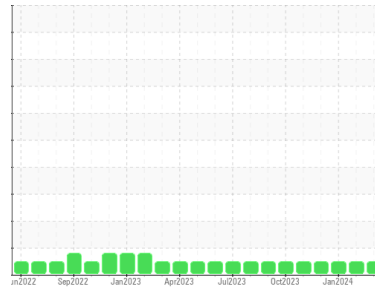


# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**M2 (S/N 1457407)**

Component  
**Biogas Engine**

Fluid  
**PETRO CANADA SENTRON LD 8000 (--- GAL)**

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

Fuel content negligible. 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>PCA0120735</b>	PCA0106209	PCA0106202
Sample Date	Client Info	<b>01 Mar 2024</b>	08 Feb 2024	21 Jan 2024
Machine Age	hrs	<b>10664</b>	10164	9662
Oil Age	hrs	<b>6523</b>	6023	0
Oil Changed	Client Info	<b>N/A</b>	N/A	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
Glycol	WC Method	<b>NEG</b>	NEG	NEG

### WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >45	<b>8</b>	8	8
Chromium	ppm	ASTM D5185m >2	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185m >2	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m	<b>0</b>	<1	<1
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>2</b>	1	2
Copper	ppm	ASTM D5185m >14	<b>0</b>	<1	<1
Tin	ppm	ASTM D5185m >13	<b>4</b>	5	5
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	<1

### ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	<b>0</b>	0	0
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>0</b>	<1	1
Manganese	ppm	ASTM D5185m	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m	<b>9</b>	11	11
Calcium	ppm	ASTM D5185m 1351	<b>1881</b>	1785	1734
Phosphorus	ppm	ASTM D5185m 302	<b>337</b>	315	358
Zinc	ppm	ASTM D5185m 358	<b>427</b>	444	429
Sulfur	ppm	ASTM D5185m 2758	<b>3664</b>	3426	3559

### CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >200	<b>&lt;1</b>	2	2
Sodium	ppm	ASTM D5185m	<b>3</b>	1	0
Potassium	ppm	ASTM D5185m >20	<b>0</b>	2	2
Fuel	%	ASTM D3524 >4.0	<b>0.2</b>	0.3	0.0

### INFRA-RED

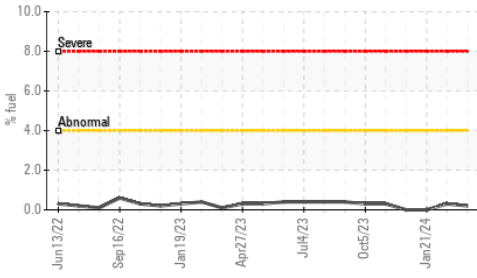
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624 >20	<b>6.7</b>	6.4	6.3
Sulfation	Abs.1mm	*ASTM D7415 >30	<b>22.0</b>	21.8	22.0

### FLUID DEGRADATION

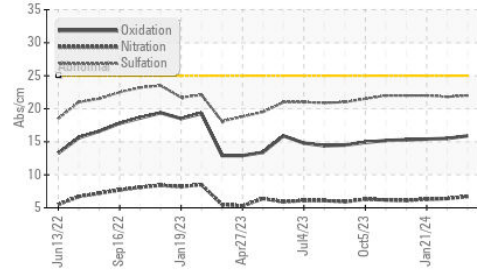
method	limit/base	current	history1	history2	
Oxidation	Abs.1mm	*ASTM D7414 >25	<b>15.9</b>	15.5	15.4
Acid Number (AN)	mg KOH/g	ASTM D8045 0.86	<b>1.82</b>	1.46	1.31
Base Number (BN)	mg KOH/g	ASTM D2896 4.64	<b>3.39</b>	3.83	3.24

# OIL ANALYSIS REPORT

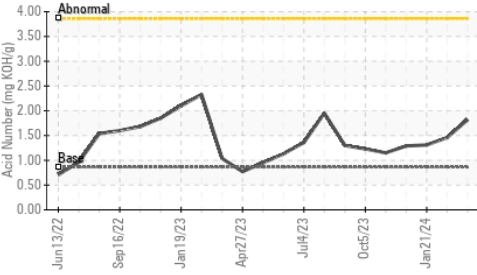
## Fuel Dilution



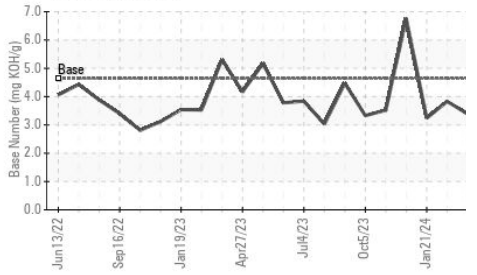
## FT-IR (Direct Trend)



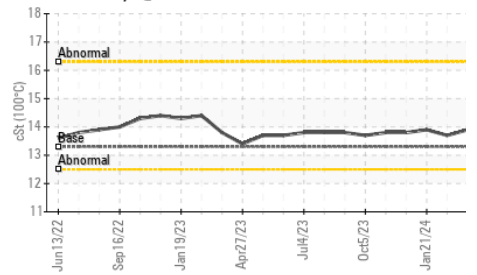
## Acid Number



## Base Number



## Viscosity @ 100°C

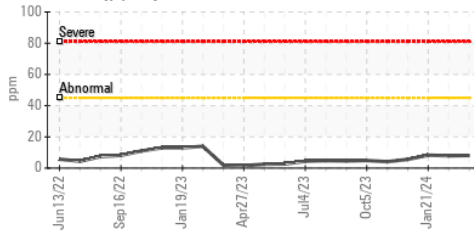


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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

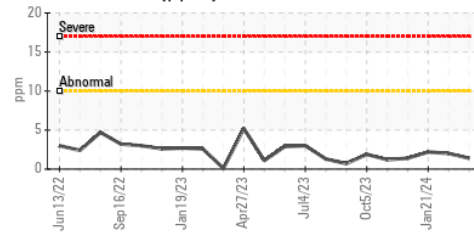
FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	13.3	<b>13.9</b>	13.7	13.9

## GRAPHS

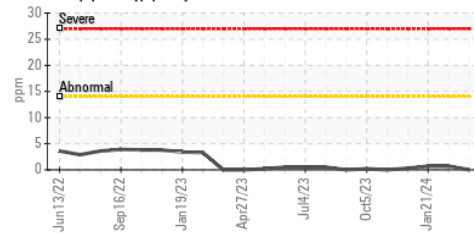
### Iron (ppm)



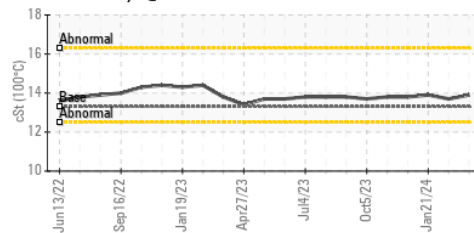
### Aluminum (ppm)



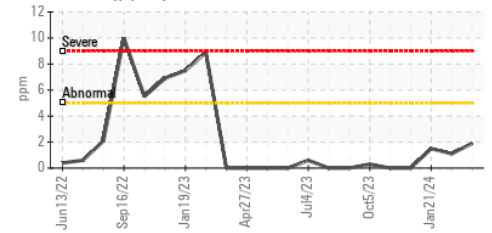
### Copper (ppm)



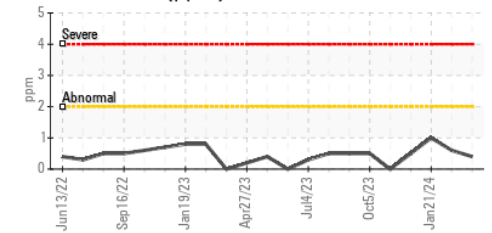
### Viscosity @ 100°C



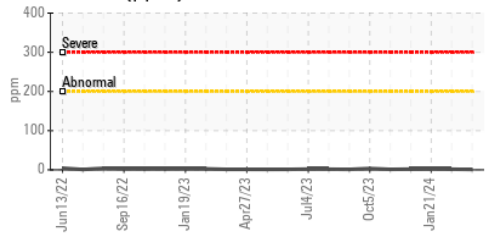
### Lead (ppm)



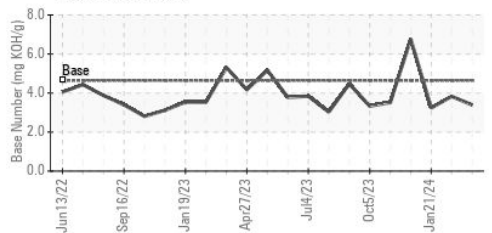
### Chromium (ppm)



### Silicon (ppm)



### Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : PCA0120735

**Lab Number** : 06124367

**Unique Number** : 10938518

**Test Package** : MOB 2 ( Additional Tests: FuelDilution, PercentFuel )

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)

**Received** : 20 Mar 2024

**Tested** : 23 Mar 2024

**Diagnosed** : 23 Mar 2024 - Don Baldrige

**AMERICAN PETROLEUM**

CARR 865 KM 0.2 CAMPANILA

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US 00949

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