

Source: EMFAC2021 (v1.0.1) Emissions Inventory

Region Type: County

Region: San Diego

Calendar Year: 2021, 2024

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/year for CVMT and EVMT, trips/year for Trips, kWh/year for Energy Consumption, tons/year for Emissions, 1000 gallons/year for Fuel Consumption

| Region    | Calendar Year | Vehicle Category | Model Year | Speed     | Fuel           | Population | Total VMT   | CVMT        | EVMT        | Trips       | Energy Consumption | NOx_RUNE  | NOx_IDLE  | NOx_STREX | NOx_TOTEX |
|-----------|---------------|------------------|------------|-----------|----------------|------------|-------------|-------------|-------------|-------------|--------------------|-----------|-----------|-----------|-----------|
| San Diego | 2021          | HHDT             | Aggregate  | Aggregate | Gasoline       | 17.023625  | 207262.9114 | 207262.9114 | 0           | 111379.0391 | 0                  | 2.856802  | 0         | 0.0731482 | 2.9299501 |
| San Diego | 2021          | HHDT             | Aggregate  | Aggregate | Diesel         | 13708.411  | 557395295.1 | 557395295.1 | 0           | 63241867.25 | 0                  | 1808.7791 | 346.55047 | 163.80003 | 2319.1296 |
| San Diego | 2021          | HHDT             | Aggregate  | Aggregate | Natural Gas    | 849.74452  | 17725774.12 | 17725774.12 | 0           | 1672464.257 | 0                  | 50.235814 | 2.6271353 | 0         | 52.862949 |
| San Diego | 2021          | LDA              | Aggregate  | Aggregate | Gasoline       | 1214058.1  | 16049942727 | 16049942727 | 0           | 1962869200  | 0                  | 974.16488 | 0         | 620.79948 | 1594.9644 |
| San Diego | 2021          | LDA              | Aggregate  | Aggregate | Diesel         | 6884.9932  | 76619733.97 | 76619733.97 | 0           | 10426784.42 | 0                  | 19.562534 | 0         | 0         | 19.562534 |
| San Diego | 2021          | LDA              | Aggregate  | Aggregate | Electricity    | 38210.592  | 570462373.5 | 0           | 570462373.5 | 66656136.62 | 220245559          | 0         | 0         | 0         | 0         |
| San Diego | 2021          | LDA              | Aggregate  | Aggregate | Plug-in Hybrid | 23163.855  | 375589964.3 | 199713517.9 | 175876446.4 | 33236541.38 | 53119928.78        | 1.5889594 | 0         | 4.1345119 | 5.7234714 |
| San Diego | 2021          | LDT1             | Aggregate  | Aggregate | Gasoline       | 143408.83  | 1645474072  | 1645474072  | 0           | 218088484.4 | 0                  | 394.09884 | 0         | 121.84199 | 515.94082 |
| San Diego | 2021          | LDT1             | Aggregate  | Aggregate | Diesel         | 82.570004  | 431462.4845 | 431462.4845 | 0           | 86610.5225  | 0                  | 0.7406877 | 0         | 0         | 0.7406877 |
| San Diego | 2021          | LDT1             | Aggregate  | Aggregate | Electricity    | 156.19697  | 1888517.141 | 0           | 1888517.141 | 254981.2315 | 729123.4844        | 0         | 0         | 0         | 0         |
| San Diego | 2021          | LDT1             | Aggregate  | Aggregate | Plug-in Hybrid | 22.013168  | 387297.339  | 197245.0985 | 190052.2404 | 31585.48451 | 57401.44107        | 0.0015693 | 0         | 0.0039291 | 0.0054984 |
| San Diego | 2021          | LDT2             | Aggregate  | Aggregate | Gasoline       | 557761.1   | 7417675759  | 7417675759  | 0           | 903882080.4 | 0                  | 851.09151 | 0         | 418.40483 | 1269.4963 |
| San Diego | 2021          | LDT2             | Aggregate  | Aggregate | Diesel         | 1904.3979  | 27521687.33 | 27521687.33 | 0           | 3189872.003 | 0                  | 2.0288844 | 0         | 0         | 2.0288844 |
| San Diego | 2021          | LDT2             | Aggregate  | Aggregate | Electricity    | 482.19345  | 6259489.685 | 0           | 6259489.685 | 864611.58   | 2416679.642        | 0         | 0         | 0         | 0         |
| San Diego | 2021          | LDT2             | Aggregate  | Aggregate | Plug-in Hybrid | 1666.7135  | 28535931.19 | 14759034.64 | 13776896.55 | 2391475.581 | 4161033.375        | 0.1174257 | 0         | 0.2974914 | 0.4149171 |
| San Diego | 2021          | LHDT1            | Aggregate  | Aggregate | Gasoline       | 43673.935  | 522929851.1 | 522929851.1 | 0           | 212771235.4 | 0                  | 156.91515 | 0.6268728 | 160.85911 | 318.40113 |
| San Diego | 2021          | LHDT1            | Aggregate  | Aggregate | Diesel         | 29802.53   | 363717096.9 | 363717096.9 | 0           | 122585217.6 | 0                  | 1074.0983 | 25.176082 | 0         | 1099.2743 |
| San Diego | 2021          | LHDT2            | Aggregate  | Aggregate | Gasoline       | 6073.2612  | 72370413.79 | 72370413.79 | 0           | 29587791.26 | 0                  | 18.330366 | 0.0871573 | 22.316345 | 40.733868 |
| San Diego | 2021          | LHDT2            | Aggregate  | Aggregate | Diesel         | 10786.198  | 138969022.6 | 138969022.6 | 0           | 44366312.19 | 0                  | 296.56573 | 8.8576106 | 0         | 305.42334 |
| San Diego | 2021          | MCY              | Aggregate  | Aggregate | Gasoline       | 71905.12   | 151883768.1 | 151883768.1 | 0           | 49902153.21 | 0                  | 106.20577 | 0         | 8.3326414 | 114.53841 |
| San Diego | 2021          | MDV              | Aggregate  | Aggregate | Gasoline       | 339776.65  | 4401484604  | 4401484604  | 0           | 542511832.3 | 0                  | 752.50644 | 0         | 335.24396 | 1087.7504 |
| San Diego | 2021          | MDV              | Aggregate  | Aggregate | Diesel         | 6075.9868  | 86500285.18 | 86500285.18 | 0           | 10025579.13 | 0                  | 12.201637 | 0         | 0         | 12.201637 |
| San Diego | 2021          | MDV              | Aggregate  | Aggregate | Electricity    | 509.35503  | 6565672.351 | 0           | 6565672.351 | 910058.9519 | 2534891.422        | 0         | 0         | 0         | 0         |
| San Diego | 2021          | MDV              | Aggregate  | Aggregate | Plug-in Hybrid | 1278.6681  | 21699172.67 | 11532713.51 | 10166459.16 | 1834690.478 | 3070573.675        | 0.0917565 | 0         | 0.2282292 | 0.3199857 |
| San Diego | 2021          | MH               | Aggregate  | Aggregate | Gasoline       | 12275.315  | 35677612.17 | 35677612.17 | 0           | 401563.3623 | 0                  | 22.411973 | 0         | 0.1733768 | 22.58535  |
| San Diego | 2021          | MH               | Aggregate  | Aggregate | Diesel         | 4169.4256  | 13243073.69 | 13243073.69 | 0           | 136340.2176 | 0                  | 71.36196  | 0         | 0         | 71.36196  |
| San Diego | 2021          | MHDT             | Aggregate  | Aggregate | Gasoline       | 3736.4344  | 62088767.26 | 62088767.26 | 0           | 24446055.73 | 0                  | 56.622055 | 0.1190987 | 12.515088 | 69.256242 |
| San Diego | 2021          | MHDT             | Aggregate  | Aggregate | Diesel         | 17068.937  | 227246096.3 | 227246096.3 | 0           | 61457319.24 | 0                  | 500.19652 | 100.80659 | 96.414322 | 697.41743 |
| San Diego | 2021          | MHDT             | Aggregate  | Aggregate | Natural Gas    | 251.74929  | 3625756.949 | 3625756.949 | 0           | 931535.0492 | 0                  | 0.423316  | 0.4808703 | 0         | 0.9041863 |
| San Diego | 2021          | OBUS             | Aggregate  | Aggregate | Gasoline       | 1293.5525  | 20926190.06 | 20926190.06 | 0           | 8463217.234 | 0                  | 18.955431 | 0.0301464 | 3.8303072 | 22.815885 |
| San Diego | 2021          | OBUS             | Aggregate  | Aggregate | Diesel         | 599.16038  | 13790156.44 | 13790156.44 | 0           | 2208500.746 | 0                  | 39.972296 | 3.8369834 | 3.4004004 | 47.20968  |
| San Diego | 2021          | OBUS             | Aggregate  | Aggregate | Natural Gas    | 81.101651  | 1526795.858 | 1526795.858 | 0           | 210766.9711 | 0                  | 0.2939229 | 0.0399082 | 0         | 0.3338311 |
| San Diego | 2021          | SBUS             | Aggregate  | Aggregate | Gasoline       | 254.4842   | 4556750.594 | 4556750.594 | 0           | 332865.3382 | 0                  | 8.2301748 | 0.0831112 | 0.2495168 | 8.5628029 |
