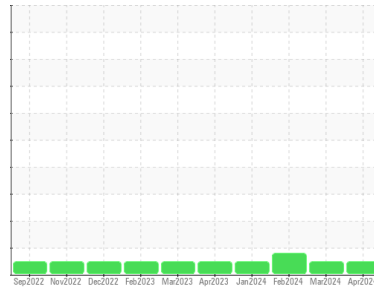


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
Liberty 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

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		PCA0111972	PCA01117137	PCA0111968
Sample Date	Client Info		02 Apr 2024	01 Mar 2024	02 Feb 2024
Machine Age	hrs	Client Info	70936	70196	69528
Oil Age	hrs	Client Info	12726	11986	11318
Oil Changed		Client Info	N/A	N/A	N/A
Sample Status			NORMAL	NORMAL	ATTENTION

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	2	0	4
Chromium	ppm	ASTM D5185m	>4	1	0	0
Nickel	ppm	ASTM D5185m	>2	<1	0	<1
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	2	2	1
Lead	ppm	ASTM D5185m	>30	1	<1	15
Copper	ppm	ASTM D5185m	>35	<1	0	2
Tin	ppm	ASTM D5185m	>4	1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		1	0	0

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	2	<1	<1
Manganese	ppm	ASTM D5185m	1	<1	<1	<1
Magnesium	ppm	ASTM D5185m	5	10	9	16
Calcium	ppm	ASTM D5185m	1220	1716	1179	1406
Phosphorus	ppm	ASTM D5185m	298	395	270	327
Zinc	ppm	ASTM D5185m	350	457	342	396
Sulfur	ppm	ASTM D5185m	1995	3448	2240	2329

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>+100	3	1	1
Sodium	ppm	ASTM D5185m		0	1	2
Potassium	ppm	ASTM D5185m	>20	2	1	2
Fuel	%	ASTM D3524	>4.0	0.0	0.2	0.2

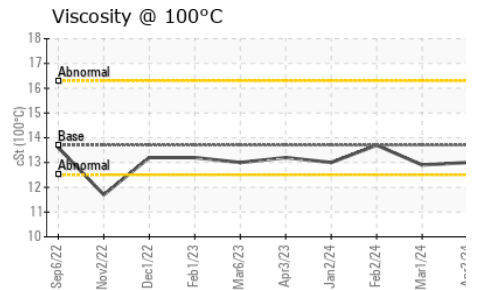
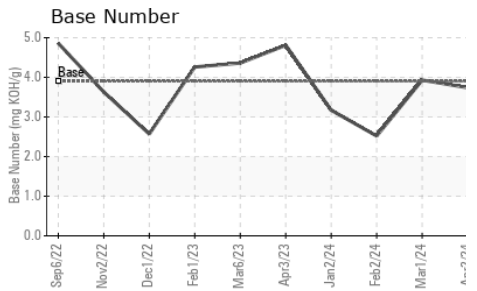
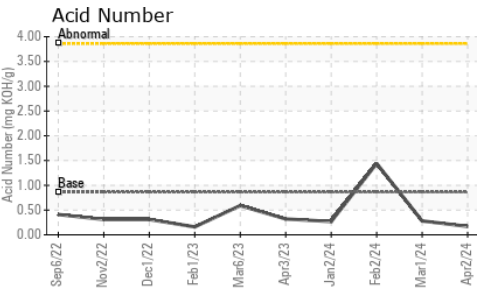
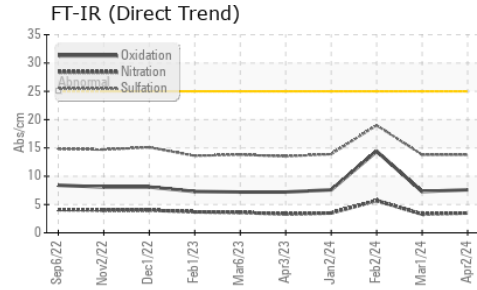
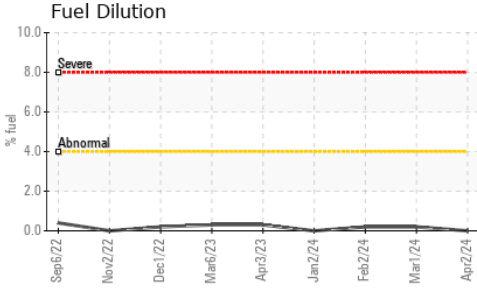
INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844		0	0	0
Nitration	Abs/cm	*ASTM D7624	>20	3.5	3.3	5.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	13.8	13.8	19.0

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	7.6	7.3	14.4
Acid Number (AN)	mg KOH/g	ASTM D8045	0.86	0.17	0.28	1.44
Base Number (BN)	mg KOH/g	ASTM D2896	3.9	3.74	3.93	2.52

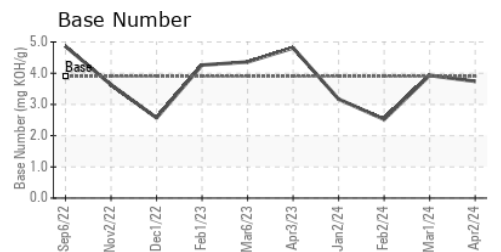
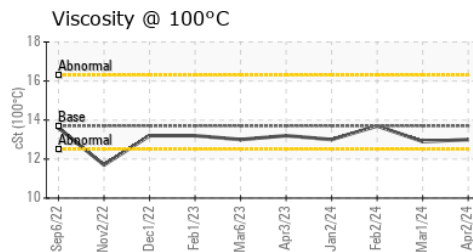
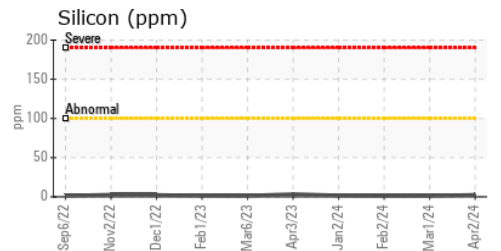
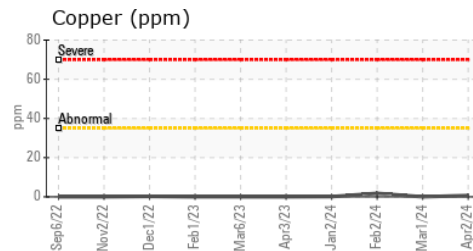
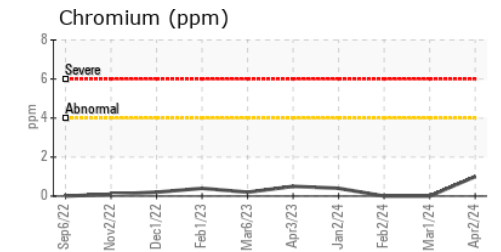
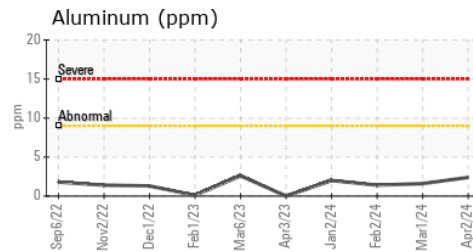
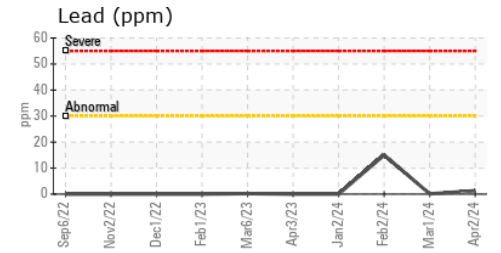
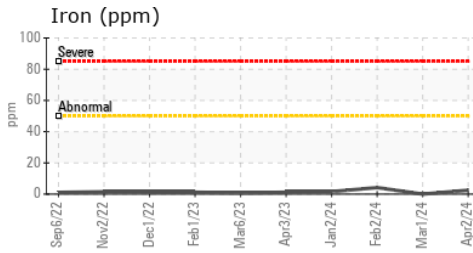
OIL ANALYSIS REPORT



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	13.0	12.9

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0111972
Lab Number : 06146065
Unique Number : 10976143
Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel)

ENERVEST OPERATING - LIBERTY
 318 SINGLETON ROAD
 NORA, VA
 US 24272
 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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F: