<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Diagnosis/Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>44150094226</td>
<td>Wear metal(s) high indicating possible piston/cylinder wear. Results reported by phone / fax / email.</td>
</tr>
<tr>
<td>44150094225</td>
<td>Wear metals increased for oil time. Check oil filter for chips. Resample 25 hours to monitor wear trend.</td>
</tr>
<tr>
<td>44150094224</td>
<td>All values appear normal.</td>
</tr>
<tr>
<td>44150094223</td>
<td>All values appear normal.</td>
</tr>
<tr>
<td>44150094222</td>
<td>All values appear normal.</td>
</tr>
<tr>
<td>44150094221</td>
<td>All values appear normal. Resample next oil change to establish wear trend.</td>
</tr>
</tbody>
</table>

### Customer Information
- **Customer Name:** AVIATION OIL ANALYSIS NA PARENT
- **Address:** 3319 West Earll Drive, Phoenix, Arizona 85017
- **Phone:** 800-445-7930
- **Fax:** 602-252-4639

### Aircraft Information
- **Tail Number:** N12345
- **Aircraft Make:** Cessna
- **Aircraft Model:** 150A
- **Serial No:** L-12345-R
- **UIN:** 02B07F5
- **Comp Serial No:** L-12345-R
- **Comp Name:** Single Engine
- **Comp Make:** Continental
- **Comp Model:** IO-520D

### Sample Information
- **Sample No.:** 44150094226, 44150094225, 44150094224, 44150094223, 44150094222, 44150094221
- **Date Sampled:** 25-Jun-14, 14-May-14, 12-Mar-14, 23-Jan-14, 27-Dec-13, 01-Nov-13
- **Date Tested:** 30-Jun-14, 20-May-14, 19-Mar-14, 29-Jan-14, 31-Dec-13, 06-Nov-13
- **Oil Brand:** Shell, Shell, Shell, Shell, Shell, Shell
- **Oil Type:** Aeroshell W, Aeroshell W, Aeroshell W, Aeroshell W, Aeroshell W, Aeroshell W
- **Oil Grade:** SAE 15W50, SAE 15W50, SAE 15W50, SAE 15W50, SAE 15W50, SAE 15W50
- **Oil Hrs:** 22, 50, 55, 45, 50, 48
- **Oil Added:** 777, 755, 705, 660, 610, 562
- **Hrs Since New:** 777, 755, 705, 660, 610, 562

### Metals (ppm)

<table>
<thead>
<tr>
<th></th>
<th>44150094226</th>
<th>44150094225</th>
<th>44150094224</th>
<th>44150094223</th>
<th>44150094222</th>
<th>44150094221</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminium (Al)</td>
<td>49</td>
<td>29</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Iron (Fe)</td>
<td>150.10</td>
<td>88.90</td>
<td>41.50</td>
<td>36.40</td>
<td>37.90</td>
<td>35.10</td>
</tr>
<tr>
<td>Copper (Cu)</td>
<td>9.60</td>
<td>10.00</td>
<td>8.00</td>
<td>6.98</td>
<td>7.54</td>
<td>7.11</td>
</tr>
<tr>
<td>Nickel (Ni)</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Chromium (Cr)</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Silver (Ag)</td>
<td>&lt;1</td>
<td>&lt;1</td>
<td>&lt;1</td>
<td>&lt;1</td>
<td>&lt;1</td>
<td>&lt;1</td>
</tr>
</tbody>
</table>

### Contaminants (ppm)

| Silicon (Si) | 11 | 8  | 13 | 8  | 8  | 9  |

### Diagnosis/Recommendations
- **Sample No. 44150094226:** Wear metal(s) high indicating possible piston/cylinder wear. Results reported by phone / fax / email.
- **Sample No. 44150094225:** Wear metals increased for oil time. Check oil filter for chips. Resample 25 hours to monitor wear trend.
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- **Sample No. 44150094221:** All values appear normal. Resample next oil change to establish wear trend.
Since services are based on samples and information supplied by others, and since corrective actions, if any, are necessarily taken by others, these services are rendered without any warranty or liability of any kind beyond the actual amount paid to ALS Laboratory group for the services. Reported recommendations are based on interpretations of the generated test results and historical data. Certain test results appearing in this report may have been tested at other ALS laboratories within the Tribology divisional network.

Aviation Oil Analysis NA Parent
Attn:
3319 West Earll Drive
Phoenix AZ 85017

TEST METHODS:
- Acid Number: ASTM D974/D664
- ICP: ASTM D5185
- Viscosity: ASTM D445 / D7279
- Water by Crackle: ASTM E203 Mod / In House