

OMB Number 3235-0287  
Expires: February 1, 2001  
Estimated average burden  
hours per response...1.0

| 1.<br>Title of Security<br>(Instr. 3) | 2.<br>Transaction<br>Date<br>(Month/<br>Day/<br>Year) | 3.<br>Transaction<br>Code<br>(Instr. 8)<br>-----<br>Code V | 4.<br>Securities Acquired (A) or<br>Disposed of (D)<br>(Instr. 3, 4 and 5)<br>-----<br>(A) Amount or Price<br>(D) | 5.<br>Amount of<br>Securities<br>Beneficially<br>Owned at End<br>of Month<br>(Instr. 3<br>and 4) | 6.<br>Owner-<br>ship<br>Form:<br>Direct<br>(D) or<br>Indirect<br>(I)<br>(Instr. 4) | 7.<br>Nature of<br>Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |
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Reminder: Report on a separate line for each class of securities beneficially  
owned directly or indirectly. (Over)  
(Print or Type Responses) SFC 1474 (3/91)

\*See footnote 2 on Table II.  
FORM 4 (Continued)

Table II -- Derivative Securities Acquired, Disposed of, or Beneficially Owned  
(e.g., puts, calls, warrants, options, convertible securities)

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| 1.<br>Title of<br>Derivative<br>Security<br>(Instr. 3) | 2.<br>Conver-<br>sion<br>or<br>Exer-<br>cise<br>Price<br>of<br>Deriv-<br>ative<br>Secur-<br>ity | 3.<br>Trans-<br>action<br>Date<br>(Month/<br>Day/<br>Year) | 4.<br>Trans-<br>action<br>Code<br>(Instr.<br>8)<br>-----<br>Code V | 5.<br>Number of<br>Derivative<br>Securities<br>Acquired (A)<br>or Disposed<br>of(D)<br>(Instr. 3,<br>4 and 5)<br>-----<br>(A) (D) | 6.<br>Date<br>Exercisable and<br>Expiration Date<br>(Month/Day/Year)<br>-----<br>Date Exer-<br>cisable Date | 7.<br>Title and Amount<br>of Underlying<br>Securities<br>(Instr. 3 and 4)<br>-----<br>Amount<br>or<br>Number<br>of<br>Shares | 8.<br>Price<br>of<br>Deriv-<br>ative<br>Secur-<br>ity<br>(Instr.<br>5) | 9.<br>Number<br>of<br>Deriv-<br>ative<br>Secur-<br>ities<br>Bene-<br>ficially<br>Owned<br>at End<br>of<br>Month<br>(Instr.<br>4) | 10.<br>Owner-<br>ship<br>Form<br>of<br>Deriv-<br>ative<br>Secur-<br>ity:<br>Direct<br>(D) or<br>In-<br>direct<br>(I)<br>(Instr.<br>4) | 11.<br>Nature<br>of<br>In-<br>direct<br>Bene-<br>ficial<br>Owner-<br>ship<br>(Instr.<br>4) |
|--------------------------------------------------------|-------------------------------------------------------------------------------------------------|------------------------------------------------------------|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| 5% Convertible<br>Senior Secured<br>Debentures         | \$1.404                                                                                         | 3/10/98                                                    | A                                                                  | (1)                                                                                                                               | 3/10/98 3/15/03                                                                                             | Common<br>Stock                                                                                                              | 71,225                                                                 |                                                                                                                                  | D                                                                                                                                     |                                                                                            |
| Warrants                                               | \$1.404                                                                                         | 3/10/98                                                    | A                                                                  | (1)                                                                                                                               | 3/10/98 3/15/05                                                                                             | Common<br>Stock                                                                                                              | 10,791                                                                 |                                                                                                                                  | D                                                                                                                                     |                                                                                            |
| Warrants                                               | \$2.279                                                                                         | 3/10/98                                                    | A                                                                  | (1)                                                                                                                               | 3/10/98 3/15/05                                                                                             | Common<br>Stock                                                                                                              | 10,526                                                                 | 92,542                                                                                                                           | D                                                                                                                                     |                                                                                            |
| 5% Convertible<br>Senior Secured<br>Debentures         | \$1.404                                                                                         | 6/12/98                                                    | A                                                                  | (2)                                                                                                                               | 6/12/98 3/15/03                                                                                             | Common<br>Stock                                                                                                              | 17,121                                                                 |                                                                                                                                  | D                                                                                                                                     |                                                                                            |
| Warrants                                               | \$1.404                                                                                         | 6/12/98                                                    | A                                                                  | (2)                                                                                                                               | 6/12/98 3/15/05                                                                                             | Common<br>Stock                                                                                                              | 2,594                                                                  |                                                                                                                                  | D                                                                                                                                     |                                                                                            |
| Warrants                                               | \$2.279                                                                                         | 6/12/98                                                    | A                                                                  | (2)                                                                                                                               | 6/12/98 3/15/05                                                                                             | Common<br>Stock                                                                                                              | 2,530                                                                  | 114,787                                                                                                                          | D                                                                                                                                     |                                                                                            |
| Non-qualified<br>Stock Options                         | \$2.375                                                                                         | 2/19/98                                                    | A                                                                  |                                                                                                                                   | (3) 2/19/08                                                                                                 | Common<br>Stock                                                                                                              | 300,000                                                                | 414,787                                                                                                                          | D                                                                                                                                     |                                                                                            |
| 5% Convertible<br>Senior Secured<br>Debentures         | \$1.1312                                                                                        | 4/1/99                                                     | A                                                                  | (5)                                                                                                                               | 4/1/99 3/15/03                                                                                              | Common<br>Stock                                                                                                              | 1,370                                                                  |                                                                                                                                  | D                                                                                                                                     |                                                                                            |
| Non-qualified<br>Stock Options                         | \$1.125                                                                                         | 4/12/99                                                    | A                                                                  | (4)                                                                                                                               | 4/12/00 4/12/09                                                                                             | Common<br>Stock                                                                                                              | 100,000                                                                | 516,157                                                                                                                          | D                                                                                                                                     |                                                                                            |
| 5% Convertible<br>Senior Secured<br>Debentures         | \$2.4250                                                                                        | 7/1/99                                                     | A                                                                  | (5)                                                                                                                               | 7/1/99 3/15/03                                                                                              | Common<br>Stock                                                                                                              | 647                                                                    | 516,804                                                                                                                          | D                                                                                                                                     |                                                                                            |
| Non-qualified<br>Stock Options                         | \$1.875                                                                                         | 2/17/00                                                    | A                                                                  | (4)                                                                                                                               | 2/17/01 2/17/10                                                                                             | Common<br>Stock                                                                                                              | 125,000                                                                | 641, 804                                                                                                                         | D                                                                                                                                     |                                                                                            |
| 5% Convertible<br>Senior Secured<br>Debentures         | \$1.722                                                                                         | 4/1/00                                                     | A                                                                  | (5)                                                                                                                               | 4/1/00 3/15/03                                                                                              | Common<br>Stock                                                                                                              | 923                                                                    | 642,727                                                                                                                          | D                                                                                                                                     |                                                                                            |
| Non-qualified<br>Stock Options                         | \$1.1125                                                                                        | 6/29/00                                                    | A                                                                  | (4)                                                                                                                               | 6/29/01 6/29/10                                                                                             | Common<br>Stock                                                                                                              | 100,000                                                                | 742,727                                                                                                                          | D                                                                                                                                     |                                                                                            |
| 5% Convertible<br>Senior Secured<br>Debentures         | \$1.1125                                                                                        | 7/1/00                                                     | A                                                                  | (5)                                                                                                                               | 7/01/00 3/15/03                                                                                             | Common<br>Stock                                                                                                              | 1,446                                                                  | 744,173                                                                                                                          | D                                                                                                                                     |                                                                                            |
| 5% Convertible<br>Senior Secured<br>Debentures         | \$ .9071                                                                                        | 10/1/00                                                    | A                                                                  | (5)                                                                                                                               | 10/01/00 3/15/03                                                                                            | Common<br>Stock                                                                                                              | 1,709                                                                  | 745,882                                                                                                                          | D                                                                                                                                     |                                                                                            |
| 5% Convertible<br>Senior Secured<br>Debentures         | \$ .6258                                                                                        | 01/01/01                                                   | A                                                                  | (5)                                                                                                                               | 01/01/01 3/15/03                                                                                            | Common<br>Stock                                                                                                              | 2,477                                                                  | 748,359                                                                                                                          | D                                                                                                                                     |                                                                                            |

Note: File three copies of this Form, one of which must be manually signed.  
If space provided is insufficient, see Instruction 6 for procedure.