



Area Chem-Ecol

A2406160

OIL ANALYSIS REPORT



NORMAL

Hydraulic System Fluid CHEM-ECOL HYDRAULIC 46 AWD (--- GAL)

DIAGNOSIS

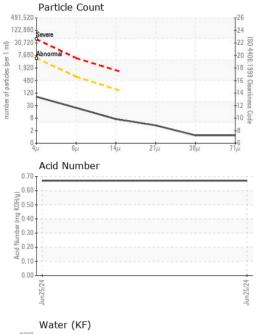
Recommendation

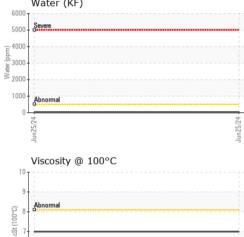
We certify that this oil is clean, that the additives are at acceptable levels, and that it is suitable for use.

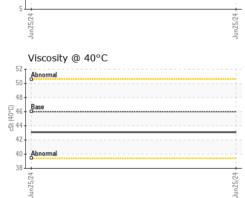
| SAMPLE INFORM | NATION | method | limit/base | current | history1 | history2 |
|------------------|---------------|---------------|------------|-------------|----------|----------|
| Batch # | | Client Info | | 3127-A | | |
| Department | | Client Info | | Production | | |
| Sample From | | Client Info | | Machine | | |
| Production Stage | | Client Info | | Final | | |
| Sent to WC | | Client Info | | 06/25/2024 | | |
| Sample Number | | Client Info | | E30002472 | | |
| Sample Date | | Client Info | | 25 Jun 2024 | | |
| Machine Age | hrs | Client Info | | 0 | | |
| Oil Age | hrs | Client Info | | 0 | | |
| Oil Changed | | Client Info | | N/A | | |
| Sample Status | | | | NORMAL | | |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185(m) | >20 | 2 | | |
| Chromium | ppm | ASTM D5185(m) | >20 | 0 | | |
| Nickel | ppm | ASTM D5185(m) | >20 | <1 | | |
| Titanium | ppm | ASTM D5185(m) | | 0 | | |
| Silver | ppm | ASTM D5185(m) | | 0 | | |
| Aluminum | ppm | ASTM D5185(m) | | <1 | | |
| Lead | ppm | ASTM D5185(m) | >20 | 0 | | |
| Copper | ppm | ASTM D5185(m) | >20 | 4 | | |
| Tin | ppm | ASTM D5185(m) | >20 | 0 | | |
| Antimony | ppm | ASTM D5185(m) | | 0 | | |
| Vanadium | ppm | ASTM D5185(m) | | 0 | | |
| Beryllium | ppm | ASTM D5185(m) | | 0 | | |
| Cadmium | ppm | ASTM D5185(m) | | 0 | | |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185(m) | | 0 | | |
| Barium | ppm | ASTM D5185(m) | | 0 | | |
| Molybdenum | ppm | ASTM D5185(m) | | 0 | | |
| Manganese | ppm | ASTM D5185(m) | | 0 | | |
| Magnesium | ppm | ASTM D5185(m) | | 93 | | |
| Calcium | ppm | ASTM D5185(m) | | 87 | | |
| Phosphorus | ppm | ASTM D5185(m) | | 406 | | |
| Zinc | ppm | ASTM D5185(m) | | 505 | | |
| Sulfur | ppm | ASTM D5185(m) | | 996 | | |
| Lithium | ppm | ASTM D5185(m) | | <1 | | |
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185(m) | >15 | 0 | | |
| Sodium | ppm | ASTM D5185(m) | | 1 | | |
| Potassium | ppm | ASTM D5185(m) | >20 | <1 | | |
| Water | % | ASTM D6304* | >0.05 | 0.001 | | |
| ppm Water | ppm | ASTM D6304* | >500 | 15 | | |



OIL ANALYSIS REPORT







| FLUID CLEANLIN | IESS | method | limit/base | current | history1 | histo |
|----------------------|----------|---------------|------------|----------|----------|--------|
| Particles >4µm | | ASTM D7647 | >5000 | 71 | | |
| Particles >6µm | | ASTM D7647 | >640 | 21 | | |
| Particles >14µm | | ASTM D7647 | >160 | 6 | | |
| Particles >21µm | | ASTM D7647 | >40 | 3 | | |
| Particles >38µm | | ASTM D7647 | >10 | 1 | | |
| Particles >71µm | | ASTM D7647 | | 1 | | |
| Oil Cleanliness | | ISO 4406 (c) | >19/16/14 | 13/12/10 | | |
| FLUID DEGRADA | TION | method | limit/base | current | history1 | histo |
| Acid Number (AN) | mg KOH/g | ASTM D974* | | 0.67 | | |
| VISUAL | | method | limit/base | current | history1 | histo |
| White Metal | scalar | Visual* | NONE | NONE | | |
| Yellow Metal | scalar | Visual* | NONE | NONE | | |
| Precipitate | scalar | Visual* | NONE | NONE | | |
| Silt | scalar | Visual* | NONE | NONE | | |
| Debris | scalar | Visual* | NONE | NONE | | |
| Sand/Dirt | scalar | Visual* | NONE | NONE | | |
| Appearance | scalar | Visual* | NORML | NORML | | |
| Odor | scalar | Visual* | NORML | NORML | | |
| Emulsified Water | scalar | Visual* | >0.05 | NEG | | |
| Free Water | scalar | Visual* | | NEG | | |
| FLUID PROPERT | IES | method | limit/base | current | history1 | histo |
| Visc @ 40°C | cSt | ASTM D7279(m) | 46 | 43.1 | | |
| Visc @ 100°C | cSt | ASTM D7279(m) | | 7.0 | | |
| Viscosity Index (VI) | Scale | ASTM D2270* | | 121 | | |
| SAMPLE IMAGES | 6 | method | limit/base | current | history1 | histo |
| | | | | 002472 | | |
| Color | | | | | no image | no ima |
| | | | | | | |
| Datta | | | | 6 -3 | | |
| Bottom | | | | | no image | no ima |
| | | | | | | |
| | | | | | | |



Abnorma

| _ | CALA | Laboratory | : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 | | | | |
|--------|---|-------------------|--|----------------------|----------------------------|--|--|
| | Accreditation 196, 100/0719 | Sample No. | : E30002472 | Received | : 27 Jun 2024 | | |
| 8 | ISO 17025:2017 Accredited Laboratory To discuss this Test denoted (| Lab Number | : 02644348 | Tested | : 28 Jun 2024 | | |
| * | | Unique Number | : 5801887 | Diagnosed | : 02 Jul 2024 - Aylwin Lee | | |
| Labora | Laboratory | Test Package | : IND 2 (Additional 7 | Fests: KF, KV100, T | AN Man, VI) | | |
| 64 | To discuss this sample report, contact Customer Service at 1-905-372-2251. | | | | | | |
| 21 | Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. | | | | | | |
| 24 | Validity of resu | Its and interpret | tation are based on th | ne sample and inforr | nation as supplied. | | |

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