# 01482645 SWEDES RUN AT SWEDES BRIDGE, NEAR PORTERTOWN, NJ

DELAWARE RIVER BASIN

LOCATION.--Lat 39°35′46″, long 75°22′33″ referenced to North American Datum of 1983, Mannington Township, Salem County, NJ, Hydrologic Unit 02040206, at bridge on Swedes Bridge Road, 0.2 mi south of Oechsle Road, 0.2 mi downstream from bridge on Hackett Road, 1.6 mi upstream of mouth, and 1.7 mi southwest of Portertown.

DRAINAGE AREA.--3.55 $mi^2$.

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 2007-08.

REMARKS.--Cooperative Network Site Descriptor: Statewide Status, NJ Department of Environmental Protection Watershed Management Area 17.

COOPERATION.--Physical measurements and samples for laboratory analyses were provided by personnel of the NJ Department of Environmental Protection. Determinations of dissolved ammonia, dissolved orthophosphate, suspended residue, ammonia-plus-organic nitrogen in bed sediment, and phosphorus in bed sediment were performed by the NJ Department of Health and Senior Services, Environmental and Chemical Laboratory.

### WATER-QUALITY DATA
### WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 1 of 5

[QC, quality control sample. Remark codes: <, less than; E, estimated.]

| Date | Time | Sample medium and type | Turbdty white light, det ang 90+/-30 corrctd NTRU (63676) | UV absorb-ance, 254 nm, wat flt units /cm (50624) | UV absorb-ance, 280 nm, wat flt units /cm (61726) | Baro-metric pres-sure, mm Hg (00025) | Dis-solved oxygen, mg/L (00300) | Dis-solved oxygen, percent of sat-uration (00301) | pH, water, unfltrd field, std units (00400) |
|---|---|---|---|---|---|---|---|---|---|
| **Dec** | | | | | | | | | |
| **04...** | 0930 | Surface water, regular | 17 | .139 | .109 | 755 | 7.3 | 57 | 7.5 |
| **Feb** | | | | | | | | | |
| ***14...*** | *0915* | *QC - Artificial, field blank* | -- | -- | -- | -- | -- | -- | -- |
| **14...** | 0930 | Surface water, regular | 32 | .321 | .254 | 764 | 11.1 | 81 | 6.9 |
| **May** | | | | | | | | | |
| **14...** | 0930 | Surface water, regular | 4.7 | .260 | .198 | 765 | 8.5 | 79 | 6.8 |
| **Aug** | | | | | | | | | |
| **14...** | 1030 | Surface water, regular | 8.9 | .051 | .038 | 756 | 4.0 | 41 | 7.6 |

**01482645 SWEDES RUN AT SWEDES BRIDGE, NEAR PORTERTOWN, NJ—Continued**

**WATER-QUALITY DATA**
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**
Part 2 of 5
[QC, quality control sample. Remark codes: <, less than; E, estimated.]

| Date | Specific conductance, wat unf µS/cm 25 degC (00095) | Temperature, air, deg C (00020) | Temperature, water, deg C (00010) | Hardness, water, mg/L as CaCO3 (00900) | Calcium water, fltrd, mg/L (00915) | Magnesium, water, fltrd, mg/L (00925) | Potassium, water, fltrd, mg/L (00935) | Sodium, water, fltrd, mg/L (00930) | ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410) | Chloride, water, fltrd, mg/L (00940) | Fluoride, water, fltrd, mg/L (00950) | Silica, water, fltrd, mg/L as SiO2 (00955) | Sulfate water, fltrd, mg/L (00945) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Dec** | | | | | | | | | | | | | |
| **04...** | 457 | 2.0 | 4.7 | 210 | 71.4 | 7.38 | 6.40 | 5.08 | 102 | 14.5 | .25 | 21.8 | 92.8 |
| **Feb** | | | | | | | | | | | | | |
| ***14...*** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **14...** | 160 | 4.5 | 2.3 | 51 | 14.5 | 3.50 | 3.74 | 5.39 | 22 | 12.3 | E.12 | 9.8 | 25.1 |
| **May** | | | | | | | | | | | | | |
| **14...** | 138 | 14.0 | 11.9 | 45 | 13.2 | 3.06 | 2.65 | 4.60 | 23 | 9.63 | E.12 | 12.7 | 21.7 |
| **Aug** | | | | | | | | | | | | | |
| **14...** | 449 | 23.0 | 17.3 | 220 | 75.2 | 7.41 | 5.12 | 4.77 | 181 | 11.8 | .27 | 26.9 | 35.9 |

**WATER-QUALITY DATA**
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**
Part 3 of 5
[QC, quality control sample. Remark codes: <, less than; E, estimated.]

| Date | Residue water, fltrd, sum of constituents mg/L (70301) | Residue on evap. at 180degC wat flt mg/L (70300) | Residue total non-filterable, mg/L (00530) | Ammonia + org-N, water, fltrd, mg/L as N (00623) | Ammonia water, fltrd, mg/L as N (00608) | Nitrate + nitrite water fltrd, mg/L as N (00631) | Particulate nitrogen, susp, water, mg/L (49570) | Total nitrogen, water, fltrd, mg/L (00602) | Total nitrogen, water, unfltrd mg/L (00600) | Orthophosphate, water, fltrd, mg/L as P (00671) | Phosphorus, water, fltrd, mg/L as P (00666) | Phosphorus, water, unfltrd mg/L as P (00665) | Total carbon, suspnd sedimnt total, mg/L (00694) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Dec** | | | | | | | | | | | | | |
| **04...** | 288 | 316 | 8 | .83 | .052 | 1.62 | .12 | 2.4 | 2.6 | .011 | .027 | .107 | .9 |
| **Feb** | | | | | | | | | | | | | |
| ***14...*** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **14...** | E91 | 103 | 12 | .49 | .038 | .78 | .17 | 1.3 | 1.4 | .020 | .046 | .137 | 1.1 |
| **May** | | | | | | | | | | | | | |
| **14...** | E83 | 102 | 2 | .41 | .034 | .34 | E.03 | .75 | E.78 | .013 | .033 | .057 | .2 |
| **Aug** | | | | | | | | | | | | | |
| **14...** | 277 | 295 | 6 | .35 | .054 | .19 | E.03 | .54 | E.57 | .017 | .014 | .088 | .3 |

**01482645 SWEDES RUN AT SWEDES BRIDGE, NEAR PORTERTOWN, NJ—Continued**

**WATER-QUALITY DATA**
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**
Part 4 of 5
[QC, quality control sample. Remark codes: <, less than; E, estimated.]

| Date | Inorganic carbon, suspnd sedimnt total, mg/L (00688) | Organic carbon, suspnd sedimnt total, mg/L (00689) | Organic carbon, water, fltrd, mg/L (00681) | Arsenic water, fltrd, µg/L (01000) | Arsenic water, unfltrd µg/L (01002) | Barium, water, unfltrd recover-able, µg/L (01007) | Beryllium, water, unfltrd recover-able, µg/L (01012) | Boron, water, fltrd, µg/L (01020) | Boron, water, unfltrd recover-able, µg/L (01022) | Cadmium water, unfltrd µg/L (01027) | Chromium, water, unfltrd recover-able, µg/L (01034) | Copper, water, fltrd, µg/L (01040) | Copper, water, unfltrd recover-able, µg/L (01042) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Dec** | | | | | | | | | | | | | |
| **04...** | <.04 | .8 | 5.0 | -- | -- | -- | -- | 31 | -- | -- | -- | -- | -- |
| **Feb** | | | | | | | | | | | | | |
| ***14...*** | -- | -- | -- | *<.06* | -- | -- | -- | -- | -- | -- | -- | *<1.0* | -- |
| **14...** | <.04 | 1.1 | 7.7 | .31 | .69 | 33.4 | .10 | 15 | 13 | .11 | .80 | -- | 2.8 |
| **May** | | | | | | | | | | | | | |
| **14...** | <.04 | .2 | 6.6 | -- | -- | -- | -- | 21 | -- | -- | -- | -- | -- |
| **Aug** | | | | | | | | | | | | | |
| **14...** | <.04 | .3 | 2.3 | .32 | E.39 | 40.5 | <.04 | 32 | 32 | <.01 | <.40 | -- | <1.2 |

**WATER-QUALITY DATA**
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**
Part 5 of 5
[QC, quality control sample. Remark codes: <, less than; E, estimated.]

