

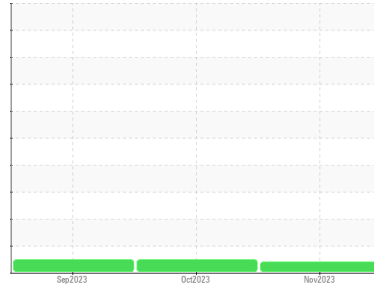
# OIL ANALYSIS REPORT

Sample Rating Trend

**VIS DEBRIS**

 Machine Id  
**45**

 Component  
**Natural Gas Engine**

 Fluid  
**PETRO CANADA SENTRON LD 3000 (--- GAL)**

**DIAGNOSIS**
**Recommendation**

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

**Wear**

All component wear rates are normal.

**Contamination**

Moderate concentration of visible dirt/debris present in the oil.

**Fluid Condition**

The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

| SAMPLE INFORMATION |             | method      | limit/base | current            | history1    | history2    |
|--------------------|-------------|-------------|------------|--------------------|-------------|-------------|
| Sample Number      | Client Info |             |            | <b>PCA0111925</b>  | PCA0103419  | PCA0103462  |
| Sample Date        | Client Info |             |            | <b>09 Nov 2023</b> | 03 Oct 2023 | 06 Sep 2023 |
| Machine Age        | hrs         | Client Info |            | <b>98030</b>       | 93366       | 93165       |
| Oil Age            | hrs         | Client Info |            | <b>3010</b>        | 1651        | 499         |
| Oil Changed        | Client Info |             |            | <b>Not Chngd</b>   | Not Chngd   | Not Chngd   |
| Sample Status      |             |             |            | <b>ABNORMAL</b>    | NORMAL      | NORMAL      |

| CONTAMINATION |           | method | limit/base | current    | history1 | history2 |
|---------------|-----------|--------|------------|------------|----------|----------|
| Water         | WC Method |        | >0.1       | <b>NEG</b> | NEG      | NEG      |

| WEAR METALS |     | method      | limit/base | current      | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron        | ppm | ASTM D5185m | >50        | <b>0</b>     | 2        | 1        |
| Chromium    | ppm | ASTM D5185m | >4         | <b>0</b>     | <1       | <1       |
| Nickel      | ppm | ASTM D5185m | >2         | <b>0</b>     | <1       | 0        |
| Titanium    | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Silver      | ppm | ASTM D5185m | >3         | <b>0</b>     | 0        | <1       |
| Aluminum    | ppm | ASTM D5185m | >9         | <b>&lt;1</b> | 0        | <1       |
| Lead        | ppm | ASTM D5185m | >30        | <b>0</b>     | <1       | 0        |
| Copper      | ppm | ASTM D5185m | >35        | <b>0</b>     | <1       | 0        |
| Tin         | ppm | ASTM D5185m | >4         | <b>&lt;1</b> | <1       | 0        |
| Vanadium    | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Cadmium     | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |

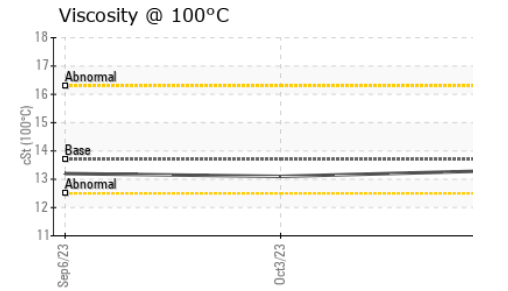
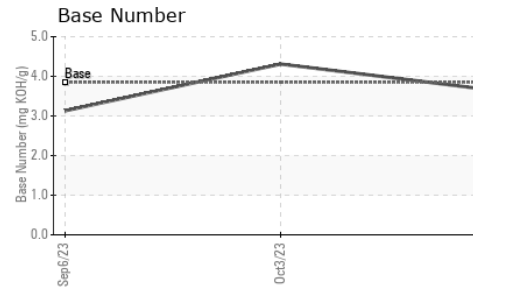
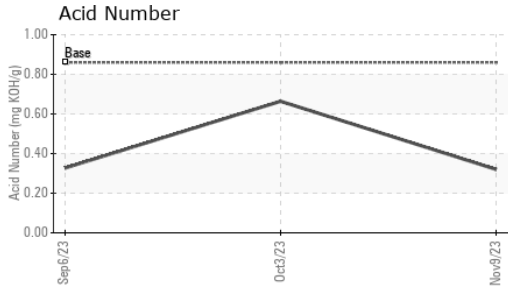
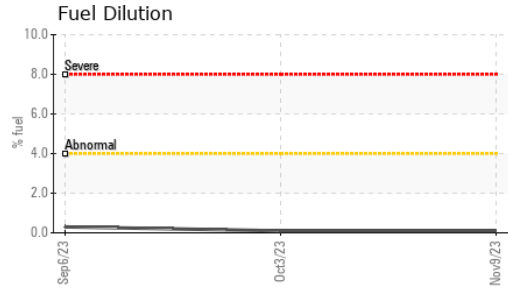
| ADDITIVES  |     | method      | limit/base | current     | history1 | history2 |
|------------|-----|-------------|------------|-------------|----------|----------|
| Boron      | ppm | ASTM D5185m | 5          | <b>0</b>    | <1       | 0        |
| Barium     | ppm | ASTM D5185m | 1          | <b>0</b>    | 0        | 0        |
| Molybdenum | ppm | ASTM D5185m | 2          | <b>0</b>    | <1       | 0        |
| Manganese  | ppm | ASTM D5185m | 1          | <b>0</b>    | 0        | <1       |
| Magnesium  | ppm | ASTM D5185m | 5          | <b>9</b>    | 8        | 8        |
| Calcium    | ppm | ASTM D5185m | 1220       | <b>1284</b> | 1204     | 1406     |
| Phosphorus | ppm | ASTM D5185m | 298        | <b>290</b>  | 274      | 310      |
| Zinc       | ppm | ASTM D5185m | 350        | <b>352</b>  | 348      | 373      |
| Sulfur     | ppm | ASTM D5185m | 1995       | <b>2373</b> | 2691     | 3021     |

| CONTAMINANTS |     | method      | limit/base | current    | history1 | history2 |
|--------------|-----|-------------|------------|------------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >+100      | <b>1</b>   | 4        | 2        |
| Sodium       | ppm | ASTM D5185m |            | <b>0</b>   | 0        | <1       |
| Potassium    | ppm | ASTM D5185m | >20        | <b>0</b>   | 1        | 0        |
| Fuel         | %   | ASTM D3524  | >4.0       | <b>0.1</b> | 0.1      | 0.3      |

| INFRA-RED |          | method      | limit/base | current     | history1 | history2 |
|-----------|----------|-------------|------------|-------------|----------|----------|
| Soot %    | %        | *ASTM D7844 |            | <b>0</b>    | 0        | 0        |
| Nitration | Abs/cm   | *ASTM D7624 | >20        | <b>3.9</b>  | 3.6      | 3.7      |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30        | <b>14.5</b> | 14.1     | 14.2     |

| FLUID DEGRADATION |          | method      | limit/base | current     | history1 | history2 |
|-------------------|----------|-------------|------------|-------------|----------|----------|
| Oxidation         | Abs/.1mm | *ASTM D7414 | >25        | <b>8.3</b>  | 7.9      | 8.0      |
| Acid Number (AN)  | mg KOH/g | ASTM D8045  | 0.86       | <b>0.32</b> | 0.664    | 0.327    |
| Base Number (BN)  | mg KOH/g | ASTM D2896  | 3.85       | <b>3.64</b> | 4.31     | 3.13     |

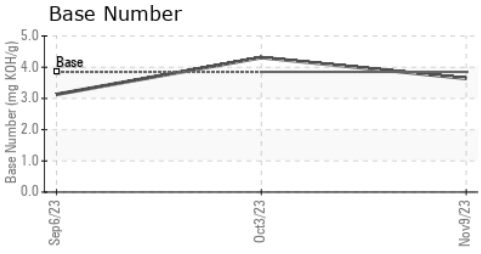
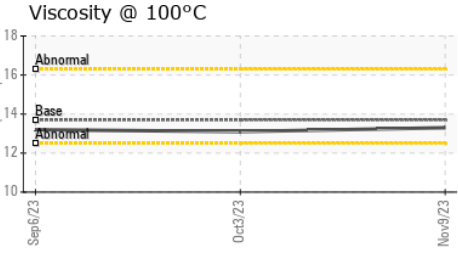
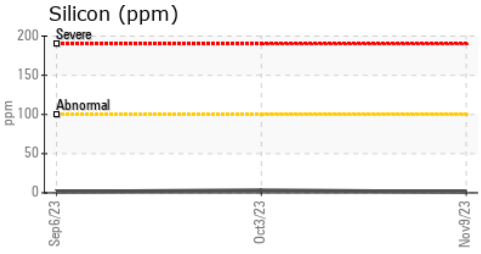
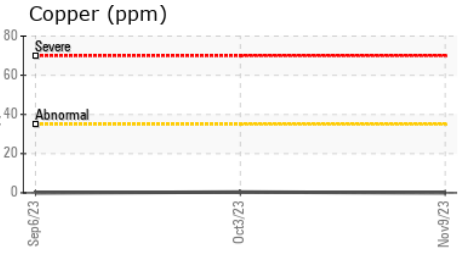
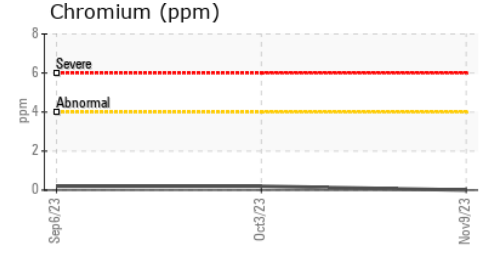
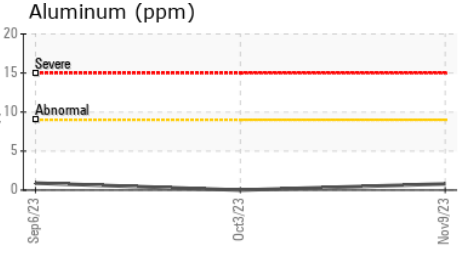
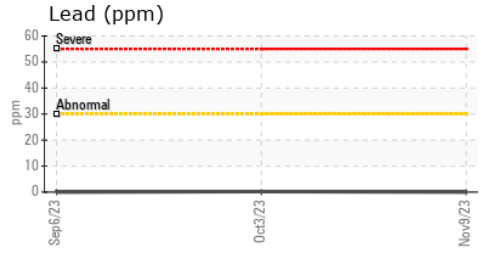
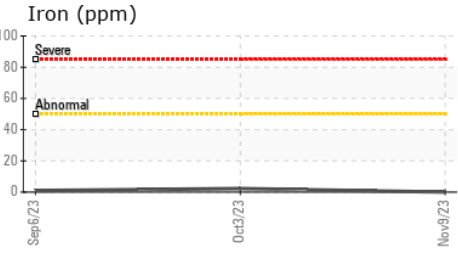
# OIL ANALYSIS REPORT



| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Silt             | scalar | *Visual    | NONE    | NONE     | NONE     |
| Debris           | scalar | *Visual    | NONE    | ▲ MODER  | NONE     |
| Sand/Dirt        | scalar | *Visual    | NONE    | NONE     | NONE     |
| Appearance       | scalar | *Visual    | NORML   | NORML    | NORML    |
| Odor             | scalar | *Visual    | NORML   | NORML    | NORML    |
| Emulsified Water | scalar | *Visual    | >0.1    | NEG      | NEG      |
| Free Water       | scalar | *Visual    |         | NEG      | NEG      |

| FLUID PROPERTIES | method | limit/base | current | history1    | history2 |      |
|------------------|--------|------------|---------|-------------|----------|------|
| Visc @ 100°C     | cSt    | ASTM D445  | 13.7    | <b>13.3</b> | 13.1     | 13.2 |

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0111925 **Received** : 16 Nov 2023  
**Lab Number** : 06010256 **Diagnosed** : 20 Nov 2023  
**Unique Number** : 10749400 **Diagnostician** : Don Baldrige  
**Test Package** : MOB 2 ( Additional Tests: FuelDilution, PercentFuel )

**ENERVEST OPERATING - HAYS BOOSTER**  
 1705 BREAKS PARK ROAD  
 HAYS1, VA  
 US 24256  
 Contact: Service Manager

To discuss this sample report, contact Customer Service at 1-800-237-1369.  
 \* - 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)

T:  
F: