

OIL ANALYSIS REPORT

ORIN CONTRACTORS 233

Component

Front Left Final Drive

PETRO CANADA HYDREX AW 46 (--- GAL)

Sample Rating Trend **VISCOSITY**

DIAGNOSIS

Recommendation

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

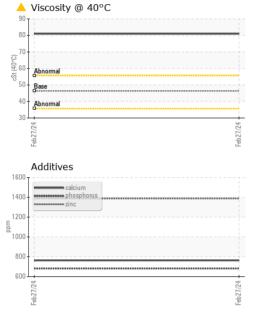
Fluid Condition

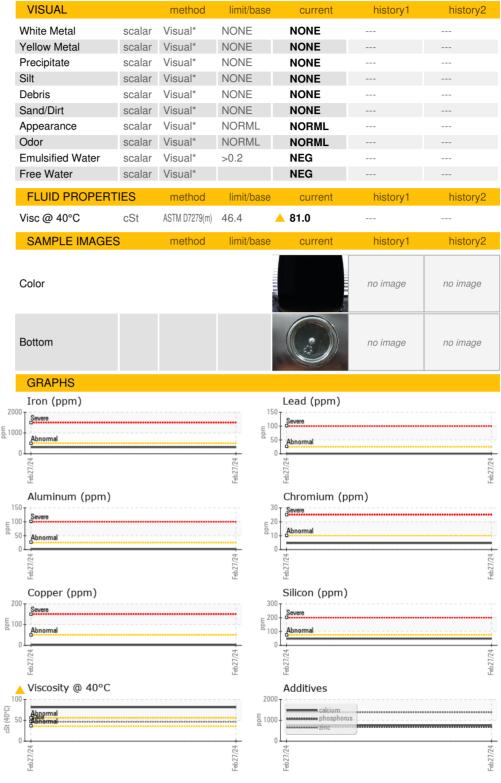
Viscosity of sample indicates oil is within SAE 30 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The condition of the oil is acceptable for the time in service.

