

MONITORING WELLS NEAR THE HALSTEAD RECHARGE SITE

STATISTICAL SUMMARY FOR FIELD PARAMETERS, MAJOR AND MINOR ELEMENTS, NUTRIENTS, BACTERIA, SEDIMENT, AND RADIONUCLIDE DATA COLLECTED FROM APRIL 1998 TO JUNE 2000

| WATER-QUALITY CONSTITUENT             | SAMPLE SIZE | DESCRIPTIVE STATISTICS |         |          | PERCENT OF SAMPLES IN WHICH VALUES WERE LESS THAN OR EQUAL TO THOSE SHOWN |           |               |          |          |
|---------------------------------------|-------------|------------------------|---------|----------|---|-----------|---------------|----------|----------|
|                                       |             | MAXIMUM                | MINIMUM | MEAN     | 95 %  | 75 %      | (MEDIAN) 50 % | 25 %     | 5 %      |
| 00010 Temperature, wat degrees C      | 19          | 16.500                 | 12.300  | 15.116   | 16.500  | 16.000    | 15.500        | 14.300   | 12.300   |
| 00020 Temperature, air degrees C      | 18          | 34.900                 | 6.500   | 18.994   | 34.900  | 29.625    | 16.750        | 7.375    | 6.500    |
| 00025 Air pressure mm of Hg           | 19          | 735.000                | 724.000 | 727.158  | 735.000   | 729.000   | 727.000       | 724.000  | 724.000  |
| 00300 Dissolved oxygen mg/L           | 19          | 7.530                  | 0.020   | 2.211    | 7.530   | 4.340     | 0.340         | 0.120    | 0.020    |
| 00400 pH standard units               | 19          | 7.150                  | 6.260   | 6.813    | 7.150   | 6.990     | 6.910         | 6.760    | 6.260    |
| 00095 Specific cond at uS/cm @ 25C    | 19          | 864.000                | 324.000 | 508.211  | 864.000   | 621.000   | 491.000       | 352.000  | 324.000  |
| 61028 Turbidity, wu,fl NTU            | 19          | 1.130                  | --      | 0.264*   | *1.130  | *0.410    | *0.240        | *0.050   | *0.010   |
| 90095 SpecCond,wu25deg uS/cm @ 25C    | 19          | 895.000                | 301.000 | 495.053  | 895.000   | 598.000   | 475.000       | 337.000  | 301.000  |
| 00403 pH, wu,lab standard units       | 19          | 7.140                  | 6.310   | 6.887    | 7.140   | 7.050     | 7.010         | 6.750    | 6.310    |
| 82079 Turbidity, wu,la NTU            | 19          | 10.300                 | --      | 2.792*   | *10.300   | *3.870    | *2.600        | *0.160   | *0.052   |
| 00900 Hardness, wu mg/L as CaCO3      | 19          | 287.000                | 113.000 | 176.316  | 287.000   | 212.000   | 173.000       | 129.000  | 113.000  |
| 00901 CarbonateHardnes mg/L as CaCO3  | 19          | 285.900                | 112.500 | 176.026  | 285.900   | 212.000   | 173.000       | 129.000  | 112.500  |
| 39087 Alkalinity, wf,i mg/L as CaCO3  | 19          | 272.000                | 100.000 | 164.526  | 272.000   | 214.000   | 156.000       | 124.000  | 100.000  |
| 00500 ROE @ 105C, wu mg/L             | 5           | 554.000                | 322.000 | --       | --  | --        | --            | --       | --       |
| 00530 Residue, total mg/L             | 19          | --                     | --      | --       | --  | --        | --            | --       | --       |
| 70300 Residue, ROE@180 mg/L           | 19          | 520.000                | 202.000 | 311.579  | 520.000   | 386.000   | 291.000       | 218.000  | 202.000  |
| 00915 Calcium, wf mg/L                | 19          | 89.000                 | 37.900  | 57.921   | 89.000  | 71.400    | 57.800        | 43.600   | 37.900   |
| 00925 Magnesium, wf mg/L              | 19          | 16.800                 | 4.330   | 7.640    | 16.800  | 8.110     | 6.490         | 4.790    | 4.330    |
| 00930 Sodium, wf mg/L                 | 19          | 75.400                 | 23.000  | 39.074   | 75.400  | 48.500    | 36.200        | 25.000   | 23.000   |
| 00935 Potassium, wf mg/L              | 19          | 3.060                  | 2.160   | 2.496    | 3.060   | 2.690     | 2.470         | 2.260    | 2.160    |
| 29806 HCO3, wf,icr,lab mg/L           | 19          | 332.000                | 122.000 | 200.526  | 332.000   | 261.000   | 190.000       | 151.000  | 122.000  |
| 29809 CO3, wf,icr,lab mg/L            | 19          | 0.000                  | --      | --       | --  | --        | --            | --       | --       |
| 00945 Sulfate, wf mg/L                | 19          | 82.000                 | 16.000  | 41.126   | 82.000  | 58.000    | 35.000        | 25.000   | 16.000   |
| 00940 Chloride, wf mg/L               | 19          | 73.000                 | 9.000   | 30.805   | 73.000  | 41.000    | 32.600        | 11.000   | 9.000    |
| 00631 NO2+NO3, wf mg/L as N           | 19          | 9.220                  | --      | 1.872*   | *9.220  | *2.930    | *0.070        | *0.010   | *0.000   |
| 00608 Ammonia, wf mg/L as N           | 19          | 0.190                  | --      | 0.100*   | *0.190  | *0.140    | *0.100        | *0.050   | *0.027   |
| 00671 Orthophosphate, mg/L as P       | 5           | 0.110                  | 0.010   | --       | --  | --        | --            | --       | --       |
| 01046 Iron, wf ug/L                   | 19          | 2180.000               | --      | 906.135* | *2180.000   | *1420.000 | *837.000      | *96.128  | *5.200   |
| 01056 Manganese, wf ug/L              | 19          | 627.000                | --      | 343.415* | *627.000  | *405.000  | *324.000      | *228.357 | *149.488 |
| 31504 TColiform,LesEnd colonies/100mL | 19          | --                     | --      | --       | --  | --        | --            | --       | --       |
| 31625 Fecal coliforms, colonies/100mL | 19          | --                     | --      | --       | --  | --        | --            | --       | --       |
| 00950 Fluoride, wf mg/L               | 5           | 0.560                  | 0.180   | --       | --  | --        | --            | --       | --       |
| 00955 Silica, wf mg/L                 | 5           | 25.500                 | 17.000  | --       | --  | --        | --            | --       | --       |

|       |                 |           |   |         |         |    |    |    |    |    |    |
|-------|-----------------|-----------|---|---------|---------|----|----|----|----|----|----|
| 00618 | Nitrate, wf     | mg/L as N | 5 | --      | --      | -- | -- | -- | -- | -- | -- |
| 00613 | Nitrite, wf     | mg/L as N | 5 | --      | --      | -- | -- | -- | -- | -- | -- |
| 00666 | Phosphorus, wf  | mg/L      | 5 | 0.250   | 0.090   | -- | -- | -- | -- | -- | -- |
| 01106 | Aluminum, wf    | ug/L      | 5 | --      | --      | -- | -- | -- | -- | -- | -- |
| 01095 | Antimony, wf    | ug/L      | 5 | --      | --      | -- | -- | -- | -- | -- | -- |
| 01000 | Arsenic, wf     | ug/L      | 5 | 12.500  | 2.160   | -- | -- | -- | -- | -- | -- |
| 01005 | Barium, wf      | ug/L      | 5 | 392.000 | 169.000 | -- | -- | -- | -- | -- | -- |
| 01010 | Beryllium, w,f  | ug/L      | 5 | --      | --      | -- | -- | -- | -- | -- | -- |
| 01020 | Boron, wf       | ug/L      | 5 | 61.100  | 41.600  | -- | -- | -- | -- | -- | -- |
| 71870 | Bromide, wf     | mg/L      | 5 | 0.270   | 0.080   | -- | -- | -- | -- | -- | -- |
| 01025 | Cadmium, wf     | ug/L      | 5 | --      | --      | -- | -- | -- | -- | -- | -- |
| 01030 | Chromium, wf    | ug/L      | 5 | --      | --      | -- | -- | -- | -- | -- | -- |
| 01040 | Copper, wf      | ug/L      | 5 | --      | --      | -- | -- | -- | -- | -- | -- |
| 01049 | Lead, wf        | ug/L      | 5 | --      | --      | -- | -- | -- | -- | -- | -- |
| 71890 | Mercury, wf     | ug/L      | 5 | --      | --      | -- | -- | -- | -- | -- | -- |
| 01065 | Nickel, wf      | ug/L      | 5 | --      | --      | -- | -- | -- | -- | -- | -- |
| 01145 | Selenium, wf    | ug/L      | 5 | --      | --      | -- | -- | -- | -- | -- | -- |
| 01075 | Silver, wf      | ug/L      | 5 | --      | --      | -- | -- | -- | -- | -- | -- |
| 01080 | Strontium, wf   | ug/L      | 5 | 572.000 | 205.000 | -- | -- | -- | -- | -- | -- |
| 01057 | Thallium, wf    | ug/L      | 5 | --      | --      | -- | -- | -- | -- | -- | -- |
| 01085 | Vanadium, wf    | ug/L      | 5 | --      | --      | -- | -- | -- | -- | -- | -- |
| 01090 | Zinc, wf        | ug/L      | 5 | 123.000 | 6.840   | -- | -- | -- | -- | -- | -- |
| 00680 | Organic carbon, | mg/L      | 5 | 1.460   | 0.812   | -- | -- | -- | -- | -- | -- |
| 00723 | Cyanide, wf     | mg/L      | 5 | --      | --      | -- | -- | -- | -- | -- | -- |

\* - VALUE IS ESTIMATED BY USING A LOG-PROBABILITY REGRESSION TO PREDICT THE VALUES OF DATA BELOW THE DETECTION LIMIT

STATISTICAL SUMMARY OF TRIAZINE HERBICIDE SCREEN DATA COLLECTED FROM APR 1998 TO JUN 2000

| WATER-QUALITY CONSTITUENT   | DESCRIPTIVE STATISTICS |         |         |      | PERCENT OF SAMPLES IN WHICH VALUES<br>WERE LESS THAN OR EQUAL TO THOSE SHOWN |      |                  |      |     |
|-----------------------------|------------------------|---------|---------|------|--|------|------------------|------|-----|
|                             | SAMPLE<br>SIZE         | MAXIMUM | MINIMUM | MEAN | 95 %   | 75 % | (MEDIAN)<br>50 % | 25 % | 5 % |
| 34756 Triazines, ELISA ug/L | 19                     | --      | --      | --   | --   | --   | --               | --   | --  |

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|       |                          |      |   |        |        |    |    |    |    |    |    |
|-------|--------------------------|------|---|--------|--------|----|----|----|----|----|----|
| 04041 | Cyanazine, wf            | ug/L | 5 | --     | --     | -- | -- | -- | -- | -- | -- |
| 82682 | DCPA, w,gf<.7u           | ug/L | 5 | --     | --     | -- | -- | -- | -- | -- | -- |
| 04040 | CIAT, wf                 | ug/L | 5 | 0.049  | 0.006  | -- | -- | -- | -- | -- | -- |
| 39572 | Diazinon, wf             | ug/L | 5 | --     | --     | -- | -- | -- | -- | -- | -- |
| 91063 | Diazinon-d10, su percent |      | 5 | 98.180 | 90.450 | -- | -- | -- | -- | -- | -- |
| 39381 | Dieldrin, wf             | ug/L | 5 | --     | --     | -- | -- | -- | -- | -- | -- |
| 82677 | Disulfoton, w,gf         | ug/L | 5 | --     | --     | -- | -- | -- | -- | -- | -- |
| 82668 | EPTC, w,gf<.7u           | ug/L | 5 | --     | --     | -- | -- | -- | -- | -- | -- |
| 82663 | Ethalfuralin, g          | ug/L | 5 | --     | --     | -- | -- | -- | -- | -- | -- |
| 82672 | Ethoprop, w,gf<.         | ug/L | 5 | --     | --     | -- | -- | -- | -- | -- | -- |
| 04095 | Fonofos, wf              | ug/L | 5 | --     | --     | -- | -- | -- | -- | -- | -- |
| 39341 | Lindane, wf              | ug/L | 5 | --     | --     | -- | -- | -- | -- | -- | -- |
| 82666 | Linuron, w,gf<.7         | ug/L | 5 | --     | --     | -- | -- | -- | -- | -- | -- |
| 39532 | Malathion, wf            | ug/L | 5 | --     | --     | -- | -- | -- | -- | -- | -- |
| 39415 | Metolachlor, wf          | ug/L | 5 | --     | --     | -- | -- | -- | -- | -- | -- |
| 82630 | Metribuzin, wf           | ug/L | 5 | --     | --     | -- | -- | -- | -- | -- | -- |
| 82671 | Molinate, w,gf<.         | ug/L | 5 | --     | --     | -- | -- | -- | -- | -- | -- |
| 82684 | Napropamide,w,gf         | ug/L | 5 | --     | --     | -- | -- | -- | -- | -- | -- |
| 34653 | p,p'-DDE, wf             | ug/L | 5 | --     | --     | -- | -- | -- | -- | -- | -- |
| 39542 | Parathion, wf            | ug/L | 5 | --     | --     | -- | -- | -- | -- | -- | -- |
| 82667 | Methyl parathion         | ug/L | 5 | --     | --     | -- | -- | -- | -- | -- | -- |
| 82669 | Pebulate, w,gf<.         | ug/L | 5 | --     | --     | -- | -- | -- | -- | -- | -- |
| 82683 | Pendimethalin, g         | ug/L | 5 | --     | --     | -- | -- | -- | -- | -- | -- |
| 82664 | Phorate, w,gf<.7         | ug/L | 5 | --     | --     | -- | -- | -- | -- | -- | -- |
| 04037 | Prometon, wf             | ug/L | 5 | --     | --     | -- | -- | -- | -- | -- | -- |
| 04024 | Propachlor, wf           | ug/L | 5 | --     | --     | -- | -- | -- | -- | -- | -- |
| 82679 | Propanil, w,gf<.         | ug/L | 5 | --     | --     | -- | -- | -- | -- | -- | -- |
| 82685 | Propargite, w,gf         | ug/L | 5 | --     | --     | -- | -- | -- | -- | -- | -- |
| 82676 | Pronamide, w,gf<         | ug/L | 5 | --     | --     | -- | -- | -- | -- | -- | -- |
| 04035 | Simazine, wf             | ug/L | 5 | --     | --     | -- | -- | -- | -- | -- | -- |
| 82670 | Tebuthiuron,w,gf         | ug/L | 5 | --     | --     | -- | -- | -- | -- | -- | -- |
| 82665 | Terbacil, w,gf<.         | ug/L | 5 | --     | --     | -- | -- | -- | -- | -- | -- |
| 82675 | Terbufos, w,gf<.         | ug/L | 5 | --     | --     | -- | -- | -- | -- | -- | -- |
| 82681 | Thiobencarb,w,gf         | ug/L | 5 | --     | --     | -- | -- | -- | -- | -- | -- |
| 82678 | Triallate, w,gf<         | ug/L | 5 | --     | --     | -- | -- | -- | -- | -- | -- |
| 82661 | Trifluralin,w,gf         | ug/L | 5 | --     | --     | -- | -- | -- | -- | -- | -- |

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