



NTNU  
Calgary, Alberta  
CANADA

Case Name: M:\5kl\Projekt\Hysys\8\_22\17 3P HC SC dP.hsc

Unit Set: SI

Date/Time: Mon Dec 01 11:20:50 2003

## Workbook: Case (Main)

### Material Streams

| Name                      | Dry feed gas | PCR          | LCR          | SCR          | 1            |
|---------------------------|--------------|--------------|--------------|--------------|--------------|
| Vapour Fraction           | 1.0000       | 0.0000 *     | 1.0000       | 1.0000       | 0.0000       |
| Temperature (C)           | 8.000        | 8.000 *      | 8.000        | 8.000        | -10.00       |
| Pressure (kPa)            | 7000 *       | 2101         | 1640 *       | 5300 *       | 2101         |
| Molar Flow (kgmole/h)     | 4.628e+004   | 6.022e+004 * | 2.083e+004   | 2.515e+004   | 4.437e+004 * |
| Mass Flow (kg/h)          | 8.000e+005 * | 2.056e+006   | 6.200e+005 * | 5.500e+005 * | 1.515e+006   |
| Liquid Volume Flow (m3/h) | 2588         | 5134         | 1711         | 1579         | 3783         |
| Heat Flow (kJ/h)          | -3.619e+009  | -6.258e+009  | -1.815e+009  | -1.881e+009  | -4.698e+009  |
| Name                      | 2            | 4            | 5            | 6            | 7            |
| Vapour Fraction           | 0.0000       | 0.0216       | 1.0000       | 1.0000       | 1.0000       |
| Temperature (C)           | -10.00       | -12.60 *     | -10.00 *     | -10.00       | -10.00       |
| Pressure (kPa)            | 2101         | 1268         | 7000         | 5300         | 1640         |
| Molar Flow (kgmole/h)     | 6.022e+004   | 1.584e+004   | 4.628e+004   | 2.515e+004   | 2.083e+004   |
| Mass Flow (kg/h)          | 2.056e+006   | 5.409e+005   | 8.000e+005   | 5.500e+005   | 6.200e+005   |
| Liquid Volume Flow (m3/h) | 5134         | 1351         | 2588         | 1579         | 1711         |
| Heat Flow (kJ/h)          | -6.375e+009  | -1.677e+009  | -3.663e+009  | -1.908e+009  | -1.838e+009  |
| Name                      | 8            | 9            | 11           | 12           | 13           |
| Vapour Fraction           | 0.0000       | 0.0223       | 1.0000       | 1.0000       | 1.0000       |
| Temperature (C)           | -30.00       | -33.00 *     | -13.00       | 4.618        | 18.86        |
| Pressure (kPa)            | 2101         | 709.6        | 709.6        | 1268         | 1218         |
| Molar Flow (kgmole/h)     | 4.437e+004   | 2.976e+004   | 2.976e+004   | 1.584e+004   | 4.437e+004   |
| Mass Flow (kg/h)          | 1.515e+006   | 1.016e+006   | 1.016e+006   | 5.409e+005   | 1.515e+006   |
| Liquid Volume Flow (m3/h) | 3783         | 2538         | 2538         | 1351         | 3783         |
| Heat Flow (kJ/h)          | -4.782e+009  | -3.207e+009  | -2.771e+009  | -1.468e+009  | -4.067e+009  |
| Name                      | 14           | 15           | 16           | 17           | 18           |
| Vapour Fraction           | 1.0000       | 1.0000       | 1.0000       | 0.0458       | 0.8196       |
| Temperature (C)           | 14.90        | 43.45        | -30.00 *     | -30.00       | -30.00       |
| Pressure (kPa)            | 1218         | 2101         | 7000         | 1640         | 5300         |
| Molar Flow (kgmole/h)     | 6.022e+004   | 6.022e+004   | 4.628e+004   | 2.083e+004   | 2.515e+004   |
| Mass Flow (kg/h)          | 2.056e+006   | 2.056e+006   | 8.000e+005   | 6.200e+005   | 5.500e+005   |
| Liquid Volume Flow (m3/h) | 5134         | 5134         | 2588         | 1711         | 1579         |
| Heat Flow (kJ/h)          | -5.535e+009  | -5.467e+009  | -3.718e+009  | -2.079e+009  | -1.963e+009  |
| Name                      | 19           | 3            | 10           | 20           | 21           |
| Vapour Fraction           | 0.0000       | 0.0000       | 0.3986       | 1.0000       | 0.0000       |
| Temperature (C)           | -10.00       | -50.00       | -50.00       | -50.00 *     | -30.00       |
| Pressure (kPa)            | 2101         | 1640         | 5300         | 7000         | 2101         |
| Molar Flow (kgmole/h)     | 1.584e+004   | 2.083e+004   | 2.515e+004   | 4.628e+004   | 2.976e+004   |
| Mass Flow (kg/h)          | 5.409e+005   | 6.200e+005   | 5.500e+005   | 8.000e+005   | 1.016e+006   |
| Liquid Volume Flow (m3/h) | 1351         | 1711         | 1579         | 2588         | 2538         |
| Heat Flow (kJ/h)          | -1.677e+009  | -2.123e+009  | -2.042e+009  | -3.797e+009  | -3.207e+009  |
| Name                      | 22           | 23           | 24           | 25           | 26           |
| Vapour Fraction           | 0.0000       | 0.0000       | 0.0194       | 1.0000       | 1.0000       |
| Temperature (C)           | -30.00       | -50.00       | -52.70 *     | -33.26       | -10.11       |
| Pressure (kPa)            | 2101         | 2101         | 365.3        | 365.3        | 659.6        |
| Molar Flow (kgmole/h)     | 1.461e+004 * | 1.461e+004   | 1.461e+004   | 1.461e+004   | 4.437e+004   |
| Mass Flow (kg/h)          | 4.988e+005   | 4.988e+005   | 4.988e+005   | 4.988e+005   | 1.515e+006   |
| Liquid Volume Flow (m3/h) | 1246         | 1246         | 1246         | 1246         | 3783         |
| Heat Flow (kJ/h)          | -1.575e+009  | -1.600e+009  | -1.600e+009  | -1.372e+009  | -4.122e+009  |
| Name                      | 27           | 28           | 29           | 30           |              |
| Vapour Fraction           | 1.0000       | 1.0000       | 1.0000       | 1.0000       |              |
| Temperature (C)           | -2.445       | -34.28       | -13.91       | 3.767        |              |
| Pressure (kPa)            | 659.6        | 315.3        | 659.6        | 1218         |              |
| Molar Flow (kgmole/h)     | 1.461e+004   | 1.461e+004   | 2.976e+004   | 1.584e+004   |              |
| Mass Flow (kg/h)          | 4.988e+005   | 4.988e+005   | 1.016e+006   | 5.409e+005   |              |
| Liquid Volume Flow (m3/h) | 1246         | 1246         | 2538         | 1351         |              |
| Heat Flow (kJ/h)          | -1.351e+009  | -1.372e+009  | -2.771e+009  | -1.468e+009  |              |