

Machine Id  
**Watkins 1**

Component  
**Natural Gas Engine**

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

**DIAGNOSIS**

**Recommendation**

Resample at the next service interval to monitor.

**Wear**

All component wear rates are normal.

**Contamination**

Tests indicate that there is no fuel present in the oil. There is no indication of any contamination 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>PCA0111948</b>	PCA0103431	PCA0103460
Sample Date	Client Info		<b>04 Dec 2023</b>	01 Nov 2023	02 Oct 2023
Machine Age	hrs	Client Info	<b>99277</b>	98422	97707
Oil Age	hrs	Client Info	<b>3880</b>	3025	2310
Oil Changed	Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Sample Status			<b>NORMAL</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>2</b>	4	6
Chromium	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m >2	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >9	<b>&lt;1</b>	<1	0
Lead	ppm	ASTM D5185m >30	<b>0</b>	<1	1
Copper	ppm	ASTM D5185m >35	<b>0</b>	0	1
Tin	ppm	ASTM D5185m >4	<b>0</b>	<1	<1
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>	0	0
Barium	ppm	ASTM D5185m 1	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 2	<b>0</b>	0	2
Manganese	ppm	ASTM D5185m 1	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 5	<b>16</b>	13	11
Calcium	ppm	ASTM D5185m 1220	<b>1485</b>	1466	1370
Phosphorus	ppm	ASTM D5185m 298	<b>290</b>	279	274
Zinc	ppm	ASTM D5185m 350	<b>373</b>	360	358
Sulfur	ppm	ASTM D5185m 1995	<b>2629</b>	2549	2835

**CONTAMINANTS**

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	<b>7</b>	10	12
Sodium	ppm	ASTM D5185m	<b>0</b>	<1	0
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	1	3
Fuel	%	ASTM D3524 >4.0	<b>0.0</b>	0.0	0.1

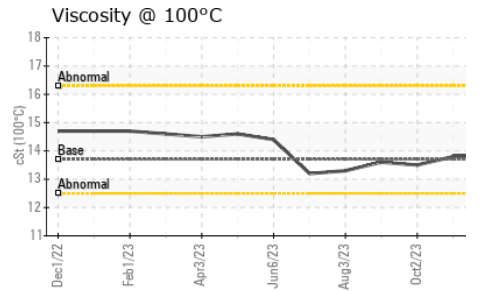
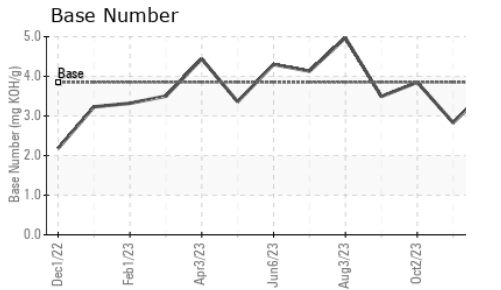
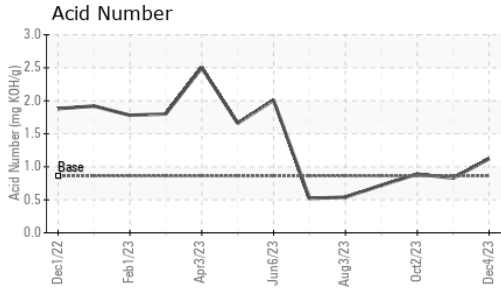
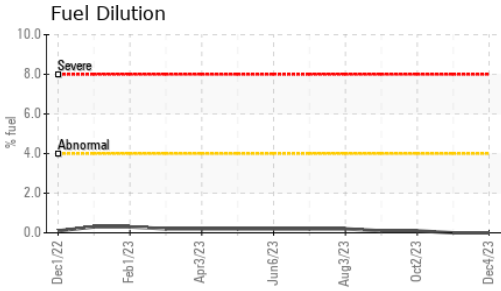
**INFRA-RED**

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	<b>0</b>	0	0
Nitration	Abs/cm	*ASTM D7624 >20	<b>5.0</b>	5.0	4.9
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>17.3</b>	17.1	16.5

**FLUID DEGRADATION**

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>10.8</b>	10.5	9.9
Acid Number (AN)	mg KOH/g	ASTM D8045 0.86	<b>1.12</b>	0.83	0.89
Base Number (BN)	mg KOH/g	ASTM D2896 3.85	<b>3.70</b>	2.83	3.85

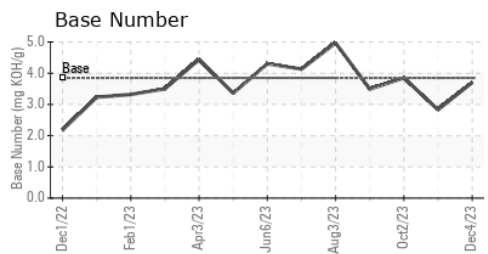
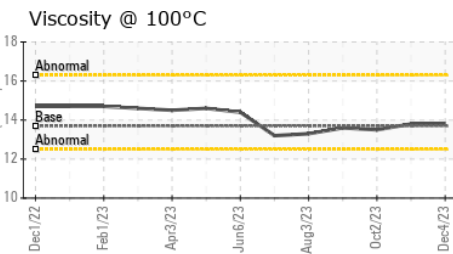
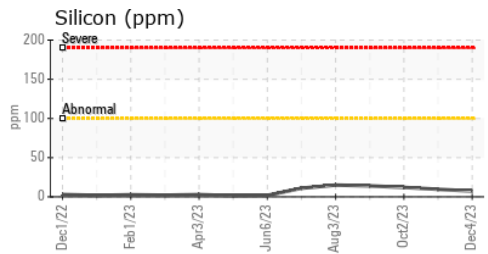
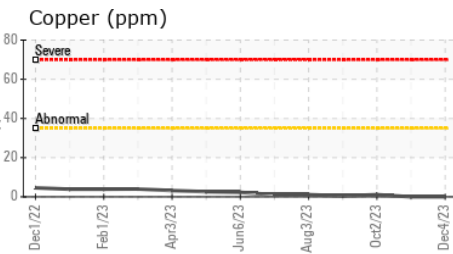
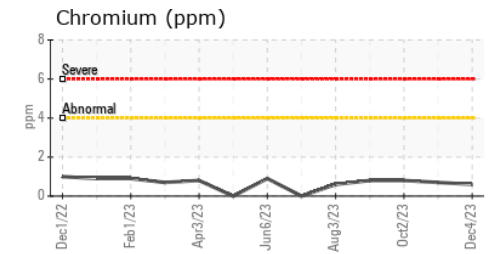
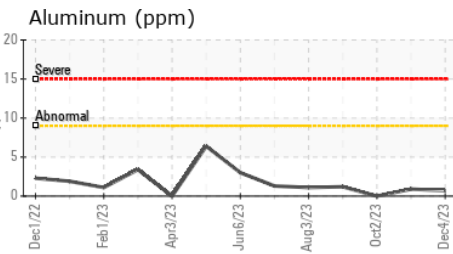
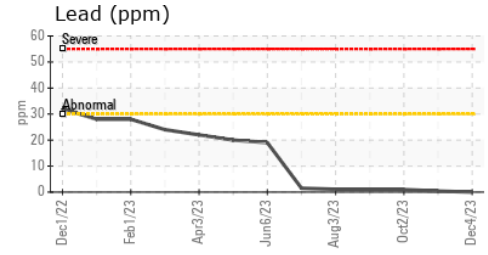
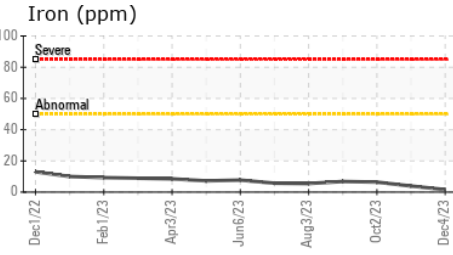
# OIL ANALYSIS REPORT



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	NONE	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	13.8	13.5

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0111948 **Received** : 11 Dec 2023  
**Lab Number** : 06031792 **Diagnosed** : 18 Dec 2023  
**Unique Number** : 10781583 **Diagnostician** : Wes Davis  
**Test Package** : MOB 2 ( Additional Tests: FuelDilution, PercentFuel )

**ENERVEST OPERATING - WATKINS**  
 3896 SUNSET HOLLOW ROAD  
 GRUNDY, VA  
 US 24614  
 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)

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