	CLR	24	0	16.8	SW
16	42	30	0.01	T	0	RW-,L-,SW-	NW	4.7	CLDY	29	0	15.7	NW
17	39	26	.00	.0	0		NW	5.9	CLR	32	0	18.9	W
18	51	29	0.11	.0	0	R,R-,L-	S	16.2	CLDY	25	0	44.0*	S
19	42	34	0.06	.0	0	R-,L-	N	6.4	CLDY	27	0	21.6	SW
20	38	34	0.03	.0	0	R-,L-	NE	3.7	CLDY	29	0	12.8	E
21	38	14	0.21	0.1	0	R-,L-,ZL-,IP-,S-	NW	8.3	CLDY	39	0	23.9	NW
22	15	5	.00	.0	T		NW	6.4	CLR	55	0	25.8	NW
23	22	8	.00	.0	T		W	3.1	PC	50	0	11.2	W
24	28	12	.00	.0	T		NW	3.8	CLR	45	0	14.0	W
25	32	11	.00	.0	T		SW	9.2	CLR	43	0	24.0	SW
26	34	19	.00	.0	0		W	5.1	PC	38	0	13.8	SW
27	42	27	.00	.0	0		SW	8.8	CLDY	30	0	23.5	SW
28	43	23	.00	.0	0		S	4.8	CLR	32	0	13.8	S
29	37	11	T	T	0	L-,ZL-,SG-,S-	NW	10.4	CLDY	41	0	26.2	N
30	14	2	0.17	5*	T	S	NW	4.8	CLDY	57	0	16.9	N
31	14	0*	.00	0	5*		W	4.8	PC	58*	0	14.5	W
T/Av	43.3	26.1	0.89	5.1			S	6.4		933	1		
Dep	+6.8	+4.1	-2.13	-0.9			S	-1.5		-184	+1		

Number of Days and Departure

	Max Temp >=90	Max Temp <=32	Min Temp <=32	Min Temp <=0	Precipitation >=T	Precipitation >=.01	Precipitation >=.10	Precipitation >=.50	Precipitation >=1.00	Snow >=1.0	Sky Cover CLR	Sky Cover PC	Sky Cover CLDY
Tot	0	6	22	1	10	7	4	0	0	1	10	8	13
Dep	+0	-5	-4	-1	-	-4	-2	-2	-1	-1	+3	+1	-4

	Weather Types F	T	IP	A	R	L	S	Z	Seasonal Heat Degree Days	Seasonal Cool Degree Days	Jan-Dec Precipitation
Total	4	0	1	0	6	9	4	2	1824	1218	46.11
Dep	-2	-1	-	+0	-2	+6	-5	-1	-428	+246	+6.37

Weather Types: F=Fog; T=Thunder; IP= Ice Pellets; A=Hail; R=Rain; S=Snow; Z=Freezing Precip; RW=Rain Showers; SW= Snow Showers; L=Drizzle; T=Trace. Intensities: + heavy, - light, absence of symbol indicates moderate. Degree Days: Heat and Cool base 65F, Corn Growing base 50F with a cutoff at 86F. Averages based on 1961-1990 data. Snow depth at 7am LST. Sky Cover 7AM-7PM LST,. Other data mid-mid. Heat DD Season Jul-Jun. Cool and Corn Growing DD Season Jan-Dec.

Remarks: Very warm Dec. Several records set. On the 3rd, new rec high min temp was set (old rec 50/1982). On the 4th, new rec max and rec high min temp set (old rec max 64/1916, old rec high min 50/1916). On the 5th, new rec high min temp (old rec 53/1956), and on the 6th, new rec max temp (old rec 66/1980). New record number of consecutive days with max temp of 60F or greater was set from Dec 2-6. The old record was 4, from Dec 14-17, 1948. Mean daily temps ranged

Illinois State Water Survey
Water Survey Research Center

Local Climatological Data
Champaign-Urbana, IL - 118740
January 1999

DATE	TEMPERATURE Max	Min	Mean	PRECIP (in)	SNOW (in) Amnt	Depth	WEATHER TYPES	WIND Dir	Speed	Peak Gust	Gust Dir	SKY COVER	DEGREE DAYS Heat	Cool
1/1/1999	18	-2	8	0.74	5.0	5	S	E	4.4	19.5	NE	CLDY	57	0
1/2/1999	28	16	22	1.18	10.0	13	S,S-,BS	E	7.6	25.3	W	CLDY	43	0
1/3/1999	19	4	12	T	T	16	SW-	W	15.1	31.0	W	PC	53	0
1/4/1999	4	-10	-3	0.00	0.0	16		W	8.8	22.1	W	PC	68	0
1/5/1999	22	-25	-2	T	T	16	SW-	S	6.7	22.6	S	CLR	67	0
1/6/1999	34	10	22	0.01	0.1	16	SW-	SW	10.5	23.3	NW	CLDY	43	0
1/7/1999	10	-1	5	0.01	0.1	16	S-	NW	3.9	15.0	N	PC	60	0
1/8/1999	18	10	14	0.11	3.0	15	S,S-	NE	6.6	18.6	NW	CLDY	51	0
1/9/1999	15	-15	0	0.00	0.0	17		NW	6.4	18.1	NW	CLR	65	0
1/10/1999	17	-4	7	0.00	0.0	17		W	11.7	28.9	W	CLR	58	0
1/11/1999	34	5	20	0.02	0.5	17	S-	SSW	10.2	25.3	S	CLDY	45	0
1/12/1999	40	32	36	0.12	T	16	S-,R-,IP-,ZR-,ZL-,L-,F	NE	3.9	17.3	NE	CLDY	29	0
1/13/1999	32	16	24	0.07	T	14	S-,IP-,ZR-,ZL-	NE	4.2	13.1	NE	CLDY	41	0
1/14/1999	16	12	14	T	T	14	SW-	NE	3.0	8.5	NE	CLDY	51	0
1/15/1999	30	16	23	T	T	14	SW-	S	10.3	23.9	S	CLDY	42	0
1/16/1999	43	26	35	T	0.0	13	R-,F	SW	7.2	19.7	W	CLDY	30	0
1/17/1999	40	26	33	0.73	0.0	13	TRW,TRW-	S	7.6	25.7	W	CLDY	32	0
1/18/1999	35	28	32	T	T	11	SW-, BS	W	14.0	33.8	W	CLDY	33	0
1/19/1999	37	20	29	T	T	11	SG-	NE	4.1	15.3	SE	CLDY	36	0
1/20/1999	41	25	33	0.00	0.0	10		NE	3.1	10.4	NE	CLDY	32	0
1/21/1999	44	36	40	0.35	0.0	9	L-,TRW+,R-,F	NE	4.7	19.1	NE	CLDY	25	0
1/22/1999	46	39	43	0.46	0.0	6	TRW,R-,L-,F	SE	3.9	21.6	SE	CLDY	22	0
1/23/1999	52	32	42	0.34	0.0	2	R-,R,L-	W	10.1	25.3	W	CLDY	23	0
1/24/1999	36	32	34	0.00	0.0	T		W	7.9	22.7	W	CLDY	31	0
1/25/1999	35	26	31	0.00	0.0	T		NW	5.8	17.1	W	CLDY	34	0
1/26/1999	45	23	34	0.00	0.0	T		SE	6.1	16.8	SE	PC	31	0
1/27/1999	62	35	49	0.00	0.0	0		S	10.1	25.7	W	PC	16	0
1/28/1999	38	31	35	0.00	0.0	0		NW	6.3	15.6	N	CLDY	30	0
1/29/1999	41	30	36	0.00	0.0	0		NE	4.5	12.8	NE	CLDY	29	0
1/30/1999	51	29	40	0.00	0.0	0		NE	6.6	20.3	NE	PC	25	0
1/31/1999	39	32	36	0.74	0.0	0	ZR-,R,R-,L-	ENE	6.3	21.9	NE	CLDY	29	0
AVG/TOT	**33.0**	**17.2**	**25.1**	**4.88**	**18.7**			**NE**	**7.1**				**1231**	**0**
DEP.	+1.3	+1.2	+1.2	+3.05	+10.6			W	-1.2				-52	0

NUMBER OF DAYS and DEPARTURE

	MAX TEMP >=90	<=32	MIN TEMP <=32	<=0	PRECIPITATION >T	>=.01	>=.10	>=.50	>=1.00	SNOW >=1.0	SKY COVER CLR	PC	CLDY
TOTAL	0	12	28	6	20	13	9	4	1	3	3	6	22
DEP	0	-4	-1	+2		+4	+4	+3	+1	0	-5	-3	+8

	WEATHER TYPES R	L	S	Z	IP	A	T	F	D	H	BS
TOTAL	7	4	14	3	2	0	3	4	0	0	3
DEP	+2	+1	+4	+1		0	+2	0			

SEASONAL DEGREE DAYS	HEATING	COOLING
	3055	0
	-480	0

PRECIPITATION	JAN-January
	4.88
	+3.05

Averages based on 1961-1990 data. The daily sky condition is determined by the prevailing sky condition of three observations made between 7am and 7pm LST. Snow depth at 7am LST. All other data midnight-midnight. M = Missing

WEATHER TYPES:
=Trace
R = Rain Z = Freezing rain/drizzle D = Dust
L = Drizzle IP = Sleet H = Haze
S = Snow A = Hail BS = Blowing
T = Thunder F = Fog RW = Rainshower SW = Snowshower

PRECIP INTENSITY: - Light Precip amount "T"
Moderate
+ Heavy

DEGREE DAYS: Heat and Cool base 65F. Corn Growing base 50F. Heating DD season July-June. Cool and Corn DD season January-December.

Local Climatological Data

Illinois State Water Survey
Water Survey Research Center

Champaign-Urbana, IL - 118740

February 1999

DATE	TEMPERATURE Max	Min	Mean	PRECIP (in)	SNOW (in) Amnt	Depth	WEATHER TYPES	WIND Dir	Speed	Peak Gust	Gust Dir	SKY COVER	DEGREE DAYS Heat	Cool
2/1/1999	46	39	43	T	0.0	0	R-,L-,F	S	7.1	16.6	S	CLDY	22	0
2/2/1999	45	31	38	0.09	0.0	0	R-,L-	WSW	10.2	28.5	W	PC	27	0
2/3/1999	47	32	40	T	0.0	0	RW-	S	12.9	31.8	S	CLDY	25	0
2/4/1999	41	22	32	0.00	0.0	0		W	9.9	28.9	W	CLR	33	0
2/5/1999	46	21	34	T	0.0	0	R-,L-	S	9.7	23.0	S	PC	31	0
2/6/1999	53	37	45	0.00	0.0	0		NE	5.8	21.0	SW	CLR	20	0
2/7/1999	42	29	36	1.46	0.5	0	R-,L-,S	NE	8.6	33.8	NE	CLDY	29	0
2/8/1999	52	29	41	0.00	0.0	0	F	S	9.4	22.8	S	PC	24	0
2/9/1999	55	36	46	0.00	0.0	0		N	4.0	14.2	N	CLR	19	0
2/10/1999	60	33	47	0.00	0.0	0		SE	6.6	20.1	SE	CLR	18	0
2/11/1999	70	30	50	0.33	0.0	0	TRW,R	S	20.6	55.2	S	PC	15	0
2/12/1999	36	19	28	0.01	0.2	0	R-,L-,SW-	W	14.4	33.3	W	CLDY	37	0
2/13/1999	34	14	24	T	T	T	SW-	NW	6.5	21.8	NW	PC	41	0
2/14/1999	44	20	32	0.00	0.0	0		S	10.1	25.8	S	CLR	33	0
2/15/1999	55	30	43	0.00	0.0	0		S	12.8	32.9	S	PC	22	0
2/16/1999	43	33	38	0.23	T	T	R-,L-,SW-	W	7.3	17.9	W	CLDY	27	0
2/17/1999	33	24	29	T	T	0	SW-	W	5.8	17.0	NW	PC	36	0
2/18/1999	36	22	29	0.00	0.0	0		NE	3.0	10.6	NE	CLDY	36	0
2/19/1999	36	27	32	0.00	0.0	0		NE	5.8	14.4	N	CLDY	33	0
2/20/1999	33	26	30	0.00	0.0	0		NE	6.8	18.8	NE	CLDY	35	0
2/21/1999	35	22	29	0.00	0.0	0		N	7.4	18.6	N	CLR	36	0
2/22/1999	35	19	27	0.00	0.0	0		SE	4.7	14.8	SE	PC	38	0
2/23/1999	33	25	29	0.05	0.4	T	S-	SE	5.8	18.0	SE	CLDY	36	0
2/24/1999	35	26	31	0.21	1.7	T	S,S-	S	5.8	20.2	S	CLDY	34	0
2/25/1999	33	28	31	0.00	0.0	1		N	3.2	12.6	NW	CLDY	34	0
2/26/1999	46	25	36	0.07	0.0	T	RW-	SE	8.6	21.2	SE	PC	29	0
2/27/1999	59	40	50	0.03	0.0	0	R-	W	8.0	21.7	S	CLDY	15	0
2/28/1999	42	36	39	T	T	0	S-	W	11.8	29.0	W	CLDY	26	0
AVG/TOT	**43.8**	**27.7**	**35.7**	**2.48**	**2.8**			**S**	**8.3**				**811**	**0**
DEP.	+7.5	+7.4	+7.4	+0.51	-4.2			S	+0.				-231	0

NUMBER OF DAYS and DEPARTURE

	MAX TEMP >=90	<=32	MIN TEMP <=32	<=0	PRECIPITATION >T	>=.01	>=.10	>=.50	>=1.00	SNOW >=1.0	SKY COVER CLR	PC	CLDY
TOTAL	0	0	21	0	15	9	4	1	1	1	6	9	13
DEP	0	-11	-3	-2		0	0	0	+1	-1	-2	+2	0

	WEATHER TYPES R	L	S	Z	IP	A	T	F	D	H	BS	SEASONAL DEGREE DAYS HEATING	COOLING	PRECIPITATION JAN-February
TOTAL	10	6	8	0	0	0	1	2	0	0	0	3866	0	7.36
DEP	+5	+	-1	-2		0		-2				-711	0	+3.56

Averages based on 1961-1990 data. The daily sky condition is determined by the prevailing sky condition of three observations made between 7am and 7pm LST. Snow depth at 7am LST. All other data midnight-midnight. M = Missing

WEATHER TYPES:

R = Rain Z = Freezing rain/drizzle D = Dust
L = Drizzle IP = Sleet H = Haze
S = Snow A = Hail BS = Blowing
T = Thunder F = Fog RW = Rainshower SW = Snowshower

PRECIP INTENSITY: - Light Precip amount "T" =Trace
Moderate
+ Heavy

DEGREE DAYS: Heat and Cool base 65F. Corn Growing base 50F. Heating DD season July-June. Cool and Corn DD season January-December.

Local Climatological Data

Illinois State Water Survey
Water Survey Research Center

Champaign-Urbana, IL - 118740

March 1999

DATE	TEMPERATURE Max	Min	Mean	PRECIP (in)	SNOW (in) Amnt	Depth	WEATHER TYPES	WIND Dir	Speed	Peak Gust	Gust Dir	SKY COVER	DEGREE DAYS Heat	Cool
3/1/1999	50	29	40	0.00	0.0	0		W	5.6	20.8	NW	PC	25	0
3/2/1999	43	32	38	0.67	0.0	0	R-,RW-	NW	6.2	23.3	NW	CLDY	27	0
3/3/1999	34	27	31	0.00	0.0	0		NW	10.	28.4	N	CLDY	34	0
3/4/1999	43	22	33	0.00	0.0	0		SE	5.6	15.5	SE	PC	32	0
3/5/1999	46	34	40	0.40	0.0	0	R,R-,L-	SE	6.0	19.8	S	CLDY	25	0
3/6/1999	34	20	27	0.02	0.2	0	S,SW-	N	11.	24.8	N	CLDY	38	0
3/7/1999	34	18	26	0.00	0.0	0		E	4.9	14.8	NE	CLR	39	0
3/8/1999	33	21	27	0.39	2.0	0	S+,S,SW-,ZR-,ZL-	E	6.8	34.7	E	CLDY	38	0
3/9/1999	34	28	31	0.41	3.0	5	L-,F,ZL-,SW-	NW	4.6	15.0	NW	CLDY	34	0
3/10/1999	32	23	28	0.00	0.0	4		NE	7.1	18.2	NE	CLR	37	0
3/11/1999	35	23	29	0.00	0.0	2		N	4.5	13.1	N	PC	36	0
3/12/1999	40	24	32	0.00	0.0	2		NE	5.1	14.2	NE	CLR	33	0
3/13/1999	35	27	31	0.00	0.0	T		NE	8.1	19.4	NE	CLDY	34	0
3/14/1999	40	26	33	0.00	0.0	T		NE	11.	25.1	N	CLR	32	0
3/15/1999	47	26	37	0.00	0.0	T		N	4.2	12.5	SW	CLR	28	0
3/16/1999	65	28	47	0.00	0.0	0		SSW	11.	26.5	SW	CLR	18	0
3/17/1999	70	39	55	0.00	0.0	0		SW	13.	31.5	SW	CLR	10	0
3/18/1999	51	33	42	0.00	0.0	0		NW	8.5	25.1	NW	CLR	23	0
3/19/1999	48	27	38	0.00	0.0	0		NE	4.1	14.0	NE	CLR	27	0
3/20/1999	54	27	41	0.00	0.0	0		NE	3.0	10.7	SE	CLR	24	0
3/21/1999	50	33	42	0.00	0.0	0		NW	8.6	23.1	NW	CLR	23	0
3/22/1999	46	26	36	0.00	0.0	0		N	3.9	14.0	NW	PC	29	0
3/23/1999	56	31	44	0.00	0.0	0		SW	3.2	12.9	SE	PC	21	0
3/24/1999	52	32	42	0.00	0.0	0		N	6.8	18.2	N	CLR	23	0
3/25/1999	45	25	35	0.00	0.0	0		NE	6.4	20.5	NE	CLDY	30	0
3/26/1999	50	29	40	0.00	0.0	0		NE	5.3	16.1	NE	PC	25	0
3/27/1999	59	26	43	0.00	0.0	0		SE	3.1	13.5	SE	CLR	22	0
3/28/1999	53	29	41	T	0.0	0	L-,R-	WSW	6.4	23.1	SW	CLDY	24	0
3/29/1999	64	35	50	0.00	0.0	0		NW	3.7	17.0	NW	CLR	15	0
3/30/1999	71	35	53	0.00	0.0	0		S	7.7	24.9	S	CLR	12	0
3/31/1999	66	35	51	0.01	0.0	0	L-,RW-	S	9.9	28.4	S	CLDY	14	0
AVG/TOT	**47.7**	**28.1**	**37.9**	**1.90**	**5.2**			**NE**	**6.7**				**832**	**0**
DEP.	-1.1	-3.0	-2.1	-1.40	+1.1			S	-1.9				+47	-1

NUMBER OF DAYS and DEPARTURE

	MAX TEMP >=90	<=32	MIN TEMP <=32	<=0	PRECIPITATION >T	>=.01	>=.10	>=.50	>=1.00	SNOW >=1.0	SKY COVER CLR	PC	CLDY
TOTAL	0	1	24	0	7	6	4	1	0	2	15	6	10
DEP	0	-2	+6	0		-6	-3	-1	-1	+1	+8	-3	-5

