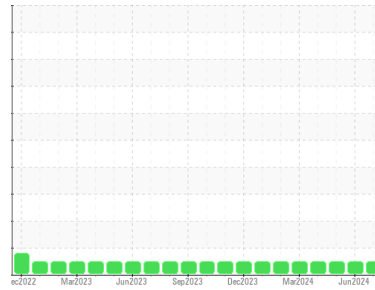


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



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		PCA0117270	PCA0117186	PCA0117155
Sample Date	Client Info		08 Jul 2024	03 Jun 2024	01 May 2024
Machine Age	hrs	Client Info	105532	104462	103392
Oil Age	hrs	Client Info	10135	9065	7995
Oil Changed	Client Info		Not Changed	Not Changed	Not Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	6	6	5
Chromium	ppm	ASTM D5185m >4	1	<1	1
Nickel	ppm	ASTM D5185m >2	0	0	<1
Titanium	ppm	ASTM D5185m	<1	0	<1
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >9	2	2	<1
Lead	ppm	ASTM D5185m >30	4	6	4
Copper	ppm	ASTM D5185m >35	2	5	2
Tin	ppm	ASTM D5185m >4	<1	1	1
Vanadium	ppm	ASTM D5185m	0	0	<1
Cadmium	ppm	ASTM D5185m	0	0	<1

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 5	2	0	0
Barium	ppm	ASTM D5185m 1	0	0	0
Molybdenum	ppm	ASTM D5185m 2	2	4	2
Manganese	ppm	ASTM D5185m 1	0	2	<1
Magnesium	ppm	ASTM D5185m 5	12	14	14
Calcium	ppm	ASTM D5185m 1220	1471	1644	1506
Phosphorus	ppm	ASTM D5185m 298	309	320	312
Zinc	ppm	ASTM D5185m 350	384	406	382
Sulfur	ppm	ASTM D5185m 1995	2502	3187	3020

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	3	5	4
Sodium	ppm	ASTM D5185m >20	0	3	0
Potassium	ppm	ASTM D5185m >20	2	5	3
Fuel	%	ASTM D3524 >4.0	0.0	0.4	0.0

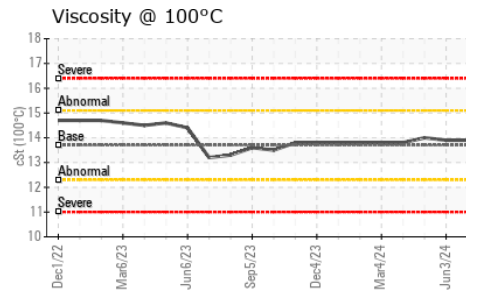
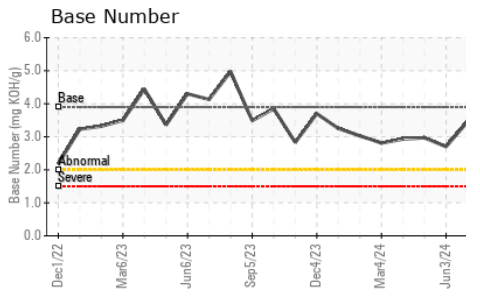
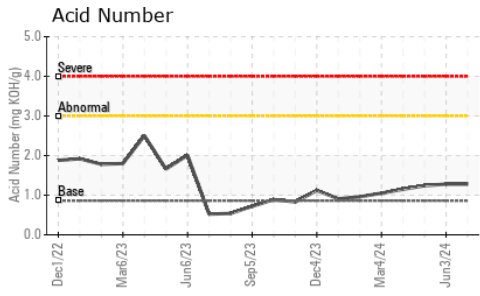
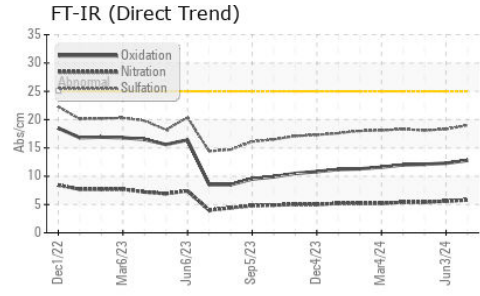
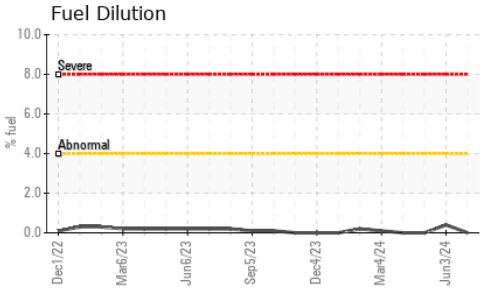
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0	0	0
Nitration	Abs/cm	*ASTM D7624 >15	5.8	5.6	5.4
Sulfation	Abs:.1mm	*ASTM D7415 >25	19.0	18.3	18.1

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs:.1mm	*ASTM D7414 >20	12.8	12.3	12.1
Acid Number (AN)	mg KOH/g	ASTM D8045 0.86	1.28	1.28	1.24
Base Number (BN)	mg KOH/g	ASTM D2896 3.9	3.46	2.70	2.97

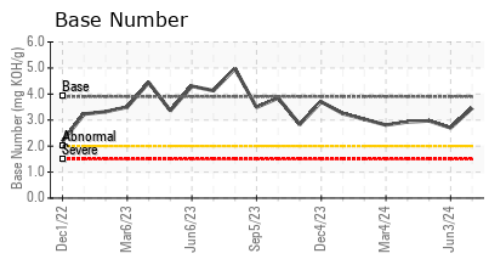
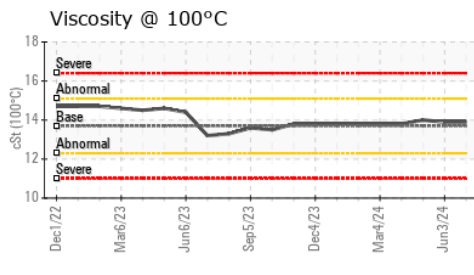
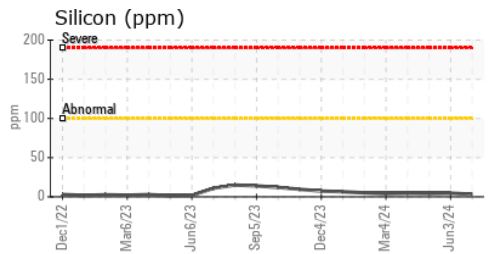
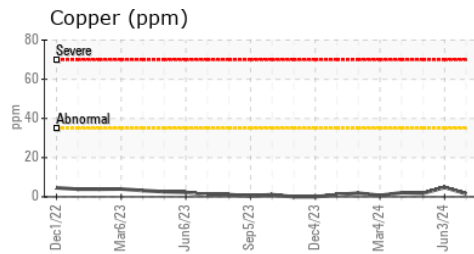
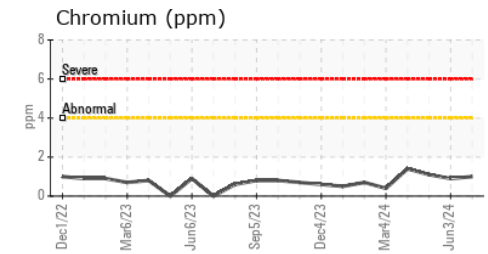
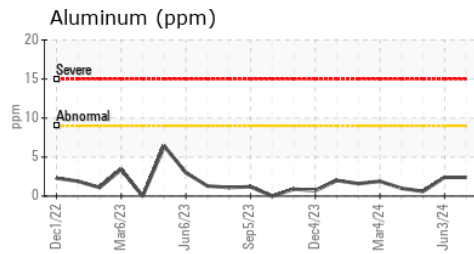
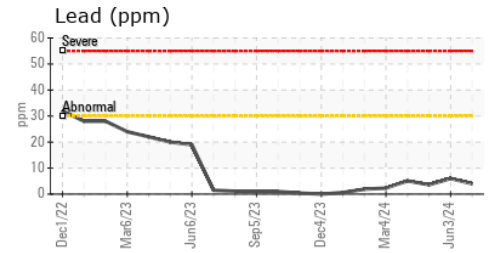
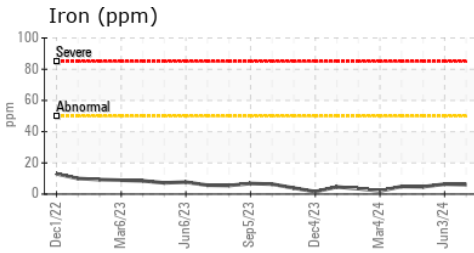
OIL ANALYSIS REPORT



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	13.9	14.0

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0117270
Lab Number : 06238564
Unique Number : 11127398
Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel)

Received : 16 Jul 2024
Tested : 17 Jul 2024
Diagnosed : 18 Jul 2024 - Doug Bogart

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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