| SAMPLE INFORMATION method limit/base current history1 history2 | | | | | Feb2024 | | |
|---|---------------|-------|---------------|------------|-------------|----------|----------|
| Sample Date Client Info 27 Feb 2024 | SAMPLE INFORM | ATION | method | limit/base | current | history1 | history2 |
| Machine Age hrs Client Info 0 | Sample Number | | Client Info | | WC0899437 | | |
| Oil Age hrs Client Info Not Changd Sample Status ABNORMAL CONTAMINATION method limit/base current history1 history2 WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185(m) >500 313 Chromium ppm ASTM D5185(m) >10 5 Nickel ppm ASTM D5185(m) >10 <1 | Sample Date | | Client Info | | 27 Feb 2024 | | |
| Oil Changed Sample Status Client Info Not Changd ABNORMAL | Machine Age | hrs | Client Info | | 0 | | |
| Sample Status | Oil Age | hrs | Client Info | | 0 | | |
| CONTAMINATION method limit/base current history1 history2 Water WC Method >0.2 NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D518S(m) >500 313 Chromium ppm ASTM D518S(m) >10 5 Nickel ppm ASTM D518S(m) >10 <1 Silver ppm ASTM D518S(m) >0 Aluminum ppm ASTM D518S(m) >25 2 Aluminum ppm ASTM D518S(m) >50 2 Aluminum ppm ASTM D518S(m) >50 2 Lead ppm ASTM D518S(m) >50 2 Apticular ppm ASTM D518S(m) >0 | Oil Changed | | Client Info | | Not Changd | | |
| Water WC Method >0.2 NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185(m) >500 313 Chromium ppm ASTM D5185(m) >10 <1 | Sample Status | | | | ABNORMAL | | |
| WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185(m) >500 313 Chromium ppm ASTM D5185(m) >10 5 Nickel ppm ASTM D5185(m) >10 Silver ppm ASTM D5185(m) 0 Aluminum ppm ASTM D5185(m) >25 2 Aluminum ppm ASTM D5185(m) >50 2 Lead ppm ASTM D5185(m) >50 2 Copper ppm ASTM D5185(m) >10 0 Vanadium ppm ASTM D5185(m) >5 0 Beryllium ppm ASTM D5185(m) 0 Cadmium ppm ASTM D5185(m) 0 | CONTAMINATION | l | method | limit/base | current | history1 | history2 |
| Iron | Water | | WC Method | >0.2 | NEG | | |
| Chromium ppm ASTM D5185(m) >10 5 Nickel ppm ASTM D5185(m) >10 <1 Titanium ppm ASTM D5185(m) 0 Silver ppm ASTM D5185(m) >25 2 Aluminum ppm ASTM D5185(m) >25 2 Aluminum ppm ASTM D5185(m) >50 2 Lead ppm ASTM D5185(m) >50 2 Copper ppm ASTM D5185(m) >10 0 Tin ppm ASTM D5185(m) >5 0 Antimony ppm ASTM D5185(m) >5 0 Vanadium ppm ASTM D5185(m) 0 Beryllium ppm ASTM D5185(m) 0 | WEAR METALS | | method | limit/base | current | history1 | history2 |
| Nickel | Iron | ppm | ASTM D5185(m) | >500 | 313 | | |
| Titanium | Chromium | ppm | ASTM D5185(m) | >10 | 5 | | |
| Silver | Nickel | ppm | ASTM D5185(m) | >10 | <1 | | |
| Aluminum ppm ASTM D5185(m) >25 2 Lead ppm ASTM D5185(m) >25 <1 | Titanium | ppm | ASTM D5185(m) | | 0 | | |
| Lead | Silver | ppm | ASTM D5185(m) | | 0 | | |
| Copper ppm ASTM D5185(m) >50 2 Tin ppm ASTM D5185(m) >10 0 Antimony ppm ASTM D5185(m) >5 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 99 Barium ppm ASTM D5185(m) 0 10 Molybdenum ppm ASTM D5185(m) 0 <1 | Aluminum | ppm | ASTM D5185(m) | >25 | 2 | | |
| Tin ppm ASTM D5185(m) >10 0 Antimony ppm ASTM D5185(m) >5 0 | Lead | ppm | ASTM D5185(m) | >25 | <1 | | |
| Antimony ppm ASTM D5185(m) >5 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 10 Barium ppm ASTM D5185(m) 0 10 Molybdenum ppm ASTM D5185(m) 0 4 Magnesium ppm ASTM D5185(m) 0 4 Calcium ppm ASTM D5185(m) 50 763 Phosphorus ppm ASTM D5185(m) 330 682 Zinc ppm ASTM D5185(m) 760 5320 | Copper | ppm | ASTM D5185(m) | >50 | 2 | | |
| 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 99 Barium ppm ASTM D5185(m) 0 10 Molybdenum ppm ASTM D5185(m) 0 4 Magnesium ppm ASTM D5185(m) 0 4 Magnesium ppm ASTM D5185(m) 50 763 Phosphorus ppm ASTM D5185(m) 330 682 Zinc ppm ASTM D5185(m) 760 5320 Sulfur ppm ASTM D5185(m) 76 44 | Tin | ppm | ASTM D5185(m) | >10 | 0 | | |
| Beryllium | Antimony | ppm | ASTM D5185(m) | >5 | 0 | | |
| Cadmium ppm ASTM D5185(m) 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 0 99 Barium ppm ASTM D5185(m) 0 10 Molybdenum ppm ASTM D5185(m) 0 4 Manganese ppm ASTM D5185(m) 0 4 Magnesium ppm ASTM D5185(m) 50 763 Phosphorus ppm ASTM D5185(m) 330 682 Zinc ppm ASTM D5185(m) 430 1387 Sulfur ppm ASTM D5185(m) 760 5320 Lithium ppm ASTM D5185(m) >75 48 CONTAMINANTS method limit/base | Vanadium | ppm | ASTM D5185(m) | | 0 | | |
| ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 0 99 Barium ppm ASTM D5185(m) 0 10 Molybdenum ppm ASTM D5185(m) 0 4 Manganese ppm ASTM D5185(m) 0 4 Magnesium ppm ASTM D5185(m) 50 763 Calcium ppm ASTM D5185(m) 330 682 Phosphorus ppm ASTM D5185(m) 430 1387 Sulfur ppm ASTM D5185(m) 760 5320 Lithium ppm ASTM D5185(m) 4 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >75 | Beryllium | ppm | ASTM D5185(m) | | 0 | | |
| Boron ppm ASTM D5185(m) 0 99 Barium ppm ASTM D5185(m) 0 10 Molybdenum ppm ASTM D5185(m) 0 <1 | Cadmium | ppm | ASTM D5185(m) | | 0 | | |
| Barium ppm ASTM D5185(m) 0 10 Molybdenum ppm ASTM D5185(m) 0 <1 Manganese ppm ASTM D5185(m) 0 4 Magnesium ppm ASTM D5185(m) 50 763 Calcium ppm ASTM D5185(m) 330 682 Phosphorus ppm ASTM D5185(m) 430 1387 Sulfur ppm ASTM D5185(m) 760 5320 Lithium ppm ASTM D5185(m) 4 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >75 48 Sodium ppm ASTM D5185(m) 6 | ADDITIVES | | method | limit/base | current | history1 | history2 |
| Molybdenum ppm ASTM D5185(m) 0 <1 Manganese ppm ASTM D5185(m) 0 4 Magnesium ppm ASTM D5185(m) 0 4 Calcium ppm ASTM D5185(m) 50 763 Phosphorus ppm ASTM D5185(m) 330 682 Zinc ppm ASTM D5185(m) 430 1387 Sulfur ppm ASTM D5185(m) 760 5320 Lithium ppm ASTM D5185(m) 4 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >75 48 Sodium ppm ASTM D5185(m) 6 | Boron | ppm | ASTM D5185(m) | 0 | 99 | | |
| Manganese ppm ASTM D5185(m) 0 4 Magnesium ppm ASTM D5185(m) 0 4 Calcium ppm ASTM D5185(m) 50 763 Phosphorus ppm ASTM D5185(m) 330 682 Zinc ppm ASTM D5185(m) 430 1387 Sulfur ppm ASTM D5185(m) 760 5320 Lithium ppm ASTM D5185(m) 4 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >75 48 Sodium ppm ASTM D5185(m) 6 | Barium | ppm | ASTM D5185(m) | 0 | 10 | | |
| Magnesium ppm ASTM D5185(m) 0 4 Calcium ppm ASTM D5185(m) 50 763 Phosphorus ppm ASTM D5185(m) 330 682 Zinc ppm ASTM D5185(m) 430 1387 Sulfur ppm ASTM D5185(m) 760 5320 Lithium ppm ASTM D5185(m) 4 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >75 48 Sodium ppm ASTM D5185(m) 6 | Molybdenum | ppm | ASTM D5185(m) | 0 | <1 | | |
| Calcium ppm ASTM D5185(m) 50 763 Phosphorus ppm ASTM D5185(m) 330 682 Zinc ppm ASTM D5185(m) 430 1387 Sulfur ppm ASTM D5185(m) 760 5320 Lithium ppm ASTM D5185(m) 4 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >75 48 Sodium ppm ASTM D5185(m) 6 | Manganese | ppm | ASTM D5185(m) | 0 | 4 | | |
| Phosphorus ppm ASTM D5185(m) 330 682 Zinc ppm ASTM D5185(m) 430 1387 Sulfur ppm ASTM D5185(m) 760 5320 Lithium ppm ASTM D5185(m) 4 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >75 48 Sodium ppm ASTM D5185(m) 6 | Magnesium | ppm | ASTM D5185(m) | 0 | 4 | | |
| Zinc ppm ASTM D5185(m) 430 1387 Sulfur ppm ASTM D5185(m) 760 5320 Lithium ppm ASTM D5185(m) 4 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >75 48 Sodium ppm ASTM D5185(m) 6 | Calcium | ppm | ASTM D5185(m) | 50 | 763 | | |
| Sulfur ppm ASTM D5185(m) 760 5320 Lithium ppm ASTM D5185(m) 4 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >75 48 Sodium ppm ASTM D5185(m) 6 | Phosphorus | ppm | ASTM D5185(m) | 330 | 682 | | |
| Lithium ppm ASTM D5185(m) 4 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >75 48 Sodium ppm ASTM D5185(m) 6 | Zinc | ppm | ASTM D5185(m) | 430 | 1387 | | |
| CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >75 48 Sodium ppm ASTM D5185(m) 6 | Sulfur | ppm | ASTM D5185(m) | 760 | 5320 | | |
| Silicon ppm ASTM D5185(m) >75 48 Sodium ppm ASTM D5185(m) 6 | Lithium | ppm | ASTM D5185(m) | | 4 | | |
| Sodium ppm ASTM D5185(m) 6 | CONTAMINANTS | | method | limit/base | current | history1 | history2 |
| Sodium ppm ASTM D5185(m) 6 | Silicon | ppm | ASTM D5185(m) | >75 | 48 | | |
| | | | . , | | | | |
| | Potassium | | , , | >20 | 1 | | |



OIL ANALYSIS REPORT







CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number

: WC0899437 : 02621161

Unique Number : 5746280 Test Package : MOBCE (Additional Tests: Visual)

Received **Tested** Diagnosed

: 11 Mar 2024 : 11 Mar 2024

: 12 Mar 2024 - Kevin Marson

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 RONI/IRON SHORE EXCAVATING LTD. 100 MACINTOSH BLVD VAUGHAN, ON

CA L4K 4P3 Contact: Service Team service.team@roni.ca

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.

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