	WEATHER TYPES R	L	S	Z	IP	A	T	F	D	H	BS	SEASONAL DEGREE DAYS HEATING	COOLING	PRECIPITATION JAN-March
TOTAL	4	4	3	2	0	0	0	1	0	0	0	4698	0	9.26
DEP	-6	0	-3	+		-	-3	-3				-664	-1	+2.16

Averages based on 1961-1990 The daily sky condition is determined by the prevailing sky condition of three observations made between 7am and 7pm Snow depth at 7am LST. All other data M = Missing

WEATHER TYPES:
R = Rain Z = Freezing rain/drizzle D = Dust
L = Drizzle IP = Sleet H = Haze
S = Snow A = Hail BS = Blowing snow
T = Thunder F = Fog RW = Rainshower SW = Snowshower

PRECIP INTENSITY: - Light + Precip amount "T"

DEGREE DAYS: Heat and Cool base 65F. Corn Growing base 50F. Heating DD season July-June. Cool and Corn DD season

Local Climatological Data

Illinois State Water Survey
Water Survey Research Center

Champaign-Urbana, IL - 118740

April 1999

DATE	TEMPERATURE Max	Min	Mean	PRECIP (in)	SNOW (in) Amnt	Depth	WEATHER TYPES	WIND Dir	Speed	Peak Gust	Gust Dir	SKY COVER	DEGREE DAYS Heat	Cool	Corn
1	66	48	57	T	0.0	0	F,L-	S	8.5	21.6	S	CLDY	8	0	8
2	78	47	63	0.00	0.0	0	F	S	7.0	21.9	S	CLDY	2	0	14
3	69	53	61	0.13	0.0	0	TRW-,L-,F	SE	6.8	27.6	S	CLDY	4	0	11
4	66	51	59	0.10	0.0	0	RW,R	W	8.4	27.2	SW	CLR	6	0	9
5	67	45	56	0.17	0.0	0	TRW,R-,L-,F	SE	9.5	24.5	SE	CLDY	9	0	9
6	62	41	52	0.00	0.0	0		W	14.	37.2	W	CLDY	13	0	6
7	75	36	56	0.00	0.0	0		S	10.	33.4	S	CLR	9	0	13
8	74	47	61	0.61	0.0	0	TRW+,TRW-,RW-	SE	7.3	43.4	W	CLDY	4	0	12
9	60	44	52	0.01	0.0	0	R-,L-	WNW	9.6	25.4	W	CLDY	13	0	5
10	66	42	54	0.56	0.0	0	TRW+,RW+,A	SE	6.8	24.9	SE	CLDY	11	0	8
11	54	44	49	0.00	0.0	0		W	12.	35.1	W	CLDY	16	0	2
12	51	38	45	0.00	0.0	0		N	5.5	14.6	N	CLDY	20	0	1
13	59	37	48	0.00	0.0	0	F	NW	2.1	11.6	N	PC	17	0	5
14	64	40	52	0.00	0.0	0		SE	4.6	17.1	SE	CLDY	13	0	7
15	52	40	46	1.77	0.0	0	R+,R,RW,L-	E	7.6	31.4	W	CLDY	19	0	1
16	40	34	37	0.46	T	0	R,RW,L-,SW-	W	19.	37.1	W	CLDY	28	0	0
17	45	34	40	0.05	0.0	0	R-,L-	W	7.6	19.4	W	CLDY	25	0	0
18	52	36	44	0.01	0.0	0	L-	W	7.2	19.4	W	PC	21	0	1
19	64	35	50	0.00	0.0	0		E	3.8	15.1	W	PC	15	0	7
20	62	36	49	0.14	0.0	0	TRW+,RW+,R,L-	SE	5.7	16.9	S	PC	16	0	6
21	75	49	62	0.41	0.0	0	TRW+,R,RW-	S	6.2	16.7	SW	CLDY	3	0	13
22	76	56	66	T	0.0	0	RW-	S	11.	28.6	S	CLDY	0	1	16
23	66	44	55	T	0.0	0	RW-	NE	10.	22.4	W	CLDY	10	0	8
24	62	40	51	0.00	0.0	0		NE	6.4	16.6	NE	CLR	14	0	6
25	65	38	52	0.00	0.0	0		SE	3.9	14.5	SE	PC	13	0	8
26	65	48	57	0.07	0.0	0	R-,L-	E	2.7	11.8	SE	CLDY	8	0	8
27	71	50	61	0.28	0.0	0	RW+,R-,RW,F	SE	6.1	15.9	NE	CLDY	4	0	11
28	57	48	53	0.00	0.0	0		NE	6.8	19.0	NE	CLDY	12	0	4
29	67	46	57	0.00	0.0	0		NE	8.9	21.6	NE	CLR	8	0	9
30	70	42	56	0.00	0.0	0		NE	6.2	19.0	NE	CLR	9	0	10
AVG/TOT	**63.3**	**43.0**	**53.2**	**4.77**	**0.0**			**NE**	**7.8**				**350**	**1**	**218**
DEP.	+0.9	+1.6	+1.3	+0.83	-1.0			S	-0.7				-61	-9	+12

NUMBER OF DAYS and DEPARTURE

	MAX TEMP >=90	<=32	MIN TEMP <=32	<=0	PRECIPITATION >T	>=.01	>=.10	>=.50	>=1.00	SNOW >=1.0	SKY COVER CLR	PC	CLDY
TOTAL	0	0	0	0	17	14	10	3	1	0	5	5	20
DEP	0	0	-5	0		+2	+2	+1	0		-3	-4	+7

	WEATHER TYPES R	L	S	Z	IP	A	T	F	D	H	BS	SEASONAL DEGREE DAYS HEATING	COOLING	CORN	PRECIPITATION JAN-April
TOTAL	15	10	1	0	0	1	6	6	0	0	0	5048	1	313	14.03
DEP	+2	+	-1			0	+	+				-725	-10	+17	+2.99

Averages based on 1961-1990 The daily sky condition is determined by the prevailing sky condition of three observations made between 7am and 7pm Snow depth at 7am LST. All other data M = Missing

WEATHER TYPES:

R = Rain Z = Freezing rain/drizzle D = Dust
L = Drizzle IP = Sleet H = Haze
S = Snow A = Hail BS = Blowing snow
T = Thunder F = Fog RW = Rainshower SW = Snowshower

PRECIP INTENSITY: - Light Precip amount "T"
+

DEGREE DAYS: Heat and Cool base 65F. Corn Growing base 50F. Heating DD season July-June. Cool and Corn DD season

Local Climatological Data

Illinois State Water Survey
Water Survey Research Center

Champaign-Urbana, IL - 118740

May 1999

DATE	TEMPERATURE Max	Min	Mean	PRECIP (in)	SNOW (in) Amnt	Depth	WEATHER TYPES	WIND Dir	Speed	Peak Gust	Gust Dir	SKY COVER	DEGREE DAYS Heat	Cool	Corn
1	74	44	59	0.00	0.0	0		NE	3.6	15.8	N	CLR	6	0	12
2	77	48	63	0.00	0.0	0		NE	3.1	16.1	S	CLR	2	0	14
3	78	50	64	0.00	0.0	0		S	5.0	20.7	S	CLR	1	0	14
4	81	56	69	0.04	0.0	0	RW	SE	10.	36.5	S	PC	0	4	19
5	78	60	69	0.14	0.0	0	RW,R	S	13.	30.1	S	CLDY	0	4	19
6	64	53	59	0.21	0.0	0	TRW-,R	SW	9.5	27.9	SW	CLDY	6	0	9
7	64	49	57	0.00	0.0	0		SW	10.	24.9	SW	CLDY	8	0	7
8	66	50	58	T	0.0	0	RW-	NW	7.6	24.2	W	CLDY	7	0	8
9	71	52	62	0.00	0.0	0		NE	2.1	7.8	N	CLR	3	0	12
10	82	52	67	0.00	0.0	0		SE	5.0	19.1	SE	PC	0	2	17
11	83	58	71	0.00	0.0	0		S	6.2	22.8	S	PC	0	6	21
12	85	58	72	0.10	0.0	0	TRW-,RW+,R,L-	S	5.2	38.2	SW	CLDY	0	7	22
13	61	51	56	0.58	0.0	0	R,R-,L-,F	NE	4.4	15.6	NE	CLDY	9	0	6
14	68	51	60	0.00	0.0	0	F	NE	4.0	13.5	NE	CLDY	5	0	10
15	73	60	67	T	0.0	0	RW-	SE	4.2	14.8	SE	CLDY	0	2	17
16	83	58	71	0.00	0.0	0		S	8.4	25.6	S	PC	0	6	21
17	83	64	74	0.92	0.0	0	RW+,R+,TRW+	S	8.5	29.8	S	CLDY	0	9	24
18	72	53	63	0.10	0.0	0	RW,R-,L-	WNW	6.8	20.0	W	PC	2	0	13
19	76	48	62	0.00	0.0	0		SE	2.1	9.8	W	CLR	3	0	13
20	79	51	65	0.00	0.0	0		S	4.1	16.4	S	CLR	0	0	15
21	79	53	66	1.15	0.0	0	TRW,RW+,R	S	5.9	23.7	S	CLDY	0	1	16
22	77	59	68	0.00	0.0	0		NNW	4.8	15.7	N	PC	0	3	18
23	71	52	62	0.12	0.0	0	R-,RW	NW	6.0	23.9	W	CLDY	3	0	12
24	66	47	57	0.00	0.0	0		NW	8.1	23.2	NW	PC	8	0	8
25	71	44	58	0.00	0.0	0		W	6.8	26.6	W	PC	7	0	11
26	71	49	60	0.00	0.0	0		N	3.7	12.8	N	CLR	5	0	11
27	80	47	64	0.00	0.0	0		W	3.4	15.3	W	CLR	1	0	15
28	83	52	68	0.00	0.0	0		W	5.2	18.0	W	CLR	0	3	18
29	85	55	70	0.00	0.0	0		W	3.1	16.1	SE	CLR	0	5	20
30	83	60	72	0.13	0.0	0	RW+,L-	S	4.6	20.1	S	PC	0	7	22
31	79	67	73	0.03	0.0	0	RW-,F	S	8.5	21.4	S	PC	0	8	23
AVG/TOT	**75.6**	**53.3**	**64.5**	**3.52**	**0.0**			**S**	**5.9**				**76**	**67**	**467**
DEP.	+2.0	+1.6	+1.8	-0.45	0.0			S	-1.0				-74	-4	+44

NUMBER OF DAYS and DEPARTURE

	MAX TEMP >=90	<=32	MIN TEMP <=32	<=0	PRECIPITATION >T	>=.01	>=.10	>=.50	>=1.00	SNOW >=1.0	SKY COVER CLR	PC	CLDY
TOTAL	0	0	0	0	13	11	9	3	1	0	10	10	11
DEP	-1	0	0	0		+1	+2	0	0	0	0	-1	+1

	WEATHER TYPES R	L	S	Z	IP	A	T	F	D	H	BS	SEASONAL DEGREE DAYS HEATING	COOLING	CORN	PRECIPITATION JAN-May
TOTAL	13	4	0	0	0	0	4	3	0	1	0	5124	68	780	17.55
DEP	0	+		0		-	-2	0				-799	-14	+61	+2.54

Averages based on 1961-1990 The daily sky condition is determined by the prevailing sky condition of three observations made between 7am and 7pm Snow depth at 7am LST. All other data M = Missing

WEATHER TYPES:

R = Rain Z = Freezing rain/drizzle D = Dust
L = Drizzle IP = Sleet H = Haze
S = Snow A = Hail BS = Blowing snow
T = Thunder F = Fog RW = Rainshower SW = Snowshower

PRECIP INTENSITY: - Light Precip amount "T"
Moderate
+ Heavy

DEGREE DAYS: Heat and Cool base 65F. Corn Growing base 50F, ceiling 86F. Heating DD season July-June. Cool and Corn DD season January-December.

Illinois State Water Survey
Water Survey Research Center

Local Climatological Data
Champaign-Urbana, IL - 118740
June 1999

DATE	TEMPERATURE Max	Min	Mean	PRECIP (in)	SNOW (in) Amnt	Depth	WEATHER TYPES	WIND Dir	Speed	Peak Gust	Gust Dir	SKY COVER	DEGREE DAYS Heat	Cool	Corn
1	82	62	72	1.21	0.0	0	TRW+,L-,F	S	7.2	30.7	SW	CLDY	0	7	22
2	73	60	67	0.00	0.0	0		W	6.7	16.2	W	PC	0	2	17
3	78	58	68	0.00	0.0	0	F	NE	2.0	10.1	NE	PC	0	3	18
4	81	56	69	0.83	0.0	0	TRW+	SE	5.0	21.5	W	CLDY	0	4	19
5	88	60	74	0.00	0.0	0		S	5.9	16.8	S	CLR	0	9	23
6	90	70	80	0.00	0.0	0		S	7.8	23.1	S	CLR	0	15	28
7	91	71	81	0.00	0.0	0		SW	7.0	15.6	W	CLR	0	16	29
8	94	72	83	0.00	0.0	0	T	SW	3.1	15.5	SW	PC	0	18	29
9	91	67	79	0.00	0.0	0	T	S	3.1	12.7	S	PC	0	14	27
10	91	70	81	0.00	0.0	0	T,F	S	4.0	16.1	S	CLR	0	16	28
11	90	69	80	T	0.0	0	T, RW-, L-	E	3.9	18.6	SE	CLDY	0	15	28
12	85	68	77	1.93	0.0	0	TRW+,TRW,RW+,R	NE	2.7	22.0	S	CLDY	0	12	27
13	77	64	71	0.96	0.0	0	TRW+,TRW,RW	N	4.1	28.1	S	CLDY	0	6	21
14	76	60	68	0.00	0.0	0		NW	5.4	18.5	N	CLR	0	3	18
15	69	55	62	0.00	0.0	0		NE	5.3	16.2	NE	PC	3	0	12
16	67	53	60	0.02	0.0	0	RW-	NE	3.7	12.4	N	CLDY	5	0	10
17	69	49	59	0.00	0.0	0		N	4.3	13.9	NE	CLR	6	0	10
18	75	46	61	0.00	0.0	0		E	2.8	11.4	E	PC	4	0	13
19	76	57	67	0.00	0.0	0		SE	3.0	12.7	SE	CLDY	0	2	17
20	77	57	67	0.00	0.0	0		SE	1.9	7.9	SE	CLDY	0	2	17
21	83	64	74	0.00	0.0	0		S	2.7	11.0	S	PC	0	9	24
22	87	67	77	0.03	0.0	0	RW-	SE	3.2	15.6	SE	CLR	0	12	27
23	84	66	75	0.20	0.0	0	RW-,TRW+	S	6.4	18.7	S	CLDY	0	10	25
24	82	67	75	0.39	0.0	0	RW+,TRW-	N	3.2	14.7	N	PC	0	10	25
25	86	64	75	0.00	0.0	0		E	1.8	7.8	SE	CLR	0	10	25
26	84	67	76	0.50	0.0	0	TRW+,RW-	SE	1.6	11.6	W	CLDY	0	11	26
27	86	70	78	0.04	0.0	0	RW	SW	3.0	10.4	W	PC	0	13	28
28	85	69	77	0.00	0.0	0		W	6.1	20.2	W	CLDY	0	12	27
29	74	61	68	0.03	0.0	0	RW-	N	3.8	15.1	N	CLDY	0	3	18
30	77	59	68	0.00	0.0	0		SE	3.6	12.8	S	PC	0	3	18
AVG/TOT	**81.6**	**62.6**	**72.1**	**6.14**	**0.0**			**S**	**4.1**				**18**	**237**	**656**
DEP.	-1.3	+1.9	+0.3	+2.07	0.0			SW	-1.9				+2	+23	+28

NUMBER OF DAYS and DEPARTURE

	MAX TEMP >=90	<=32	MIN TEMP <=32	<=0	PRECIPITATION >T	>=.01	>=.10	>=.50	>=1.00	SNOW >=1.0	SKY COVER CLR	PC	CLDY
TOTAL	6	0	0	0	12	11	7	5	2	0	8	10	12
DEP	0	0	0	0		+2	+1	+2	0	0	-2	-2	+4

	WEATHER TYPES R	L	S	Z	IP	A	T	F	D	H	BS
TOTAL	12	2	0	0	0	0	11	3	0	1	0
DEP	+1	-1		0		-	+	+			

SEASONAL DEGREE DAYS	HEATING	COOLING	CORN
	5142	305	1436
	-797	+9	+89

PRECIPITATION JAN-June
23.69
+4.61

Averages based on 1961-1990 The daily sky condition is determined by the prevailing sky condition of three observations made between 7am and 7pm Snow depth at 7am LST. All other data M = Missing

WEATHER TYPES:
R = Rain Z = Freezing rain/drizzle D = Dust
L = Drizzle IP = Sleet H = Haze
S = Snow A = Hail BS = Blowing snow
T = Thunder F = Fog RW = Rainshower SW = Snowshower

PRECIP INTENSITY: - Light Precip amount "T"
Moderate
+ Heavy

DEGREE DAYS: Heat and Cool base 65F. Corn Growing base 50F, ceiling 86F. Heating DD season July-June. Cool and Corn DD season January-December.

The daily climate statistics are available by touch-tone phone. Call 333-8890 and select menu option 1. The recording is updated daily Monday through Friday by 7:30 a.m. Unofficial data may be obtained from the Midwestern Climate Center Web site at **http://mcc.sws.uiuc.edu/weather**

Local Climatological Data

Illinois State Water Survey
Water Survey Research Center

Champaign-Urbana, IL - 118740

July 1999

DATE	TEMPERATURE Max	Min	Mean	PRECIP (in)	SNOW (in) Amnt	Depth	WEATHER TYPES	WIND Dir	Speed	Peak Gust	Gust Dir	SKY COVER	DEGREE DAYS Heat	Cool	Corn
1	79	68	74	0.26	0.0	0	TRW	W	5.5	23.1	W	PC	0	9	24
2	84	64	74	0.02	0.0	0	L-,F	S	3.8	14.6	S	PC	0	9	24
3	90	76	83	0.00	0.0	0		S	8.6	18.5	S	CLR	0	18	31
4	91	74	83	0.00	0.0	0		SW	6.5	16.4	SW	CLR	0	18	30
5	91	74	83	0.00	0.0	0		SW	5.9	15.8	SW	CLR	0	18	30
6	88	71	80	0.00	0.0	0		N	5.2	16.0	W	PC	0	15	29
7	85	64	75	0.00	0.0	0		N	2.6	11.4	NW	CLR	0	10	25
8	86	59	73	0.00	0.0	0		S	4.9	15.0	S	CLR	0	8	23
9	86	70	78	0.00	0.0	0		W	6.6	18.3	W	PC	0	13	28
10	76	60	68	0.00	0.0	0		NNE	5.8	17.7	NE	PC	0	3	18
11	80	58	69	0.00	0.0	0		NE	3.8	11.5	NE	CLR	0	4	19
12	82	57	70	0.00	0.0	0		NE	2.4	12.5	NE	CLR	0	5	20
13	83	57	70	0.00	0.0	0		SE	2.0	10.2	SW	CLR	0	5	20
14	85	56	71	0.00	0.0	0		S	3.9	15.4	S	CLR	0	6	21
15	88	61	75	0.00	0.0	0		S	5.7	17.0	S	PC	0	10	24
16	91	65	78	0.00	0.0	0	F	S	5.5	17.7	S	CLR	0	13	26
17	84	70	77	0.11	0.0	0	L-,RW,R-	W	5.8	23.0	W	CLDY	0	12	27
18	91	66	79	0.00	0.0	0		W	2.4	8.4	SW	CLR	0	14	26
19	91	70	81	1.13	0.0	0	TRW+,F	SW	3.7	23.3	NW	PC	0	16	28
20	91	72	82	0.16	0.0	0	RW-	SW	2.4	19.9	W	CLDY	0	17	29
21	92	71	82	0.00	0.0	0	F,H	SW	5.0	16.1	W	CLR	0	17	29
22	93	74	84	0.00	0.0	0	F,H	W	5.0	14.7	W	CLR	0	19	30
23	93	73	83	0.32	0.0	0	TRW	SW	3.8	20.7	NW	CLR	0	18	30
24	92	71	82	0.00	0.0	0		W	2.7	9.3	NE	CLR	0	17	29
25	94	71	83	0.00	0.0	0		W	2.5	11.0	W	CLR	0	18	29
26	90	74	82	0.00	0.0	0	F	W	3.0	15.1	W	CLDY	0	17	30
27	90	70	80	1.05	0.0	0	TRW+,RW+	SW	2.9	26.3	W	CLR	0	15	28
28	89	69	79	0.77	0.0	0	TRW,RW,RW+	SW	4.6	38.5	W	PC	0	14	28
29	95	71	83	0.00	0.0	0	F	SW	4.6	15.3	SW	CLR	0	18	29
30	96	76	86	0.00	0.0	0		SW	5.2	12.0	W	CLR	0	21	31
31	86	75	81	0.00	0.0	0		W	6.2	18.7	SW	CLR	0	16	31
AVG/TOT	**88.1**	**68.0**	**78.1**	**3.82**	**0.0**			**SW**	**4.5**				**0**	**413**	**826**
DEP.	+2.8	+3.2	+3.0	-0.66	0.0			SW	-0.4				-2	+10	+88

NUMBER OF DAYS and DEPARTURE

	MAX TEMP >=90	<=32	MIN TEMP <=32	<=0	PRECIPITATION >T	>=.01	>=.10	>=.50	>=1.00	SNOW >=1.0	SKY COVER CLR	PC	CLDY
TOTAL	16	0	0	0	8	8	7	3	2	0	20	8	3
DEP	+9	0	0	0		-1	0	0	+1	0	+1	-5	-5

	WEATHER TYPES R	L	S	Z	IP	A	T	F	D	H	BS	SEASONAL DEGREE DAYS HEATING	COOLING	CORN	PRECIPITATION JAN-July
TOTAL	7	2	0	0	0	0	5	7	0	2	0	0	718	2262	27.51
DEP	-4	+	0	0			-2	+				-2	+117	+177	+3.95

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L = Drizzle IP = Sleet H = Haze
S = Snow A = Hail BS = Blowing snow
T = Thunder F = Fog RW = Rainshower SW = Snowshower

PRECIP INTENSITY: - Light Precip amount "T" =Trace
Moderate
+ Heavy

DEGREE DAYS: Heat and Cool base 65F. Corn Growing base 50F, ceiling 86F. Heating DD season July-June. Cool and Corn DD season January-December.

Local Climatological Data

Illinois State Water Survey
Water Survey Research Center

Champaign-Urbana, IL - 118740

August 1999

DATE	TEMPERATURE Max	Min	Mean	PRECIP (in)	SNOW (in) Amnt	Depth	WEATHER TYPES	WIND Dir	Speed	Peak Gust	Gust Dir	SKY COVER	DEGREE DAYS Heat	Cool	Corn
1	85	69	77	0.00	0.0	0		N	4.4	14.2	N	CLR	0	12	27
2	82	64	73	0.00	0.0	0		N	4.0	12.9	N	CLR	0	8	23
3	82	63	73	0.00	0.0	0		NE	2.2	10.1	W	CLR	0	8	23
4	84	64	74	0.00	0.0	0		W	4.4	17.1	W	PC	0	9	24
5	83	60	72	0.00	0.0	0		NW	2.9	12.4	NW	PC	0	7	22
6	84	59	72	0.00	0.0	0		SW	2.3	10.0	S	PC	0	7	22
7	83	64	74	0.69	0.0	0	TRW+,TRW	SW	5.2	17.7	SW	CLDY	0	9	24
8	76	59	68	0.08	0.0	0	TRW	NE	4.8	14.6	NE	CLR	0	3	18
9	78	56	67	0.00	0.0	0		SE	2.5	8.8	SE	CLR	0	2	17
10	87	59	73	0.00	0.0	0		W	4.8	17.3	W	PC	0	8	23
11	86	66	76	T	0.0	0	RW-,L-	N	1.9	11.0	W	PC	0	11	26
12	85	67	76	2.96	0.0	0	RW+,TRW+	NE	5.1	31.6	W	CLDY	0	11	26
13	82	64	73	0.93	0.0	0	TRW+, RW-	W	8.1	24.3	W	PC	0	8	23
14	74	58	66	0.00	0.0	0		N	4.5	15.7	N	PC	0	1	16
15	77	55	66	0.00	0.0	0		SE	2.4	10.7	SE	PC	0	1	16
16	85	55	70	0.00	0.0	0		S	3.8	12.8	S	CLR	0	5	20
17	88	64	76	0.00	0.0	0		NW	3.3	11.3	NW	PC	0	11	25
18	79	62	71	T	0.0	0	RW-	NE	2.3	10.2	S	CLDY	0	6	21
19	78	62	70	T	0.0	0	RW-	NE	5.1	17.5	N	CLDY	0	5	20
20	79	58	69	0.00	0.0	0		NE	3.7	12.6	N	CLR	0	4	19
21	80	53	67	0.00	0.0	0		NE	1.6	7.4	E	CLR	0	2	17
22	83	58	71	0.00	0.0	0		SE	1.7	8.6	SE	PC	0	6	21
23	85	64	75	0.39	0.0	0	TRW+	SE	3.2	20.8	N	PC	0	10	25
24	75	60	68	0.29	0.0	0	TRW	W	3.8	14.7	W	CLDY	0	3	18
25	80	58	69	0.00	0.0	0	F	N	2.4	10.2	NE	PC	0	4	19
26	83	62	73	0.00	0.0	0		NW	2.6	15.1	W	CLR	0	8	23
27	86	62	74	0.00	0.0	0	F	NW	2.2	10.8	W	CLR	0	9	24
28	88	63	76	0.00	0.0	0		W	2.5	12.7	W	CLR	0	11	25
29	86	58	72	0.00	0.0	0		NE	5.3	18.4	NE	CLR	0	7	22
30	75	54	65	0.00	0.0	0		NE	4.0	12.6	E	CLR	0	0	15
31	78	54	66	0.00	0.0	0		E	1.8	10.5	SE	CLR	0	1	16
AVG/TOT	**81.8**	**60.5**	**71.2**	**5.34**	**0.0**			**NE**	**3.5**				**0**	**197**	**660**
DEP.	-1.2	-1.9	-1.5	+1.32	0.0			SW	-1.2				-7	-41	-19

NUMBER OF DAYS and DEPARTURE

	MAX TEMP >=90	<=32	MIN TEMP <=32	<=0	PRECIPITATION >T	>=.01	>=.10	>=.50	>=1.00	SNOW >=1.0	SKY COVER CLR	PC	CLDY
TOTAL	0	0	0	0	9	6	5	3	1	0	14	12	5
DEP	-4	0	0	0		-3	-1	0	0	0	+4	0	-4

	WEATHER TYPES R	L	S	Z	IP	A	T	F	D	H	BS	SEASONAL DEGREE DAYS HEATING	COOLING	CORN	PRECIPITATION JAN-August
TOTAL	9	1	0	0	0	0	6	2	0	0	0	0	915	2922	32.85
DEP	-2	0	0	0			0	-4				-9	+76	+158	+5.27

Averages based on 1961-1990 The daily sky condition is determined by the prevailing sky condition of three observations made between 7am and 7pm Snow depth at 7am LST. All other data midnight-midnight. M = Missing

WEATHER TYPES:

R = Rain Z = Freezing rain/drizzle D = Dust
L = Drizzle IP = Sleet H = Haze
S = Snow A = Hail BS = Blowing snow
T = Thunder F = Fog RW = Rainshower SW = Snowshower

PRECIP INTENSITY: - Light Moderate + Heavy

Precip amount "T" =Trace

DEGREE DAYS: Heat and Cool base 65F. Corn Growing base 50F, ceiling 86F. Heating DD season July-June. Cool and Corn DD season January-December.

Local Climatological Data

Illinois State Water Survey
Water Survey Research Center

Champaign-Urbana, IL - 118740

September 1999

DATE	TEMPERATURE Max	Min	Mean	PRECIP (in)	SNOW (in) Amnt	Depth	WEATHER TYPES	WIND Dir	Speed	Peak Gust	Gust Dir	SKY COVER	DEGREE DAYS Heat	Cool	Corn
1	90	57	74	0.00	0.0	0		E	1.5	9.0	S	CLR	0	9	22
2	91	61	76	0.00	0.0	0		E	1.9	8.9	SE	PC	0	11	24
3	90	64	77	0.00	0.0	0		E	1.9	10.0	SE	CLR	0	12	25
4	92	65	79	0.00	0.0	0		NE	2.0	10.6	SE	CLR	0	14	26
5	94	63	79	0.00	0.0	0		N	2.6	11.8	NW	CLR	0	14	25
6	80	64	72	0.00	0.0	0		N	4.7	14.9	NW	CLR	0	7	22
7	84	53	69	0.00	0.0	0		NE	1.5	10.1	NE	CLR	0	4	19
8	84	54	69	0.00	0.0	0		NW	4.0	16.6	SW	PC	0	4	19
9	76	46	61	0.00	0.0	0		W	6.0	27.9	W	CLR	4	0	13
10	78	45	62	0.00	0.0	0		W	4.3	18.4	W	CLR	3	0	14
11	88	52	70	0.00	0.0	0		SW	2.9	14.5	SW	CLR	0	5	19
12	84	62	73	0.13	0.0	0	R-	SW	5.0	21.1	W	CLDY	0	8	23
13	71	48	60	0.00	0.0	0	F	W	5.9	22.8	NW	CLR	5	0	11
14	75	45	60	0.00	0.0	0		W	4.0	16.6	W	CLR	5	0	13
15	75	52	64	0.00	0.0	0		N	3.8	13.5	N	PC	1	0	14
16	73	48	61	0.00	0.0	0		N	3.7	15.0	N	CLR	4	0	12
17	74	45	60	0.00	0.0	0		N	1.5	9.3	N	CLR	5	0	12
18	80	47	64	0.00	0.0	0		SW	1.8	10.1	S	CLR	1	0	15
19	74	50	62	T	0.0	0	RW-	SW	4.1	16.1	W	CLDY	3	0	12
20	73	48	61	0.00	0.0	0		N	4.6	16.8	N	CLDY	4	0	12
21	66	42	54	0.00	0.0	0		N	4.5	17.1	NE	PC	11	0	8
22	73	38	56	0.00	0.0	0		W	2.4	14.0	W	CLR	9	0	12
23	80	42	61	0.00	0.0	0		SW	6.1	22.7	SW	CLR	4	0	15
24	76	52	64	0.00	0.0	0		NE	3.6	12.2	SW	CLR	1	0	14
25	88	47	68	0.00	0.0	0		S	4.0	16.7	S	CLR	0	3	18
26	86	50	68	0.00	0.0	0		S	7.0	26.7	S	CLR	0	3	18
27	88	60	74	0.00	0.0	0		S	5.3	18.3	SW	PC	0	9	23
28	85	53	69	1.53	0.0	0	TRW+, RW-	N	4.7	17.4	NW	CLDY	0	4	19
29	66	44	55	0.25	0.0	0	RW-	N	6.0	18.2	N	PC	10	0	8
30	69	39	54	0.00	0.0	0		SW	5.5	18.2	SW	CLR	11	0	10
AVG/TOT	**80.1**	**51.2**	**65.7**	**1.91**	**0.0**			**N**	**3.9**				**81**	**107**	**497**
DEP.	+2.4	-4.0	-0.8	-1.45	0.0			SW	-1.2				0	-10	-3

NUMBER OF DAYS and DEPARTURE

	MAX TEMP >=90	<=32	MIN TEMP <=32	<=0	PRECIPITATION >T	>=.01	>=.10	>=.50	>=1.00	SNOW >=1.0	SKY COVER CLR	PC	CLDY
TOTAL	5	0	0	0	4	3	3	1	1	0	20	6	4
DEP	+3	0	0	0		-6	-2	-1	0	0	+9	-3	-6

	WEATHER TYPES R	L	S	Z	IP	A	T	F	D	H	BS	SEASONAL DEGREE DAYS HEATING	COOLING	CORN	PRECIPITATION JAN-September
TOTAL	4	0	0	0	0	0	1	1	0	0	0	81	1022	3419	34.76
DEP	-6	-3	0	0			-3	-4				-9	+66	+155	+3.83

Averages based on 1961-1990 The daily sky condition is determined by the prevailing sky condition of three observations made between 7am and 7pm Snow depth at 7am LST. All other data M = Missing

WEATHER TYPES:
R = Rain Z = Freezing rain/drizzle D = Dust
L = Drizzle IP = Sleet H = Haze
S = Snow A = Hail BS = Blowing snow
T = Thunder F = Fog RW = Rainshower SW = Snowshower

PRECIP INTENSITY: - Light Precip amount "T"
\+

DEGREE DAYS: Heat and Cool base 65F. Corn Growing base 50F. Heating DD season July-June. Cool and Corn DD season

Local Climatological Data

Illinois State Water Survey
Water Survey Research Center

Champaign-Urbana, IL - 118740

October 1999

DATE	TEMPERATURE Max	Min	Mean	PRECIP (in)	SNOW (in) Amnt	Depth	WEATHER TYPES	WIND Dir	Speed	Peak Gust	Gust Dir	SKY COVER	DEGREE DAYS Heat	Cool
1	71	44	58	0.00	0.0	M		NW	2.1	9.9	W	CLR	7	0
2	58	44	51	0.02	0.0	0	RW-	N	3.4	15.2	W	CLDY	14	0
3	48	43	46	0.69	0.0	0	TRW, R, R-	NE	4.4	15.7	NE	CLDY	19	0
4	56	36	46	T	0.0	0	L-	N	3.5	12.5	NE	CLDY	19	0
5	64	33	49	0.00	0.0	0		SW	3.7	16.7	S	CLR	16	0
6	70	40	55	0.00	0.0	0		NE	2.0	8.9	NE	CLR	10	0
7	74	43	59	0.00	0.0	0		SE	4.4	16.1	S	CLR	6	0
8	65	51	58	0.64	0.0	0	R	S	5.3	19.5	S	CLDY	7	0
9	66	60	63	0.50	0.0	0	R, L-	SE	2.1	9.3	NE	CLDY	2	0
10	78	59	69	0.00	0.0	0		W	3.2	15.0	N	CLDY	0	4
11	72	47	60	0.00	0.0	0		NE	3.1	13.2	N	CLR	5	0
12	77	44	61	0.00	0.0	0		S	5.8	16.8	S	PC	4	0
13	69	43	56	0.00	0.0	0		N	7.7	24.4	NW	CLDY	9	0
14	63	37	50	0.00	0.0	0		SE	3.1	10.7	SE	CLR	15	0
15	79	40	60	0.00	0.0	0		S	6.7	21.9	S	CLR	5	0
16	76	54	65	0.07	0.0	0	RW-, TRW-	N	7.1	19.7	N	CLDY	0	0
17	54	41	48	0.00	0.0	0		N	6.0	18.9	N	CLR	17	0
18	56	32	44	0.00	0.0	0		N	2.2	9.0	SW	CLR	21	0
19	61	31	46	T	0.0	0	RW-	SW	3.7	20.6	W	PC	19	0
20	55	32	44	0.00	0.0	0		NW	2.8	13.3	W	CLR	21	0
21	70	32	51	0.00	0.0	0		SW	7.2	22.5	SW	CLR	14	0
22	59	42	51	0.00	0.0	0		NW	7.9	27.0	W	CLR	14	0
23	52	34	43	0.00	0.0	0		NW	6.4	24.0	N	CLR	22	0
24	53	30	42	0.00	0.0	0		N	3.3	13.0	W	CLR	23	0
25	65	27	46	0.00	0.0	0		SW	7.3	23.7	S	CLR	19	0
26	69	37	53	0.00	0.0	0		W	3.0	14.0	W	PC	12	0
27	69	38	54	0.00	0.0	0		SE	4.3	16.3	SE	CLR	11	0
28	80	43	62	0.00	0.0	0		SE	3.8	14.2	W	CLR	3	0
29	78	48	63	0.00	0.0	0		S	6.4	23.2	S	PC	2	0
30	75	48	62	0.00	0.0	0		S	8.6	26.0	S	CLR	3	0
31	76	55	66	0.00	0.0	0		NE	1.8	11.6	SW	PC	0	1
AVG/TOT	**66.4**	**41.5**	**54.0**	**1.92**	**0.0**			**N**	**4.6**				**339**	**5**
DEP.	+1.3	-2.3	-0.5	-0.74	-0.1			S	-1.5				-10	-11

NUMBER OF DAYS and DEPARTURE

	MAX TEMP >=90	<=32	MIN TEMP <=32	<=0	PRECIPITATION >T	>=.01	>=.10	>=.50	>=1.00	SNOW >=1.0	SKY COVER CLR	PC	CLDY
TOTAL	0	0	6	0	7	5	3	3	0	0	18	5	8
DEP	0	0	+3	0		-4	-3	+1	-1		+6	-3	-3

	WEATHER TYPES R	L	S	Z	IP	A	T	F	D	H	BS	SEASONAL DEGREE DAYS HEATING	COOLING	PRECIPITATION JAN-October
TOTAL	6	2	0	0	0	0	2	0	0	0	0	420	1027	36.68
DEP	-4	-2				0	0	-4				-19	+55	+3.09

Averages based on 1961-1990 The daily sky condition is determined by the prevailing sky condition of three observations made between 7am and 7pm Snow depth at 7am LST. All other data midnight-midnight. M = Missing

WEATHER TYPES:

R = Rain Z = Freezing rain/drizzle D = Dust
L = Drizzle IP = Sleet H = Haze
S = Snow A = Hail BS = Blowing snow
T = Thunder F = Fog RW = Rainshower SW = Snowshower

PRECIP INTENSITY: - Light Moderate + Heavy

Precip amount "T" =Trace

DEGREE DAYS: Heat and Cool base 65F. Corn Growing base 50F, ceiling 86F. Heating DD season July-June. Cool and Corn DD season January-December.

