



Secteur

MICHAUDVILLE

Identité de la machine

1170

Composant

Moteur diesel

Fluid

PETRO CANADA DURON SHP 10W30 (--- GAL)

RECOMMENDATION

We advise that you check for the source of water entry. We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend that you drain the oil from the component if this has not already been done. We recommend you service the filters on this component. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.

USURE

Iron ppm levels are abnormal. Cylinder, crank, or cam shaft wear is indicated.

CONTAMINATION

There is a light concentration of water present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. Test for glycol is negative. High amount of ingressed dirt has caused abrasive wear to the component.

ÉTAT DU FLUIDE

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

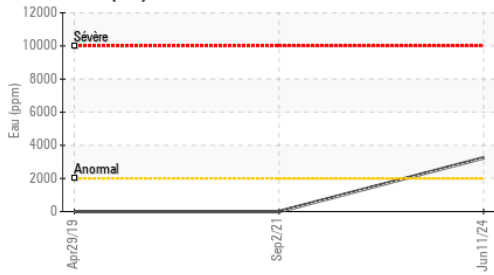
Test	UOM	Method	Limit/Abn	Current	History1	History2
Numéro d'échant.		Client Info		PC0082911	PC0054224	PC0011460
Date d'échant.		Client Info		11 Jun 2024	02 Sep 2021	29 Apr 2019
Âge d la Machine	hrs	Client Info		11708	11431	39122
Âge de l'huile	hrs	Client Info		0	0	0
Âge du filtre	hrs	Client Info		0	0	0
Huile changée		Client Info		N/A	N/A	Changed
Filtre changé		Client Info		N/A	N/A	Changed
Statut de l'échant.				ABNORMAL	ABNORMAL	NORMAL

PQ	UOM	Method	Limit/Abn	Current	History1	History2
Fer	ppm	ASTM D5185(m)	>100	▲ 126	▲ 152	51
Chrome	ppm	ASTM D5185(m)	>20	5	11	2
Nickel	ppm	ASTM D5185(m)	>4	<1	1	<1
Titane	ppm	ASTM D5185(m)		<1	<1	0
Argent	ppm	ASTM D5185(m)	>3	0	<1	0
Aluminium	ppm	ASTM D5185(m)	>20	10	● 23	44
Plomb	ppm	ASTM D5185(m)	>40	4	22	1
Cuivre	ppm	ASTM D5185(m)	>330	38	138	7
Étain	ppm	ASTM D5185(m)	>15	<1	2	<1
Vanadium	ppm	ASTM D5185(m)		0	<1	0
Métal blanc	scalar	Visual*	NONE	NONE	---	---
Bronze	scalar	Visual*	NONE	NONE	---	---

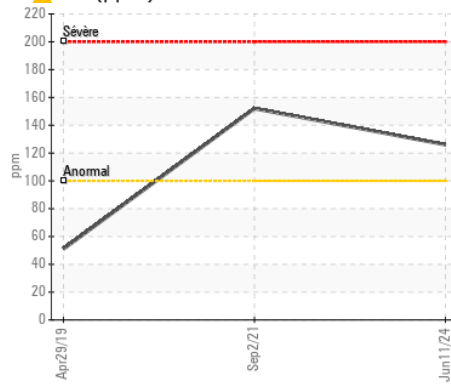
Silicium	ppm	ASTM D5185(m)	>25	▲ 26	▲ 76	4
Potassium	ppm	ASTM D5185(m)	>20	8	20	124
Essence		WC Method	>5	<1.0	<1.0	<1.0
Eau	%	ASTM D6304*	>0.2	▲ 0.324	---	---
ppm d'eau	ppm	ASTM D6304*	>2000	▲ 3247	---	---
Glycol	%	ASTM D7922*		0.0	0.0	0.0
% de suie	%	ASTM D7844*	>3	0.6	1.6	0.5
Nitration	Abs/cm	ASTM D7624*	>20	13.6	16.9	11.9
Sulfatation	Abs/.1mm	ASTM D7415*	>30	23.9	▲ 33.9	21.4
Limon	scalar	Visual*	NONE	VLITE	---	---
Débris	scalar	Visual*	NONE	NONE	---	---
Saleté	scalar	Visual*	NONE	NONE	---	---
Apparence	scalar	Visual*	NORML	NORML	---	---
Odeur	scalar	Visual*	NORML	NORML	NORML	---
Eau émulsifiée	scalar	Visual*	>0.2	▲ .2%	NEG	NEG

