Synoil Test 1 on Compressor 1.
**Synoil Test 2 on Compressor 1.**

- **Power Consumed** \( kW_{ave} = 13.36 \, kW \)
- **Sound Pressure Level** \( dB_{avg} = 96.7 \, dB \)
- **Ambient Air Relative Humidity** \( \%RH = 43.1\% \)
- **Volumetric Flowrate (scfm)** \( \dot{Q}_{scfm} = 62.5 \, ft^3/m \)
- **Mass Flowrate** \( \dot{m} = 0.0355 \, kg/s \)
- **Oil Temperature** \( T_{oil} = 84.2 \, ^\circ C \)
- **Regulation Valve Temperature** \( T_{valve} = 67.3 \, ^\circ C \)
- **Exit Air Temperature** \( T_{air,exit} = 33.7 \, ^\circ C \)
- **Ambient Air Temperature** \( T_{amb} = 26.7 \, ^\circ C \)
- **Exit Air Pressure** \( P_{air, out} = 79.44 \, psig \)
- **Barometric Pressure** \( P_{atm} = 14.41 \, psig \)
Synoil Test 3 on Compressor 1-without temperature regulation.
Synoil Test 4 on Compressor 1 - without temperature regulation.
Synoil Test 5 on Compressor 1-without temperature regulation, moderate cooling.
Synoil Test 6 on Compressor 1—without temperature regulation, moderate cooling.
Synoil Test 7 on Compressor 1-without temperature regulation, moderate cooling.
**Synoil Test 8 on Compressor 1** - without temperature regulation, moderate cooling.

- **Power Consumed**: $kW_{ave} = 13.65\, kW$
- **Sound Pressure Level**: $dB_{avg} = 96.8\, dB$
- **Ambient Air Relative Humidity**: %RH = 45.1%
- **Exit Air Pressure**
  - $P_{air,\,out} = 81.91\, psig$
  - $P_{atm} = 14.47\, psig$
- **Exit Air Temperature**: $T_{air,\,exit} = 35.2\, ^\circ C$
- **Regulation Valve Temperature**: $T_{valve} = 59.8\, ^\circ C$
- **Oil Temperature**: $T_{oil} = 79.7\, ^\circ C$
- **Ambient Air Temperature**: $T_{amb} = 24.9\, ^\circ C$
- **Volumetric Flowrate (scfm)**
  - $\dot{Q}_{scfm} = 67.0\, ft^3/m$
  - $\dot{m} = 0.0381\, kg/s$

**Diagrams**:
- Power Consumed
- Sound Pressure Level
- Ambient Air Relative Humidity
- Volumetric Flowrate (scfm)
- Mass Flowrate
- Oil Temperature
- Regulation Valve Temperature
- Exit Air Temperature
- Ambient Air Temperature
- Exit Air Pressure
- Barometric Pressure

**Data**:
- **Flowrate**
  - 0.0360
  - 0.0370
  - 0.0380
- **Temperature**
  - 25
  - 30
  - 35
  - 40
  - 45
  - 50
  - 60
  - 70
  - 80
- **Pressure**
  - 14.2
  - 14.4
  - 14.6
  - 80.0
  - 81.0
  - 82.0
Synoil Test 9 on Compressor 1-without temperature regulation, moderate cooling.
Synoil Test 10 on Compressor 1 - without temperature regulation, moderate cooling.
\textbf{Synoil Test 11} on Compressor 1-without temperature regulation, moderate cooling.
Synoil Test 12 on Compressor 1—without temperature regulation, minimal cooling.
Synoil Test 13 on Compressor 1—without temperature regulation, minimal cooling.
**Synoil Test 14 on Compressor 1.**
Synoil Test 15 on Compressor 1.
Synoil Test 16 on Compressor 1.