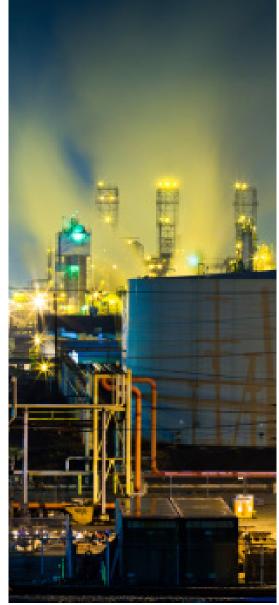


Open Source Oil Modeling *Oil Data Gaps*





OPGEE Upstream Production Data

- **1. Extraction method** (primary, secondary, EOR, other)
- 2. Level of activity per unit production
 - Water-oil ratio (for primary and secondary production)
 - Steam-to-oil ratio (for tertiary production)
- **3. Location** (onshore, offshore, with GIS coordinates)
- 4. Flaring rate
- 5. Venting rate (level of fugitive emissions)

PRELIM Downstream Refining Data

- 1. Reporting on updated refinery process energy requirement data.
- 2. Oil assay parameters (specified below) and reported consistently for each global oil.

Each parameter (except MCR/CCR) must be specified at each cut temperature^{*} and cut temperature ranges must be standardized, as specified below or in another consistent format. *Note: Cut temperatures are currently reported out using a variety of inconsistent formats.*

- API Gravity
- Density
- Sulphur content (wt %)
- Nitrogen content (mass ppm) Viscosity (cST at 100 °C) for
- Hydrogen content
- Volume/Mass Flow (% recovery)
- Micro-carbon residue (MCR) or Conradson carbon residue (CCR)
- Viscosity (cST at 100 °C) for Vacuum Residuum

*The cut temperatures and products currently used in the PRELIM refining model are:

Temperature (ºC)	Product Cut Name
80	LSR
180	Naphtha
290	Kerosene
343	Diesel
399	Atmospheric Gas Oil (AGO)
454	Light Vacuum Gas Oil (LVGO)
525	Heavy Vacuum Gas Oil (HVGO)
525+	Vacuum Residue (VR)
399+	Atmospheric Residue (AR)