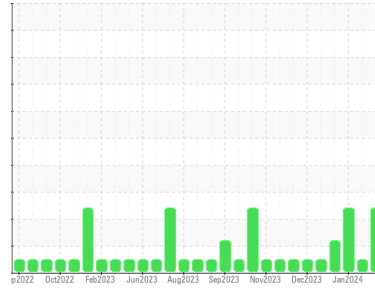


OIL ANALYSIS REPORT

Sample Rating Trend



DEGRADATION



Area
LONGHORN C
Machine Id
LONGHORN C (S/N 1645612)
Component
Natural Gas Engine
Fluid
PETRO CANADA SENTRON LD 3000 (190 GAL)

DIAGNOSIS

Recommendation

We recommend that you drain the oil from the component if this has not already been done. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The BN level is low. The AN level is at the top-end of the recommended limit.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			PCA0096594	PCA0096590	PCA0096589
Sample Date	Client Info			19 Feb 2024	05 Feb 2024	17 Jan 2024
Machine Age	hrs	Client Info		8597	8261	7812
Oil Age	hrs	Client Info		2754	2418	1969
Oil Changed	Client Info			Not Chngd	Oil Added	Oil Added
Sample Status				ABNORMAL	NORMAL	ABNORMAL

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	7	8	5
Chromium	ppm	ASTM D5185m	>4	0	0	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	1	<1	1
Lead	ppm	ASTM D5185m	>30	1	<1	0
Copper	ppm	ASTM D5185m	>35	<1	<1	<1
Tin	ppm	ASTM D5185m	>4	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

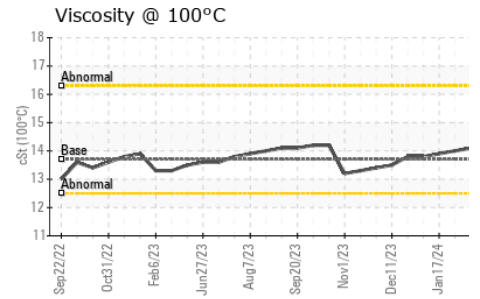
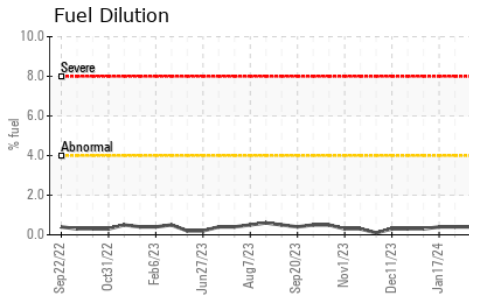
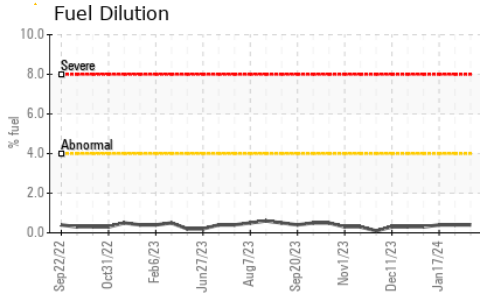
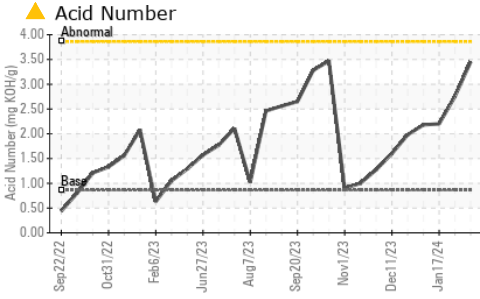
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	2	0	0
Barium	ppm	ASTM D5185m	1	0	0	0
Molybdenum	ppm	ASTM D5185m	2	2	<1	0
Manganese	ppm	ASTM D5185m	1	0	0	0
Magnesium	ppm	ASTM D5185m	5	7	5	20
Calcium	ppm	ASTM D5185m	1220	1369	1297	1186
Phosphorus	ppm	ASTM D5185m	298	292	289	286
Zinc	ppm	ASTM D5185m	350	363	361	350
Sulfur	ppm	ASTM D5185m	1995	2362	2033	1992

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>+100	2	7	2
Sodium	ppm	ASTM D5185m		4	2	2
Potassium	ppm	ASTM D5185m	>20	0	0	0
Fuel	%	ASTM D3524	>4.0	0.4	0.4	0.4

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		0	0	0
Nitration	Abs/cm	*ASTM D7624	>20	12.4	12.0	11.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.9	20.7	19.6

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.8	20.9	18.4
Acid Number (AN)	mg KOH/g	ASTM D8045	0.86	▲ 3.45	2.75	▲ 2.20
Base Number (BN)	mg KOH/g	ASTM D2896	3.9	▲ 1.75	1.73	▲ 0.9

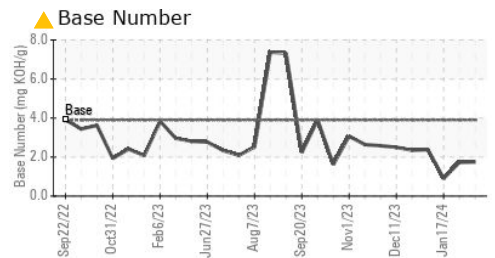
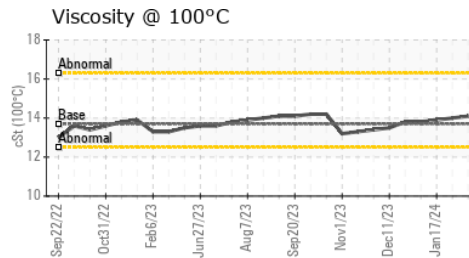
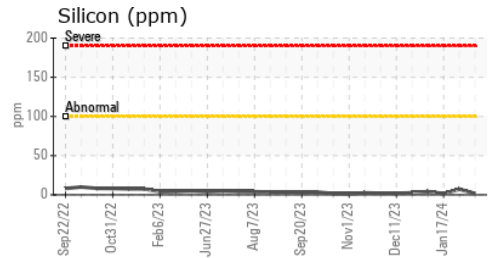
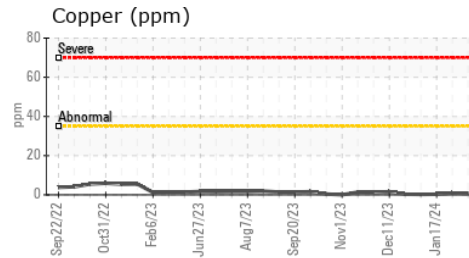
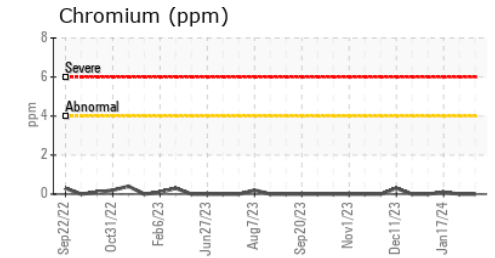
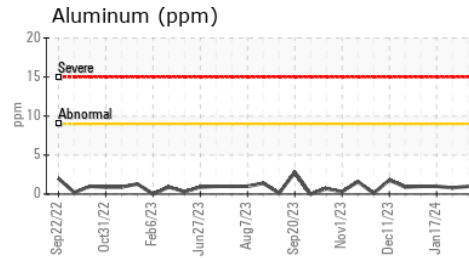
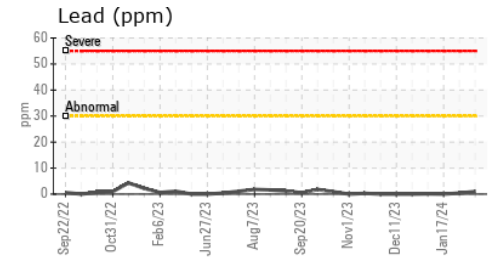
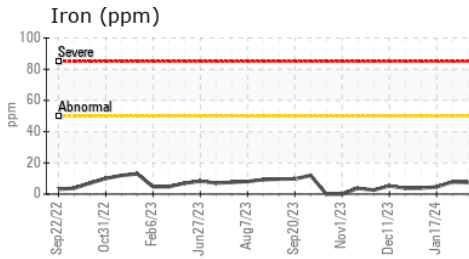
OIL ANALYSIS REPORT



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	14.1	14.0

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0096594 **Received** : 15 Mar 2024
Lab Number : **06120307** **Tested** : 20 Mar 2024
Unique Number : 10929140 **Diagnosed** : 20 Mar 2024 - Sean Felton
Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel)

DIVERSIFIED ENERGY - CURWENSVILLE
 325 WALNUT ST FL2
 CURWENSVILLE, PA
 US 16833
 Contact: ZACH MCGARY
 zmcgary@dgoc.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: