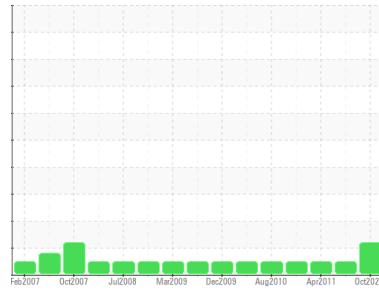




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area
[93768]

Machine Id
PRESS #2 AFTER FILTERS

Component
Hydraulic System

Fluid
PETRO CANADA HYDREX AW 68 (20000 LTR)

DIAGNOSIS

Recommendation

The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

Oil Cleanliness are abnormally high. Particles >4µm are abnormally high. Particles >6µm are notably high.

Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION

| | method | limit/base | current | history1 | history2 |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | WC0616922 | WC22091246 | WC22087686 |
| Sample Date | Client Info | | 06 Oct 2022 | 29 Aug 2011 | 20 Apr 2011 |
| Machine Age | yrs | Client Info | 0 | 0 | 0 |
| Oil Age | yrs | Client Info | 6 | 0 | 0 |
| Oil Changed | Client Info | | Filtered | N/A | N/A |
| Sample Status | | | ABNORMAL | ATTENTION | NORMAL |

CONTAMINATION

| | method | limit/base | current | history1 | history2 |
|-------|-----------|------------|------------|----------|----------|
| Water | WC Method | >0.05 | NEG | NEG | NEG |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|-------------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185(m) >20 | 3 | <1 | <1 |
| Chromium | ppm | ASTM D5185(m) >20 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185(m) >20 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185(m) | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185(m) | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185(m) >20 | <1 | 0 | <1 |
| Lead | ppm | ASTM D5185(m) >20 | <1 | <1 | 0 |
| Copper | ppm | ASTM D5185(m) >20 | 3 | <1 | <1 |
| Tin | ppm | ASTM D5185(m) >20 | 0 | 0 | 0 |
| Antimony | ppm | ASTM D5185(m) | 0 | 0 | <1 |
| Vanadium | ppm | ASTM D5185(m) | 0 | 0 | 0 |
| Beryllium | ppm | ASTM D5185(m) | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185(m) | 0 | 0 | 0 |

ADDITIVES

| | method | limit/base | current | history1 | history2 |
|------------|--------|-------------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185(m) 0 | <1 | 0 | <1 |
| Barium | ppm | ASTM D5185(m) 0 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) 0 | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185(m) 0 | 0 | 0 | 0 |
| Magnesium | ppm | ASTM D5185(m) 0 | 0 | 0 | <1 |
| Calcium | ppm | ASTM D5185(m) 50 | 27 | 101 | 126 |
| Phosphorus | ppm | ASTM D5185(m) 330 | 326 | 232 | 235 |
| Zinc | ppm | ASTM D5185(m) 430 | 284 | 289 | 326 |
| Sulfur | ppm | ASTM D5185(m) 760 | 599 | 595 | 548 |
| Lithium | ppm | ASTM D5185(m) | <1 | <1 | <1 |

CONTAMINANTS

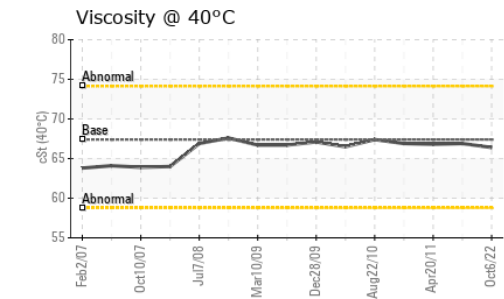
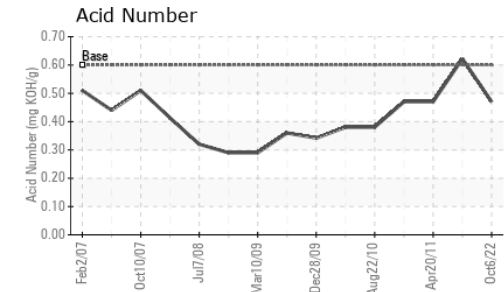
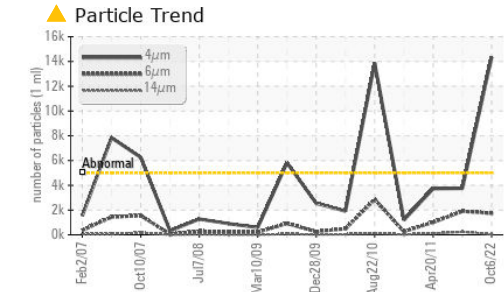
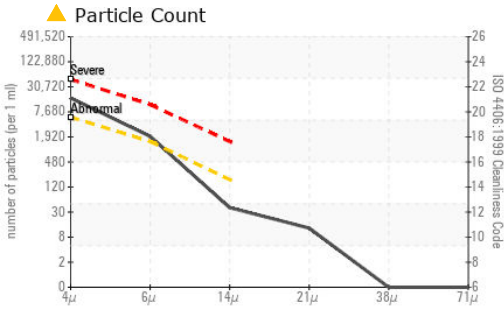
| | method | limit/base | current | history1 | history2 |
|-----------|--------|-------------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185(m) >15 | 0 | <1 | <1 |
| Sodium | ppm | ASTM D5185(m) | <1 | 1 | 0 |
| Potassium | ppm | ASTM D5185(m) >20 | 0 | 0 | 0 |

FLUID CLEANLINESS

| | method | limit/base | current | history1 | history2 |
|-----------------|--------------|------------|-------------------|----------|----------|
| Particles >4µm | ASTM D7647 | >5000 | ▲ 14345 | 3750 | 3726 |
| Particles >6µm | ASTM D7647 | >1300 | ● 1734 | 1900 | 1014 |
| Particles >14µm | ASTM D7647 | >160 | 34 | 240 | 110 |
| Particles >21µm | ASTM D7647 | >40 | 11 | 30 | 31 |
| Particles >38µm | ASTM D7647 | >10 | 0 | 3 | 3 |
| Particles >71µm | ASTM D7647 | >3 | 0 | 0 | 0 |
| Oil Cleanliness | ISO 4406 (c) | >19/17/14 | ▲ 21/18/12 | 19/18/15 | 19/17/14 |



OIL ANALYSIS REPORT



| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|------------|------------|--------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D974* | 0.60 | 0.47 | 0.622 | 0.47 |
| VISUAL | | method | limit/base | current | history1 | history2 |
| White Metal | scalar | Visual* | NONE | NONE | VLITE | VLITE |
| Yellow Metal | scalar | Visual* | NONE | NONE | NONE | NONE |
| Precipitate | scalar | Visual* | NONE | NONE | NONE | NONE |
| Silt | scalar | Visual* | NONE | NONE | LIGHT | NONE |
| Debris | scalar | Visual* | NONE | NONE | VLITE | NONE |
| Sand/Dirt | scalar | Visual* | NONE | NONE | NONE | NONE |
| Appearance | scalar | Visual* | NORML | NORML | NORML | NORML |
| Odor | scalar | Visual* | NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | Visual* | >0.05 | NEG | NEG | NEG |
| Free Water | scalar | Visual* | | NEG | NEG | NEG |

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|------------------|-----|---------------|------------|-------------|----------|----------|
| Visc @ 40°C | cSt | ASTM D7279(m) | 67.4 | 66.4 | 66.9 | 66.8 |

| SAMPLE IMAGES | | method | limit/base | current | history1 | history2 |
|---------------|--|--------|------------|----------|----------|----------|
| Color | | | | | | |
| Bottom | | | | | | |
| PrtFilter | | | | no image | | no image |



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0616922
Lab Number : 02515915
Unique Number : 5472895
Test Package : IND 2 (Additional Tests: TAN Man)

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 F: (905)778-8054

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.