| Date | Iron, water, unfltrd recover-able, µg/L (01045) | Lead, water, fltrd, µg/L (01049) | Lead, water, unfltrd recover-able, µg/L (01051) | Manganese, water, unfltrd recover-able, µg/L (01055) | Mercury water, fltrd, µg/L (71890) | Mercury water, unfltrd recover-able, µg/L (71900) | Nickel, water, fltrd, µg/L (01065) | Nickel, water, unfltrd recover-able, µg/L (01067) | Selenium, water, unfltrd µg/L (01147) | Silver, water, unfltrd recover-able, µg/L (01077) | Zinc, water, fltrd, µg/L (01090) | Zinc, water, unfltrd recover-able, µg/L (01092) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Dec** | | | | | | | | | | | | |
| **04...** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Feb** | | | | | | | | | | | | |
| ***14...*** | -- | *<.08* | -- | -- | *<.010* | -- | *<.20* | -- | -- | -- | *<1.8* | -- |
| **14...** | 931 | -- | .98 | 49.9 | -- | E.006 | -- | 3.2 | .12 | E.01 | -- | 16.1 |
| **May** | | | | | | | | | | | | |
| **14...** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Aug** | | | | | | | | | | | | |
| **14...** | 1,120 | -- | .11 | 101 | -- | <.010 | -- | .66 | E.05 | <.02 | -- | E1.1 |

**01482645 SWEDES RUN AT SWEDES BRIDGE, NEAR PORTERTOWN, NJ—Continued**

**WATER-QUALITY DATA**
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**
Part 1 of 7
[Remark codes: <, less than; E, estimated.]

| Date | 1-Naphthol, water, fltrd 0.7u GF µg/L (49295) | 2,6-Diethylaniline water, fltrd 0.7u GF µg/L (82660) | 2Chloro-2',6'-diethyl acetanilide wat flt µg/L (61618) | CIAT, water, fltrd, µg/L (04040) | 2-Ethyl-6-methylaniline water, fltrd, µg/L (61620) | 3,4-Dichloroaniline water, fltrd, µg/L (61625) | 3,5-Dichloroaniline water, fltrd, µg/L (61627) | 4-Chloro-2methyl phenol, water, fltrd, µg/L (61633) | Acetochlor, water, fltrd, µg/L (49260) | Alachlor, water, fltrd, µg/L (46342) | alpha-Endosulfan, water, fltrd, µg/L (34362) | Atrazine, water, fltrd, µg/L (39632) | Azinphosmethyl oxon, water, fltrd, µg/L (61635) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **May** | | | | | | | | | | | | | |
| **14...** | E.01 | <.006 | <.010 | E.013 | <.010 | <.006 | <.008 | <.005 | <.006 | <.006 | <.006 | .166 | <.04 |

**WATER-QUALITY DATA**
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**
Part 2 of 7
[Remark codes: <, less than; E, estimated.]

| Date | Azinphosmethyl, water, fltrd 0.7u GF µg/L (82686) | Benfluralin, water, fltrd 0.7u GF µg/L (82673) | Carbaryl, water, fltrd 0.7u GF µg/L (82680) | Carbofuran, water, fltrd 0.7u GF µg/L (82674) | Chlorpyrifos oxon, water, fltrd, µg/L (61636) | Chlorpyrifos water, fltrd, µg/L (38933) | cis-Permethrin water fltrd 0.7u GF µg/L (82687) | cis-Propiconazole, water, fltrd, µg/L (79846) | Cyanazine, water, fltrd, µg/L (04041) | Cyfluthrin, water, fltrd, µg/L (61585) | lambda-Cyhalothrin, water, fltrd, µg/L (61595) | Cypermethrin water, fltrd, µg/L (61586) | DCPA, water, fltrd 0.7u GF µg/L (82682) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **May** | | | | | | | | | | | | | |
| **14...** | <.120 | <.010 | E.087 | <.020 | <.06 | <.005 | <.010 | <.006 | <.020 | <.016 | <.004 | <.014 | <.003 |

**WATER-QUALITY DATA**
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**
Part 3 of 7
[Remark codes: <, less than; E, estimated.]

| Date | Desulfinylfipronil, water, fltrd, µg/L (62170) | Diazinon, water, fltrd, µg/L (39572) | Dicrotophos, water, fltrd, µg/L (38454) | Dieldrin, water, fltrd, µg/L (39381) | Dimethoate, water, fltrd 0.7u GF µg/L (82662) | Disulfoton sulfone water, fltrd, µg/L (61640) | Disulfoton, water, fltrd 0.7u GF µg/L (82677) | Endosulfan sulfate water, fltrd, µg/L (61590) | EPTC, water, fltrd 0.7u GF µg/L (82668) | Ethion monoxon water, fltrd, µg/L (61644) | Ethion, water, fltrd, µg/L (82346) | Ethoprop, water, fltrd 0.7u GF µg/L (82672) | Fenamiphos sulfone water, fltrd, µg/L (61645) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **May** | | | | | | | | | | | | | |
| **14...** | <.012 | <.005 | <.08 | <.009 | <.006 | <.01 | <.04 | <.022 | <.002 | <.02 | <.006 | <.012 | <.053 |

**01482645 SWEDES RUN AT SWEDES BRIDGE, NEAR PORTERTOWN, NJ—Continued**

**WATER-QUALITY DATA**
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**
Part 4 of 7
[Remark codes: <, less than; E, estimated.]

| Date | Fenamiphos sulfoxide, water, fltrd, µg/L (61646) | Fenamiphos, water, fltrd, µg/L (61591) | Desulfinylfipronil amide, wat flt µg/L (62169) | Fipronil sulfide water, fltrd, µg/L (62167) | Fipronil sulfone water, fltrd, µg/L (62168) | Fipronil, water, fltrd, µg/L (62166) | Fonofos water, fltrd, µg/L (04095) | Hexazinone, water, fltrd, µg/L (04025) | Iprodione, water, fltrd, µg/L (61593) | Isofenphos, water, fltrd, µg/L (61594) | Malaoxon, water, fltrd, µg/L (61652) | Malathion, water, fltrd, µg/L (39532) | Metalaxyl, water, fltrd, µg/L (61596) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **May 14...** | <.20 | <.03 | <.029 | <.013 | <.024 | <.020 | <.010 | <.008 | <.01 | <.006 | <.020 | <.016 | <.007 |

**WATER-QUALITY DATA**
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**
Part 5 of 7
[Remark codes: <, less than; E, estimated.]

| Date | Methidathion, water, fltrd, µg/L (61598) | Methyl paraoxon, water, fltrd, µg/L (61664) | Methyl parathion, water, fltrd 0.7u GF µg/L (82667) | Metolachlor, water, fltrd, µg/L (39415) | Metribuzin, water, fltrd, µg/L (82630) | Molinate, water, fltrd 0.7u GF µg/L (82671) | Myclobutanil water, fltrd, µg/L (61599) | Oxyfluorfen, water, fltrd, µg/L (61600) | Pendimethalin, water, fltrd 0.7u GF µg/L (82683) | Phorate oxon, water, fltrd, µg/L (61666) | Phorate water, fltrd 0.7u GF µg/L (82664) | Phosmet oxon, water, fltrd, µg/L (61668) | Phosmet water, fltrd, µg/L (61601) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **May 14...** | <.004 | <.01 | <.008 | .067 | <.012 | <.003 | <.010 | <.006 | <.012 | <.03 | <.040 | <.05 | <.008 |

**WATER-QUALITY DATA**
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**
Part 6 of 7
[Remark codes: <, less than; E, estimated.]

| Date | Prometon, water, fltrd, µg/L (04037) | Prometryn, water, fltrd, µg/L (04036) | Propyzamide, water, fltrd 0.7u GF µg/L (82676) | Propanil, water, fltrd 0.7u GF µg/L (82679) | Propargite, water, fltrd 0.7u GF µg/L (82685) | Simazine, water, fltrd, µg/L (04035) | Tebuthiuron water, fltrd 0.7u GF µg/L (82670) | Tefluthrin, water, fltrd, µg/L (61606) | Terbufos oxon sulfone water, fltrd, µg/L (61674) | Terbufos, water, fltrd 0.7u GF µg/L (82675) | Terbuthylazine, water, fltrd, µg/L (04022) | Thiobencarb water, fltrd 0.7u GF µg/L (82681) | trans-Propiconazole, water, fltrd, µg/L (79847) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **May 14...** | <.01 | <.006 | <.004 | <.006 | <.04 | E.008 | <.02 | <.003 | <.04 | <.02 | <.01 | <.010 | <.02 |

**WATER-QUALITY DATA**
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**
Part 7 of 7
[Remark codes: <, less than; E, estimated.]

| Date | Tribu-phos, water, fltrd, µg/L (61610) | Tri-flur-alin, water, fltrd 0.7u GF µg/L (82661) | Di-chlor-vos, water, fltrd, µg/L (38775) |
|---|---|---|---|
| **May** | | | |
| **14...** | <.035 | <.009 | <.01 |

**WATER-QUALITY DATA**
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**
Part 1 of 4
[Remark codes: <, less than; E, estimated.]

| Date | Time | pH bed sedimnt std units (70310) | Ammonia + org-N, bed sed total, mg/kg as N (00626) | Phos-phorus, bed sedimnt total, mg/kg as P (00668) | Total carbon, bed sedimnt total, g/kg (00693) | Inor-ganic carbon, bed sedimnt total, g/kg (00686) | Arsenic bed sedimnt recover-able, ug/g (64847) | Cadmium bed sedimnt recover-able, ug/g (01028) | Chrom-ium, bed sedimnt recover-able, ug/g (01029) | Cobalt bed sedimnt recover-able, ug/g (01038) | Copper, bed sedimnt recover-able, ug/g (01043) | Iron, bed sedimnt total digest, ug/g (01170) | Lead, bed sedimnt recover-able, ug/g (01052) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Aug** | | | | | | | | | | | | | |
| **14...** | 1030 | 6.73 | 80 | 2,800 | 1.1 | <.2 | 3.0 | .080 | 13 | 1.5 | <2 | 11,000 | 3.4 |

**WATER-QUALITY DATA**
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**
Part 2 of 4
[Remark codes: <, less than; E, estimated.]

| Date | Mangan-ese, bed sedimnt recover-able, ug/g (01053) | Mercury bed sedimnt recover-able, ug/g (71921) | Nickel, bed sedimnt recover-able, ug/g (01068) | Sele-nium, bed sedimnt recover-able, ug/g (64848) | Zinc, bed sedimnt recover-able, ug/g (01093) | 1,2-Di-methyl-naphth-alene, bed sed <2 mm, ug/kg (49403) | 1,6-Di-methyl-naphth-alene, bed sed <2 mm, ug/kg (49404) | 1Methyl -9H-fluor-ene, bed sed <2 mm, ug/kg (49398) | 1-Methyl-phenan-threne, bed sed <2 mm, ug/kg (49410) | 1-Methyl-pyrene, bed sed <2 mm, wsv nat ug/kg (49388) | 236Tri-methyl-naphth-alene, bed sed <2 mm, ug/kg (49405) | 2,6-Di-methyl-naphth-alene, bed sed <2 mm, ug/kg (49406) | 2-Ethyl naphth-alene bed sed <2 mm wsv nat ug/kg (49948) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Aug** | | | | | | | | | | | | | |
| **14...** | 48 | <.007 | 2.2 | .1 | 17 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 |

**01482645 SWEDES RUN AT SWEDES BRIDGE, NEAR PORTERTOWN, NJ—Continued**

**WATER-QUALITY DATA**
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**
Part 3 of 4
[Remark codes: <, less than; E, estimated.]

| Date | 2-Methyl-anthra-cene, bed sed <2 mm, ug/kg (49435) | 4H-Cyc-lopenta-[def]-phenan-threne, bs <2mm ug/kg (49411) | 9H-Fluor-ene, bed sed <2 mm, wsv nat ug/kg (49399) | Ace-naphth-ene, bed sed <2 mm, wsv nat ug/kg (49429) | Ace-naphth-ylene, bed sed <2 mm, wsv nat ug/kg (49428) | Anthra-cene, bed sed <2 mm, wsv nat field, ug/kg (49434) | Benzo-[a]-anthra-cene, bed sed <2 mm, ug/kg (49436) | Benzo-[a]-pyrene, bed sed <2 mm, wsv nat ug/kg (49389) | Benzo-[b]-fluor-anthene bed sed <2 mm ug/kg (49458) | Benzo-[ghi]-peryl-ene, bed sed <2 mm, ug/kg (49408) | Benzo-[k]-fluor-anthene bed sed <2 mm ug/kg (49397) | Chry-sene, bed sed <2 mm, wsv nat field, ug/kg (49450) | Dibenzo-[a,h]-anthra-cene, bed sed <2 mm, ug/kg (49461) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Aug 14...** | <50 | <50 | <50 | <50 | E2 | E2 | <50 | <50 | <50 | <50 | <50 | <50 | <50 |

**WATER-QUALITY DATA**
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**
Part 4 of 4
[Remark codes: <, less than; E, estimated.]

| Date | Fluor-anthene bed sed <2 mm wsv nat field, ug/kg (49466) | Indeno-[1,2,-3-cd]-pyrene, bed sed <2 mm ug/kg (49390) | Iso-phorone bed sed <2 mm, wsv nat field, ug/kg (49400) | Naphth-alene, bed sed <2 mm wsv nat ug/kg (49402) | PCBs, bed sedimnt ug/kg (39519) | p-Cresol, bed sed <2 mm, wsv nat field, ug/kg (49451) | Phenan-threne, bed sed <2 mm, wsv nat field, ug/kg (49409) | Phenan-thri-dine, bed sed <2 mm, wsv nat ug/kg (49393) | Pyrene, bed sed <2 mm, wsv nat field, ug/kg (49387) | Bed sedi-ment, dry svd sve dia percent <62.5um (80164) |
|---|---|---|---|---|---|---|---|---|---|---|
| **Aug 14...** | E4 | <50 | <50 | <50 | <5.00 | <50 | E2 | <50 | E4 | .2 |