

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

BRAKE PRESS (S/N 417512)

Hydraulic System

PETRO CANADA HYDREX AW 46 (75 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

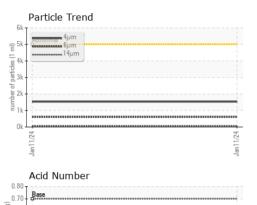
| | | | | Jan2024 | | |
|------------------|----------|--------------|------------|-------------|------------------|--------------|
| SAMPLE INFORM | ATION | method | limit/base | current | history1 | history2 |
| Sample Number | | Client Info | | WC0887107 | | |
| Sample Date | | Client Info | | 11 Jan 2024 | | |
| Machine Age | hrs | Client Info | | 5180 | | |
| Oil Age | hrs | Client Info | | 5180 | | |
| Oil Changed | | Client Info | | Not Changd | | |
| Sample Status | | | | NORMAL | | |
| CONTAMINATION | | method | limit/base | current | history1 | history2 |
| Water | | WC Method | >0.1 | NEG | | |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >20 | 0 | | |
| Chromium | ppm | ASTM D5185m | >10 | <1 | | |
| Nickel | ppm | ASTM D5185m | >10 | 0 | | |
| Titanium | ppm | ASTM D5185m | | 0 | | |
| Silver | ppm | ASTM D5185m | | 0 | | |
| Aluminum | ppm | ASTM D5185m | >10 | 2 | | |
| Lead | ppm | ASTM D5185m | >10 | 0 | | |
| Copper | ppm | ASTM D5185m | >75 | <1 | | |
| Tin | ppm | ASTM D5185m | >10 | 0 | | |
| Vanadium | ppm | ASTM D5185m | | 0 | | |
| Cadmium | ppm | ASTM D5185m | | 0 | | |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | 0 | 0 | | |
| Barium | ppm | ASTM D5185m | 0 | 3 | | |
| Volybdenum | ppm | ASTM D5185m | 0 | 0 | | |
| Vanganese | ppm | ASTM D5185m | 0 | 0 | | |
| Magnesium | ppm | ASTM D5185m | 0 | 1 | | |
| Calcium | ppm | ASTM D5185m | 50 | 78 | | |
| Phosphorus | ppm | ASTM D5185m | 330 | 384 | | |
| Zinc | ppm | ASTM D5185m | 430 | 422 | | |
| Sulfur | ppm | ASTM D5185m | 760 | 1033 | | |
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185m | >20 | 0 | | |
| Sodium | ppm | ASTM D5185m | | 0 | | |
| Potassium | ppm | ASTM D5185m | >20 | <1 | | |
| FLUID CLEANLINE | ESS | method | limit/base | current | history1 | history2 |
| Particles >4µm | | ASTM D7647 | >5000 | 1530 | | |
| Particles >6µm | | ASTM D7647 | >1300 | 606 | | |
| Particles >14µm | | ASTM D7647 | >160 | 56 | | |
| Particles >21µm | | ASTM D7647 | >40 | 6 | | |
| Particles >38µm | | ASTM D7647 | >10 | 0 | | |
| Particles >71µm | | ASTM D7647 | >3 | 0 | | |
| Oil Cleanliness | | ISO 4406 (c) | >19/17/14 | 18/16/13 | | |
| FLUID DEGRADA | ΓΙΟΝ | method | limit/base | current | history1 | history2 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.70 | 0.11 | | |
| 08.18) Bov. 1 | | | | Contact/Loo | ation · DAN WILL | ARY - ALMALE |

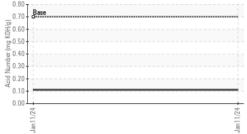
Report Id: ALMALB [WUSCAR] 06063531 (Generated: 02/07/2024 09:08:18) Rev: 1

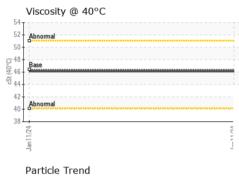
Contact/Location: DAN WILLABY - ALMALB

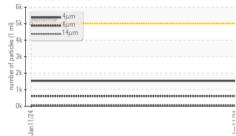


OIL ANALYSIS REPORT









| | VISUAL | | method | limit/base | current | history1 | history2 |
|--|-----------------------------|---|--------------------|---|---------------------------|--------------|---|
| | | | | | | | |
| | White Metal | scalar | *Visual *Visual | NONE NONE | NONE NONE | | |
| | Yellow Metal Precipitate | scalar scalar | *Visual | NONE | NONE | | |
| | Silt | scalar | *Visual | NONE | NONE | | |
| | Debris | scalar | *Visual | NONE | NONE | | |
| | Sand/Dirt | scalar | *Visual | NONE | NONE | | |
| Jan11/24 | Appearance | scalar | *Visual | NORML | NORML | | |
| Jan | Odor | scalar | *Visual | NORML | NORML | | |
| | Emulsified Water | scalar | *Visual | >0.1 | NEG | | |
| | Free Water | scalar | *Visual | | NEG | | |
| | FLUID PROPER | TIES | method | limit/base | current | history1 | history2 |
| | Visc @ 40°C | cSt | ASTM D445 | 46.4 | 46.1 | | |
| | SAMPLE IMAGE | S | method | limit/base | current | history1 | history2 |
| Jan 11/24 | Color | | | | | no image | no image |
| | Bottom | | | | | no image | no image |
| | GRAPHS | | | - | | | |
| | Ferrous Alloys | | | | Particle Count | | |
| NC 11 | 10 8 6 4 4 | | | 491,520 | Severe | | -24 |
| | 2 | | | | Abnormal | | -20 8 |
| | Jan 11/24 | | | Jan11/24 1/26 [ml] | | • | -20 (SO 4406:1999 Cleanliness Code -18 -14 |
| | Non-ferrous Meta | ls | | pitted jo | | • | 9 Cleanlin |
| | 8 - copper | | | | - | \backslash | -14 ess Co |
| | | | | - 30 |) - | | -12 8 |
| < | 2 | | | | 3- | | 10 |
| 11 / J | 1/24 0 | | ***** | 1/24 | 2 | | -8 |
| | Jan 11/24 | | | Jan11/24 | | 1 1 | 200 71 6 |
| | Viscosity @ 40°C | | | | ^{6µ} Acid Number | 14μ 21μ | 38µ 71µ |
| | 55 Abnormal | | | (^{10.80} | Base | | |
| C | 50 | | | (B)HO3 0.60 HO3 0.60 Bull a 0.40 Provide the second |) - | | |
| 00 IQU | Abnormal | | | a 0.40 |) - | | |
| | 40 - Abnormal | | | - N 0.20 |) | | |
| | 35 | | | 0.00 ¥ | | | 24 |
| | Jan11/24 | | | Jan 11/24 | Jan11/24 | | Jan 11/24 |
| ooratory mple No. o Number que Number st Package | : 06063531 | 501 Madia Recieved Diagnos Diagnos | d :17. ed :19. | ary, NC 27510 Jan 2024 Jan 2024 n Baldridge | 3 | AL | ALMCO 902 E MAIN ST BERT LEA, MN US 56007 DAN WILLABY |

 Centificate 12367
 Test Package
 : IND 2

 To discuss this sample report, contact Customer Service at 1-800-237-1369.
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 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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