Local Climatological Data

Illinois State Water Survey
Water Survey Research Center

Champaign-Urbana, IL - 118740

November 1999

DATE	TEMPERATURE Max	Min	Mean	PRECIP (in)	SNOW (in) Amnt	Depth	WEATHER TYPES	WIND Dir	Speed	Peak Gust	Gust Dir	SKY COVER	DEGREE DAYS Heat	Cool
1	78	46	62	0.49	0.0	0	TRW-,RW-	NW	4.5	20.9	N	CLDY	3	0
2	46	29	38	0.00	0.0	0		NW	8.5	23.1	NW	PC	27	0
3	50	25	38	0.00	0.0	0		W	5.4	18.5	W	CLR	27	0
4	63	26	45	0.00	0.0	0		S	7.1	21.4	S	CLR	20	0
5	73	45	59	0.00	0.0	0		SW	8.8	25.3	SW	CLR	6	0
6	66	44	55	0.00	0.0	0		NE	4.3	12.6	NE	PC	10	0
7	61	44	53	0.00	0.0	0		E	3.3	13.2	E	CLDY	12	0
8	77	40	59	0.00	0.0	0		SW	6.0	21.4	SW	CLR	6	0
9	74	52	63	0.00	0.0	0		SW	10.	24.4	SW	CLR	2	0
10	73	50	62	0.00	0.0	0		SW	11.	24.8	W	CLR	3	0
11	59	38	49	0.00	0.0	0		N	6.3	21.9	NW	PC	16	0
12	64	34	49	0.00	0.0	0	F	S	4.5	15.9	SW	CLR	16	0
13	74	39	57	0.00	0.0	0		SW	5.2	19.1	SW	CLR	8	0
14	60	33	47	0.00	0.0	0		N	7.7	22.8	N	CLR	18	0
15	55	29	42	0.00	0.0	0		NW	4.1	16.2	NW	PC	23	0
16	52	29	41	0.00	0.0	0		N	6.2	15.8	N	CLR	24	0
17	51	29	40	0.00	0.0	0		S	4.9	15.6	S	CLR	25	0
18	71	34	53	0.00	0.0	0		S	12.	30.6	S	CLR	12	0
19	58	40	49	0.05	0.0	0	RW-	S	13.	27.7	S	CLDY	16	0
20	48	30	39	0.00	0.0	0		W	3.6	13.1	W	PC	26	0
21	56	29	43	0.01	0.0	0	L-	SE	5.3	18.9	S	CLDY	22	0
22	66	45	56	0.05	0.0	0	RW-	S	5.9	16.2	S	CLDY	9	0
23	62	42	52	0.21	0.0	0	RW,F	S	13.	35.0	SW	CLDY	13	0
24	49	34	42	0.00	0.0	0		W	6.8	24.2	W	PC	23	0
25	44	31	38	0.00	0.0	0		NE	3.0	10.7	NE	CLDY	27	0
26	51	33	42	0.00	0.0	0		SW	7.7	21.8	S	PC	23	0
27	55	37	46	T	0.0	0	RW-	N	4.2	13.8	N	CLDY	19	0
28	49	30	40	0.00	0.0	0		N	4.6	13.5	N	PC	25	0
29	41	27	34	0.00	0.0	0		N	6.8	19.5	N	CLR	31	0
30	42	22	32	0.00	0.0	0		N	3.4	10.1	NE	CLR	33	0
AVG/TOT	**58.9**	**35.5**	**47.2**	**0.81**	**0.0**			**S**	**6.6**				**525**	**0**
DEP.	+8.6	+1.7	+5.1	-2.29	-2.2			SW	-0.9				-171	0

NUMBER OF DAYS and DEPARTURE

	MAX TEMP >=90	<=32	MIN TEMP <=32	<=0	PRECIPITATION >T	>=.01	>=.10	>=.50	>=1.00	SNOW >=1.0	SKY COVER CLR	PC	CLDY
TOTAL	0	0	12	0	6	5	2	0	0	0	14	8	8
DEP	0	-1	-2	0		-5	-4	-2	-1	-1	+7	0	-7

	WEATHER TYPES R	L	S	Z	IP	A	T	F	D	H	BS	SEASONAL DEGREE DAYS HEATING	COOLING	PRECIPITATION JAN-November
TOTAL	5	1	0	0	0	0	1	2	0	0	0	945	1027	37.49
DEP	-4	-4	-4	-1			0	-2				-190	+55	+0.80

Averages based on 1961-1990 The daily sky condition is determined by the prevailing sky condition of three observations made between 7am and 7pm Snow depth at 7am LST. All other data M = Missing

WEATHER TYPES:
R = Rain Z = Freezing rain/drizzle D = Dust
L = Drizzle IP = Sleet H = Haze
S = Snow A = Hail BS = Blowing snow
T = Thunder F = Fog RW = Rainshower SW = Snowshower

PRECIP INTENSITY: - Light Precip amount "T"
+

DEGREE DAYS: Heat and Cool base 65F. Corn Growing base 50F. Heating DD season July-June. Cool and Corn DD season January-December

Illinois State Water Survey
Water Survey Research Center

Local Climatological Data
Champaign-Urbana, IL - 118740
December 1999

DATE	TEMPERATURE Max	Min	Mean	PRECIP (in)	SNOW (in) Amnt	Depth	WEATHER TYPES	WIND Dir	Speed	Peak Gust	Gust Dir	SKY COVER	DEGREE DAYS Heat	Cool
1	47	20	34	0.00	0.0	0		SE	7.8	25.7	S	CLR	31	0
2	60	31	46	0.00	0.0	0		S	11.	26.5	S	PC	19	0
3	57	50	54	0.02	0.0	0	RW-	S	14.	32.9	S	CLDY	11	0
4	59	54	57	0.06	0.0	0	RW-	S	9.7	25.6	S	CLDY	8	0
5	57	32	45	0.78	0.3	0	R+,RW-,S-	N	10.	25.2	S	CLDY	20	0
6	37	27	32	0.00	0.0	T		NW	4.5	17.8	N	PC	33	0
7	44	26	35	0.00	0.0	0		S	8.2	25.6	S	CLR	30	0
8	49	29	39	0.00	0.0	0		S	5.8	15.9	S	PC	26	0
9	55	31	43	0.27	0.0	0	R-	S	5.6	19.9	S	CLDY	22	0
10	42	27	35	0.01	0.0	0	R-	N	8.1	24.9	N	CLR	30	0
11	43	22	33	0.00	0.0	0		SE	3.2	16.4	SE	PC	32	0
12	40	35	38	0.05	0.0	0	R-	SE	2.3	9.8	N	CLDY	27	0
13	45	33	39	0.10	0.0	0	R-,L-	NE	8.3	21.2	NE	PC	26	0
14	39	33	36	0.39	T	0	R-,L-,IP-	N	7.4	22.3	NE	CLDY	29	0
15	40	31	36	0.10	0.3	0	R-,S-	W	13.	30.3	SW	CLDY	29	0
16	31	24	28	T	T	T	SW-	W	10.	26.7	W	PC	37	0
17	40	26	33	0.01	0.2	T	SW-	N	4.7	16.1	N	PC	32	0
18	33	24	29	0.00	0.0	0		NE	4.2	15.8	NE	PC	36	0
19	42	26	34	T	0.0	0	RW-	SE	3.8	11.2	SE	CLDY	31	0
20	38	12	25	0.01	0.2	T	SW-	W	11.	27.7	W	PC	40	0
21	21	7	14	0.00	0.0	0		NW	3.7	11.3	NW	CLR	51	0
22	25	7	16	0.02	0.2	0	SW-	SE	4.4	13.3	SW	CLDY	49	0
23	25	11	18	0.14	3.0	T	S-	SW	5.9	14.3	SW	CLDY	47	0
24	25	2	14	0.04	0.3	3	S-	N	5.4	16.6	N	PC	51	0
25	27	-5	11	0.00	0.0	M		SW	7.8	20.4	S	CLR	54	0
26	33	21	27	0.00	0.0	M		NW	10.	26.2	NW	CLR	38	0
27	26	5	16	0.05	1.5	3	ZL-,S-	N	6.0	20.6	N	CLDY	49	0
28	34	5	20	T	T	3	SW-	SW	9.3	27.8	SW	CLDY	45	0
29	46	28	37	0.00	0.0	2		SW	10.	27.4	SW	PC	28	0
30	42	27	35	0.00	0.0	T		N	4.6	14.5	SW	CLDY	30	0
31	47	24	36	0.00	0.0	0	F	W	2.7	8.1	SW	PC	29	0
AVG/TOT	**40.3**	**23.4**	**31.9**	**2.05**	**6.0**			**N**	**7.3**				**1020**	**0**
DEP.	+3.8	+1.4	+2.6	-0.97	0.0			S	-0.6				-97	0

NUMBER OF DAYS and DEPARTURE

	MAX TEMP >=90	<=32	MIN TEMP <=32	<=0	PRECIPITATION >T	>=.01	>=.10	>=.50	>=1.00	SNOW >=1.0	SKY COVER CLR	PC	CLDY
TOTAL	0	7	26	1	18	15	6	1	0	2	6	12	13
DEP	0	-4	0	-1		+4	0	-1	-1	0	-1	+5	-4

	WEATHER TYPES R	L	S	Z	IP	A	T	F	D	H	BS	SEASONAL DEGREE DAYS HEATING	COOLING	PRECIPITATION JAN-December
TOTAL	10	2	10	1	1	0	0	1	0	0	0	1965	1027	39.54
DEP	+2	-1	+	-2		0	-1	-5				-287	+55	-0.17

Averages based on 1961-1990 The daily sky condition is determined by the prevailing sky condition of three observations made between 7am and 7pm Snow depth at 7am LST. All other data midnight-midnight. M = Missing

WEATHER TYPES:
=Trace
R = Rain Z = Freezing rain/drizzle D = Dust
L = Drizzle IP = Sleet H = Haze
S = Snow A = Hail BS = Blowing snow
T = Thunder F = Fog RW = Rainshower SW = Snowshower

PRECIP INTENSITY: - Light Precip amount "T"
Moderate
+ Heavy

DEGREE DAYS: Heat and Cool base 65F. Corn Growing base 50F, ceiling 86F. Heating DD season July-June. Cool and Corn DD season January-December.

Local Climatological Data

Illinois State Water Survey
Water Survey Research Center

Champaign-Urbana, IL - 118740

January 2000

DATE	TEMPERATURE Max	Min	Mean	PRECIP (in)	SNOW (in) Amnt	Depth	WEATHER TYPES	WIND Dir	Speed	Peak Gust	Gust Dir	SKY COVER	DEGREE DAYS Heat	Cool
1	54	26	40	0.00	0.0	0		SE	4.4	20.2	S	CLR	25	0
2	60	38	49	0.00	0.0	0		S	12.	30.1	S	CLDY	16	0
3	49	34	42	0.63	0.0	0	TRW,RW,F	NE	5.5	25.2	W	CLDY	23	0
4	34	20	27	T	T	T	SW-,SG-	W	10.	23.1	NW	CLDY	38	0
5	28	18	23	0.00	0.0	T		S	8.7	17.8	SE	CLDY	42	0
6	44	25	35	0.00	0.0	0		SW	8.1	19.0	S	PC	30	0
7	35	24	30	0.00	0.0	0		S	5.2	17.3	NW	CLR	35	0
8	40	22	31	0.01	0.0	0	RW-	S	8.4	21.1	SW	CLDY	34	0
9	44	36	40	0.02	0.0	0	RW-	S	6.7	23.5	S	CLDY	25	0
10	52	37	45	0.01	0.0	0	RW-	W	12.	30.8	W	PC	20	0
11	39	30	35	0.00	0.0	0		W	10.	31.4	W	PC	30	0
12	46	24	35	0.00	0.0	0		E	3.4	17.6	SE	PC	30	0
13	31	18	25	T	T	0	SW-	NW	8.3	23.1	NW	PC	40	0
14	33	13	23	0.00	0.0	0		S	6.2	17.1	S	PC	42	0
15	49	24	37	0.00	0.0	0		S	9.0	20.2	S	CLDY	28	0
16	39	26	33	0.00	0.0	0		NE	9.3	25.8	NE	PC	32	0
17	28	21	25	T	0.0	0	ZR-	E	4.9	19.3	SE	CLDY	40	0
18	35	24	30	0.00	0.0	0		W	5.9	22.1	W	PC	35	0
19	30	18	24	0.39	4.6	0	S+,S,S-,ZL-,IP-	SE	5.1	21.1	NW	CLDY	41	0
20	26	0	13	0.00	0.0	4		NW	10.	25.6	N	CLR	52	0
21	16	-4	6	0.00	0.0	4		W	3.2	10.2	W	PC	59	0
22	30	8	19	0.15	2.0	4	S,S-,F	SE	5.3	12.6	SE	CLDY	46	0
23	29	2	16	0.00	0.0	5		NW	6.6	17.6	W	PC	49	0
24	14	-4	5	0.00	0.0	4		S	3.3	10.0	SW	CLR	60	0
25	22	1	12	0.01	0.1	4	SW-	NW	9.2	27.0	N	PC	53	0
26	18	7	13	0.00	0.0	4		N	7.6	17.9	N	CLR	52	0
27	23	6	15	0.00	0.0	4		NE	3.7	11.7	E	CLR	50	0
28	24	3	14	0.00	0.0	3		E	4.1	15.2	NE	PC	51	0
29	26	18	22	0.29	3.7	3	S+,S,S-	E	4.5	14.5	NE	CLDY	43	0
30	25	16	21	0.03	0.6	8	S-	SW	9.2	18.8	W	CLDY	44	0
31	26	9	18	T	T	8	SW-	W	10.	20.9	W	CLR	47	0
AVG/TOT	**33.8**	**17.4**	**25.6**	**1.54**	**11.0**			**W**	**7.2**				**1212**	**0**
DEP.	+2.1	+1.4	+1.7	-0.29	+2.9			W	-1.1				-71	0

NUMBER OF DAYS and DEPARTURE

	MAX TEMP >=90	<=32	MIN TEMP <=32	<=0	PRECIPITATION >T	>=.01	>=.10	>=.50	>=1.00	SNOW >=1.0	SKY COVER CLR	PC	CLDY
TOTAL	0	16	27	3	13	9	4	1	0	3	7	12	12
DEP	0	0	-2	-1		0	-1	0	0	0	-1	+3	-2

	WEATHER TYPES R	L	S	Z	IP	A	T	F	D	H	BS	SEASONAL DEGREE DAYS HEATING	COOLING	PRECIPITATION JAN-January
TOTAL	4	0	7	2	1	0	1	2	0	0	0	3177	0	1.54
DEP	-1	-3	-3	0		0	0	-2				-361	0	-0.29

Averages based on 1961-1990 The daily sky condition is determined by the prevailing sky condition of three observations made between 7am and 7pm Snow depth at 7am LST. All other data M = Missing

WEATHER TYPES:
R = Rain Z = Freezing rain/drizzle D = Dust
L = Drizzle IP = Sleet H = Haze
S = Snow A = Hail BS = Blowing snow
T = Thunder F = Fog RW = Rainshower SW = Snowshower

PRECIP INTENSITY: - Light + Precip amount "T"

DEGREE DAYS: Heat and Cool base 65F. Corn Growing base 50F. Heating DD season July-June. Cool and Corn DD season

Local Climatological Data

Illinois State Water Survey
Water Survey Research Center

Champaign-Urbana, IL - 118740

February 2000

DATE	TEMPERATURE Max	Min	Mean	PRECIP (in)	SNOW (in) Amnt	Depth	WEATHER TYPES	WIND Dir	Speed	Peak Gust	Gust Dir	SKY COVER	DEGREE DAYS Heat	Cool
1	28	15	22	T	T	7	S-	NW	5.8	15.6	W	CLR	43	0
2	31	8	20	0.00	0.0	7	F	W	8.5	22.3	S	PC	45	0
3	39	27	33	0.02	T	6	ZR-,RW-,IP-	W	11.	27.0	NW	CLDY	32	0
4	30	16	23	0.04	0.9	5	S-	NW	7.5	23.1	NW	CLDY	42	0
5	30	10	20	0.00	0.0	5		W	6.7	25.2	W	PC	45	0
6	36	14	25	0.00	0.0	5		SE	3.1	11.6	S	PC	40	0
7	32	24	28	0.00	0.0	4	F	N	5.3	15.4	N	PC	37	0
8	38	13	26	0.00	0.0	4	F	S	4.8	16.6	S	CLR	39	0
9	54	32	43	0.00	0.0	4		SW	6.3	18.2	SW	PC	22	0
10	53	32	43	0.20	0.0	1	RW,RW-,F	SE	5.1	20.1	NW	CLDY	22	0
11	32	25	29	0.00	0.0	T		N	8.3	20.8	N	CLDY	36	0
12	42	22	32	0.00	0.0	T		SE	4.3	15.0	SE	PC	33	0
13	35	28	32	0.02	T	0	RW-,L-,SW-,IP-,F	NE	5.4	18.8	NE	CLDY	33	0
14	32	28	30	T	T	T	SW-	NE	5.4	15.8	N	CLDY	35	0
15	45	30	38	0.00	0.0	0		S	10.	27.6	S	PC	27	0
16	42	21	32	0.00	0.0	0		N	6.3	23.5	N	CLDY	33	0
17	41	20	31	0.02	T	0	RW-,IPW-,SW-	E	4.7	18.6	SE	PC	34	0
18	35	30	33	1.39	T	0	TRW+,TRW,R,L,S	NE	7.3	18.8	N	CLDY	32	0
19	33	29	31	0.00	0.0	T		W	7.3	17.2	W	CLDY	34	0
20	44	27	36	0.00	0.0	0		W	6.3	20.7	W	CLR	29	0
21	53	25	39	T	0.0	0	RW-	S	8.7	28.1	S	PC	26	0
22	64	44	54	0.00	0.0	0		S	8.1	23.3	S	PC	11	0
23	65	43	54	0.04	0.0	0	RW-	S	10.	29.5	S	PC	11	0
24	69	48	59	0.08	0.0	0	RW-	S	11.	34.5	SW	PC	6	0
25	72	46	59	T	0.0	0	RW-,F	S	11.	32.2	S	PC	6	0
26	60	50	55	0.46	0.0	0	RW+,RW,RW-	S	13.	30.1	S	CLDY	10	0
27	53	33	43	0.00	0.0	0		W	8.4	23.8	W	PC	22	0
28	59	29	44	0.00	0.0	0		SE	4.6	15.9	S	CLR	21	0
29	66	36	51	0.13	0.0	0	TRW,RW,RW-	S	11.	33.6	S	PC	14	0
AVG/TOT	**45.3**	**27.8**	**36.6**	**2.40**	**0.9**			**S**	**7.5**				**820**	**0**
DEP.	+9.0	+7.5	+8.3	+0.43	-6.1			S	-0.5				-222	0

NUMBER OF DAYS and DEPARTURE

	MAX TEMP >=90	<=32	MIN TEMP <=32	<=0	PRECIPITATION >T	>=.01	>=.10	>=.50	>=1.00	SNOW >=1.0	SKY COVER CLR	PC	CLDY
TOTAL	0	7	22	0	14	10	4	1	1	0	4	15	10
DEP	0	-4	-2	-2		+1	0	0	+1	-2	-4	+8	-3

	WEATHER TYPES R	L	S	Z	IP	A	T	F	D	H	BS	SEASONAL DEGREE DAYS HEATING	COOLING	PRECIPITATION JAN-February
TOTAL	11	2	6	1	3	0	2	5	0	0	0	3997	0	3.94
DEP	+6	-1	-3	-1		0		+				-580	0	+0.14

Averages based on 1961-1990 The daily sky condition is determined by the prevailing sky condition of three observations made between 7am and 7pm Snow depth at 7am LST. All other data midnight-midnight. M = Missing

WEATHER TYPES:

R = Rain Z = Freezing rain/drizzle D = Dust
L = Drizzle IP = Sleet H = Haze
S = Snow A = Hail BS = Blowing snow
T = Thunder F = Fog RW = Rainshower SW = Snowshower

PRECIP INTENSITY: - Light Precip amount "T" =Trace
Moderate
+ Heavy

DEGREE DAYS: Heat and Cool base 65F. Corn Growing base 50F, ceiling 86F. Heating DD season July-June. Cool and Corn DD season January-December.

Local Climatological Data

Illinois State Water Survey
Water Survey Research Center

Champaign-Urbana, IL - 118740

March 2000

DATE	TEMPERATURE Max	Min	Mean	PRECIP (in)	SNOW (in) Amnt	Depth	WEATHER TYPES	WIND Dir	Speed	Peak Gust	Gust Dir	SKY COVER	DEGREE DAYS Heat	Cool
1	52	36	44	0.02	0.0	0	RW-	W	9.8	26.1	W	CLDY	21	0
2	47	30	39	0.00	0.0	0		NE	5.5	15.7	NE	CLR	26	0
3	46	28	37	0.00	0.0	0		NE	3.3	11.5	S	PC	28	0
4	57	28	43	0.00	0.0	0		W	6.3	17.3	W	CLR	22	0
5	68	36	52	0.00	0.0	0		W	5.6	14.4	W	CLR	13	0
6	69	34	52	0.00	0.0	0		S	6.2	21.3	S	CLR	13	0
7	79	45	62	0.00	0.0	0		SW	8.5	22.0	SW	PC	3	0
8	77	45	61	0.05	0.0	0	RW-,TRW-	S	15.1	40.2	S	PC	4	0
9	61	34	48	0.00	0.0	0		W	12.1	31.3	W	CLDY	17	0
10	38	32	35	0.00	0.0	0		NE	5.4	14.3	NE	PC	30	0
11	32	22	27	0.19	2.2	T	S-,S	N	8.3	22.9	N	CLDY	38	0
12	41	16	29	0.00	0.0	2		S	4.5	15.0	SW	CLR	36	0
13	52	30	41	T	0.0	T	RW-,L-	S	9.0	29.0	S	CLR	24	0
14	55	26	41	0.01	0.0	0	RW-	S	4.4	16.3	S	CLDY	24	0
15	70	38	54	T	0.0	0	RW-	SW	9.6	27.7	SW	PC	11	0
16	48	29	39	0.00	0.0	0		N	12.	28.1	N	CLDY	26	0
17	44	25	35	0.00	0.0	0		E	5.6	18.7	NE	CLR	30	0
18	44	24	34	T	0.0	0	RW-	SE	4.8	19.3	SE	PC	31	0
19	50	39	45	1.04	0.0	0	R+,R,R-	E	4.1	13.3	SE	CLDY	20	0
20	50	41	46	0.28	0.0	0	RW-,L-	S	7.5	22.4	S	CLDY	19	0
21	50	38	44	T	0.0	0	L-,F	S	2.7	7.5	SW	CLDY	21	0
22	60	35	48	0.00	0.0	0	F	NE	2.5	12.2	SE	PC	17	0
23	67	45	56	0.00	0.0	0		SE	4.0	16.3	E	CLR	9	0
24	74	48	61	0.00	0.0	0		SW	9.1	28.7	SW	PC	4	0
25	65	44	55	0.00	0.0	0		NW	7.5	28.2	W	CLR	10	0
26	70	36	53	0.18	0.0	0	RW,RW-	SW	6.9	26.1	S	PC	12	0
27	56	37	47	T	0.0	0	RW-	W	8.1	28.3	W	PC	18	0
28	45	32	39	0.00	0.0	0		NW	8.5	28.6	N	CLDY	26	0
29	56	28	42	0.00	0.0	0		NW	3.3	13.4	NW	CLR	23	0
30	56	32	44	0.00	0.0	0		NE	3.8	15.2	NE	PC	21	0
31	64	35	50	0.00	0.0	0		SE	1.8	9.6	N	CLR	15	0
AVG/TOT	**56.2**	**33.8**	**45.0**	**1.77**	**2.2**			**S**	**6.7**				**612**	**0**
DEP.	+7.4	+2.7	+5.0	-1.53	-1.9			S	-1.9				-173	-1

NUMBER OF DAYS and DEPARTURE

	MAX TEMP >=90	<=32	MIN TEMP <=32	<=0	PRECIPITATION >T	>=.01	>=.10	>=.50	>=1.00	SNOW >=1.0	SKY COVER CLR	PC	CLDY
TOTAL	0	1	14	0	12	7	4	1	1	1	11	11	9
DEP	0	-2	-4	0		-5	-3	-1	0	0	+4	+2	-6

	WEATHER TYPES R	L	S	Z	IP	A	T	F	D	H	BS	SEASONAL DEGREE DAYS HEATING	COOLING	PRECIPITATION JAN-March
TOTAL	10	3	1	0	0	0	1	2	0	0	0	4609	0	5.71
DEP	0	-1	-5	-1		-	-2	-2				-753	-1	-1.39

Averages based on 1961-1990 The daily sky condition is determined by the prevailing sky condition of three observations made between 7am and 7pm Snow depth at 7am LST. All other data midnight-midnight. M = Missing

WEATHER TYPES:

R = Rain Z = Freezing rain/drizzle D = Dust
L = Drizzle IP = Sleet H = Haze
S = Snow A = Hail BS = Blowing snow
T = Thunder F = Fog RW = Rainshower SW = Snowshower

PRECIP INTENSITY: - Light Precip amount "T" =Trace
Moderate
\+ Heavy

DEGREE DAYS: Heat and Cool base 65F. Corn Growing base 50F, ceiling 86F. Heating DD season July-June. Cool and Corn DD season January-December.

Local Climatological Data

Illinois State Water Survey
Water Survey Research Center

Champaign-Urbana, IL - 118740

April 2000

DATE	TEMPERATURE Max	Min	Mean	PRECIP (in)	SNOW (in) Amnt	Depth	WEATHER TYPES	WIND Dir	Speed	Peak Gust	Gust Dir	SKY COVER	DEGREE DAYS Heat	Cool	Corn
1	67	42	55	0.00	0.0	0		SW	4.3	14.7	S	CLDY	10	0	9
2	64	50	57	0.00	0.0	0		NE	3.2	12.6	N	CLDY	8	0	7
3	57	40	49	0.00	0.0	0		W	6.8	23.7	W	PC	16	0	4
4	48	31	40	T	T	0	SW-	NW	9.0	26.1	W	CLDY	25	0	0
5	66	27	47	0.00	0.0	0		S	13.	39.8	S	CLR	18	0	8
6	62	47	55	0.00	0.0	0		W	6.6	23.1	W	PC	10	0	6
7	54	33	44	0.03	0.0	0	RW-	N	7.7	23.5	NW	CLDY	21	0	2
8	43	27	35	0.01	T	T	SW-	NW	10.	29.3	N	PC	30	0	0
9	65	21	43	0.00	0.0	0		W	8.5	30.3	W	CLR	22	0	8
10	53	37	45	0.02	0.0	0	RW-	E	12.	25.3	NE	PC	20	0	2
11	47	33	40	0.64	0.0	0	RW+,RW,RW-	N	7.5	21.8	NE	CLDY	25	0	0
12	53	31	42	0.00	0.0	0		NE	3.4	12.7	SE	CLR	23	0	2
13	67	32	50	0.00	0.0	0		SE	5.3	17.7	SE	CLR	15	0	9
14	71	36	54	0.00	0.0	0		S	8.3	23.5	S	PC	11	0	11
15	74	47	61	0.00	0.0	0		S	8.4	21.9	SW	PC	4	0	12
16	71	47	59	1.22	0.0	0	TRW,RW+,RW,RW-	S	8.0	28.6	S	CLDY	6	0	11
17	54	43	49	0.04	0.0	0	RW-	NW	8.0	19.7	W	CLDY	16	0	2
18	53	43	48	0.00	0.0	0	F	NW	3.8	10.9	N	CLDY	17	0	2
19	72	44	58	0.13	0.0	0	TRW-,RW-	SE	9.8	25.1	S	PC	7	0	11
20	70	42	56	0.22	0.0	0	TRW-,RW-	W	13.	31.6	W	CLDY	9	0	10
21	53	39	46	0.04	0.0	0	RW-	NW	9.4	25.0	W	CLDY	19	0	2
22	66	36	51	0.00	0.0	0		W	3.3	14.3	W	CLR	14	0	8
23	58	43	51	0.25	0.0	0	R-,RW-	SE	3.7	12.6	SE	CLDY	14	0	4
24	66	44	55	0.16	0.0	0	R-	NE	8.8	23.5	NE	CLDY	10	0	8
25	66	39	53	0.00	0.0	0		N	8.1	19.7	N	CLR	12	0	8
26	70	39	55	0.00	0.0	0		N	5.0	14.0	NW	CLR	10	0	10
27	71	40	56	0.00	0.0	0		NE	3.2	15.7	N	PC	9	0	11
28	73	41	57	T	0.0	0	RW-	N	4.4	16.9	NW	CLR	8	0	12
29	69	45	57	0.02	0.0	0	RW-	NE	5.6	17.4	NE	PC	8	0	10
30	76	39	58	0.00	0.0	0		SW	4.0	14.7	SW	CLR	7	0	13
AVG/TOT	**62.6**	**38.6**	**50.6**	**2.78**	**0.0**			**N**	**7.1**				**424**	**0**	**202**
DEP.	+0.2	-2.8	-1.3	-1.16	-1.0			S	-1.4				+13	-10	-4

NUMBER OF DAYS and DEPARTURE

	MAX TEMP >=90	<=32	MIN TEMP <=32	<=0	PRECIPITATION >T	>=.01	>=.10	>=.50	>=1.00	SNOW >=1.0	SKY COVER CLR	PC	CLDY
TOTAL	0	0	6	0	14	12	6	2	1	0	9	9	12
DEP	0	0	+1	0		0	-2	0	0		+1	0	-1

	WEATHER TYPES R	L	S	Z	IP	A	T	F	D	H	BS	SEASONAL DEGREE DAYS HEATING	COOLING	CORN	PRECIPITATION JAN-April
TOTAL	12	0	2	0	0	0	3	1	0	0	0	5033	0	405	8.49
DEP	-1	-4	0			-	-2	-2				-740	-11	+109	-2.55

Averages based on 1961-1990 The daily sky condition is determined by the prevailing sky condition of three observations made between 7am and 7pm Snow depth at 7am LST. All other data midnight-midnight. M = Missing

WEATHER TYPES:

R = Rain Z = Freezing rain/drizzle D = Dust
L = Drizzle IP = Sleet H = Haze
S = Snow A = Hail BS = Blowing snow
T = Thunder F = Fog RW = Rainshower SW = Snowshower

PRECIP INTENSITY: - Light Moderate + Heavy Precip amount "T" =Trace

DEGREE DAYS: Heat and Cool base 65F. Corn Growing base 50F, ceiling 86F. Heating DD season July-June. Cool and Corn DD season January-December.

Illinois State Water Survey
Water Survey Research Center

Local Climatological Data
Champaign-Urbana, IL - 118740
May 2000

DATE	TEMPERATURE Max	Min	Mean	PRECIP (in)	SNOW (in) Amnt	Depth	WEATHER TYPES	WIND Dir	Speed	Peak Gust	Gust Dir	SKY COVER	DEGREE DAYS Heat	Cool	Corn
1	62	49	56	0.40	0.0	0	R,R-,F	SW	3.8	12.3	N	CLDY	9	0	6
2	73	45	59	0.00	0.0	0	F	NE	3.0	12.9	SE	PC	6	0	12
3	79	51	65	0.19	0.0	0	TRW,RW,RW-	SE	5.3	30.5	S	CLDY	0	0	15
4	80	57	69	0.00	0.0	0		S	8.3	23.6	S	PC	0	4	19
5	80	58	69	0.00	0.0	0	F	S	7.3	21.5	S	PC	0	4	19
6	82	59	71	0.00	0.0	0		S	9.5	30.1	S	PC	0	6	21
7	77	65	71	0.02	0.0	0	RW-	S	8.2	21.6	S	CLDY	0	6	21
8	82	67	75	0.02	0.0	0	TRW	S	11.	31.8	S	CLDY	0	10	25
9	76	54	65	0.32	0.0	0	TRW,RW,RW-	SW	8.8	28.8	SW	CLDY	0	0	15
10	71	48	60	0.00	0.0	0		SW	4.9	15.8	SW	CLR	5	0	11
11	85	52	69	0.00	0.0	0		S	12.	39.4	SW	CLDY	0	4	19
12	87	61	74	0.56	0.0	0	TRW,RW-	SW	10.	24.4	SW	CLDY	0	9	24
13	61	44	53	0.00	0.0	0		W	7.7	26.8	W	PC	12	0	6
14	67	39	53	0.00	0.0	0		W	5.0	21.0	W	PC	12	0	9
15	73	44	59	0.00	0.0	0		SE	1.9	12.3	W	PC	6	0	12
16	78	51	65	T	0.0	0	RW-	S	5.7	24.0	SW	CLDY	0	0	15
17	73	56	65	0.04	0.0	0	RW-	S	6.5	26.2	S	CLDY	0	0	15
18	77	60	69	0.53	0.0	0	TRW,RW,RW-,A	SW	10.	29.8	S	PC	0	4	19
19	60	47	54	0.00	0.0	0		N	5.8	19.0	NW	CLDY	11	0	5
20	57	47	52	0.00	0.0	0		N	2.5	9.1	NE	CLDY	13	0	4
21	69	42	56	0.00	0.0	0		W	2.9	11.1	W	PC	9	0	10
22	76	55	66	0.57	0.0	0	TRW+,RW-	S	6.3	21.0	W	PC	0	1	16
23	82	59	71	0.12	0.0	0	TRW-	W	6.0	21.8	W	PC	0	6	21
24	84	56	70	0.00	0.0	0		NW	5.5	23.3	W	CLR	0	5	20
25	78	54	66	0.00	0.0	0		NW	4.0	20.1	N	CLR	0	1	16
26	68	52	60	0.54	0.0	0	RW,RW-	SE	3.0	15.7	SE	CLDY	5	0	10
27	78	58	68	2.85	0.0	0	TRW+,TRW,RW,R	SW	5.3	24.7	W	CLDY	0	3	18
28	62	54	58	0.01	0.0	0	RW-,L	W	6.4	17.3	W	CLDY	7	0	8
29	73	52	63	0.00	0.0	0		SE	2.7	11.7	SE	PC	2	0	13
30	83	56	70	0.00	0.0	0		S	7.5	23.0	S	CLR	0	5	20
31	87	66	77	0.01	0.0	0	RW-	SW	4.8	21.5	S	CLDY	0	12	26
AVG/TOT	**74.8**	**53.5**	**64.2**	**6.18**	**0.0**			**S**	**6.3**				**97**	**80**	**470**
DEP.	+1.2	+1.8	+1.5	+2.21	0.0			S	-0.6				-53	+9	+47

NUMBER OF DAYS and DEPARTURE

	MAX TEMP >=90	<=32	MIN TEMP <=32	<=0	PRECIPITATION >T	>=.01	>=.10	>=.50	>=1.00	SNOW >=1.0	SKY COVER CLR	PC	CLDY
TOTAL	0	0	0	0	15	14	9	5	1	0	4	12	15
DEP	-1	0	0	0		+4	+2	+2	0	0	-6	+1	+5

	WEATHER TYPES R	L	S	Z	IP	A	T	F	D	H	BS	SEASONAL DEGREE DAYS HEATING	COOLING	CORN	PRECIPITATION JAN-May
TOTAL	15	1	0	0	0	1	8	3	0	0	0	5130	80	875	14.67
DEP	+2	-2		0		0	+	0				-793	-2	+156	-0.34

Averages based on 1961-1990 The daily sky condition is determined by the prevailing sky condition of three observations made between 7am and 7pm Snow depth at 7am LST. All other data midnight-midnight. M = Missing

WEATHER TYPES:

R = Rain Z = Freezing rain/drizzle D = Dust
L = Drizzle IP = Sleet H = Haze
S = Snow A = Hail BS = Blowing snow
T = Thunder F = Fog RW = Rainshower SW = Snowshower

PRECIP INTENSITY: - Light Moderate + Heavy Precip amount "T" =Trace

DEGREE DAYS: Heat and Cool base 65F. Corn Growing base 50F, ceiling 86F. Heating DD season July-June. Cool and Corn DD season January-December.

Illinois State Water Survey
Water Survey Research Center

Local Climatological Data
Champaign-Urbana, IL - 118740
June 2000

DATE Corn	TEMPERATURE Max	Min	Mean	PRECIP (in)	SNOW (in) Amnt	Depth	WEATHER TYPES	WIND Dir	Speed	Peak Gust	Dir	SKY COVER	DEGREE DAYS Heat	Cool	
1	88	63	76	0.00	0.0	0		SW	6.4	20.4	S	CLR	0	11	25
2	78	58	68	0.00	0.0	0		N	5.8	16.3	NW	PC	0	3	18
3	73	50	62	0.00	0.0	0		NE	3.3	12.3	NE	PC	3	0	12
4	74	50	62	0.90	0.0	0	TRW-,RW,RW-	E	2.3	11.0	S	CLDY	3	0	12
5	61	51	56	0.00	0.0	0		N	5.5	19.9	N	CLDY	9	0	6
6	73	48	61	0.00	0.0	0		N	3.2	13.8	N	CLR	4	0	12
7	78	48	63	0.00	0.0	0		S	5.5	17.7	S	CLR	2	0	14
8	86	60	73	0.00	0.0	0		SW	7.6	20.1	SW	CLR	0	8	23
9	87	63	75	0.00	0.0	0		SW	8.0	20.1	S	CLR	0	10	25
10	87	67	77	0.00	0.0	0		SW	8.7	32.7	S	PC	0	12	27
11	81	69	75	0.21	0.0	0	RW,RW-	SW	5.4	17.8	W	CLDY	0	10	25
12	86	68	77	0.26	0.0	0	TRW,RW-	SW	5.8	22.5	SW	CLDY	0	12	27
13	89	68	79	0.00	0.0	0		SW	7.6	21.5	S	PC	0	14	27
14	84	67	76	0.77	0.0	0	TRW+,RW-	SW	8.8	42.3	SW	CLDY	0	11	26
15	81	59	70	0.00	0.0	0		SW	7.3	20.7	SW	PC	0	5	20
16	80	63	72	0.02	0.0	0	RW-	W	5.9	17.6	SW	CLDY	0	7	22
17	71	57	64	0.09	0.0	0	RW-	NE	3.9	13.8	N	CLDY	1	0	14
18	76	57	67	0.00	0.0	0		SE	2.1	11.3	NE	CLDY	0	2	17
19	79	57	68	0.00	0.0	0	F	S	3.2	13.3	S	PC	0	3	18
20	82	66	74	1.26	0.0	0	TRW+,TRW,RW-	S	6.9	24.8	W	CLDY	0	9	24
21	79	64	72	0.02	0.0	0	RW-,L-,F	SW	8.0	22.2	W	CLDY	0	7	22
22	83	64	74	0.00	0.0	0		W	6.3	20.0	W	PC	0	9	24
23	88	62	75	0.62	0.0	0	TRW+	S	3.7	21.9	W	PC	0	10	24
24	80	66	73	0.17	0.0	0	RW,RW-	S	6.6	18.3	W	CLDY	0	8	23
25	84	67	76	0.00	0.0	0		NW	3.1	10.3	NW	PC	0	11	26
26	80	64	72	0.17	0.0	0	RW-	W	5.2	21.9	W	CLDY	0	7	22
27	75	61	68	0.00	0.0	0		N	2.8	10.7	NW	PC	0	3	18
28	77	61	69	0.03	0.0	0	RW-	N	2.3	13.8	N	PC	0	4	19
29	78	58	68	0.00	0.0	0		W	4.0	18.7	W	CLR	0	3	18
30	79	55	67	0.00	0.0	0		SW	2.5	11.4	SW	PC	0	2	17
AVG/TOT	**79.9**	**60.4**	**70.2**	**4.52**	**0.0**			**SW**	**5.3**				**22**	**181**	**607**
DEP.	-3.0	-0.3	-1.6	+0.45	0.0			SW	-0.7				+6	-33	-21

NUMBER OF DAYS and DEPARTURE

	MAX TEMP >=90	<=32	MIN TEMP <=32	<=0	PRECIPITATION >T	>=.01	>=.10	>=.50	>=1.00	SNOW >=1.0	SKY COVER CLR	PC	CLDY
TOTAL	0	0	0	0	12	12	8	4	1	0	6	12	12
DEP	-6	0	0	0		+3	+2	+1	-1	0	-4	0	+4

	WEATHER TYPES R	L	S	Z	IP	A	T	F	D	H	BS	SEASONAL DEGREE DAYS HEATING	COOLING	CORN	PRECIPITATION JAN-June
TOTAL	12	1	0	0	0	0	5	2	0	0	0	5152	261	1482	19.19
DEP	+1	-2		0		-	-1	0				-787	-35	+135	+0.11

Averages based on 1961-1990 The daily sky condition is determined by the prevailing sky condition of three observations made between 7am and 7pm Snow depth at 7am LST. All other data midnight-midnight. M = Missing

WEATHER TYPES:
=Trace
R = Rain Z = Freezing rain/drizzle D = Dust
L = Drizzle IP = Sleet H = Haze
S = Snow A = Hail BS = Blowing snow
T = Thunder F = Fog RW = Rainshower SW = Snowshower

PRECIP INTENSITY: - Light Precip amount "T"
Moderate
+ Heavy

DEGREE DAYS: Heat and Cool base 65F. Corn Growing base 50F, ceiling 86F. Heating DD season July-June. Cool and Corn DD season January-December.

The daily climate statistics are available by touch-tone phone. Call 333-8890 and select menu option 1. The recording is updated daily Monday through Saturday by 7:30 a.m. Data may be obtained from the State Climatologist site at **http://www.sws.uiuc.edu/atmos/statecli/**

Illinois State Water Survey
Water Survey Research Center

Local Climatological Data
Champaign-Urbana, IL - 118740
July 2000

DATE Corn	TEMPERATURE Max	Min	Mean	PRECIP (in)	SNOW (in) Amnt	Depth	WEATHER TYPES	WIND Dir	Speed	Peak Gust	Gust Dir	SKY COVER	DEGREE DAYS Heat	Cool	
1	81	57	69	0.00	0.0	0		S	3.8	14.4	S	PC	0	4	19
2	86	65	76	0.00	0.0	0		S	5.9	13.9	SW	CLR	0	11	26
3	87	70	79	0.03	0.0	0	RW-	W	5.5	16.4	W	CLDY	0	14	28
4	84	67	76	0.18	0.0	0	RW-	NE	2.6	14.8	W	CLDY	0	11	26
5	86	70	78	0.02	0.0	0	RW-	W	2.4	10.1	SW	CLDY	0	13	28
6	86	68	77	0.00	0.0	0		N	3.3	12.6	NE	PC	0	12	27
7	82	64	73	0.00	0.0	0		NE	3.0	12.2	NE	CLR	0	8	23
8	84	61	73	0.00	0.0	0		S	3.7	12.6	S	CLR	0	8	23
9	85	64	75	0.00	0.0	0		SW	6.1	19.3	SW	CLR	0	10	25
10	88	72	80	T	0.0	0	RW-	NE	3.4	15.9	NE	CLDY	0	15	29
11	83	70	77	1.82	0.0	0	TRW+	NE	2.7	14.8	W	CLDY	0	12	27
12	82	68	75	0.00	0.0	0		E	2.3	10.8	E	CLDY	0	10	25
13	87	70	79	0.00	0.0	0		NE	2.1	10.8	NW	PC	0	14	28
14	87	68	78	0.00	0.0	0		NW	4.9	17.6	W	PC	0	13	27
15	83	64	74	0.00	0.0	0		N	3.4	14.3	NW	PC	0	9	24
16	84	61	73	0.00	0.0	0		NW	2.2	11.9	W	PC	0	8	23
17	83	62	73	0.00	0.0	0		SW	4.2	15.5	W	PC	0	8	23
18	81	59	70	0.05	0.0	0	RW-	NE	4.2	15.1	NE	PC	0	5	20
19	76	58	67	0.02	0.0	0	RW-	N	4.6	17.8	N	PC	0	2	17
20	75	55	65	0.00	0.0	0		W	2.9	13.4	W	PC	0	0	15
21	78	58	68	0.00	0.0	0		NW	3.2	13.4	W	PC	0	3	18
22	78	53	66	0.00	0.0	0		N	2.6	11.0	N	PC	0	1	16
23	77	57	67	0.00	0.0	0		NE	4.3	14.2	N	PC	0	2	17
24	82	58	70	0.00	0.0	0		NE	2.8	10.8	NE	PC	0	5	20
25	82	57	70	0.00	0.0	0		SE	2.2	10.2	SE	CLR	0	5	20
26	84	58	71	0.00	0.0	0		SW	3.2	13.1	W	PC	0	6	21
27	87	63	75	0.00	0.0	0	F	S	5.0	16.1	SW	PC	0	10	25
28	84	64	74	0.08	0.0	0	RW-,F	SW	4.6	16.9	SW	PC	0	9	24
29	76	68	72	0.17	0.0	0	TRW,RW-,F	SE	2.1	11.0	W	CLDY	0	7	22
30	82	67	75	0.04	0.0	0	RW-	NE	2.2	11.6	NE	CLDY	0	10	25
31	82	66	74	0.04	0.0	0	TRW-,F	W	3.2	13.9	N	CLDY	0	9	24
AVG/TOT	**82.6**	**63.3**	**73.0**	**2.45**	**0.0**			**NE**	**3.5**				**0**	**254**	**715**
DEP.	-2.7	-1.5	-2.1	-2.01	0.0			SW	-1.4				-2	-51	-23

NUMBER OF DAYS and DEPARTURE

	MAX TEMP >=90	<=32	MIN TEMP <=32	<=0	PRECIPITATION >T	>=.01	>=.10	>=.50	>=1.00	SNOW >=1.0	SKY COVER CLR	PC	CLDY
TOTAL	0	0	0	0	11	10	3	1	1	0	5	17	9
DEP	-7	0	0	0		+1	-4	-2	0	0	-5	+4	+1

	WEATHER TYPES R	L	S	Z	IP	A	T	F	D	H	BS	SEASONAL DEGREE DAYS HEATING	COOLING	CORN	PRECIPITATION JAN-July
TOTAL	11	0	0	0	0	0	3	4	0	0	0	0	515	2197	21.64
DEP	0	-1	0	0			-4	0				-2	-86	+112	-1.90

Averages based on 1961-1990 data. The daily sky condition is determined by the prevailing sky condition of three observations made between 7am and 7pm LST. Snow depth at 7am LST. All other data midnight-midnight. M = Missing

WEATHER TYPES:
=Trace
R = Rain Z = Freezing rain/drizzle D = Dust
L = Drizzle IP = Sleet H = Haze
S = Snow A = Hail BS = Blowing
T = Thunder F = Fog RW = Rainshower SW = Snowshower

PRECIP INTENSITY: - Light Precip amount "T"
Moderate
+ Heavy

DEGREE DAYS: Heat and Cool base 65F. Corn Growing base 50F, ceiling 86F. Heating DD season July-June. Cool and Corn DD season January-December.

The daily climate statistics are available by touch-tone phone. Call 333-8890 and select menu option 1. The recording is updated daily Monday through Friday by 8:00 a.m. For this and other climate data, visit the State Climatologist Web site at **http://www.sws.uiuc.edu/atmos/statecli/**

Illinois State Water Survey
Water Survey Research Center

Local Climatological Data
Champaign-Urbana, IL - 118740
August 2000

DATE Corn	TEMPERATURE Max	Min	Mean	PRECIP (in)	SNOW (in) Amnt	Depth	WEATHER TYPES	WIND Dir	Speed	Peak Gust	Dir	SKY COVER	DEGREE DAYS Heat	Cool	Corn
1	87	64	76	0.00	0.0	0		W	6.0	17.7	W	PC	0	11	25
2	89	66	78	0.48	0.0	0	TRW+	SW	6.1	18.9	NW	PC	0	13	26
3	78	61	70	0.00	0.0	0		NE	3.9	12.5	N	PC	0	5	20
4	80	59	70	0.00	0.0	0		NE	2.9	11.4	N	PC	0	5	20
5	76	57	67	0.26	0.0	0	TRW	S	5.5	15.6	S	CLDY	0	2	17
6	86	70	78	0.02	0.0	0	TRW-	SW	6.1	19.2	SW	CLDY	0	13	28
7	86	67	77	0.02	0.0	0	RW-,F	SW	4.2	15.6	SW	PC	0	12	27
8	83	69	76	0.05	0.0	0	RW-	SW	5.9	17.7	S	PC	0	11	26
9	90	70	80	0.00	0.0	0		NW	4.5	14.8	W	PC	0	15	28
10	85	64	75	0.00	0.0	0		N	2.4	11.7	NE	CLR	0	10	25
11	87	62	75	0.00	0.0	0		NE	3.1	15.2	N	PC	0	10	24
12	84	60	72	0.00	0.0	0		NE	2.1	8.2	SE	CLR	0	7	22
13	81	59	70	0.00	0.0	0		S	2.5	11.8	S	PC	0	5	20
14	89	59	74	0.00	0.0	0		S	4.0	15.5	S	CLR	0	9	23
15	94	67	81	0.00	0.0	0		SW	5.3	16.1	SW	CLR	0	16	27
16	85	65	75	0.00	0.0	0		NE	3.8	12.0	N	CLR	0	10	25
17	97	62	80	0.30	0.0	0	TRW	SE	5.5	18.5	W	PC	0	15	24
18	80	62	71	0.01	0.0	0	RW-	N	4.5	15.2	N	CLDY	0	6	21
19	76	59	68	0.00	0.0	0		NE	3.0	12.1	NE	CLR	0	3	18
20	78	58	68	0.00	0.0	0		E	2.6	12.6	SE	CLR	0	3	18
21	84	55	70	0.00	0.0	0		S	3.4	13.6	S	PC	0	5	20
22	84	67	76	0.19	0.0	0	TRW	S	4.9	18.0	S	PC	0	11	26
23	86	65	76	1.84	0.0	0	TRW+,TRW-,RW-	SW	5.1	22.6	NW	PC	0	11	26
24	85	61	73	T	0.0	0	RW-	NE	2.5	10.2	W	PC	0	8	23
25	85	59	72	0.00	0.0	0		SE	2.4	11.0	SE	CLR	0	7	22
26	83	61	72	0.15	0.0	0	TRW	S	4.2	16.2	S	CLDY	0	7	22
27	82	64	73	0.00	0.0	0		E	1.8	7.6	E	CLDY	0	8	23
28	80	65	73	0.27	0.0	0	TRW-,RW-	SE	3.3	12.9	S	CLDY	0	8	23
29	96	67	82	0.00	0.0	0		SE	3.3	9.0	S	CLR	0	17	27
30	93	70	82	0.00	0.0	0	F	SE	3.1	10.9	S	PC	0	17	28
31	92	66	79	0.00	0.0	0	F	SE	2.8	11.6	SE	CLR	0	14	26
AVG/TOT	**85.2**	**63.2**	**74.2**	**3.59**	**0.0**			**NE**	**3.9**				**0**	**294**	**730**
DEP.	+2.2	+0.8	+1.5	-0.44	0.0			SW	-0.8				-7	+56	+51

NUMBER OF DAYS and DEPARTURE

	MAX TEMP >=90	<=32	MIN TEMP <=32	<=0	PRECIPITATION >T	>=.01	>=.10	>=.50	>=1.00	SNOW >=1.0	SKY COVER CLR	PC	CLDY
TOTAL	6	0	0	0	12	11	7	1	1	0	10	15	6
DEP	+2	0	0	0		+2	+1	-2	0	0	0	+3	-3

	WEATHER TYPES R	L	S	Z	IP	A	T	F	D	H	BS	SEASONAL DEGREE DAYS HEATING	COOLING	CORN	PRECIPITATION JAN-August
TOTAL	12	0	0	0	0	0	8	3	0	0	0	0	809	2927	25.23
DEP	+1	-1	0	0			+	-3				-9	-30	+163	-2.34

Averages based on 1961-1990 data. The daily sky condition is determined by the prevailing sky condition of three observations made between 7am and 7pm LST. Snow depth at 7am LST. All other data midnight-midnight. M = Missing

WEATHER TYPES:
=Trace
R = Rain Z = Freezing rain/drizzle D = Dust
L = Drizzle IP = Sleet H = Haze
S = Snow A = Hail BS = Blowing
T = Thunder F = Fog RW = Rainshower SW = Snowshower

PRECIP INTENSITY: - Light Precip amount "T"
Moderate
+ Heavy

DEGREE DAYS: Heat and Cool base 65F. Corn Growing base 50F, ceiling 86F. Heating DD season July-June. Cool and Corn DD season January-December.

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Illinois State Water Survey
Water Survey Research Center

Local Climatological Data
Champaign-Urbana, IL - 118740
September 2000

DATE	TEMPERATURE Max	Min	Mean	PRECIP (in)	SNOW (in) Amnt	Depth	WEATHER TYPES	WIND Dir	Speed	Peak Gust	Gust Dir	SKY COVER	DEGREE DAYS Heat	Cool	Corn
1	93	66	80	0.00	0.0	0	F	SE	1.4	7.5	SE	CLR	0	15	26
2	94	68	81	0.00	0.0	0		E	1.3	10.0	N	CLR	0	16	27
3	93	68	81	0.00	0.0	0		SE	2.8	10.5	W	CLR	0	16	27
4	79	62	71	0.00	0.0	0		N	6.9	22.4	N	CLDY	0	6	21
5	75	51	63	0.00	0.0	0		NE	5.2	17.1	NE	CLR	2	0	13
6	82	48	65	0.00	0.0	0		SE	3.4	11.3	SE	CLR	0	0	16
7	88	60	74	0.00	0.0	0		S	4.9	15.6	S	PC	0	9	23
8	86	63	75	0.00	0.0	0		S	4.7	14.3	S	PC	0	10	25
9	83	65	74	0.00	0.0	0		S	4.5	15.9	S	CLDY	0	9	24
10	77	69	73	0.95	0.0	0	TRW+,TRW-	S	4.7	17.1	S	CLDY	0	8	23
11	90	67	79	0.89	0.0	0	TRW+,F	S	7.0	20.5	S	PC	0	14	27
12	78	55	67	0.45	0.0	0	TRW,RW-	N	3.6	17.3	NE	CLDY	0	2	17
13	82	51	67	0.00	0.0	0		SE	1.9	9.1	W	CLR	0	2	17
14	73	52	63	0.09	0.0	0	RW-	N	3.6	14.7	W	CLDY	2	0	13
15	67	48	58	0.00	0.0	0		N	4.7	17.8	N	CLR	7	0	9
16	70	40	55	0.00	0.0	0		N	2.1	9.7	SW	CLR	10	0	10
17	82	46	64	0.00	0.0	0		SW	5.2	18.5	SW	CLR	1	0	16
18	87	50	69	0.00	0.0	0		S	3.2	12.5	S	CLR	0	4	18
19	89	53	71	0.00	0.0	0		S	8.1	25.4	S	PC	0	6	20
20	73	51	62	0.20	0.0	0	RW-	SW	5.2	18.5	NW	CLDY	3	0	12
21	68	42	55	0.00	0.0	0		W	2.9	15.1	W	CLR	10	0	9
22	83	44	64	0.22	0.0	0	RW-	S	6.7	24.1	S	PC	1	0	17
23	78	59	69	0.01	0.0	0	RW-	N	5.3	15.9	SW	CLDY	0	4	19
24	62	51	57	0.41	0.0	0	TRW	NE	6.0	16.7	N	CLDY	8	0	7
25	52	45	49	1.02	0.0	0	R,R-	N	4.3	16.9	NE	CLDY	16	0	1
26	67	37	52	0.00	0.0	0		SW	3.4	13.1	W	CLR	13	0	9
27	76	42	59	0.00	0.0	0		SW	4.4	14.9	SW	CLR	6	0	13
28	72	46	59	0.00	0.0	0		NE	2.5	9.7	E	CLR	6	0	11
29	75	43	59	0.00	0.0	0		SE	2.9	12.6	S	CLR	6	0	13
30	77	44	61	0.00	0.0	0		SE	4.5	18.6	S	CLR	4	0	14
AVG/TOT	**78.4**	**52.9**	**65.7**	**4.24**	**0.0**			**S**	**4.2**				**95**	**121**	**497**
DEP.	+0.7	-2.3	-0.8	+0.88	0.0			SW	-0.9				+14	+4	-3

NUMBER OF DAYS and DEPARTURE

	MAX TEMP >=90	<=32	MIN TEMP <=32	<=0	PRECIPITATION >T	>=.01	>=.10	>=.50	>=1.00	SNOW >=1.0	SKY COVER CLR	PC	CLDY
TOTAL	4	0	0	0	9	9	7	3	1	0	16	5	9
DEP	+2	0	0	0		0	+2	+1	0	0	+5	-4	-1

	WEATHER TYPES R	L	S	Z	IP	A	T	F	D	H	BS	SEASONAL DEGREE DAYS HEATING	COOLING	CORN	PRECIPITATION JAN-September
TOTAL	9	0	0	0	0	0	4	2	0	0	0	95	930	3424	29.47
DEP	-1	-3	0	0			0	-3				+5	-26	+160	-1.46

Averages based on 1961-1990 data. The daily sky condition is determined by the prevailing sky condition of three observations made between 7am and 7pm LST. Snow depth at 7am LST. All other data midnight-midnight. M = Missing

WEATHER TYPES:
=Trace
R = Rain Z = Freezing rain/drizzle D = Dust
L = Drizzle IP = Sleet H = Haze
S = Snow A = Hail BS = Blowing
T = Thunder F = Fog RW = Rainshower SW = Snowshower

PRECIP INTENSITY: - Light Precip amount "T"
Moderate
+ Heavy

DEGREE DAYS: Heat and Cool base 65F. Corn Growing base 50F, ceiling 86F. Heating DD season July-June. Cool and Corn DD season January-December.

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Illinois State Water Survey
Water Survey Research Center

Local Climatological Data
Champaign-Urbana, IL - 118740
October 2000

DATE	TEMPERATURE Max	Min	Mean	PRECIP (in)	SNOW (in) Amnt	Depth	WEATHER TYPES	WIND Dir	Speed	Peak Gust	Gust Dir	SKY COVER	DEGREE DAYS Heat	Cool
1	81	52	67	0.00	0.0	0		S	7.3	22.4	S	PC	0	2
2	84	57	71	0.00	0.0	0		SW	6.2	21.6	SW	CLR	0	6
3	84	57	71	0.00	0.0	0		S	3.1	13.5	S	PC	0	6
4	69	54	62	1.10	0.0	0	TRW,RW,RW-	NE	5.6	21.0	NE	CLDY	3	0
5	58	47	53	0.99	0.0	0	TRW,RW-	N	4.0	19.4	N	CLDY	12	0
6	51	33	42	0.00	0.0	0		NW	5.3	18.8	W	PC	23	0
7	49	29	39	0.00	0.0	0		NW	4.3	20.7	W	PC	26	0
8	49	30	40	0.00	0.0	0		N	5.9	19.6	NW	PC	25	0
9	57	29	43	0.00	0.0	0		NW	3.1	15.1	W	CLR	22	0
10	62	32	47	0.00	0.0	0		W	3.9	16.4	W	CLR	18	0
11	69	33	51	0.00	0.0	0		W	1.8	9.5	W	CLR	14	0
12	72	34	53	0.00	0.0	0		SE	3.6	14.7	S	CLR	12	0
13	76	42	59	0.00	0.0	0		S	5.9	18.2	SW	CLR	6	0
14	77	53	65	0.52	0.0	0	RW,RW-	SW	5.3	22.2	W	PC	0	0
15	69	55	62	0.01	0.0	0	RW-	SE	1.8	7.1	SW	CLDY	3	0
16	58	51	55	0.10	0.0	0	RW-,F(am)	NE	3.4	12.8	N	CLDY	10	0
17	64	47	56	0.00	0.0	0	F(am)	N	3.0	11.8	NW	CLDY	9	0
18	68	42	55	0.00	0.0	0	F(am)	SW	2.1	10.7	SW	CLR	10	0
19	74	43	59	0.00	0.0	0		SW	2.9	13.4	SW	CLR	6	0
20	74	45	60	0.00	0.0	0		SE	3.4	15.6	SW	CLR	5	0
21	77	46	62	0.00	0.0	0		S	1.5	8.8	S	CLR	3	0
22	66	51	59	T	0.0	0	RW-,F(am)	E	1.8	9.4	S	CLDY	6	0
23	78	59	69	0.02	0.0	0	RW-,F(am)	SE	2.5	10.2	S	PC	0	4
24	71	58	65	0.00	0.0	0	F(am)	N	2.2	10.9	N	PC	0	0
25	76	56	66	0.00	0.0	0	F(am)	SE	2.6	9.3	SE	PC	0	1
26	78	59	69	0.00	0.0	0		S	5.5	19.7	SW	PC	0	4
27	76	56	66	0.00	0.0	0		W	4.7	16.0	SW	PC	0	1
28	59	42	51	0.00	0.0	0		NE	4.7	15.4	N	CLDY	14	0
29	63	37	50	0.00	0.0	0		E	2.9	13.9	SE	CLR	15	0
30	67	44	56	0.01	0.0	0	RW-	SE	5.2	15.8	SE	PC	9	0
31	74	47	61	0.01	0.0	0	RW-	SE	3.6	12.7	S	PC	4	0
AVG/TOT	**68.7**	**45.8**	**57.3**	**2.76**	**0.0**			**SE**	**3.8**				**255**	**24**
DEP.	+3.6	+2.0	+2.8	+0.10	-0.1			S	-2.3				-94	+8

NUMBER OF DAYS and DEPARTURE

	MAX TEMP >=90	<=32	MIN TEMP <=32	<=0	PRECIPITATION >T	>=.01	>=.10	>=.50	>=1.00	SNOW >=1.0	SKY COVER CLR	PC	CLDY
TOTAL	0	0	4	0	9	8	4	3	1	0	11	13	7
DEP	0	0	+1	0		-1	-2	+1	0		-1	+5	-4

	WEATHER TYPES R	L	S	Z	IP	A	T	F	D	H	BS	SEASONAL DEGREE DAYS HEATING	COOLING	PRECIPITATION JAN-October
TOTAL	9	0	0	0	0	0	2	7	0	0	0	350	954	32.23
DEP	-1	-4				0	0	+3				-89	-18	-1.36

Averages based on 1961-1990 data. The daily sky condition is determined by the prevailing sky condition of three observations made between 7am and 7pm LST. Snow depth at 7am LST. All other data midnight-midnight. M = Missing

WEATHER TYPES:
R = Rain Z = Freezing rain/drizzle D = Dust
L = Drizzle IP = Sleet H = Haze
S = Snow A = Hail BS = Blowing
T = Thunder F = Fog RW = Rainshower SW = Snowshower

PRECIP INTENSITY: - Light Precip amount "T" Trace
Moderate
+ Heavy

DEGREE DAYS: Heat and Cool base 65F. Corn Growing base 50F, ceiling 86F. Heating DD season July-June. Cool and Corn DD season January-December.

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Illinois State Water Survey
Water Survey Research Center

Local Climatological Data
Champaign-Urbana, IL - 118740
November 2000

DATE	TEMPERATURE Max	Min	Mean	PRECIP (in)	SNOW (in) Amnt	Depth	WEATHER TYPES	WIND Dir	Speed (mph)	Peak Gust	Gust Dir	SKY COVER	DEGREE DAYS Heat	Cool
1	79	54	67	0.00	0.0	0		SE	6.5	22.1	S	CLR	0	2
2	66	48	57	0.03	0.0	0	RW-	SW	3.4	12.9	SW	CLDY	8	0
3	63	46	55	0.00	0.0	0		NW	3.5	14.3	W	PC	10	0
4	59	36	48	0.00	0.0	0		W	2.2	10.0	N	PC	17	0
5	61	33	47	0.00	0.0	0		SE	5.9	19.6	SE	CLR	18	0
6	56	43	50	0.83	0.0	0	R,R-	SE	9.5	25.0	SE	CLDY	15	0
7	57	40	49	0.00	0.0	0		W	6.5	18.4	S	CLDY	16	0
8	49	39	44	T	0.0	0	RW-	NE	3.9	14.9	N	CLDY	21	0
9	45	34	40	1.85	0.0	0	TRW,R,R-	N	8.8	26.9	N	CLDY	25	0
10	38	34	36	0.00	0.0	0		NW	6.0	17.7	W	CLDY	29	0
11	49	34	42	0.00	0.0	0		NE	3.4	10.6	NE	PC	23	0
12	52	34	43	0.33	0.0	0	RW-	S	4.7	14.4	S	PC	22	0
13	43	31	37	0.12	T	0	RW-,SW-	W	9.1	22.3	W	CLDY	28	0
14	35	27	31	T	T	0	RW-	W	10.3	23.8	W	CLDY	34	0
15	43	23	33	0.00	0.0	0		SW	6.6	15.9	SW	CLR	32	0
16	44	26	35	T	0.0	0	RW-	W	13.9	32.1	W	CLDY	30	0
17	30	21	26	T	T	0	SW-	W	8.1	22.0	W	CLDY	39	0
18	36	17	27	0.00	0.0	0		SW	6.0	24.7	SW	PC	38	0
19	43	18	31	T	0.0	0	RW-	SW	9.6	24.7	SW	PC	34	0
20	29	19	24	T	T	0	SW-	W	13.5	29.2	W	CLDY	41	0
21	26	12	19	0.00	0.0	0		W	7.5	19.5	W	CLR	46	0
22	38	12	25	0.00	0.0	0		NW	2.6	11.0	NW	CLR	40	0
23	42	17	30	0.00	0.0	0		SE	2.4	8.9	S	CLR	35	0
24	49	22	36	0.00	0.0	0		E	2.8	12.2	NE	CLR	29	0
25	38	34	36	0.65	0.0	0	R,R-	NE	5.8	15.3	NE	CLDY	29	0
26	42	32	37	T	0.0	0	RW-,L-	W	7.6	16.5	W	CLDY	28	0
27	32	27	30	0.00	0.0	0	F	W	7.0	17.3	W	CLDY	35	0
28	46	25	36	0.00	0.0	0		W	4.5	14.6	W	CLR	29	0
29	40	33	37	0.03	T	0	RW-,SW-,F	W	9.6	23.9	W	CLDY	28	0
30	35	33	34	T	T	0	SW-	W	3.8	17.8	W	CLDY	31	0
AVG/TOT	**45.5**	**30.1**	**37.8**	**3.84**	**0.0**			**W**	**6.5**				**810**	**2**
DEP.	-4.8	-3.7	-4.3	+0.74	-2.2			SW	-1.0				+114	+2

NUMBER OF DAYS and DEPARTURE

	MAX TEMP >=90	<=32	MIN TEMP <=32	<=0	PRECIPITATION >T	>=.01	>=.10	>=.50	>=1.00	SNOW >=1.0	SKY COVER CLR	PC	CLDY
TOTAL	0	4	15	0	15	7	5	3	1	0	8	6	16
DEP	0	+3	+1	0		-3	-1	+1	0	-1	+1	-2	+1

	WEATHER TYPES R	L	S	Z	IP	A	T	F	D	H	BS
TOTAL	11	1	6	0	0	0	1	2	0	0	0
DEP	+2	-4	+2	-1			0	-2			

SEASONAL DEGREE DAYS	HEATING	COOLING
	1160	956
	+25	-16

PRECIPITATION JAN-November
36.07
-0.62

Averages based on 1961-1990 data. The daily sky condition is determined by the prevailing sky condition of three observations made between 7am and 7pm LST. Snow depth at 7am LST. All other data midnight-midnight. M = Missing

WEATHER TYPES:
R = Rain Z = Freezing rain/drizzle D = Dust
L = Drizzle IP = Sleet H = Haze
S = Snow A = Hail BS = Blowing Snow
T = Thunder F = Fog RW = Rainshower SW = Snowshower

PRECIP INTENSITY: - Light Moderate + Heavy Precip amount "T" =Trace

DEGREE DAYS: Heat and Cool base 65F. Corn Growing base 50F, ceiling 86F. Heating DD season July-June. Cool and Corn DD season January-December.

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Illinois State Water Survey
Water Survey Research Center

Local Climatological Data
Champaign-Urbana, IL - 118740
December 2000

DATE	TEMPERATURE Max	Min	Mean	PRECIP (in)	SNOW (in) Amnt	Depth	WEATHER TYPES	WIND Dir	Speed (mph)	Peak Gust	Gust Dir	SKY COVER	DEGREE DAYS Heat	Cool
1	34	29	32	0.08	1.0	0	S,S-	NE	4.3	19.5	NE	CLDY	33	0
2	29	22	26	0.00	0.0	0		NE	8.3	19.2	N	PC	39	0
3	36	20	28	0.00	0.0	0		NE	3.0	10.4	N	CLR	37	0
4	36	21	29	0.00	0.0	0		SW	9.4	21.7	SW	CLDY	36	0
5	34	14	24	0.00	0.0	0		NW	7.1	26.1	W	PC	41	0
6	23	13	18	0.01	T	0	SW-	W	7.3	20.1	W	CLDY	47	0
7	39	19	29	0.00	0.0	0		S	7.4	21.9	S	CLDY	36	0
8	35	13	24	0.00	0.0	0		NW	6.1	21.1	N	PC	41	0
9	33	12	23	0.00	0.0	0		SE	4.4	15.5	SE	PC	42	0
10	40	28	34	T	0.0	0	RW-	NE	4.8	12.8	SW	CLDY	31	0
11	34	10	22	0.76	1.1	0	R,R-,L-,ZR-,S-	NE	8.1	36.8	W	CLDY	43	0
12	10	2	6	T	T	1	SW-	W	5.8	24.6	W	PC	59	0
13	23	3	13	0.49	4.9	1	S,S-	NE	4.0	16.9	NE	CLDY	52	0
14	22	0	11	T	T	6	SW-	W	3.7	11.8	W	PC	54	0
15	31	-1	15	0.02	T	6	S-,ZL-,ZR-,IF	SE	7.8	18.5	SE	CLDY	50	0
16	35	7	21	0.06	1.3	4	L-,S-,ZL-,F,BS	NW	8.1	28.8	W	PC	44	0
17	7	2	5	0.01	T	4	S-,BS	W	12.9	29.5	W	CLDY	60	0
18	19	1	10	0.07	2.0	4	S-,BS	SE	8.1	24.6	W	CLDY	55	0
19	16	1	9	T	0.2	6	S-,BS	W	11.3	26.0	W	PC	56	0
20	19	-3	8	0.03	0.4	7	S-,BS	S	8.3	24.2	S	PC	57	0
21	21	0	11	0.04	0.6	7	S-,BS	W	12.1	26.8	W	PC	54	0
22	6	-4	1	0.00	0.0	7		W	8.1	21.6	W	CLR	64	0
23	23	3	13	0.00	0.0	7		SE	7.7	20.8	S	PC	52	0
24	10	-1	5	0.00	0.0	6		NW	6.5	16.0	NW	CLR	60	0
25	15	-2	7	0.00	0.0	6		N	3.5	12.9	N	PC	58	0
26	19	8	14	0.02	0.3	6	S-	E	2.5	9.1	S	CLDY	51	0
27	18	9	14	T	T	7	S-	W	5.2	15.6	W	PC	51	0
28	21	5	13	0.01	0.2	7	S-	NE	3.4	12.9	E	PC	52	0
29	18	12	15	0.10	2.2	8	S-,BS	E	3.2	12.6	NW	CLDY	50	0
30	26	15	21	0.02	0.3	9	S-,BS	NW	7.2	18.0	NW	CLDY	44	0
31	24	9	17	0.01	0.2	9	S-	W	5.2	13.2	W	PC	48	0
AVG/TOT	**24.4**	**8.6**	**16.5**	**1.73**	**14.7**			**W**	**6.6**				**1497**	**0**
DEP.	-12.1	-13.4	-12.8	-1.29	+8.7			S	-1.3				+380	0

NUMBER OF DAYS and DEPARTURE

	MAX TEMP >=90	<=32	MIN TEMP <=32	<=0	PRECIPITATION >T	>=.01	>=.10	>=.50	>=1.00	SNOW >=1.0	SKY COVER CLR	PC	CLDY
TOTAL	0	21	31	7	20	15	3	1	0	6	3	15	13
DEP	0	+10	+5	+5		+4	-3	-1	-1	+4	-4	+8	-4

	WEATHER TYPES R	L	S	Z	IP	A	T	F	D	H	BS	SEASONAL DEGREE DAYS HEATING	COOLING	PRECIPITATION JAN-December
TOTAL	2	2	19	3	0	0	0	2	0	0	8	2657	956	37.80
DEP	-6	-1	10	0		0	-1	-4				+404	-16	-1.91

Averages based on 1961-1990 data. The daily sky condition is determined by the prevailing sky condition of three observations made between 7am and 7pm LST. Snow depth at 7am LST. All other data midnight-midnight. M = Missing

WEATHER TYPES:
R = Rain, Z = Freezing rain/drizzle, D = Dust
L = Drizzle, IP = Sleet, H = Haze
S = Snow, A = Hail, BS = Blowing
T = Thunder, F = Fog, RW = Rainshower, SW = Snowshower

PRECIP INTENSITY: - Light, Moderate, + Heavy

Precip amount "T" =Trace

DEGREE DAYS: Heat and Cool base 65F. Corn Growing base 50F, ceiling 86F. Heating DD season July-June. Cool and Corn DD season January-December.

The daily climate statistics are available by touch-tone phone. Call 333-8890 and select menu option 1. The recording is updated daily Monday through Friday by 8:00 a.m. For this and other climate data, visit the State Climatologist Web site at **http://www.sws.uiuc.edu/atmos/statecli/**

Illinois State Water Survey
Water Survey Research Center

Local Climatological Data
Champaign-Urbana, IL - 118740
January 2001

DATE	TEMPERATURE Max	Min	Mean	PRECIP (in)	SNOW (in) Amnt	Depth	WEATHER TYPES	WIND Dir	Speed	Peak Gust	Gust Dir	SKY COVER	DEGREE DAYS Heat	Cool
1	20	5	13	0.02	0.3	9	S-	NW	4.2	10.9	NW	PC	52	0
2	18	0	9	0.00	0.0	8		SW	4.6	12.3	SW	CLR	56	0
3	25	4	15	T	T	8	S-,ZL-	SW	8.8	19.4	SW	PC	50	0
4	30	17	24	0.00	0.0	7		SW	8.3	26.7	SW	CLDY	41	0
5	36	19	28	0.00	0.0	7		W	10.9	28.1	W	CLR	37	0
6	36	14	25	0.00	0.0	7		SW	7.2	18.9	S	CLR	40	0
7	36	25	31	0.00	0.0	7		NW	6.1	15.2	NW	PC	34	0
8	25	12	19	0.00	0.0	7		NW	5.8	15.1	NW	PC	46	0
9	24	8	16	0.00	0.0	6		W	5.7	13.7	W	CLR	49	0
10	35	12	24	0.00	0.0	6		SW	7.1	16.3	SW	CLR	41	0
11	35	17	26	0.02	T	6	R-,ZR-	S	3.3	11.4	SW	PC	39	0
12	36	29	33	0.01	0.2	6	SW-,F	S	2.6	7.5	S	CLDY	32	0
13	33	31	32	T	0.0	5	L-,F	SE	5.9	15.8	SW	CLDY	33	0
14	37	32	35	0.06	0.0	4	R-,L-,F	S	7.8	18.6	SE	CLDY	30	0
15	34	32	33	T	0.0	2	L-	W	9.6	20.5	W	CLDY	32	0
16	32	26	29	T	T	2	SW-	W	6.1	19.0	W	CLDY	36	0
17	31	22	27	0.00	0.0	2		NW	2.4	8.3	NW	CLDY	38	0
18	35	19	27	0.00	0.0	1	F	SW	3.2	12.5	SW	CLR	38	0
19	31	19	25	0.01	0.1	1	SW-	N	9.3	20.3	N	CLDY	40	0
20	25	14	20	T	T	1	SW-	N	5.1	14.3	N	CLDY	45	0
21	35	15	25	0.00	0.0	1		SW	5.4	14.5	SW	CLR	40	0
22	39	16	28	0.00	0.0	1	F	S	3.9	13.5	S	CLR	37	0
23	38	25	32	0.00	0.0	T		W	5.3	11.1	W	CLR	33	0
24	28	18	23	T	T	T	SW-	NW	7.1	19.6	NW	PC	42	0
25	32	13	23	0.00	0.0	T		S	5.2	15.0	NW	CLR	42	0
26	33	18	26	0.29	2.7	1	S,IP,ZR-	S	11.4	29.8	W	CLDY	39	0
27	28	18	23	0.00	0.0	3		W	8.1	19.8	NW	PC	42	0
28	31	12	22	0.28	0.4	3	S,IP-,ZR-,ZL-	SW	4.8	14.2	SW	CLDY	43	0
29	44	31	38	0.50	0.0	3	R,ZR-	SE	6.5	29.4	SW	CLDY	27	0
30	38	32	35	0.13	T	T	RW-,SW-	SW	7.8	22.7	S	CLDY	30	0
31	34	28	31	T	T	T	SW-	W	8.9	19.7	W	CLDY	34	0
AVG/TOT	**32.1**	**18.8**	**25.5**	**1.32**	**3.7**			**W**	**6.4**				**1218**	**0**
DEP.	+0.1	+2.1	+1.1	-0.57	-4.9			W	-1.5				-65	0

NUMBER OF DAYS and DEPARTURE

	MAX TEMP >=90	<=32	MIN TEMP <=32	<=0	PRECIPITATION >T	>=.01	>=.10	>=.50	>=1.00	SNOW >=1.0	SKY COVER CLR	PC	CLDY
TOTAL	0	14	31	1	16	9	4	1	0	1	10	7	14
DEP	0	+1	+3	-2		0	-1	0	0	-2	+2	-2	0

	WEATHER TYPES R	L	S	Z	IP	A	T	F	D	H	BS	SEASONAL DEGREE DAYS HEATING	COOLING	PRECIPITATION JAN-January
TOTAL	4	3	11	5	2	0	0	5	0	0	0	3875	0	1.32
DEP	-1	0	+1	+3		0	-1	+1				+337	0	-0.57

Averages based on 1971-2000 data. The daily sky condition is determined by the prevailing sky condition of three observations made between 7am and 7pm LST. Snow depth at 7am LST. All other data midnight-midnight. M = Missing

WEATHER TYPES:
R = Rain Z = Freezing rain/drizzle D = Dust
L = Drizzle IP = Sleet H = Haze
S = Snow A = Hail BS = Blowing Snow
T = Thunder F = Fog RW = Rainshower SW = Snowshower

PRECIP INTENSITY: - Light Moderate + Heavy Precip amount "T" =Trace

DEGREE DAYS: Heat and Cool base 65F. Corn Growing base 50F. Heating DD season July-June. Cool and Corn DD season January-December.

The daily climate statistics are available by touch-tone phone. Call 333-8890 and select menu option 1. The recording is updated daily Monday through Friday by 8:00 a.m. For this and other climate data, visit the State Climatologist Web site at **http://www.sws.uiuc.edu/atmos/statecli/**

Local Climatological Data

Champaign-Urbana, IL - 118740

February 2001

Illinois State Water Survey
Water Survey Research Center

DATE	TEMPERATURE Max	Min	Mean	PRECIP (in)	SNOW (in) Amnt	Depth	WEATHER TYPES	WIND Dir	Speed (mph)	Peak Gust	Gust Dir	SKY COVER	DEGREE DAYS Heat	Cool
1	37	9	23	T	T	T	SW-	SW	6.4	18.7	N	PC	42	0
2	15	-1	7	0.01	0.1	T	SW-	W	8.1	20.8	NW	CLDY	58	0
3	35	14	25	0.01	0.1	T	RW-,SW-	S	9.8	22.6	S	PC	40	0
4	47	30	39	0.01	T	0	RW-,SW-	SW	7.2	17.4	W	PC	26	0
5	33	25	29	T	T	0	RW-,SW-	W	8.0	16.6	SW	CLDY	36	0
6	42	28	35	T	0.0	0	RW-,F(PM)	N	4.1	15.1	NW	PC	30	0
7	45	24	35	T	T	0	SW-,F(AM)	SE	4.1	13.7	SE	PC	30	0
8	59	40	50	0.35	0.0	0	TRW,RW	S	10.5	26.9	S	CLDY	15	0
9	57	21	39	0.71	T	0	R,S-	S	14.9	35.4	S	CLDY	26	0
10	27	15	21	0.00	0.0	T		NW	6.1	19.0	NW	PC	44	0
11	36	16	26	0.00	0.0	0		E	3.7	14.3	SE	CLR	39	0
12	39	22	31	0.00	0.0	0		SW	4.5	13.5	W	CLDY	34	0
13	42	29	36	0.22	0.0	0	RW,RW-,F(PM)	SE	3.0	11.3	S	CLDY	29	0
14	43	32	38	0.45	0.0	0	TRW+,RW-,F(AM)	N	5.7	17.8	NE	CLDY	27	0
15	36	31	34	T	0.0	0	L-,F(PM)	NE	5.0	16.0	NE	CLDY	31	0
16	34	16	25	0.00	0.0	0		NW	7.6	22.8	NW	CLDY	40	0
17	22	10	16	0.00	0.0	0		NW	6.2	18.1	NW	PC	49	0
18	32	12	22	0.00	0.0	0		S	7.4	18.8	S	PC	43	0
19	50	28	39	0.00	0.0	0		SW	10.5	28.6	SW	CLR	26	0
20	44	24	34	0.00	0.0	0		N	6.0	16.3	NW	PC	31	0
21	28	14	21	0.16	2.4	0	S-	NE	7.3	19.0	N	PC	44	0
22	30	20	25	0.03	0.4	3	S-	W	6.9	19.9	SW	PC	40	0
23	36	24	30	0.04	0.0	T	R-	W	4.9	17.1	W	CLR	35	0
24	56	32	44	1.85	0.0	0	TRW+,RW+	S	8.0	26.8	S	CLDY	21	0
25	54	30	42	T	0.0	0	RW-	W	17.1	41.7	W	CLDY	23	0
26	46	25	36	0.00	0.0	0		NW	4.0	16.5	NW	CLR	29	0
27	35	25	30	T	T	0	SW-	N	8.8	22.3	N	CLDY	35	0
28	31	17	24	0.00	0.0	0		N	6.2	13.7	N	CLR	41	0
AVG/TOT	**39.0**	**21.9**	**30.5**	**3.84**	**3.0**			**S**	**7.2**				**964**	**0**
DEP.	+1.4	+0.2	+0.8	+1.83	-2.5			NW	-0.3				-78	0

NUMBER OF DAYS and DEPARTURE

	MAX TEMP >=90	<=32	MIN TEMP <=32	<=0	PRECIPITATION >T	>=.01	>=.10	>=.50	>=1.00	SNOW >=1.0	SKY COVER CLR	PC	CLDY
TOTAL	0	7	27	1	18	11	6	2	1	1	5	11	12
DEP	0	-2	+3	-1		+3	+1	+1	+1	-1	-3	+4	-1

	WEATHER TYPES R	L	S	Z	IP	A	T	F	D	H	BS
TOTAL	11	1	10	0	0	0	3	5	0	0	0
DEP	+6	-2	+1	-2		0		+1			

SEASONAL DEGREE DAYS HEATING	COOLING
4839	0
+262	0

PRECIPITATION JAN-February
5.16
+1.26

Averages based on 1971-2000 data. The daily sky condition is determined by the prevailing sky condition of three observations made between 7am and 7pm LST Snow depth at 7am LST. All other data midnight-midnight. M = Missing

WEATHER TYPES:

R = Rain
L = Drizzle
S = Snow
T = Thunder
Z = Freezing rain/drizzle
IP = Ice pellets (sleet)
A = Hail
F = Fog
D = Dust
H = Haze
BS = Blowing snow
RW = Rainshower SW = Snowshower

PRECIP INTENSITY: - Light Moderate + Heavy

Precip amount "T" =Trace

DEGREE DAYS: Heat and Cool base 65F. Corn Growing base 50F, ceiling 86F. Heating DD season July-June. Cool and Corn DD season January-December.

Local Climatological Data

Champaign-Urbana, IL - 118740

March 2001

llinois State Water Survey
Water Survey Research Center

DATE	TEMPERATURE Max	Min	Mean	PRECIP (in)	SNOW (in) Amnt	Depth	WEATHER TYPES	WIND Dir	Speed (mph)	Peak Gust	Gust Dir	SKY COVER	DEGREE DAYS Heat	Cool
1	42	20	31	0.00	0.0	0		SW	5.4	14.3	SW	PC	34	0
2	38	32	35	T	0.0	0	RW-,L-	W	6.2	17.9	W	PC	30	0
3	50	30	40	0.00	0.0	0		W	2.8	10.1	N	PC	25	0
4	37	26	32	0.00	0.0	0		N	9.9	23.7	N	CLDY	33	0
5	33	23	28	T	T	0	SW-	NW	8.6	24.7	NW	PC	37	0
6	39	20	30	0.00	0.0	0		NW	8.2	21.4	N	CLR	35	0
7	46	21	34	0.00	0.0	0		W	6.5	19.9	W	CLR	31	0
8	35	26	31	T	T	0	SW-	W	8.7	20.8	W	CLDY	34	0
9	40	23	32	0.00	0.0	0		NW	4.3	15.9	W	PC	33	0
10	50	21	36	0.00	0.0	0		S	8.4	23.1	S	PC	29	0
11	51	34	43	0.00	0.0	0		NE	6.1	20.5	NE	CLR	22	0
12	53	34	44	0.09	0.0	0	RW-	SE	8.7	24.7	S	CLDY	21	0
13	47	31	39	0.05	0.5	T	SW-	W	11.4	30.2	W	CLDY	26	0
14	58	26	42	0.02	0.0	0	RW-	S	6.1	20.0	S	PC	23	0
15	52	42	47	0.06	0.0	0	RW-	NE	5.1	21.3	NE	CLDY	18	0
16	44	31	38	0.45	0.6	0	R,S-	NE	9.4	21.2	NE	CLDY	27	0
17	36	29	33	0.03	0.2	1	SW-	NW	5.8	14.7	N	CLDY	32	0
18	49	26	38	0.00	0.0	0		NE	3.7	13.0	E	CLR	27	0
19	49	28	39	0.00	0.0	0		E	3.7	14.6	N	PC	26	0
20	54	32	43	0.00	0.0	0		NE	5.6	16.7	N	PC	22	0
21	58	32	45	0.00	0.0	0		N	7.5	18.9	N	CLR	20	0
22	57	35	46	0.00	0.0	0		W	4.7	13.6	W	PC	19	0
23	55	35	45	0.00	0.0	0		NW	6.2	18.1	NW	CLR	20	0
24	40	22	31	0.00	0.0	0		NW	9.3	22.7	NW	CLR	34	0
25	30	19	25	T	T	T	S-	NW	8.2	22.8	N	CLR	40	0
26	36	14	25	0.00	0.0	0		NW	5.5	19.8	W	CLR	40	0
27	45	18	32	0.00	0.0	0		NW	2.4	11.2	W	CLR	33	0
28	50	21	36	0.02	0.0	0	RW-	S	6.8	27.3	S	CLDY	29	0
29	49	33	41	0.00	0.0	0		SE	3.4	9.9	SE	CLDY	24	0
30	58	38	48	0.00	0.0	0		NE	4.9	15.5	N	PC	17	0
31	62	32	47	0.13	0.0	0	RW	NW	5.8	23.1	NW	CLDY	18	0
AVG/TOT	**46.5**	**27.5**	**37.0**	**0.85**	**1.3**			**NW**	**6.4**				**859**	**0**
DEP.	-3.1	-3.7	-3.4	-2.36	-2.0			S	-1.6				+74	0

NUMBER OF DAYS and DEPARTURE

	MAX TEMP >=90	<=32	MIN TEMP <=32	<=0	PRECIPITATION >T	>=.01	>=.10	>=.50	>=1.00	SNOW >=1.0	SKY COVER CLR	PC	CLDY
TOTAL	0	1	24	0	12	8	2	0	0	0	10	11	10
DEP	0	-2	+5	0		-3	-5	-2	-1	-1	+3	+2	-5

	WEATHER TYPES R	L	S	Z	IP	A	T	F	D	H	BS
TOTAL	7	1	6	0	0	0	0	0	0	0	0
DEP	-3	-3	0	-1		-1	-3	-4			

SEASONAL DEGREE DAYS HEATING	COOLING
5698	0
+336	0

PRECIPITATION JAN-March
6.01
-1.10

Averages based on 1971-2000 data. The daily sky condition is determined by the prevailing sky condition of three observations made between 7am and 7pm LST Snow depth at 7am LST. All other data midnight-midnight. M = Missing

WEATHER TYPES:

R = Rain
L = Drizzle
S = Snow
T = Thunder
Z = Freezing rain/drizzle
IP = Ice pellets (sleet)
A = Hail
F = Fog
D = Dust
H = Haze
BS = Blowing snow
RW = Rainshower SW = Snowshower

PRECIP INTENSITY: - Light
Moderate
+ Heavy

Precip amount "T" =Trace

DEGREE DAYS: Heat and Cool base 65F. Corn Growing base 50F, ceiling 86F. Heating DD season July-June. Cool and Corn DD season January-December.

Local Climatological Data

Champaign-Urbana, IL - 118740

April 2001

Illinois State Water Survey
Water Survey Research Center

DATE	TEMPERATURE Max	Min	Mean	PRECIP (in)	SNOW (in) Amnt	Depth	WEATHER TYPES	WIND Dir	Speed (mph)	Peak Gust	Gust Dir	SKY COVER	DEGREE DAYS Heat	Cool	Corn
1	52	28	40	0.00	0.0	0		W	6.4	24.9	W	PC	25	0	1
2	62	38	50	0.00	0.0	0		SE	5.5	22.8	S	CLDY	15	0	6
3	61	39	50	0.00	0.0	0		NE	7.2	21.0	NE	CLR	15	0	6
4	67	40	54	0.00	0.0	0		E	4.7	15.9	E	CLR	11	0	9
5	72	39	56	0.08	0.0	0	TRW,RW-	E	5.2	21.4	S	CLDY	9	0	11
6	78	64	71	0.00	0.0	0		SW	10.2	20.8	S	CLDY	0	6	21
7	79	64	72	0.00	0.0	0		SW	17.1	37.8	SW	PC	0	7	22
8	83	50	67	0.00	0.0	0		SW	10.0	24.4	SW	PC	0	2	17
9	84	64	74	T	0.0	0	TRW(PM),RW-(AM	SW	10.7	47.1	SW	PC	0	9	24
10	72	55	64	0.43	0.0	0	TRW(PM),RW-(AM	SE	6.1	20.4	S	CLDY	1	0	14
11	76	60	68	0.03	0.0	0	RW-	S	12.8	35.8	SW	CLDY	0	3	18
12	65	50	58	0.00	0.0	0		W	14.2	34.1	W	PC	7	0	8
13	64	45	55	0.00	0.0	0		NW	4.4	18.0	W	CLR	10	0	7
14	72	44	58	0.00	0.0	0		NW	5.4	15.8	W	PC	7	0	11
15	54	44	49	0.22	0.0	0	TRW(AM),RW-(PM	NE	7.0	21.7	NE	CLDY	16	0	2
16	47	30	39	T	T	0	SW-	NW	10.1	31.3	W	PC	26	0	0
17	50	29	40	T	T	0	SW-	N	9.4	29.2	N	PC	25	0	0
18	58	29	44	0.00	0.0	0		W	5.1	20.5	W	CLR	21	0	4
19	69	35	52	0.06	0.0	0	RW-	S	9.1	27.3	S	PC	13	0	10
20	75	51	63	0.07	0.0	0	RW-	S	14.4	27.7	SW	CLDY	2	0	13
21	74	62	68	0.05	0.0	0	RW-	SW	14.9	39.1	S	PC	0	3	18
22	83	64	74	T	0.0	0	RW-	S	12.1	35.0	S	PC	0	9	24
23	74	48	61	0.11	0.0	0	RW	S	17.3	39.5	SW	CLDY	4	0	12
24	62	40	51	0.00	0.0	0		NW	6.0	21.0	NW	CLR	14	0	6
25	62	38	50	0.04	0.0	0	RW-	SE	2.3	12.0	SE	PC	15	0	6
26	76	38	57	0.00	0.0	0		SW	6.9	20.7	SW	CLR	8	0	13
27	81	48	65	0.00	0.0	0		NE	6.3	19.0	N	CLR	0	0	16
28	77	44	61	0.00	0.0	0		E	3.5	14.5	NE	CLR	4	0	14
29	79	46	63	0.00	0.0	0		SE	4.7	16.8	SE	CLR	2	0	15
30	88	47	68	0.00	0.0	0		SW	6.8	21.8	SW	CLDY	0	3	18
AVG/TOT	**69.9**	**45.8**	**57.9**	**1.09**	**0.0**			**S**	**8.5**				**250**	**42**	**346**
DEP.	+7.7	+5.0	+6.4	-2.56	-0.5			S	+0.6				-161	+34	+140

NUMBER OF DAYS and DEPARTURE

	MAX TEMP >=90	<=32	MIN TEMP <=32	<=0	PRECIPITATION >T	>=.01	>=.10	>=.50	>=1.00	SNOW >=1.0	SKY COVER CLR	PC	CLDY
TOTAL	0	0	4	0	13	9	3	0	0	0	9	12	9
DEP	0	0	-2	0		-2	-5	-2	-1	0	+1	+3	-4

	WEATHER TYPES R	L	S	Z	IP	A	T	F	D	H	BS
TOTAL	11	0	2	0	0	0	5	0	0	0	0
DEP	-2	-4	0			-1	0	-3			

SEASONAL DEGREE DAYS HEATING	COOLING	CORN
5948	42	391
+175	+34	+84

PRECIPITATION JAN-April
7.10
-3.66

Averages based on 1971-2000 data. The daily sky condition is determined by the prevailing sky condition of three observations made between 7am and 7pm LST Snow depth at 7am LST. All other data midnight-midnight. M = Missing

WEATHER TYPES:

R = Rain
L = Drizzle
S = Snow
T = Thunder
Z = Freezing rain/drizzle
IP = Ice pellets (sleet)
A = Hail
F = Fog
D = Dust
H = Haze
BS = Blowing snow
RW = Rainshower SW = Snowshower

PRECIP INTENSITY: - Light
Moderate
\+ Heavy

Precip amount "T" =Trace

DEGREE DAYS: Heat and Cool base 65F. Corn Growing base 50F, ceiling 86F. Heating DD season July-June. Cool and Corn DD season January-December.