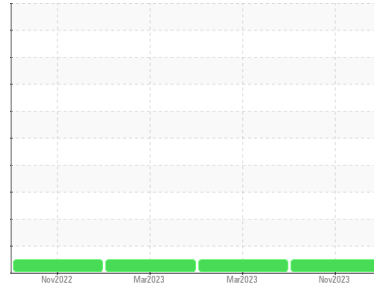


# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**Z966**

Component  
**Biogas Engine**

Fluid  
**PETRO CANADA SENTRON LD 5000 (--- GAL)**

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal. Iron noted.

#### Contamination

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>PCA0069077</b>	PCA0069104	PCA0069105
Sample Date	Client Info			<b>10 Nov 2023</b>	07 Mar 2023	07 Mar 2023
Machine Age	hrs	Client Info		<b>11119</b>	7043	7043
Oil Age	hrs	Client Info		<b>977</b>	3043	3043
Oil Changed	Client Info			<b>Not Changed</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>4.0		<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method	>0.1		<b>NEG</b>	NEG	NEG
Glycol	WC Method			<b>NEG</b>	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>45	<b>29</b>	4	4
Chromium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>1</b>	2	2
Lead	ppm	ASTM D5185m	>5	<b>0</b>	1	2
Copper	ppm	ASTM D5185m	>14	<b>0</b>	0	<1
Tin	ppm	ASTM D5185m	>13	<b>1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

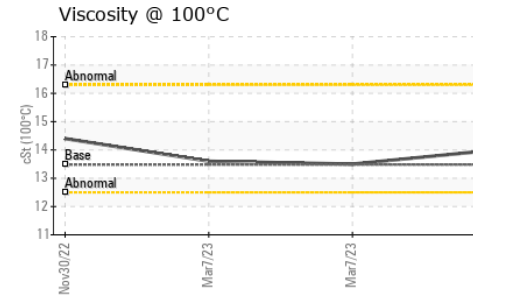
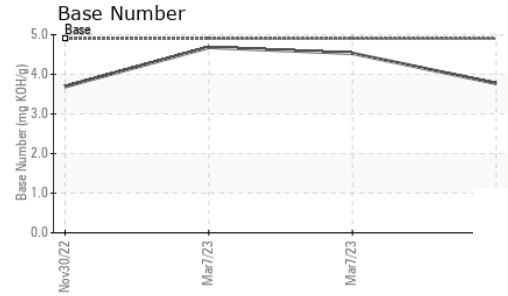
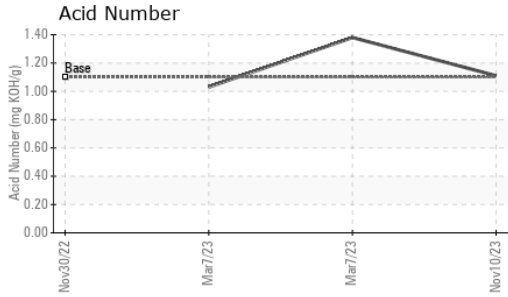
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	<b>&lt;1</b>	2	2
Barium	ppm	ASTM D5185m	3	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0	<b>&lt;1</b>	2	1
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	4	<b>22</b>	14	8
Calcium	ppm	ASTM D5185m	1727	<b>2000</b>	1957	1776
Phosphorus	ppm	ASTM D5185m	272	<b>325</b>	334	268
Zinc	ppm	ASTM D5185m	333	<b>400</b>	371	342
Sulfur	ppm	ASTM D5185m	3415	<b>3279</b>	3631	3071

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>200	<b>2</b>	8	4
Sodium	ppm	ASTM D5185m		<b>4</b>	2	0
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	1

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.3</b>	6.0	4.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.4</b>	17.7	16.6

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.4</b>	11.9	10.1
Acid Number (AN)	mg KOH/g	ASTM D8045	1.1	<b>1.11</b>	1.38	1.03
Base Number (BN)	mg KOH/g	ASTM D2896	4.9	<b>3.77</b>	4.53	4.68

