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| | | |
|--|------------------------------|---------------------------------|
| Customer Name: COMMANDER AERO INC | Tail Number: N681UC | Comp Serial No: 1007141 |
| Address: 10570 Spring Boro Pike Miamisburg OH 45342 USA | Aircraft Make: Cirrus | Comp Name: Single Engine |
| Phone: 9378855580 | Aircraft Model: SR 20 | Comp Make: Lycoming |
| Fax: 9378855586 | Serial No: | Comp Model: IO-360E |
| | UIN: 0309118 | |

| Sample No. | 4415011835 | 44150100765 | 44150091132 | 44150060271 |
|---------------|-------------|-------------|-------------|----------------|
| Date Sampled | 15-Apr-15 | 30-Sep-14 | 06-May-14 | 14-Dec-12 |
| Date Tested | 21-Apr-15 | 08-Oct-14 | 14-May-14 | 27-Dec-12 |
| Oil Brand | Shell | Shell | Shell | Phillips 66 |
| Oil Type | Aeroshell W | Aeroshell W | Aeroshell W | XC Aviation MV |
| Oil Grade | SAE 15W50 | SAE 15W50 | SAE 15W50 | SAE 20W50 |
| Oil Hrs | 23 | 12 | 25 | 23 |
| Oil Added | | | | 2.0 |
| Hrs Since New | | | | 23 |
| Rebuild Hrs | | | | |

Metals (ppm)

| | | | | |
|----------------|-------|-------|-------|-------|
| Aluminium (Al) | 4 | 5 | 2 | 1 |
| Iron (Fe) | 34.02 | 44.10 | 11.74 | 9.43 |
| Copper (Cu) | 12.85 | 15.50 | 1.35 | 27.70 |
| Nickel (Ni) | 4 | 3 | 2 | <1 |
| Chromium (Cr) | 8 | 8 | <1 | 2 |
| Silver (Ag) | <1 | <1 | <1 | <1 |

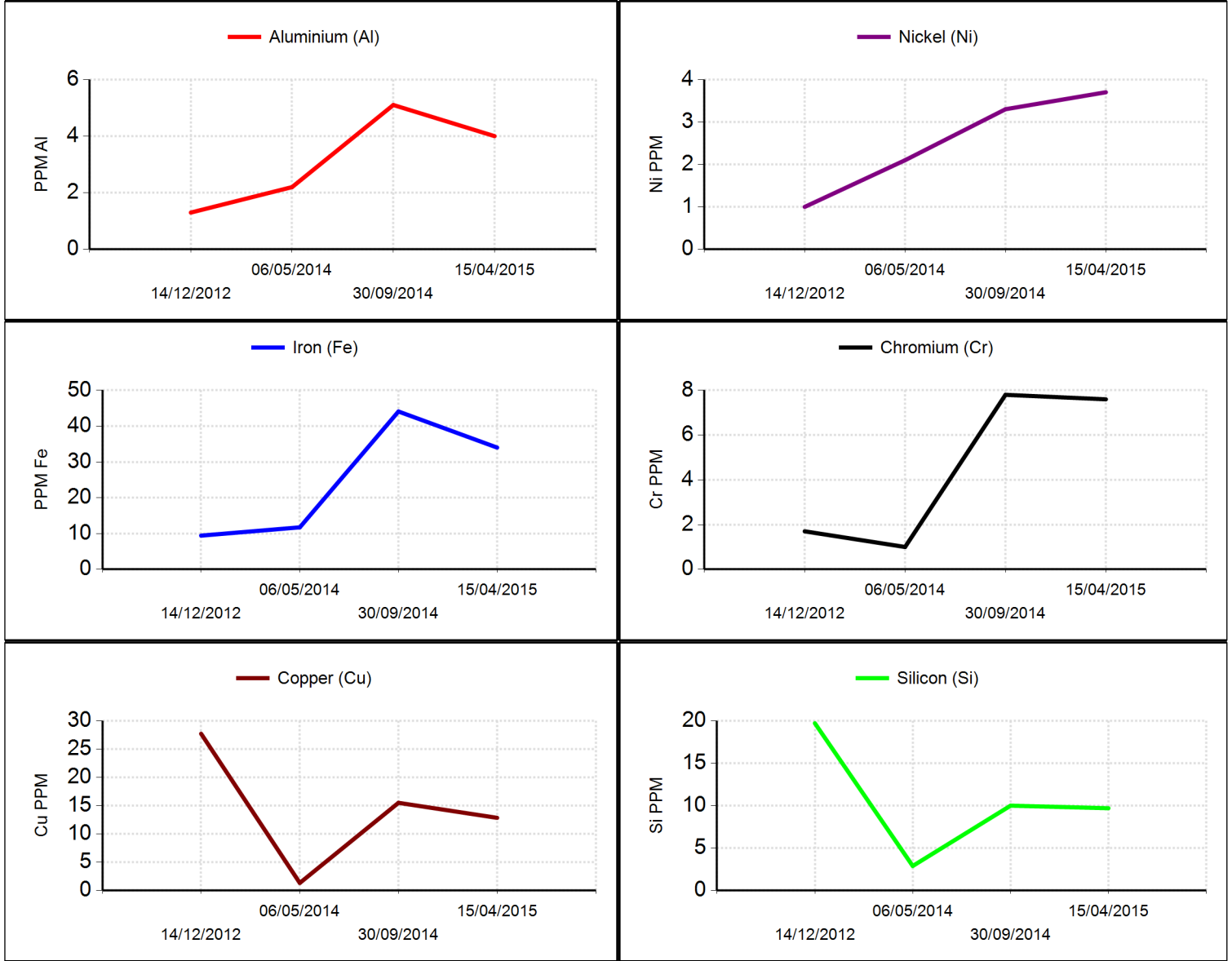
Contaminants (ppm)

| | | | | |
|--------------|----|----|---|----|
| Silicon (Si) | 10 | 10 | 3 | 20 |
|--------------|----|----|---|----|

LEGEND


| Sample No. | Diagnosis/Recommendations |
|------------|---------------------------|
|------------|---------------------------|

| | |
|-------------|--|
| 4415011835 | All values appear normal. |
| 44150100765 | Wear metals increased for oil time. Check oil filter for chips. Resample 15 to 20 hours to monitor wear trend. |
| 44150091132 | All values appear normal. |
| 44150060271 | No abnormal wear detected for new engine. 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.

Commander Aero Inc
 Attn: Scherry Diamond
 10570 Spring Boro Pike
 Miamisburg OH 45342
 USA

TEST METHODS:
 Acid Number: ASTM D974/D664
 Metals by AA Spectro: ASTM D6595
 Viscosity: ASTM D445 / D7279
 Water by Crackle: ASTM E203 Mod / In House