| San Diego | 2021          | SBUS             | Aggregate  | Aggregate | Diesel         | 2108.995   | 14903011.08 | 14903011.08 | 0           | 9986006.945 | 0                  | 122.53037 | 22.793292 | 3.1542532 | 148.47792 |
| San Diego | 2021          | SBUS             | Aggregate  | Aggregate | Natural Gas    | 13.845903  | 119501.5566 | 119501.5566 | 0           | 65559.79558 | 0                  | 0.0587977 | 0.0264182 | 0         | 0.0852159 |
| San Diego | 2021          | UBUS             | Aggregate  | Aggregate | Gasoline       | 121.22815  | 3975526.335 | 3975526.335 | 0           | 158566.4259 | 0                  | 0.1789838 | 0         | 0.1055732 | 0.284557  |
| San Diego | 2021          | UBUS             | Aggregate  | Aggregate | Diesel         | 24.224433  | 834722.4948 | 834722.4948 | 0           | 31685.55876 | 0                  | 5.2599309 | 0         | 0         | 5.2599309 |

|           |      |       |           |           |              |           |             |             |             |             |             |           |           |           |           |
|-----------|------|-------|-----------|-----------|--------------|-----------|-------------|-------------|-------------|-------------|-------------|-----------|-----------|-----------|-----------|
| San Diego | 2021 | UBUS  | Aggregate | Aggregate | Natural Gas  | 800.12702 | 32298979.75 | 32298979.75 | 0           | 1046566.138 | 0           | 15.526562 | 0         | 0         | 15.526562 |
| San Diego | 2024 | HHDT  | Aggregate | Aggregate | Gasoline     | 8.1916874 | 161032.6516 | 161032.6516 | 0           | 53595.065   | 0           | 1.4959219 | 0         | 0.0192854 | 1.5152073 |
| San Diego | 2024 | HHDT  | Aggregate | Aggregate | Diesel       | 14731.684 | 580221616.4 | 580221616.4 | 0           | 68811885    | 0           | 1265.5232 | 344.79695 | 219.00897 | 1829.3291 |
| San Diego | 2024 | HHDT  | Aggregate | Aggregate | Electricity  | 45.31524  | 1520306.566 | 0           | 1520306.566 | 193938.1237 | 2802838.476 | 0         | 0         | 0         | 0         |
| San Diego | 2024 | HHDT  | Aggregate | Aggregate | Natural Gas  | 1074.4429 | 21691845.74 | 21691845.74 | 0           | 2087527.321 | 0           | 41.225259 | 2.804269  | 0         | 44.029528 |
| San Diego | 2024 | LDA   | Aggregate | Aggregate | Gasoline     | 1175418.5 | 16254468073 | 16254468073 | 0           | 1895142594  | 0           | 718.45277 | 0         | 521.11237 | 1239.5651 |
| San Diego | 2024 | LDA   | Aggregate | Aggregate | Diesel       | 5631.0471 | 59757768.6  | 59757768.6  | 0           | 8283355.468 | 0           | 11.787712 | 0         | 0         | 11.787712 |
| San Diego | 2024 | LDA   | Aggregate | Aggregate | Electricity  | 63266.94  | 1077469556  | 0           | 1077469556  | 109307265.6 | 415992176.9 | 0         | 0         | 0         | 0         |
| San Diego | 2024 | LDA   | Aggregate | Aggregate | Plug-in Hybr | 32449.086 | 538643689.7 | 266528726.3 | 272114963.4 | 46559408.95 | 82186829.26 | 2.1205542 | 0         | 5.791831  | 7.9123852 |
| San Diego | 2024 | LDT1  | Aggregate | Aggregate | Gasoline     | 129009.48 | 1537148424  | 1537148424  | 0           | 194680371.9 | 0           | 285.49464 | 0         | 94.829602 | 380.32424 |
| San Diego | 2024 | LDT1  | Aggregate | Aggregate | Diesel       | 60.948732 | 308112.8079 | 308112.8079 | 0           | 60432.60611 | 0           | 0.5235989 | 0         | 0         | 0.5235989 |
| San Diego | 2024 | LDT1  | Aggregate | Aggregate | Electricity  | 244.56102 | 3782807.439 | 0           | 3782807.439 | 408553.2416 | 1460475.884 | 0         | 0         | 0         | 0         |
| San Diego | 2024 | LDT1  | Aggregate | Aggregate | Plug-in Hybr | 133.72364 | 2415486.544 | 1077694.349 | 1337792.196 | 191872.6921 | 404053.1157 | 0.0085743 | 0         | 0.0238683 | 0.0324427 |
| San Diego | 2024 | LDT2  | Aggregate | Aggregate | Gasoline     | 556633.36 | 7783471454  | 7783471454  | 0           | 900425939.7 | 0           | 621.0279  | 0         | 331.06618 | 952.09408 |
| San Diego | 2024 | LDT2  | Aggregate | Aggregate | Diesel       | 2078.6083 | 30424238.68 | 30424238.68 | 0           | 3435330.798 | 0           | 1.7472824 | 0         | 0         | 1.7472824 |
| San Diego | 2024 | LDT2  | Aggregate | Aggregate | Electricity  | 2965.0925 | 39316279.37 | 0           | 39316279.37 | 5264275.029 | 15179328.78 | 0         | 0         | 0         | 0         |
| San Diego | 2024 | LDT2  | Aggregate | Aggregate | Plug-in Hybr | 3943.0582 | 68534108.86 | 31951804.48 | 36582304.37 | 5657677.407 | 11048946.25 | 0.2542147 | 0         | 0.7037957 | 0.9580104 |
| San Diego | 2024 | LHDT1 | Aggregate | Aggregate | Gasoline     | 42013.606 | 546666246.9 | 546666246.9 | 0           | 204682420.7 | 0           | 114.60933 | 0.5562332 | 143.26644 | 258.432   |
| San Diego | 2024 | LHDT1 | Aggregate | Aggregate | Diesel       | 30083.464 | 390716850.7 | 390716850.7 | 0           | 123740765.9 | 0           | 850.47882 | 22.620455 | 0         | 873.09927 |
| San Diego | 2024 | LHDT1 | Aggregate | Aggregate | Electricity  | 144.75087 | 3723707.568 | 0           | 3723707.568 | 661219.4812 | 2422882.409 | 0         | 0         | 0         | 0         |
| San Diego | 2024 | LHDT2 | Aggregate | Aggregate | Gasoline     | 5983.0182 | 75682252.51 | 75682252.51 | 0           | 29148144.54 | 0           | 13.635221 | 0.0787892 | 20.418183 | 34.132193 |
| San Diego | 2024 | LHDT2 | Aggregate | Aggregate | Diesel       | 11684.105 | 158022456.2 | 158022456.2 | 0           | 48059630.88 | 0           | 248.26047 | 8.3750717 | 0         | 256.63554 |
| San Diego | 2024 | LHDT2 | Aggregate | Aggregate | Electricity  | 37.466051 | 913184.8432 | 0           | 913184.8432 | 162171.4063 | 584486.2807 | 0         | 0         | 0         | 0         |
| San Diego | 2024 | MCY   | Aggregate | Aggregate | Gasoline     | 70199.566 | 149291842.7 | 149291842.7 | 0           | 48718498.94 | 0           | 98.766861 | 0         | 7.3531688 | 106.12003 |
| San Diego | 2024 | MDV   | Aggregate | Aggregate | Gasoline     | 333953.22 | 4566591867  | 4566591867  | 0           | 532774503.6 | 0           | 514.497   | 0         | 256.95072 | 771.44772 |
| San Diego | 2024 | MDV   | Aggregate | Aggregate | Diesel       | 5837.0388 | 81740121.04 | 81740121.04 | 0           | 9429397.34  | 0           | 8.9126065 | 0         | 0         | 8.9126065 |
| San Diego | 2024 | MDV   | Aggregate | Aggregate | Electricity  | 3228.8696 | 42807708.27 | 0           | 42807708.27 | 5731772.751 | 16527308.51 | 0         | 0         | 0         | 0         |
| San Diego | 2024 | MDV   | Aggregate | Aggregate | Plug-in Hybr | 2430.3864 | 42503243.86 | 20280048.37 | 22223195.48 | 3487227.794 | 6712067.393 | 0.161352  | 0         | 0.4337992 | 0.5951512 |
| San Diego | 2024 | MH    | Aggregate | Aggregate | Gasoline     | 10135.555 | 30483688.45 | 30483688.45 | 0           | 331565.2081 | 0           | 14.552659 | 0         | 0.1535415 | 14.706201 |
| San Diego | 2024 | MH    | Aggregate | Aggregate | Diesel       | 4094.6196 | 12949823.66 | 12949823.66 | 0           | 133894.0625 | 0           | 65.82845  | 0         | 0         | 65.82845  |
| San Diego | 2024 | MHDT  | Aggregate | Aggregate | Gasoline     | 3473.0073 | 64242220.47 | 64242220.47 | 0           | 22722552.97 | 0           | 34.37026  | 0.1116043 | 10.887374 | 45.369239 |
| San Diego | 2024 | MHDT  | Aggregate | Aggregate | Diesel       | 17479.191 | 233514249.6 | 233514249.6 | 0           | 63182532.35 | 0           | 326.41857 | 83.400507 | 114.2792  | 524.09827 |
| San Diego | 2024 | MHDT  | Aggregate | Aggregate | Electricity  | 56.789674 | 1050933.517 | 0           | 1050933.517 | 234705.4238 | 1175345.372 | 0         | 0         | 0         | 0         |
| San Diego | 2024 | MHDT  | Aggregate | Aggregate | Natural Gas  | 322.18244 | 4465710.562 | 4465710.562 | 0           | 1193828.347 | 0           | 0.5014555 | 0.6140133 | 0         | 1.1154688 |
| San Diego | 2024 | OBUS  | Aggregate | Aggregate | Gasoline     | 1164.5172 | 18571207.07 | 18571207.07 | 0           | 7618988.548 | 0           | 13.74149  | 0.0271672 | 3.4258753 | 17.194532 |
| San Diego | 2024 | OBUS  | Aggregate | Aggregate | Diesel       | 595.4995  | 13830010.29 | 13830010.29 | 0           | 2224381.429 | 0           | 29.150811 | 3.0635264 | 4.0691681 | 36.283505 |
| San Diego | 2024 | OBUS  | Aggregate | Aggregate | Electricity  | 2.2224696 | 71821.55206 | 0           | 71821.55206 | 14540.76548 | 79670.51209 | 0         | 0         | 0         | 0         |
| San Diego | 2024 | OBUS  | Aggregate | Aggregate | Natural Gas  | 93.903063 | 1688558.728 | 1688558.728 | 0           | 244035.2802 | 0           | 0.3369423 | 0.0463489 | 0         | 0.3832913 |
| San Diego | 2024 | SBUS  | Aggregate | Aggregate | Gasoline     | 272.9946  | 5148050.014 | 5148050.014 | 0           | 357076.9332 | 0           | 7.5138416 | 0.0900544 | 0.2689078 | 7.8728039 |
| San Diego | 2024 | SBUS  | Aggregate | Aggregate | Diesel       | 2130.7509 | 14825870.17 | 14825870.17 | 0           | 10089020.44 | 0           | 103.15375 | 21.311182 | 4.0028422 | 128.46778 |
| San Diego | 2024 | SBUS  | Aggregate | Aggregate | Electricity  | 7.190219  | 69834.35766 | 0           | 69834.35766 | 29868.635   | 73567.39447 | 0         | 0         | 0         | 0         |
| San Diego | 2024 | SBUS  | Aggregate | Aggregate | Natural Gas  | 17.702538 | 149826.9315 | 149826.9315 | 0           | 83820.80818 | 0           | 0.0608304 | 0.0333126 | 0         | 0.094143  |
| San Diego | 2024 | UBUS  | Aggregate | Aggregate | Gasoline     | 135.23343 | 4435656.237 | 4435656.237 | 0           | 176885.3304 | 0           | 0.2019991 | 0         | 0.1163045 | 0.3183035 |
| San Diego | 2024 | UBUS  | Aggregate | Aggregate | Electricity  | 25.454755 | 1031829.563 | 0           | 1031829.563 | 33294.81911 | 1798730.817 | 0         | 0         | 0         | 0         |
| San Diego | 2024 | UBUS  | Aggregate | Aggregate | Natural Gas  | 894.38143 | 35938673.41 | 35938673.41 | 0           | 1169850.911 | 0           | 12.488864 | 0         | 0         | 12.488864 |

| PM2.5_RUN | PM2.5_IDLE | PM2.5_STRI | PM2.5_TOT | PM2.5_PM1 | PM2.5_PMF | PM2.5_TOT | PM10_RUN  | PM10_IDLE | PM10_STRE | PM10_TOT  | PM10_PMT  | PM10_PMB  | PM10_TOT  | CO2_RUN   | CO2_IDLE  | CO2_STRE  | CO2_TOT   |
|-----------|------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.0010383 | 0          | 0.0002413  | 0.0012796 | 0.0011423 | 0.0085941 | 0.011016  | 0.0011292 | 0         | 0.0002624 | 0.0013916 | 0.0045694 | 0.0245547 | 0.0305157 | 599.89608 | 0         | 6.8633298 | 606.75941 |
| 23.561124 | 0.3305909  | 0          | 23.891715 | 5.4225892 | 17.558429 | 46.872733 | 24.626454 | 0.3455388 | 0         | 24.971992 | 21.690357 | 50.16694  | 96.82929  | 1045836.5 | 63867.145 | 0         | 1109703.7 |
| 0.0741845 | 0.0031316  | 0          | 0.0773161 | 0.1758539 | 1.1595827 | 1.4127527 | 0.0806824 | 0.003406  | 0         | 0.0840883 | 0.7034156 | 3.3130933 | 4.1005972 | 30801.488 | 2365.7699 | 0         | 33167.258 |
| 29.652407 | 0          | 4.6095478  | 34.261955 | 35.384334 | 45.660256 | 115.30654 | 32.249226 | 0         | 5.0129395 | 37.262165 | 141.53733 | 130.45788 | 309.25738 | 5550316.1 | 0         | 160176.07 | 5710492.2 |
| 1.5931103 | 0          | 0          | 1.5931103 | 0.1689189 | 0.2198707 | 1.9818999 | 1.6651436 | 0         | 0         | 1.6651436 | 0.6756755 | 0.6282021 | 2.9690213 | 21862.221 | 0         | 0         | 21862.221 |
| 0         | 0          | 0          | 0         | 1.2576543 | 0.9608576 | 2.2185119 | 0         | 0         | 0         | 0         | 5.030617  | 2.7453074 | 7.7759244 | 0         | 0         | 0         | 0         |
| 0.4155179 | 0          | 0.0873248  | 0.5028427 | 0.8280341 | 0.5531468 | 1.8840236 | 0.4519137 | 0         | 0.0949737 | 0.5468873 | 3.3121365 | 1.5804193 | 5.4394431 | 66721.732 | 0         | 2482.3558 | 69204.088 |
| 5.25221   | 0          | 0.8396181  | 6.0918281 | 3.6276767 | 5.8868437 | 15.606348 | 5.7117    | 0         | 0.9130307 | 6.6247307 | 14.510707 | 16.819553 | 37.954991 | 680393.72 | 0         | 22670.382 | 703064.11 |
| 0.1298476 | 0          | 0          | 0.1298476 | 0.0009512 | 0.0017575 | 0.1325563 | 0.1357187 | 0         | 0         | 0.1357187 | 0.0038049 | 0.0050215 | 0.1445451 | 215.03623 | 0         | 0         | 215.03623 |
| 0         | 0          | 0          | 0         | 0.0041635 | 0.0032068 | 0.0073703 | 0         | 0         | 0         | 0         | 0.0166539 | 0.0091622 | 0.0258161 | 0         | 0         | 0         | 0         |
| 0.0002777 | 0          | 5.73E-05   | 0.000335  | 0.0008538 | 0.0005716 | 0.0017605 | 0.0003021 | 0         | 6.23E-05  | 0.0003644 | 0.0034154 | 0.0016331 | 0.0054128 | 65.897065 | 0         | 2.5965397 | 68.493605 |
| 14.244879 | 0          | 2.0860458  | 16.330925 | 16.353299 | 25.392685 | 58.076909 | 15.492385 | 0         | 2.2687138 | 17.761099 | 65.413196 | 72.550529 | 155.72482 | 3242856.9 | 0         | 93961.091 | 3336818   |
| 0.2061794 | 0          | 0          | 0.2061794 | 0.0606754 | 0.0919275 | 0.3587823 | 0.215502  | 0         | 0         | 0.215502  | 0.2427016 | 0.2626499 | 0.7208535 | 10804.136 | 0         | 0         | 10804.136 |
| 0         | 0          | 0          | 0         | 0.0137998 | 0.0105068 | 0.0243066 | 0         | 0         | 0         | 0         | 0.0551993 | 0.0300194 | 0.0852187 | 0         | 0         | 0         | 0         |
| 0.0273833 | 0          | 0.0057221  | 0.0331054 | 0.062911  | 0.0420696 | 0.1380859 | 0.0297819 | 0         | 0.0062233 | 0.0360051 | 0.2516438 | 0.1201987 | 0.4078477 | 4930.8047 | 0         | 213.22406 | 5144.0288 |
| 1.062015  | 0          | 0.0956597  | 1.1576747 | 1.152863  | 15.73658  | 18.047117 | 1.1550382 | 0         | 0.1040386 | 1.2590768 | 4.6114519 | 44.961656 | 50.832185 | 537787.25 | 1929.9494 | 6041.0974 | 545758.3  |
| 21.253958 | 0.2885057  | 0          | 21.542464 | 1.2027884 | 10.945375 | 33.690627 | 22.214968 | 0.3015507 | 0         | 22.516519 | 4.8111536 | 31.272499 | 58.600171 | 254924.81 | 1479.7385 | 0         | 256404.55 |
| 0.1236545 | 0          | 0.0103093  | 0.1339638 | 0.1595495 | 2.540825  | 2.8343383 | 0.1344856 | 0         | 0.0112123 | 0.1456979 | 0.6381978 | 7.2595    | 8.0433957 | 83078.149 | 309.88881 | 848.6705  | 84236.708 |
| 6.7673489 | 0.1028976  | 0          | 6.8702465 | 0.4595614 | 4.8790099 | 12.208818 | 7.0733384 | 0.1075502 | 0         | 7.1808886 | 1.8382455 | 13.940028 | 22.959163 | 119126.19 | 851.65486 | 0         | 119977.85 |
| 0.3626136 | 0          | 0.1930975  | 0.5557111 | 0.1674245 | 0.7031774 | 1.426313  | 0.3868992 | 0         | 0.2047188 | 0.591618  | 0.6696978 | 2.0090783 | 3.2703941 | 34512.619 | 0         | 2801.1406 | 37313.759 |
| 8.8442229 | 0          | 1.4117592  | 10.255982 | 9.7036857 | 15.410488 | 35.370156 | 9.6142122 | 0         | 1.5341666 | 11.148379 | 38.814743 | 44.029967 | 93.993088 | 2331852.5 | 0         | 69015.397 | 2400867.9 |
| 0.8439091 | 0          | 0          | 0.8439091 | 0.1907019 | 0.2966636 | 1.3312746 | 0.8820669 | 0         | 0         | 0.8820669 | 0.7628077 | 0.8476103 | 2.4924849 | 44450.25  | 0         | 0         | 44450.25  |
| 0         | 0          | 0          | 0         | 0.0144748 | 0.011017  | 0.0254918 | 0         | 0         | 0         | 0         | 0.0578993 | 0.0314771 | 0.0893764 | 0         | 0         | 0         | 0         |
| 0.02657   | 0          | 0.005443   | 0.0320129 | 0.0478385 | 0.0319411 | 0.1117925 | 0.0288972 | 0         | 0.0059197 | 0.034817  | 0.1913539 | 0.0912604 | 0.3174313 | 3852.9321 | 0         | 205.05681 | 4057.9889 |
| 0.0754926 | 0          | 0.0002039  | 0.0756965 | 0.1179835 | 0.6200674 | 0.8137474 | 0.0821051 | 0         | 0.0002218 | 0.0823268 | 0.471934  | 1.7716212 | 2.325882  | 76783.32  | 0         | 14.157439 | 76797.478 |
| 1.8117924 | 0          | 0          | 1.8117924 | 0.058392  | 0.2291099 | 2.0992942 | 1.8937136 | 0         | 0         | 1.8937136 | 0.2335678 | 0.6545996 | 2.781881  | 15779.718 | 0         | 0         | 15779.718 |
| 0.0987975 | 0          | 0.0175593  | 0.1163568 | 0.2053235 | 1.0790863 | 1.4007666 | 0.1074513 | 0         | 0.0190973 | 0.1265487 | 0.8212938 | 3.0831037 | 4.0309461 | 127606.28 | 747.8702  | 1316.8116 | 129670.96 |
| 5.8539689 | 0.2755096  | 0          | 6.1294785 | 0.7514878 | 3.9864872 | 10.867454 | 6.1186594 | 0.2879669 | 0         | 6.4066263 | 3.0059513 | 11.389964 | 20.802541 | 291226.62 | 14055.814 | 0         | 305282.43 |
| 0.0050753 | 0.0013516  | 0          | 0.0064269 | 0.0119901 | 0.063611  | 0.082028  | 0.0055199 | 0.00147   | 0         | 0.0069899 | 0.0479606 | 0.1817456 | 0.236696  | 3927.7983 | 400.18355 | 0         | 4327.9818 |
| 0.0229991 | 0          | 0.0032275  | 0.0262266 | 0.0692015 | 0.3623923 | 0.4578205 | 0.0250136 | 0         | 0.0035102 | 0.0285238 | 0.2768061 | 1.0354066 | 1.3407365 | 42210.091 | 180.30432 | 307.92618 | 42698.322 |
| 0.8802395 | 0.0077924  | 0          | 0.8880319 | 0.0456031 | 0.3212424 | 1.2548774 | 0.92004   | 0.0081448 | 0         | 0.9281847 | 0.1824125 | 0.9178353 | 2.0284326 | 22195.493 | 649.74751 | 0         | 22845.24  |
| 0.0019084 | 0.0001072  | 0          | 0.0020156 | 0.005049  | 0.0271772 | 0.0342418 | 0.0020756 | 0.0001165 | 0         | 0.0021921 | 0.0201961 | 0.0776493 | 0.1000374 | 1813.7777 | 33.696451 | 0         | 1847.4741 |
| 0.0097176 | 0          | 0.0003208  | 0.0100384 | 0.0100459 | 0.0789659 | 0.0990502 | 0.0105688 | 0         | 0.0003489 | 0.0109177 | 0.0401837 | 0.2256168 | 0.2767182 | 4232.3117 | 243.96585 | 25.667063 | 4501.9447 |
| 0.583428  | 0.0300216  | 0          | 0.6134496 | 0.0492833 | 0.2582607 | 0.9209935 | 0.609808  | 0.031379  | 0         | 0.6411871 | 0.1971331 | 0.7378876 | 1.5762078 | 19162.375 | 1745.8672 | 0         | 20908.242 |
| 0.000445  | 5.40E-05   | 0          | 0.000499  | 0.0003952 | 0.0020709 | 0.0029651 | 0.000484  | 5.87E-05  | 0         | 0.0005427 | 0.0015807 | 0.0059168 | 0.0080403 | 159.1427  | 19.504736 | 0         | 178.64744 |
| 0.0035406 | 0          | 2.53E-05   | 0.0035659 | 0.0089333 | 0.1406975 | 0.1531967 | 0.0038507 | 0         | 2.75E-05  | 0.0038783 | 0.0357332 | 0.4019928 | 0.4416042 | 4413.2246 | 0         | 7.888463  | 4421.1131 |
| 0.0078517 | 0          | 0          | 0.0078517 | 0.0082811 | 0.0354248 | 0.0515576 | 0.0082068 | 0         | 0         | 0.0082068 | 0.0331245 | 0.1012136 | 0.1425449 | 1621.8352 | 0         | 0         | 1621.8352 |

|           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.0065252 | 0         | 0         | 0.0065252 | 0.3168695 | 1.3707359 | 1.6941307 | 0.0068203 | 0         | 0         | 0.0068203 | 1.2674782 | 3.9163884 | 5.1906868 | 54401.103 | 0         | 0         | 54401.103 |
| 0.0004646 | 0         | 8.38E-05  | 0.0005484 | 0.0008875 | 0.0061543 | 0.0075903 | 0.0005053 | 0         | 9.12E-05  | 0.0005964 | 0.0035502 | 0.0175838 | 0.0217304 | 417.0254  | 0         | 3.3452879 | 420.37069 |
| 17.011935 | 0.1768281 | 0         | 17.188763 | 5.6457896 | 17.653764 | 40.488317 | 17.78114  | 0.1848235 | 0         | 17.965963 | 22.583158 | 50.439327 | 90.988448 | 1044442.9 | 65189.049 | 0         | 1109632   |
| 0         | 0         | 0         | 0         | 0.0145556 | 0.0240464 | 0.038602  | 0         | 0         | 0         | 0         | 0.0582226 | 0.0687039 | 0.1269265 | 0         | 0         | 0         | 0         |
| 0.0660351 | 0.0041301 | 0         | 0.0701652 | 0.2152005 | 1.4565277 | 1.7418934 | 0.0718192 | 0.0044918 | 0         | 0.076311  | 0.860802  | 4.1615077 | 5.0986208 | 35567.809 | 2913.5789 | 0         | 38481.388 |
| 27.465174 | 0         | 4.074443  | 31.539617 | 35.835238 | 46.260364 | 113.63522 | 29.870883 | 0         | 4.4313285 | 34.302211 | 143.34095 | 132.17247 | 309.81563 | 5365836.8 | 0         | 146353.55 | 5512190.4 |
| 1.0326274 | 0         | 0         | 1.0326274 | 0.1317443 | 0.1734622 | 1.337834  | 1.0793183 | 0         | 0         | 1.0793183 | 0.5269773 | 0.4956063 | 2.1019019 | 16799.301 | 0         | 0         | 16799.301 |
| 0         | 0         | 0         | 0         | 2.3754138 | 1.8169255 | 4.1923393 | 0         | 0         | 0         | 0         | 9.501655  | 5.1912158 | 14.692871 | 0         | 0         | 0         | 0         |
| 0.4661673 | 0         | 0.1037722 | 0.5699395 | 1.1875061 | 0.8028594 | 2.5603049 | 0.5069994 | 0         | 0.1128618 | 0.6198612 | 4.7500243 | 2.2938839 | 7.6637694 | 89049.049 | 0         | 3362.874  | 92411.923 |
| 4.1742601 | 0         | 0.6439768 | 4.8182369 | 3.3888577 | 5.5203276 | 13.727422 | 4.53983   | 0         | 0.7003704 | 5.2402004 | 13.555431 | 15.772365 | 34.567996 | 613555.98 | 0         | 19224.949 | 632780.93 |
| 0.0918016 | 0         | 0         | 0.0918016 | 0.0006793 | 0.0012523 | 0.0937332 | 0.0959525 | 0         | 0         | 0.0959525 | 0.0027171 | 0.003578  | 0.1022476 | 153.3791  | 0         | 0         | 153.3791  |
| 0         | 0         | 0         | 0         | 0.0083397 | 0.0063965 | 0.0147361 | 0         | 0         | 0         | 0         | 0.0333587 | 0.0182756 | 0.0516342 | 0         | 0         | 0         | 0         |
| 0.0012767 | 0         | 0.0002916 | 0.0015683 | 0.0053252 | 0.0036364 | 0.0105299 | 0.0013886 | 0         | 0.0003171 | 0.0017057 | 0.0213009 | 0.0103897 | 0.0333963 | 360.06497 | 0         | 15.052253 | 375.11722 |
| 13.545408 | 0         | 1.9176936 | 15.463102 | 17.159747 | 26.667027 | 59.289876 | 14.731849 | 0         | 2.0856627 | 16.817512 | 68.638987 | 76.191507 | 161.648   | 3214923   | 0         | 87718.967 | 3302641.9 |
| 0.1793555 | 0         | 0         | 0.1793555 | 0.0670745 | 0.1034647 | 0.3498947 | 0.1874652 | 0         | 0         | 0.1874652 | 0.2682979 | 0.2956134 | 0.7513764 | 11524.785 | 0         | 0         | 11524.785 |
| 0         | 0         | 0         | 0         | 0.0866776 | 0.0661013 | 0.1527789 | 0         | 0         | 0         | 0         | 0.3467102 | 0.1888609 | 0.5355711 | 0         | 0         | 0         | 0         |
| 0.0454202 | 0         | 0.0102831 | 0.0557032 | 0.1510918 | 0.1027341 | 0.3095292 | 0.0493986 | 0         | 0.0111838 | 0.0605824 | 0.6043674 | 0.2935261 | 0.9584758 | 10675.314 | 0         | 485.04345 | 11160.357 |
| 0.9655265 | 0         | 0.0733391 | 1.0388657 | 1.2051928 | 16.450881 | 18.69494  | 1.0500982 | 0         | 0.079763  | 1.1298612 | 4.8207711 | 47.002518 | 52.95315  | 528470.33 | 1811.0593 | 5786.3212 | 536067.71 |
| 18.547282 | 0.2870443 | 0         | 18.834326 | 1.2920748 | 11.757881 | 31.884282 | 19.385907 | 0.3000232 | 0         | 19.685931 | 5.1682993 | 33.593945 | 58.448175 | 270541.6  | 1449.7524 | 0         | 271991.35 |
| 0         | 0         | 0         | 0         | 0.0082094 | 0.056029  | 0.0642383 | 0         | 0         | 0         | 0         | 0.0328375 | 0.1600827 | 0.1929202 | 0         | 0         | 0         | 0         |
| 0.1131761 | 0         | 0.0077763 | 0.1209524 | 0.1668508 | 2.6570991 | 2.9449023 | 0.1230893 | 0         | 0.0084574 | 0.1315467 | 0.6674032 | 7.5917117 | 8.3906616 | 82555.56  | 298.63602 | 818.64145 | 83672.838 |
| 6.3785269 | 0.1114121 | 0         | 6.489939  | 0.5225698 | 5.5479496 | 12.560458 | 6.6669356 | 0.1164497 | 0         | 6.7833853 | 2.0902793 | 15.851285 | 24.724949 | 131780.26 | 893.46758 | 0         | 132673.73 |
| 0         | 0         | 0         | 0         | 0.0020132 | 0.0160303 | 0.0180436 | 0         | 0         | 0         | 0         | 0.0080529 | 0.0458009 | 0.0538538 | 0         | 0         | 0         | 0         |
| 0.3649411 | 0         | 0.171997  | 0.5369381 | 0.1645673 | 0.6911776 | 1.392683  | 0.3901055 | 0         | 0.1828966 | 0.573002  | 0.6582693 | 1.974793  | 3.2060644 | 33696.035 | 0         | 2599.7843 | 36295.819 |
| 7.9497796 | 0         | 1.1890652 | 9.1388448 | 10.067688 | 15.939752 | 35.146285 | 8.6459066 | 0         | 1.293161  | 9.9390676 | 40.270751 | 45.542149 | 95.751968 | 2291896.3 | 0         | 63681.355 | 2355577.7 |
| 0.6809268 | 0         | 0         | 0.6809268 | 0.1802075 | 0.2885993 | 1.1497335 | 0.7117153 | 0         | 0         | 0.7117153 | 0.7208299 | 0.8245694 | 2.2571146 | 40924.773 | 0         | 0         | 40924.773 |
| 0         | 0         | 0         | 0         | 0.0943748 | 0.0719576 | 0.1663325 | 0         | 0         | 0         | 0         | 0.3774994 | 0.2055932 | 0.5830926 | 0         | 0         | 0         | 0         |
| 0.0343251 | 0         | 0.0075718 | 0.0418969 | 0.0937036 | 0.0635999 | 0.1992004 | 0.0373317 | 0         | 0.008235  | 0.0455667 | 0.3748145 | 0.1817139 | 0.602095  | 6775.7012 | 0         | 370.98217 | 7146.6834 |
| 0.0548405 | 0         | 0.0001404 | 0.0549808 | 0.1008075 | 0.5297984 | 0.6855868 | 0.059644  | 0         | 0.0001526 | 0.0597966 | 0.4032302 | 1.5137097 | 1.9767366 | 65534.377 | 0         | 11.472769 | 65545.85  |
| 1.6250409 | 0         | 0         | 1.6250409 | 0.0570989 | 0.2240365 | 1.9061764 | 1.6985181 | 0         | 0         | 1.6985181 | 0.2283958 | 0.6401044 | 2.5670183 | 15441.506 | 0         | 0         | 15441.506 |
| 0.0927065 | 0         | 0.01304   | 0.1057465 | 0.2124448 | 1.1165127 | 1.434704  | 0.1008267 | 0         | 0.0141822 | 0.115009  | 0.8497791 | 3.1900364 | 4.1548244 | 126728.68 | 677.20523 | 1160.1505 | 128566.04 |
| 3.3974306 | 0.162826  | 0         | 3.5602565 | 0.7722162 | 4.0962595 | 8.4287322 | 3.5510473 | 0.1701882 | 0         | 3.7212355 | 3.0888648 | 11.703598 | 18.513699 | 295616.67 | 13799.411 | 0         | 309416.08 |
| 0         | 0         | 0         | 0         | 0.0034754 | 0.0092003 | 0.0126757 | 0         | 0         | 0         | 0         | 0.0139015 | 0.0262867 | 0.0401881 | 0         | 0         | 0         | 0         |
| 0.0063535 | 0.0017576 | 0         | 0.008111  | 0.0147678 | 0.0783536 | 0.1012325 | 0.00691   | 0.0019115 | 0         | 0.0088215 | 0.0590712 | 0.2238675 | 0.2917602 | 4807.1644 | 510.63472 | 0         | 5317.7991 |
| 0.0216165 | 0         | 0.0029021 | 0.0245185 | 0.0614138 | 0.3216095 | 0.4075418 | 0.0235099 | 0         | 0.0031563 | 0.0266662 | 0.245655  | 0.9188844 | 1.1912056 | 36411.104 | 159.96771 | 271.34227 | 36842.414 |
| 0.6649925 | 0.0038271 | 0         | 0.6688197 | 0.0457349 | 0.318524  | 1.0330786 | 0.6950606 | 0.0040002 | 0         | 0.6990607 | 0.1829397 | 0.9100686 | 1.7920691 | 22271.525 | 639.61953 | 0         | 22911.145 |
| 0         | 0         | 0         | 0         | 0.0002375 | 0.0006219 | 0.0008594 | 0         | 0         | 0         | 0         | 0.00095   | 0.0017768 | 0.0027269 | 0         | 0         | 0         | 0         |
| 0.0020538 | 0.0001207 | 0         | 0.0021745 | 0.005584  | 0.0300567 | 0.0378151 | 0.0022337 | 0.0001313 | 0         | 0.002365  | 0.0223358 | 0.0858761 | 0.1105769 | 1991.5547 | 38.516419 | 0         | 2030.0711 |
| 0.0082932 | 0         | 0.0002922 | 0.0085854 | 0.0113495 | 0.0892128 | 0.1091477 | 0.0090196 | 0         | 0.0003178 | 0.0093374 | 0.045398  | 0.2548936 | 0.3096291 | 4643.5719 | 255.5003  | 25.715808 | 4924.788  |
| 0.490741  | 0.0249503 | 0         | 0.5156913 | 0.0490282 | 0.2569239 | 0.8216433 | 0.5129301 | 0.0260785 | 0         | 0.5390086 | 0.1961127 | 0.7340682 | 1.4691894 | 18747.696 | 1736.115  | 0         | 20483.811 |
| 0         | 0         | 0         | 0         | 0.0002056 | 0.0006051 | 0.0008107 | 0         | 0         | 0         | 0         | 0.0008223 | 0.0017288 | 0.0025511 | 0         | 0         | 0         | 0         |
| 0.000558  | 8.01E-05  | 0         | 0.0006381 | 0.0004955 | 0.0025964 | 0.00373   | 0.0006068 | 8.71E-05  | 0         | 0.000694  | 0.0019819 | 0.0074183 | 0.0100942 | 192.7879  | 25.448518 | 0         | 218.23642 |
| 0.004144  | 0         | 2.95E-05  | 0.0041734 | 0.009967  | 0.1569805 | 0.1711209 | 0.0045069 | 0         | 3.21E-05  | 0.004539  | 0.0398681 | 0.4485156 | 0.4929227 | 4862.5051 | 0         | 8.7018239 | 4871.2069 |
| 0         | 0         | 0         | 0         | 0.0102009 | 0.0218949 | 0.0320958 | 0         | 0         | 0         | 0         | 0.0408035 | 0.0625569 | 0.1033603 | 0         | 0         | 0         | 0         |
| 0.0087494 | 0         | 0         | 0.0087494 | 0.3526001 | 1.5252008 | 1.8865503 | 0.009145  | 0         | 0         | 0.009145  | 1.4104005 | 4.3577167 | 5.7772622 | 58348.978 | 0         | 0         | 58348.978 |

| CH4_RUNE  | CH4_IDLEX | CH4_STREX | CH4_TOTEX | N2O_RUNE  | N2O_IDLEX | N2O_STREX | N2O_TOTEX | ROG_RUNE  | ROG_IDLEX | ROG_STREX | ROG_TOTEX | ROG_DIURN | ROG_HOTS  | ROG_RUNL  | ROG_TOTAL | TOG_RUNE  | TOG_IDLEX |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.0929873 | 0         | 7.76E-06  | 0.092995  | 0.0717394 | 0         | 0.0013465 | 0.0730859 | 0.5803872 | 0         | 4.22E-05  | 0.5804294 | 0.0608641 | 0.0190183 | 0.1522519 | 0.8125638 | 0.8468997 | 0         |
| 1.3590843 | 1.1937869 | 0         | 2.5528712 | 164.77197 | 10.062295 | 0         | 174.83426 | 29.260713 | 25.701904 | 0         | 54.962616 | 0         | 0         | 0         | 54.962616 | 33.311094 | 29.259661 |
| 57.222782 | 6.4744267 | 0         | 63.697209 | 6.2790848 | 0.4822777 | 0         | 6.7613625 | 2.6974652 | 0.1429088 | 0         | 2.840374  | 0         | 0         | 0         | 2.840374  | 60.541823 | 6.6650516 |
| 67.311385 | 0         | 173.27398 | 240.58536 | 97.830001 | 0         | 75.189908 | 173.01991 | 268.88924 | 0         | 822.50623 | 1091.3955 | 703.42465 | 216.60494 | 524.14583 | 2535.5709 | 392.22104 | 0         |
| 0.1581056 | 0         | 0         | 0.1581056 | 3.4444018 | 0         | 0         | 3.4444018 | 3.4039198 | 0         | 0         | 3.4039198 | 0         | 0         | 0         | 3.4039198 | 3.8751364 | 0         |
| 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| 0.2639453 | 0         | 1.5114942 | 1.7754395 | 0.2937349 | 0         | 0.7631903 | 1.0569253 | 0.8251582 | 0         | 6.0754873 | 6.9006454 | 4.2913533 | 1.4964982 | 1.2831946 | 13.971692 | 1.2040688 | 0         |
| 23.365798 | 0         | 33.300701 | 56.6665   | 26.327808 | 0         | 10.646667 | 36.974474 | 107.43977 | 0         | 181.30209 | 288.74186 | 198.78497 | 54.956512 | 161.29485 | 703.77819 | 156.64273 | 0         |
| 0.0076617 | 0         | 0         | 0.0076617 | 0.033879  | 0         | 0         | 0.033879  | 0.1649508 | 0         | 0         | 0.1649508 | 0         | 0         | 0         | 0.1649508 | 0.1877855 | 0         |
| 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| 0.0002617 | 0         | 0.0014434 | 0.0017051 | 0.0002924 | 0         | 0.0007319 | 0.0010243 | 0.000815  | 0         | 0.0057737 | 0.0065886 | 0.002952  | 0.0009477 | 0.0009084 | 0.0113968 | 0.0011892 | 0         |
| 40.273045 | 0         | 95.774307 | 136.04735 | 65.073881 | 0         | 41.689559 | 106.76344 | 164.5019  | 0         | 459.65174 | 624.15365 | 322.97216 | 94.739603 | 240.62271 | 1282.4881 | 239.98273 | 0         |
| 0.0398034 | 0         | 0         | 0.0398034 | 1.7021961 | 0         | 0         | 1.7021961 | 0.8569432 | 0         | 0         | 0.8569432 | 0         | 0         | 0         | 0.8569432 | 0.9755728 | 0         |
| 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| 0.0195593 | 0         | 0.1091324 | 0.1286917 | 0.0218203 | 0         | 0.055274  | 0.0770943 | 0.06098   | 0         | 0.4371508 | 0.4981308 | 0.2384101 | 0.0746851 | 0.0720568 | 0.8832828 | 0.0889819 | 0         |
| 7.5112866 | 1.9097645 | 8.8694301 | 18.290481 | 8.6987738 | 0.0487535 | 12.341646 | 21.089174 | 37.932884 | 7.1762768 | 44.933111 | 90.042271 | 51.317317 | 13.970108 | 73.144077 | 228.47377 | 55.351575 | 10.471606 |
| 4.5425759 | 0.0547666 | 0         | 4.5973425 | 40.163507 | 0.2331334 | 0         | 40.39664  | 97.798985 | 1.1790927 | 0         | 98.978078 | 0         | 0         | 0         | 98.978078 | 111.33764 | 1.3423187 |
| 0.7657073 | 0.2689992 | 1.1938423 | 2.2285488 | 1.0732928 | 0.0068735 | 1.7250157 | 2.805182  | 3.7056047 | 0.9987992 | 5.9689825 | 10.673386 | 6.1450324 | 1.65926   | 8.447602  | 26.925281 | 5.4072097 | 1.4574454 |
| 1.4754081 | 0.0198213 | 0         | 1.4952293 | 18.76838  | 0.1341786 | 0         | 18.902559 | 31.764667 | 0.4267398 | 0         | 32.191407 | 0         | 0         | 0         | 32.191407 | 36.161962 | 0.4858149 |
| 36.964669 | 0         | 10.161461 | 47.12613  | 7.1257342 | 0         | 0.4881473 | 7.6138815 | 251.42095 | 0         | 77.121496 | 328.54244 | 109.21646 | 197.51048 | 201.32343 | 836.59281 | 299.90569 | 0         |
| 35.304201 | 0         | 75.223628 | 110.52783 | 51.107159 | 0         | 28.296207 | 79.403366 | 161.08791 | 0         | 394.31559 | 555.40351 | 237.07935 | 69.812185 | 181.81962 | 1044.1147 | 229.65613 | 0         |
| 0.1190135 | 0         | 0         | 0.1190135 | 7.0031551 | 0         | 0         | 7.0031551 | 2.5622914 | 0         | 0         | 2.5622914 | 0         | 0         | 0         | 2.5622914 | 2.9169984 | 0         |
| 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| 0.0153167 | 0         | 0.0838962 | 0.0992129 | 0.0171199 | 0         | 0.0425694 | 0.0596893 | 0.0476498 | 0         | 0.335373  | 0.3830228 | 0.2075009 | 0.062689  | 0.0629939 | 0.7162066 | 0.0695305 | 0         |
| 0.9180116 | 0         | 0.0166344 | 0.934646  | 1.2470544 | 0         | 0.0176376 | 1.2646921 | 4.329527  | 0         | 0.0732586 | 4.4027856 | 22.170484 | 6.4662348 | 0.1406958 | 33.1802   | 6.3176356 | 0         |
| 0.0936344 | 0         | 0         | 0.0936344 | 2.4861009 | 0         | 0         | 2.4861009 | 2.0158944 | 0         | 0         | 2.0158944 | 0         | 0         | 0         | 2.0158944 | 2.2949618 | 0         |
| 2.0107043 | 0.3283344 | 1.3828836 | 3.7219223 | 2.5008213 | 0.0089693 | 0.8488113 | 3.3586019 | 10.408193 | 1.3340669 | 7.9649573 | 19.707217 | 4.9741859 | 1.2900073 | 10.31918  | 36.29059  | 15.187611 | 1.9466673 |
| 0.6927339 | 0.0814288 | 0         | 0.7741627 | 45.882872 | 2.2144993 | 0         | 48.097371 | 14.914371 | 1.7531393 | 0         | 16.66751  | 0         | 0         | 0         | 16.66751  | 16.978876 | 1.9958157 |
| 2.827699  | 1.2772196 | 0         | 4.1049186 | 0.8007074 | 0.08158   | 0         | 0.8822874 | 0.0404022 | 0.0182489 | 0         | 0.0586512 | 0         | 0         | 0         | 0.0586512 | 2.8858743 | 1.3034962 |
| 0.5707219 | 0.0888069 | 0.3608389 | 1.0203676 | 0.8398117 | 0.002342  | 0.2732495 | 1.1154032 | 2.8588824 | 0.3451125 | 1.96523   | 5.1692249 | 1.4297014 | 0.3941897 | 1.6991657 | 8.6922817 | 4.1716745 | 0.5035874 |
| 0.0941436 | 0.010948  | 0         | 0.1050916 | 3.4969089 | 0.102368  | 0         | 3.5992769 | 2.0268852 | 0.2357084 | 0         | 2.2625936 | 0         | 0         | 0         | 2.2625936 | 2.3074545 | 0.2683361 |
| 1.3434804 | 0.1078198 | 0         | 1.4513002 | 0.3697504 | 0.0068692 | 0         | 0.3766197 | 0.0191957 | 0.0015405 | 0         | 0.0207362 | 0         | 0         | 0         | 0.0207362 | 1.3711203 | 0.1100381 |
| 0.2205744 | 0.2123153 | 0.0379377 | 0.4708274 | 0.3556968 | 0.0064432 | 0.0185181 | 0.3806581 | 1.089782  | 0.9485652 | 0.2284094 | 2.2667566 | 0.3894389 | 0.1114172 | 0.3304071 | 3.0980198 | 1.5902073 | 1.3841441 |
| 0.0700325 | 0.0063471 | 0         | 0.0763796 | 3.01904   | 0.2750621 | 0         | 3.2941021 | 1.507781  | 0.1366512 | 0         | 1.6444322 | 0         | 0         | 0         | 1.6444322 | 1.7164939 | 0.155567  |
| 0.4090936 | 0.0775264 | 0         | 0.48662   | 0.0324423 | 0.0039762 | 0         | 0.0364184 | 0.0058451 | 0.0011077 | 0         | 0.0069528 | 0         | 0         | 0         | 0.0069528 | 0.41751   | 0.0791214 |
| 0.0105817 | 0         | 0.010571  | 0.0211527 | 0.0249233 | 0         | 0.0146212 | 0.0395446 | 0.0305117 | 0         | 0.0397057 | 0.0702174 | 0.0285405 | 0.0099841 | 0.01641   | 0.125152  | 0.0445226 | 0         |
| 0.0116214 | 0         | 0         | 0.0116214 | 0.2555208 | 0         | 0         | 0.2555208 | 0.2502049 | 0         | 0         | 0.2502049 | 0         | 0         | 0         | 0.2502049 | 0.2848392 | 0         |

|           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 65.116668 | 0         | 0         | 65.116668 | 11.090021 | 0         | 0         | 11.090021 | 0.9303887 | 0         | 0         | 0.9303887 | 0         | 0         | 0         | 0.9303887 | 66.456335 | 0         |
| 0.0421512 | 0         | 7.72E-06  | 0.0421589 | 0.0416311 | 0         | 0.0003944 | 0.0420255 | 0.2498644 | 0         | 4.19E-05  | 0.2499063 | 0.0239315 | 0.0068078 | 0.059165  | 0.3398106 | 0.3646015 | 0         |
| 0.5023687 | 1.2885132 | 0         | 1.7908819 | 164.55241 | 10.270561 | 0         | 174.82297 | 10.81586  | 27.741337 | 0         | 38.557197 | 0         | 0         | 0         | 38.557197 | 12.313033 | 31.5814   |
| 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| 53.304478 | 7.0042523 | 0         | 60.308731 | 7.2507305 | 0.5939521 | 0         | 7.8446826 | 2.1555476 | 0.1374482 | 0         | 2.2929958 | 0         | 0         | 0         | 2.2929958 | 55.989271 | 7.1909312 |
| 51.089637 | 0         | 143.797   | 194.88664 | 82.747001 | 0         | 68.122015 | 150.86902 | 191.78306 | 0         | 655.16849 | 846.95155 | 642.0947  | 190.79073 | 475.91404 | 2155.751  | 279.84939 | 0         |
| 0.1117507 | 0         | 0         | 0.1117507 | 2.6467368 | 0         | 0         | 2.6467368 | 2.4059272 | 0         | 0         | 2.4059272 | 0         | 0         | 0         | 2.4059272 | 2.7389881 | 0         |
| 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| 0.3502495 | 0         | 2.1056965 | 2.455946  | 0.387792  | 0         | 1.0579422 | 1.4457341 | 1.1012192 | 0         | 8.5108463 | 9.6120655 | 5.7073689 | 2.1470236 | 1.919308  | 19.385766 | 1.6068964 | 0         |
| 16.980535 | 0         | 25.642058 | 42.622593 | 20.068858 | 0         | 8.9008374 | 28.969695 | 76.543163 | 0         | 135.72517 | 212.26834 | 168.19588 | 45.090355 | 131.18801 | 556.74258 | 111.68401 | 0         |
| 0.0054216 | 0         | 0         | 0.0054216 | 0.0241649 | 0         | 0         | 0.0241649 | 0.1167237 | 0         | 0         | 0.1167237 | 0         | 0         | 0         | 0.1167237 | 0.1328821 | 0         |
| 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| 0.0014127 | 0         | 0.0086609 | 0.0100736 | 0.0015607 | 0         | 0.0043438 | 0.0059045 | 0.0044527 | 0         | 0.0350734 | 0.0395262 | 0.0146494 | 0.0051653 | 0.0044242 | 0.0637652 | 0.0064974 | 0         |
| 32.478667 | 0         | 81.324815 | 113.80348 | 53.707433 | 0         | 37.052587 | 90.760019 | 127.01208 | 0         | 375.57782 | 502.5899  | 309.8426  | 86.549642 | 228.89609 | 1127.8782 | 185.33278 | 0         |
| 0.0411709 | 0         | 0         | 0.0411709 | 1.8157346 | 0         | 0         | 1.8157346 | 0.8863842 | 0         | 0         | 0.8863842 | 0         | 0         | 0         | 0.8863842 | 1.0090895 | 0         |
| 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| 0.0419124 | 0         | 0.2555374 | 0.2974497 | 0.046329  | 0         | 0.1282344 | 0.1745634 | 0.1320156 | 0         | 1.0341975 | 1.166213  | 0.4760942 | 0.1633412 | 0.146473  | 1.9521214 | 0.1926368 | 0         |
| 5.573323  | 1.7403368 | 7.585895  | 14.899555 | 6.4715755 | 0.0461313 | 11.577574 | 18.095281 | 27.779858 | 6.3715674 | 37.537405 | 71.68883  | 45.799032 | 11.624327 | 64.294841 | 193.40703 | 40.536303 | 9.2973762 |
| 4.0681468 | 0.0552829 | 0         | 4.1234296 | 42.623938 | 0.2284091 | 0         | 42.852348 | 87.584805 | 1.1902074 | 0         | 88.775013 | 0         | 0         | 0         | 88.775013 | 99.709478 | 1.354972  |
| 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| 0.5327129 | 0.2483    | 1.0497001 | 1.830713  | 0.8338011 | 0.0065105 | 1.6355605 | 2.475872  | 2.4874064 | 0.9035266 | 5.1272907 | 8.5182237 | 5.7257744 | 1.4506954 | 7.6727613 | 23.367455 | 3.6296176 | 1.318424  |
| 1.4284927 | 0.0214713 | 0         | 1.449964  | 20.762034 | 0.1407662 | 0         | 20.9028   | 30.754608 | 0.4622642 | 0         | 31.216872 | 0         | 0         | 0         | 31.216872 | 35.012076 | 0.5262571 |
| 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| 34.244022 | 0         | 9.3599262 | 43.603948 | 6.7654351 | 0         | 0.4345622 | 7.1999973 | 228.19781 | 0         | 70.446338 | 298.64415 | 109.95683 | 193.13573 | 200.03242 | 801.76913 | 274.66306 | 0         |
| 25.15778  | 0         | 60.281081 | 85.438861 | 39.572958 | 0         | 24.393555 | 63.966513 | 104.80999 | 0         | 301.98334 | 406.79333 | 235.88563 | 62.567562 | 178.75282 | 883.99934 | 152.86696 | 0         |
| 0.1032181 | 0         | 0         | 0.1032181 | 6.4477146 | 0         | 0         | 6.4477146 | 2.2222252 | 0         | 0         | 2.2222252 | 0         | 0         | 0         | 2.2222252 | 2.5298556 | 0         |
| 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| 0.0266927 | 0         | 0.1580445 | 0.1847373 | 0.0295965 | 0         | 0.0795559 | 0.1091524 | 0.0837913 | 0         | 0.6374492 | 0.7212405 | 0.3278899 | 0.1187477 | 0.1029639 | 1.270842  | 0.122268  | 0         |
| 0.5434707 | 0         | 0.0133415 | 0.5568122 | 0.8835893 | 0         | 0.0162421 | 0.8998314 | 2.4157525 | 0         | 0.0563281 | 2.4720806 | 17.568561 | 4.6250541 | 0.1062214 | 24.771917 | 3.5250604 | 0         |
| 0.089548  | 0         | 0         | 0.089548  | 2.4328155 | 0         | 0         | 2.4328155 | 1.927915  | 0         | 0         | 1.927915  | 0         | 0         | 0         | 1.927915  | 2.194803  | 0         |
| 1.1485189 | 0.3227861 | 1.1912897 | 2.6625947 | 1.6845106 | 0.0093157 | 0.8203613 | 2.5141877 | 5.7114707 | 1.2533415 | 6.5717459 | 13.536558 | 3.6885961 | 0.9129272 | 7.2752446 | 25.413326 | 8.3341646 | 1.8288729 |
| 0.361967  | 0.0678561 | 0         | 0.4298231 | 46.574527 | 2.1741028 | 0         | 48.74863  | 7.7930508 | 1.4609223 | 0         | 9.2539731 | 0         | 0         | 0         | 9.2539731 | 8.8717951 | 1.6631488 |
| 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| 3.4962397 | 1.6193318 | 0         | 5.1155716 | 0.9799719 | 0.1040962 | 0         | 1.0840681 | 0.0499544 | 0.0231371 | 0         | 0.0730914 | 0         | 0         | 0         | 0.0730914 | 3.5681691 | 1.6526469 |
| 0.4117284 | 0.0806741 | 0.3153598 | 0.8077623 | 0.6217732 | 0.0021608 | 0.2491087 | 0.8730427 | 2.0680316 | 0.3111079 | 1.7096992 | 4.0888387 | 1.4741093 | 0.3643878 | 1.7323449 | 7.6596807 | 3.0176669 | 0.4539679 |
| 0.0624779 | 0.0105222 | 0         | 0.0730001 | 3.5088879 | 0.1007723 | 0         | 3.6096602 | 1.3451311 | 0.2265405 | 0         | 1.5716716 | 0         | 0         | 0         | 1.5716716 | 1.5313294 | 0.2578991 |
| 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| 1.479301  | 0.1265855 | 0         | 1.6058865 | 0.4059915 | 0.0078518 | 0         | 0.4138433 | 0.0211363 | 0.0018087 | 0         | 0.022945  | 0         | 0         | 0         | 0.022945  | 1.5097352 | 0.1291898 |
| 0.1859969 | 0.2358512 | 0.0383491 | 0.4601971 | 0.3281257 | 0.0075987 | 0.0216322 | 0.3573567 | 0.9165231 | 1.0308071 | 0.2266966 | 2.1740268 | 0.3496174 | 0.0919171 | 0.2772929 | 2.8928541 | 1.3373884 | 1.5041513 |
| 0.0626793 | 0.0061405 | 0         | 0.0688198 | 2.9537072 | 0.2735256 | 0         | 3.2272328 | 1.349469  | 0.132203  | 0         | 1.481672  | 0         | 0         | 0         | 1.481672  | 1.5362678 | 0.150503  |
| 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| 0.4773357 | 0.0933907 | 0         | 0.5707264 | 0.0393011 | 0.0051878 | 0         | 0.0444889 | 0.0068202 | 0.0013344 | 0         | 0.0081546 | 0         | 0         | 0         | 0.0081546 | 0.4871561 | 0.095312  |
| 0.0109785 | 0         | 0.0118967 | 0.0228752 | 0.0279289 | 0         | 0.0160136 | 0.0439425 | 0.0315484 | 0         | 0.044644  | 0.0761924 | 0.0463239 | 0.0165358 | 0.0289279 | 0.16798   | 0.0460354 | 0         |
| 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| 106.70759 | 0         | 0         | 106.70759 | 11.894821 | 0         | 0         | 11.894821 | 1.5246409 | 0         | 0         | 1.5246409 | 0         | 0         | 0         | 1.5246409 | 108.90292 | 0         |

| TOG_STREX | TOG_TOTEX | TOG_DIURN | TOG_HOTS  | TOG_RUNL  | TOG_TOTAL | CO_RUNEX  | CO_IDLEX  | CO_STREX  | CO_TOTEX  | SOx_RUNEX | SOx_IDLEX | SOx_STREX | SOx_TOTEX | NH3_RUNE  | Fuel Consumption |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------------|
| 4.62E-05  | 0.8469459 | 0.0608641 | 0.0190183 | 0.1522519 | 1.0790803 | 24.579848 | 0         | 0.5418935 | 25.121742 | 0.0059306 | 0         | 6.79E-05  | 0.0059984 | 0.0090721 | 63.982022        |
| 0         | 62.570755 | 0         | 0         | 0         | 62.570755 | 117.53318 | 342.28546 | 0         | 459.81864 | 9.9034464 | 0.6047837 | 0         | 10.50823  | 120.13295 | 99129.389        |
| 0         | 67.206875 | 0         | 0         | 0         | 67.206875 | 281.73862 | 18.632271 | 0         | 300.37089 | 0         | 0         | 0         | 0         | 14.268134 | 3833.6291        |
| 900.53484 | 1292.7559 | 703.42465 | 216.60494 | 524.14583 | 2736.9313 | 15764.658 | 0         | 7816.4376 | 23581.095 | 54.870525 | 0         | 1.5835035 | 56.454029 | 561.56464 | 602164.27        |
| 0         | 3.8751364 | 0         | 0         | 0         | 3.8751364 | 43.788419 | 0         | 0         | 43.788419 | 0.2071557 | 0         | 0         | 0.2071557 | 0.2618222 | 1952.9436        |
| 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0                |
| 6.6518938 | 7.8559627 | 4.2913533 | 1.4964982 | 1.2831946 | 14.927009 | 108.33344 | 0         | 46.55328  | 154.88672 | 0.6596123 | 0         | 0.0245406 | 0.6841529 | 8.1425669 | 7297.4846        |
| 198.50136 | 355.14409 | 198.78497 | 54.956512 | 161.29485 | 770.18042 | 4026.331  | 0         | 1718.3804 | 5744.7113 | 6.7263846 | 0         | 0.2241198 | 6.9505045 | 65.001091 | 74137.231        |
| 0         | 0.1877855 | 0         | 0         | 0         | 0.1877855 | 0.9050425 | 0         | 0         | 0.9050425 | 0.0020376 | 0         | 0         | 0.0020376 | 0.0014744 | 19.209101        |
| 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0                |
| 0.0063215 | 0.0075106 | 0.002952  | 0.0009477 | 0.0009084 | 0.0123188 | 0.1069945 | 0         | 0.0442407 | 0.1512352 | 0.0006515 | 0         | 2.57E-05  | 0.0006771 | 0.0091319 | 7.222565         |
| 503.2601  | 743.24283 | 322.97216 | 94.739603 | 240.62271 | 1401.5773 | 8963.2552 | 0         | 4211.0891 | 13174.344 | 32.058942 | 0         | 0.928901  | 32.987843 | 272.30804 | 351863.29        |
| 0         | 0.9755728 | 0         | 0         | 0         | 0.9755728 | 7.9154737 | 0         | 0         | 7.9154737 | 0.1023747 | 0         | 0         | 0.1023747 | 0.0940461 | 965.12922        |
| 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0                |
| 0.4786251 | 0.567607  | 0.2384101 | 0.0746851 | 0.0720568 | 0.952759  | 8.0059529 | 0         | 3.3496576 | 11.355611 | 0.048746  | 0         | 0.0021079 | 0.050854  | 0.6801613 | 542.43141        |
| 49.196101 | 115.01928 | 51.317317 | 13.970108 | 73.144077 | 253.45078 | 865.59019 | 58.922503 | 693.5995  | 1618.1122 | 5.3165745 | 0.0190795 | 0.0597224 | 5.3953764 | 25.851278 | 57549.531        |
| 0         | 112.67996 | 0         | 0         | 0         | 112.67996 | 289.61088 | 9.772929  | 0         | 299.38381 | 2.4155421 | 0.0140213 | 0         | 2.4295634 | 53.975374 | 22904.516        |
| 6.5352845 | 13.39994  | 6.1450324 | 1.65926   | 8.447602  | 29.651834 | 93.54519  | 8.220141  | 96.50869  | 198.27402 | 0.8213121 | 0.0030636 | 0.00839   | 0.8327656 | 3.5867178 | 8882.6556        |
| 0         | 36.647777 | 0         | 0         | 0         | 36.647777 | 86.149331 | 3.53704   | 0         | 89.686371 | 1.1287812 | 0.0080699 | 0         | 1.1368511 | 24.264403 | 10717.573        |
| 83.823671 | 383.72937 | 109.21646 | 197.51048 | 201.32343 | 891.77973 | 2535.9077 | 0         | 429.86602 | 2965.7737 | 0.3411924 | 0         | 0.0276921 | 0.3688845 | 1.4500643 | 3934.6893        |
| 431.68985 | 661.34598 | 237.07935 | 69.812185 | 181.81962 | 1150.0571 | 6717.4933 | 0         | 2910.5825 | 9628.0758 | 23.052736 | 0         | 0.6822875 | 23.735023 | 160.6693  | 253168.52        |
| 0         | 2.9169984 | 0         | 0         | 0         | 2.9169984 | 41.64631  | 0         | 0         | 41.64631  | 0.4211887 | 0         | 0         | 0.4211887 | 0.2955857 | 3970.7233        |
| 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0                |
| 0.3671912 | 0.4367217 | 0.2075009 | 0.062689  | 0.0629939 | 0.7699055 | 6.2558537 | 0         | 2.5697879 | 8.8256416 | 0.0380902 | 0         | 0.0020272 | 0.0401174 | 0.5339308 | 427.90986        |
| 0.080209  | 6.3978446 | 22.170484 | 6.4662348 | 0.1406958 | 35.175259 | 117.75946 | 0         | 1.6349649 | 119.39442 | 0.7590813 | 0         | 0.00014   | 0.7592213 | 1.7503246 | 8098.1981        |
| 0         | 2.2949618 | 0         | 0         | 0         | 2.2949618 | 6.8805336 | 0         | 0         | 6.8805336 | 0.1495208 | 0         | 0         | 0.1495208 | 1.8691734 | 1409.5959        |
| 8.7206257 | 25.854904 | 4.9741859 | 1.2900073 | 10.31918  | 42.438277 | 222.17893 | 19.153808 | 176.54202 | 417.87476 | 1.2615179 | 0.0073935 | 0.013018  | 1.2819294 | 3.0650055 | 13673.64         |
| 0         | 18.974692 | 0         | 0         | 0         | 18.974692 | 46.52682  | 41.782032 | 0         | 88.308852 | 2.7577419 | 0.1331002 | 0         | 2.8908421 | 47.310455 | 27270.759        |
| 0         | 4.1893705 | 0         | 0         | 0         | 4.1893705 | 11.791834 | 2.5929206 | 0         | 14.384755 | 0         | 0         | 0         | 0         | 4.2365145 | 500.24869        |
| 2.1516795 | 6.8269413 | 1.4297014 | 0.3941897 | 1.6991657 | 10.349998 | 65.234866 | 2.6753946 | 42.223632 | 110.13389 | 0.4172897 | 0.0017825 | 0.0030442 | 0.4221164 | 1.0341616 | 4502.4847        |
| 0         | 2.5757906 | 0         | 0         | 0         | 2.5757906 | 5.9121638 | 3.1070181 | 0         | 9.0191819 | 0.210178  | 0.0061527 | 0         | 0.2163308 | 2.904905  | 2040.7562        |
| 0         | 1.4811583 | 0         | 0         | 0         | 1.4811583 | 5.5154348 | 0.2040688 | 0         | 5.7195036 | 0         | 0         | 0         | 0         | 1.7839841 | 213.53983        |
| 0.2500796 | 3.224431  | 0.3894389 | 0.1114172 | 0.3304071 | 4.0556942 | 26.870247 | 7.3767318 | 6.0960636 | 40.343042 | 0.0418407 | 0.0024119 | 0.0002537 | 0.0445063 | 0.226033  | 474.72444        |
| 0         | 1.8720609 | 0         | 0         | 0         | 1.8720609 | 4.4050816 | 2.4844567 | 0         | 6.8895383 | 0.1814562 | 0.0165323 | 0         | 0.1979886 | 1.6007343 | 1867.725         |
| 0         | 0.4966314 | 0         | 0         | 0         | 0.4966314 | 1.329266  | 0.0975204 | 0         | 1.4267864 | 0         | 0         | 0         | 0         | 0.1396316 | 20.648919        |
| 0.0434728 | 0.0879954 | 0.0285405 | 0.0099841 | 0.01641   | 0.14293   | 2.4726837 | 0         | 1.0292134 | 3.5018971 | 0.0436292 | 0         | 7.80E-05  | 0.0437072 | 0.197202  | 466.20085        |
| 0         | 0.2848392 | 0         | 0         | 0         | 0.2848392 | 0.3162947 | 0         | 0         | 0.3162947 | 0.0153677 | 0         | 0         | 0.0153677 | 0.0349647 | 144.8779         |

|           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0         | 66.456335 | 0         | 0         | 0         | 66.456335 | 1019.5834 | 0         | 0         | 1019.5834 | 0         | 0         | 0         | 0         | 34.535415 | 6287.9377 |
| 4.59E-05  | 0.3646474 | 0.0239315 | 0.0068078 | 0.059165  | 0.4545517 | 9.6652503 | 0         | 0.3215016 | 9.9867519 | 0.0041227 | 0         | 3.31E-05  | 0.0041558 | 0.0077356 | 44.327564 |
| 0         | 43.894434 | 0         | 0         | 0         | 43.894434 | 52.009717 | 402.73054 | 0         | 454.74026 | 9.8902498 | 0.6173013 | 0         | 10.507551 | 136.89614 | 99122.984 |
| 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| 0         | 63.180203 | 0         | 0         | 0         | 63.180203 | 312.14172 | 22.130846 | 0         | 334.27256 | 0         | 0         | 0         | 0         | 17.045307 | 4447.8615 |
| 717.32702 | 997.17642 | 642.0947  | 190.79073 | 475.91404 | 2305.9759 | 13283.101 | 0         | 6384.6298 | 19667.73  | 53.04676  | 0         | 1.4468538 | 54.493614 | 622.74986 | 581253.59 |
| 0         | 2.7389881 | 0         | 0         | 0         | 2.7389881 | 34.659295 | 0         | 0         | 34.659295 | 0.1591819 | 0         | 0         | 0.1591819 | 0.2042021 | 1500.6749 |
| 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| 9.3183055 | 10.925202 | 5.7073689 | 2.1470236 | 1.919308  | 20.698902 | 144.60484 | 0         | 65.214163 | 209.819   | 0.8803405 | 0         | 0.0332454 | 0.9135859 | 11.486247 | 9744.7218 |
| 148.60189 | 260.2859  | 168.19588 | 45.090355 | 131.18801 | 604.76014 | 3030.8929 | 0         | 1282.5733 | 4313.4662 | 6.0656255 | 0         | 0.1900582 | 6.2556837 | 61.498236 | 66725.959 |
| 0         | 0.1328821 | 0         | 0         | 0         | 0.1328821 | 0.6415945 | 0         | 0         | 0.6415945 | 0.0014533 | 0         | 0         | 0.0014533 | 0.0010529 | 13.701294 |
| 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| 0.038401  | 0.0448984 | 0.0146494 | 0.0051653 | 0.0044242 | 0.0691374 | 0.5847018 | 0         | 0.2687495 | 0.8534513 | 0.0035596 | 0         | 0.0001488 | 0.0037084 | 0.0498941 | 39.555642 |
| 411.2104  | 596.54318 | 309.8426  | 86.549642 | 228.89609 | 1221.8315 | 7662.3633 | 0         | 3530.553  | 11192.916 | 31.782786 | 0         | 0.8671913 | 32.649978 | 306.77017 | 348259.46 |
| 0         | 1.0090895 | 0         | 0         | 0         | 1.0090895 | 8.9098269 | 0         | 0         | 8.9098269 | 0.1092032 | 0         | 0         | 0.1092032 | 0.1039646 | 1029.5045 |
| 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| 1.1323161 | 1.3249529 | 0.4760942 | 0.1633412 | 0.146473  | 2.1108613 | 17.335413 | 0         | 7.9245142 | 25.259927 | 0.1055363 | 0         | 0.0047951 | 0.1103315 | 1.4765367 | 1176.8457 |
| 41.098734 | 90.932413 | 45.799032 | 11.624327 | 64.294841 | 212.65061 | 732.77229 | 56.830837 | 688.09498 | 1477.6981 | 5.2244673 | 0.0179042 | 0.0572037 | 5.2995751 | 27.058383 | 56527.671 |
| 0         | 101.06445 | 0         | 0         | 0         | 101.06445 | 250.26517 | 9.8650535 | 0         | 260.13022 | 2.5635191 | 0.0137371 | 0         | 2.5772562 | 68.161999 | 24296.879 |
| 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| 5.6137379 | 10.561779 | 5.7257744 | 1.4506954 | 7.6727613 | 25.411011 | 76.761218 | 8.1185839 | 96.012228 | 180.89203 | 0.8161458 | 0.0029523 | 0.0080931 | 0.8271912 | 3.7523778 | 8823.1962 |
| 0         | 35.538333 | 0         | 0         | 0         | 35.538333 | 80.757685 | 3.8314845 | 0         | 84.589169 | 1.248685  | 0.0084661 | 0         | 1.257151  | 30.777903 | 11851.692 |
| 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| 76.586991 | 351.25005 | 109.95683 | 193.13573 | 200.03242 | 854.37503 | 2320.5207 | 0         | 416.19475 | 2736.7154 | 0.3331196 | 0         | 0.0257015 | 0.3588211 | 1.4445412 | 3827.3488 |
| 330.63277 | 483.49973 | 235.88563 | 62.567562 | 178.75282 | 960.70575 | 5168.5058 | 0         | 2318.1164 | 7486.6222 | 22.657728 | 0         | 0.629555  | 23.287283 | 178.73712 | 248392.72 |
| 0         | 2.5298556 | 0         | 0         | 0         | 2.5298556 | 39.634224 | 0         | 0         | 39.634224 | 0.387783  | 0         | 0         | 0.387783  | 0.2793194 | 3655.7937 |
| 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| 0.6979267 | 0.8201947 | 0.3278899 | 0.1187477 | 0.1029639 | 1.3697962 | 11.002916 | 0         | 4.88444   | 15.887356 | 0.0669847 | 0         | 0.0036675 | 0.0706522 | 0.9389067 | 753.60883 |
| 0.0616722 | 3.5867326 | 17.568561 | 4.6250541 | 0.1062214 | 25.886569 | 59.436812 | 0         | 1.2221189 | 60.658931 | 0.647874  | 0         | 0.0001134 | 0.6479875 | 1.5062979 | 6911.728  |
| 0         | 2.194803  | 0         | 0         | 0         | 2.194803  | 6.5254992 | 0         | 0         | 6.5254992 | 0.1463161 | 0         | 0         | 0.1463161 | 1.9801932 | 1379.3836 |
| 7.1952346 | 17.358272 | 3.6885961 | 0.9129272 | 7.2752446 | 29.23504  | 118.87102 | 17.951358 | 141.93601 | 278.7584  | 1.252842  | 0.0066949 | 0.0114693 | 1.2710061 | 3.1841215 | 13557.128 |
| 0         | 10.534944 | 0         | 0         | 0         | 10.534944 | 29.126207 | 45.083315 | 0         | 74.209522 | 2.7993131 | 0.1306722 | 0         | 2.9299853 | 53.77694  | 27640.016 |
| 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| 0         | 5.220816  | 0         | 0         | 0         | 5.220816  | 14.536328 | 3.3812092 | 0         | 17.917537 | 0         | 0         | 0         | 0         | 5.217958  | 614.65647 |
| 1.8719054 | 5.3435402 | 1.4741093 | 0.3643878 | 1.7323449 | 8.9143822 | 46.366288 | 2.4110492 | 36.433393 | 85.21073  | 0.3599608 | 0.0015814 | 0.0026825 | 0.3642248 | 0.9183413 | 3884.9865 |
| 0         | 1.7892285 | 0         | 0         | 0         | 1.7892285 | 3.9831804 | 3.4216527 | 0         | 7.4048331 | 0.210898  | 0.0060568 | 0         | 0.2169548 | 3.2105659 | 2046.6435 |
| 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| 0         | 1.638925  | 0         | 0         | 0         | 1.638925  | 6.0822247 | 0.2286703 | 0         | 6.310895  | 0         | 0         | 0         | 0         | 1.9729959 | 234.64526 |
| 0.2482042 | 3.0897439 | 0.3496174 | 0.0919171 | 0.2772929 | 3.8085712 | 22.30565  | 7.9934569 | 5.7013409 | 36.000448 | 0.0459064 | 0.0025259 | 0.0002542 | 0.0486865 | 0.2553638 | 519.31274 |
| 0         | 1.6867708 | 0         | 0         | 0         | 1.6867708 | 4.0151058 | 2.8422278 | 0         | 6.8573336 | 0.1775295 | 0.01644   | 0         | 0.1939694 | 1.9133821 | 1829.8108 |
| 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| 0         | 0.5824682 | 0         | 0         | 0         | 0.5824682 | 1.4991912 | 0.1496425 | 0         | 1.6488337 | 0         | 0         | 0         | 0         | 0.1750652 | 25.224801 |
| 0.0488796 | 0.0949149 | 0.0463239 | 0.0165358 | 0.0289279 | 0.1867025 | 2.8765939 | 0         | 1.1316537 | 4.0082476 | 0.0480708 | 0         | 8.60E-05  | 0.0481568 | 0.2200263 | 513.66268 |
| 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |
| 0         | 108.90292 | 0         | 0         | 0         | 108.90292 | 1450.9436 | 0         | 0         | 1450.9436 | 0         | 0         | 0         | 0         | 38.427127 | 6744.2519 |