Sodium	ppm	ASTM D5185(m)		23	68	7
Bore	ppm	ASTM D5185(m)	2	7	54	12
Baryum	ppm	ASTM D5185(m)	0	0	0	0
Molybdène	ppm	ASTM D5185(m)	50	60	22	60
Manganèse	ppm	ASTM D5185(m)	0	2	4	<1
Magnésium	ppm	ASTM D5185(m)	950	906	157	847
Calcium	ppm	ASTM D5185(m)	1050	1329	2358	1142
Phosphore	ppm	ASTM D5185(m)	995	1025	1060	931
Zinc	ppm	ASTM D5185(m)	1180	1243	1271	1145
Soufre	ppm	ASTM D5185(m)	2600	2392	2867	2644
Oxydation	Abs/.1mm	ASTM D7414*	>25	19.8	▲ 30.2	17.7
Visc 40°C	cSt	ASTM D7279(m)	80.1	96.1	▲ 121	73.1
Visc 100°C	cSt	ASTM D7279(m)	12.00	13.7	▲ 15.3	11.3
Indice de viscosité (VI)	Scale	ASTM D2270*	144	144	131	146

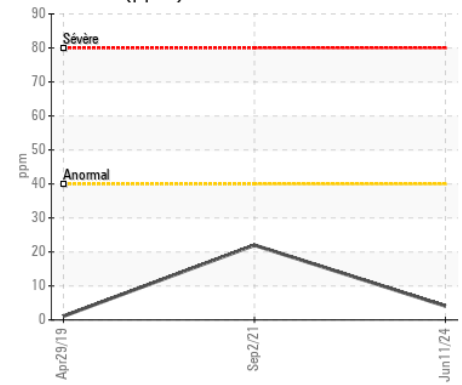
▲ Eau (KF)



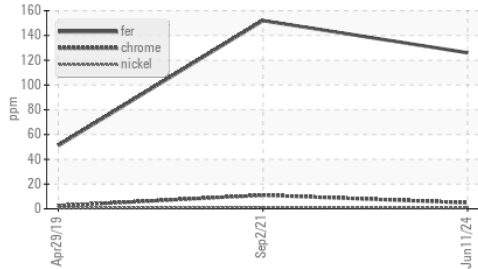
▲ Fer (ppm)



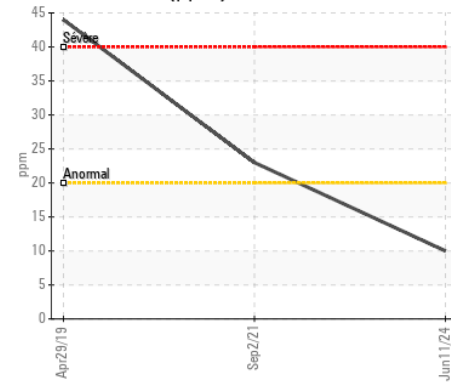
Plomb (ppm)



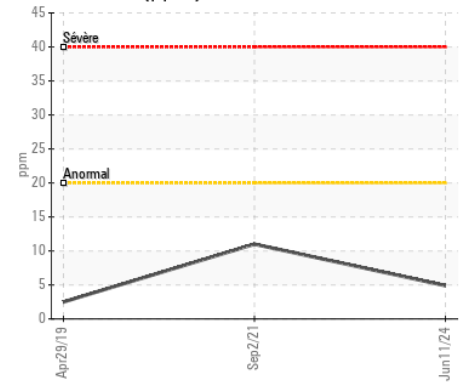
▲ Alliages ferreux



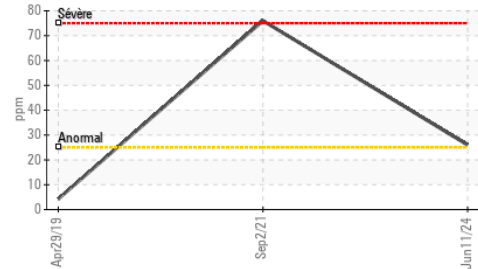
Aluminium (ppm)



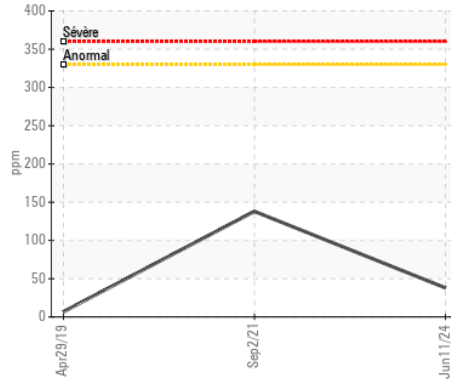
Chrome (ppm)



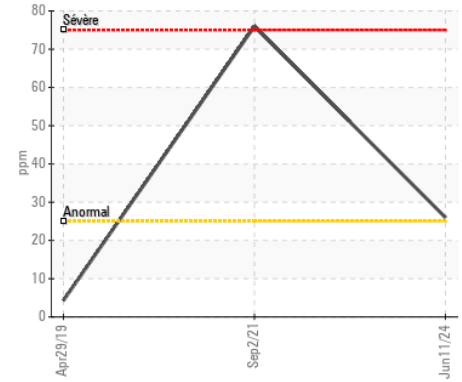
▲ Silicium (ppm)



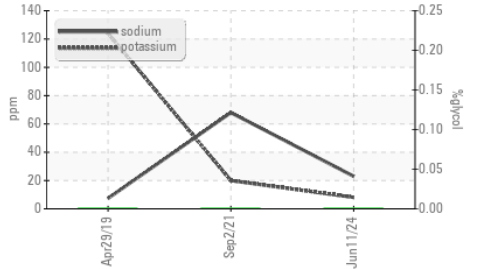
Cuivre (ppm)



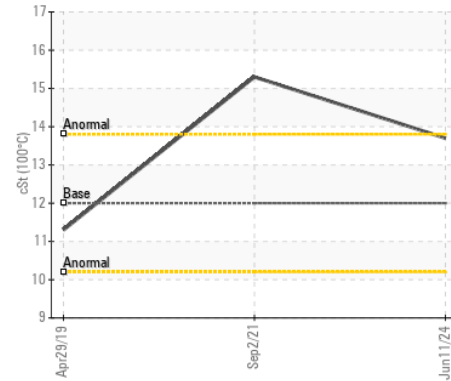
▲ Silicium (ppm)



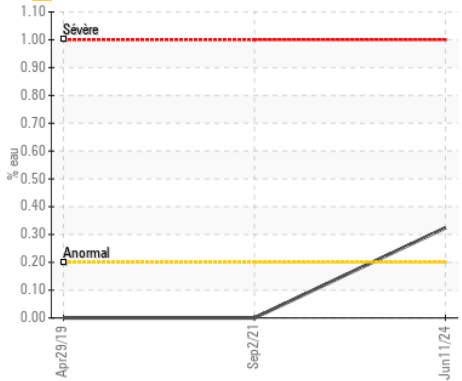
Contamination par le glycol



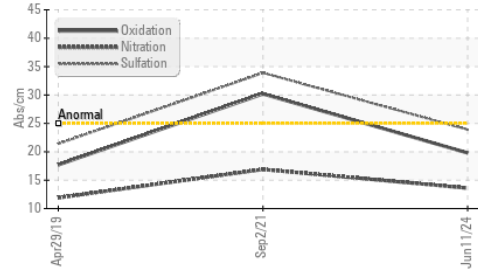
Viscosité 100°C



▲ Eau



FT-IR (Direct Trend)



ISO 17025:2017
Accredited
Laboratory

Laboratoire : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

N° d'échantillon : PC0082911

N° de laboratoire : 02641370

Numéro unique : 5798909

Analyse : MOB 1 (Additional Tests: Glycol, KF, KV40, PQ, VI, Visual)

Reçu : 12 Jun 2024

Tested : 13 Jun 2024

Diagnostiqué : 13 Jun 2024 - Kevin Marson

LES ENTREPRISES MICHAUVILLE INC.

270 RUE BRUNET

MONT ST-HILAIRE, QC

CA J3H 0M6

Contact: Martin Trudel

mtrudel@michaudville.com

Pour discuter ce rapport, contacter le service à la clientèle au 1-800-268-2131.

Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.

La validez de los resultados y la interpretación se basan en la muestra y la información proporcionada.

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F: