

## **OIL ANALYSIS REPORT**

Sample Rating Trend

DEGRADATION



Component Natural Gas Engine Fluid PETRO CANADA SENTRON LD 3000 (--- GAL)

#### DIAGNOSIS

#### A Recommendation

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The AN level is above the recommended limit. The BN level is low.

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SAMPLE INFOR	VIATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0112036	PCA0117164	PCA0111962
Sample Date		Client Info		04 Mar 2024	01 Feb 2024	02 Jan 2024
Machine Age	hrs	Client Info		86332	85570	84864
Oil Age	hrs	Client Info		4563	3801	3095
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				ABNORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	4	6	7
Chromium	ppm	ASTM D5185m	>4	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	<1	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	2	1	2
Lead	ppm	ASTM D5185m	>30	4	3	<1
Copper	ppm	ASTM D5185m	>35	1	1	2
Tin	ppm	ASTM D5185m	>4	<1	<1	0
Vanadium	maa	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
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ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	0	0	0
Barium	ppm	ASTM D5185m	1	0	0	0
Molybdenum	ppm	ASTM D5185m	2	3	2	3
Manganese	ppm	ASTM D5185m	1	<1	<1	0
Magnesium	ppm	ASTM D5185m	5	17	17	14
Calcium	ppm	ASTM D5185m	1220	1516	1573	1545
Phosphorus	ppm	ASTM D5185m	298	309	338	341
Zinc	ppm	ASTM D5185m	350	410	412	382
Sulfur	ppm	ASTM D5185m	1995	2491	2669	2707
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>+100	2	2	2
Sodium	ppm	ASTM D5185m	>20	2	2	0
Potassium	ppm	ASTM D5185m	>20	1	2	2
Fuel	%	ASTM D3524	>4.0	0.3	0.4	0.0
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		0	0	0
Soot % Nitration	% Abs/cm	*ASTM D7844 *ASTM D7624	>15	0 10.4	0 9.7	0 8.4
Soot % Nitration Sulfation	% Abs/cm Abs/.1mm	*ASTM D7844 *ASTM D7624 *ASTM D7415	>15 >25	0 10.4 22.1	0 9.7 20.4	0 8.4 18.3
Soot % Nitration Sulfation FLUID DEGRAI	% Abs/cm Abs/.1mm	*ASTM D7844 *ASTM D7624 *ASTM D7415 method	>15 >25 limit/base	0 10.4 22.1 current	0 9.7 20.4 history1	0 8.4 18.3 history2
Soot % Nitration Sulfation FLUID DEGRAI	% Abs/cm Abs/.1mm DATION	*ASTM D7844 *ASTM D7624 *ASTM D7415 method *ASTM D7414	>15 >25 limit/base	0 10.4 22.1 current 21.8	0 9.7 20.4 history1	0 8.4 18.3 history2
Soot % Nitration Sulfation FLUID DEGRAI Oxidation	% Abs/cm Abs/.1mm DATION Abs/.1mm	*ASTM D7844 *ASTM D7624 *ASTM D7415 method *ASTM D7414	>15 >25 limit/base >20	0 10.4 22.1 current 21.8	0 9.7 20.4 history1 18.1	0 8.4 18.3 history2 15.1
Soot % Nitration Sulfation FLUID DEGRAI Oxidation Acid Number (AN)	% Abs/cm Abs/.1mm DATION Abs/.1mm mg KOH/g	*ASTM D7844 *ASTM D7624 *ASTM D7415 method *ASTM D7414 ASTM D8045	>15 >25 limit/base >20 0.86	0 10.4 22.1 current 21.8 ▲ 2.81 ▲ 2.25	0 9.7 20.4 history1 18.1 2.13 2.47	0 8.4 18.3 history2 15.1 1.74 2.12



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\* - 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)

Certificate L2367