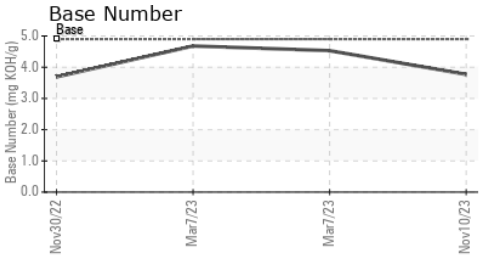
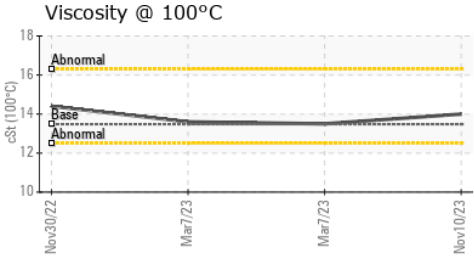
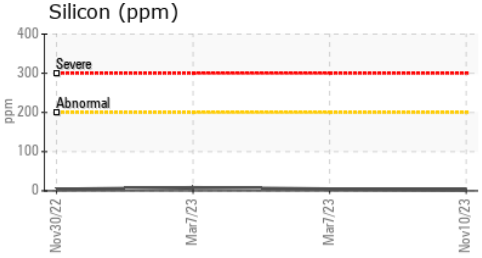
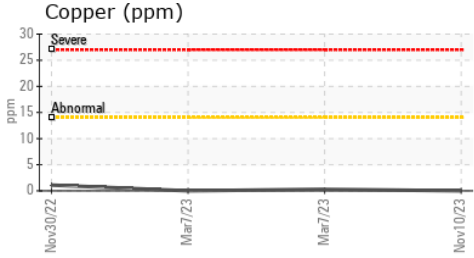
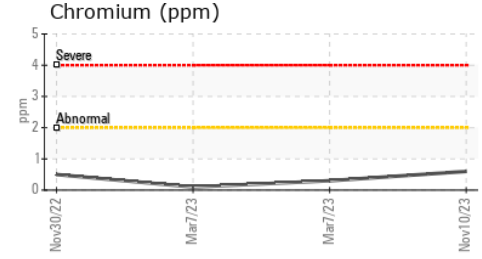
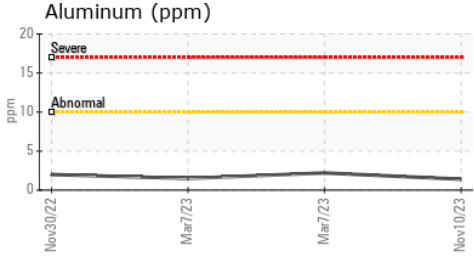
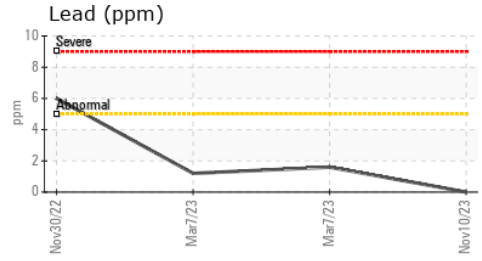
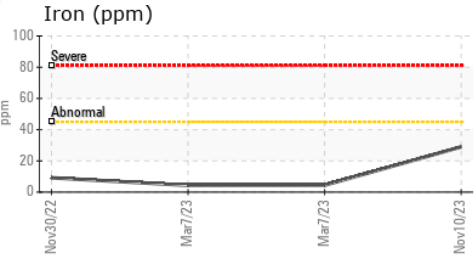
# OIL ANALYSIS REPORT



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	13.48	<b>14.0</b>	13.5	13.6

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0069077 **Received** : 20 Nov 2023  
**Lab Number** : 06013426 **Diagnosed** : 23 Nov 2023  
**Unique Number** : 10752570 **Diagnostician** : Don Baldrige  
**Test Package** : MOB 2

**YAAMAVA RESORT AND CASINO**  
 777 SAN MANUEL BLVD  
 HIGHLAND, CA  
 US 92346  
 Contact: JOSHUA AVILA  
 joshua.avila@yaamava.com

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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F: