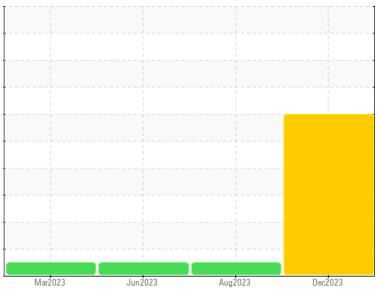
OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
913136
Component
Front Diesel Engine
Fluid
PETRO CANADA DURON SHP 10W30 (38 LTR)

DIAGNOSIS

Recommendation

Nous avons pris note que la vidange d`huile a été effectuée au moment de l`échantillonnage. Nous vous recommandons d`échantillonner de nouveau dès que possible afin de contrôler la situation.

Wear

Usure de la soupape d`échappement.

Contamination

Il n`y a aucun indice de contamination dans l`huile.

Fluid Condition

l`huile n'est plus en état de service en raison d'une usure anomale et/ou sévère.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0091124**	GFL0079106	GFL0079109
Sample Date		Client Info		**18 Dec 2023**	28 Aug 2023	27 Jun 2023
Machine Age	hrs	Client Info		**2006**	1414	918
Oil Age	hrs	Client Info		**592**	496	423
Oil Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**SEVERE**	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	**<1.0**	<1.0	0.6
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>120	**17**	15	15
Chromium	ppm	ASTM D5185(m)	>20	**1**	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	**22**	8	8
Titanium	ppm	ASTM D5185(m)	>2	**0**	<1	<1
Silver	ppm	ASTM D5185(m)	>2	**<1**	<1	1
Aluminum	ppm	ASTM D5185(m)	>20	**2**	2	2
Lead	ppm	ASTM D5185(m)	>40	**<1**	2	5
Copper	ppm	ASTM D5185(m)	>330	**10**	65	197
Tin	ppm	ASTM D5185(m)	>15	**2**	2	2
Antimony	ppm	ASTM D5185(m)		**0**	0	0
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	0

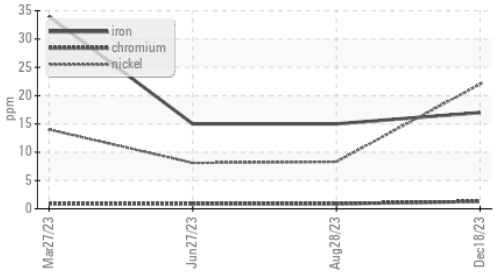
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	2	**11**	13	33
Barium	ppm	ASTM D5185(m)	0	**0**	0	0
Molybdenum	ppm	ASTM D5185(m)	50	**70**	71	73
Manganese	ppm	ASTM D5185(m)	0	**<1**	<1	1
Magnesium	ppm	ASTM D5185(m)	950	**639**	664	641
Calcium	ppm	ASTM D5185(m)	1050	**1442**	1431	1427
Phosphorus	ppm	ASTM D5185(m)	995	**934**	1013	1009
Zinc	ppm	ASTM D5185(m)	1180	**1140**	1154	1114
Sulfur	ppm	ASTM D5185(m)	2600	**2649**	2475	2589
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**4**	6	11
Sodium	ppm	ASTM D5185(m)		**2**	2	1
Potassium	ppm	ASTM D5185(m)	>20	**3**	3	2

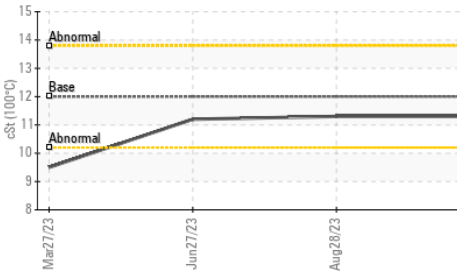
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>4	**0.4**	0.3	0.2
Nitration	Abs/cm	ASTM D7624*	>20	**10.3**	9.3	9.1
Nitration(Diff)	Abs/cm	ASTM D7624*		**12.8**	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	**20.8**	21.3	19.9
Sulfation(Diff)	Abs/cm	ASTM D7415*		**4.9**	---	---

OIL ANALYSIS REPORT

Ferrous Alloys



Viscosity @ 100°C



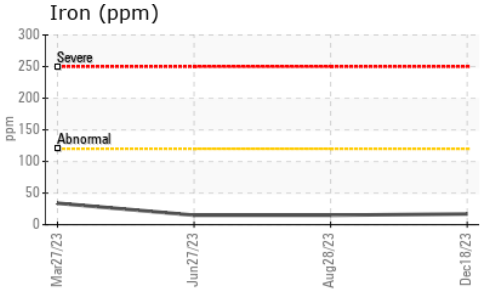
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**15.9**	15.3	15.5
Oxidation(Diff)	Abs/cm	ASTM D7414*		**13.3**	---	---

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

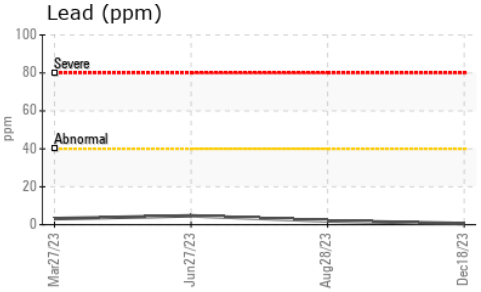
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	**11.3**	11.3	11.2

GRAPHS

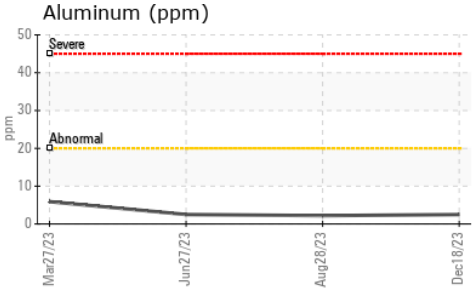
Iron (ppm)



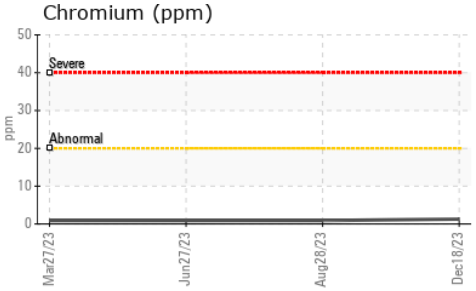
Lead (ppm)



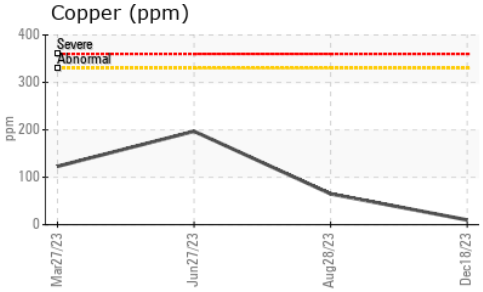
Aluminum (ppm)



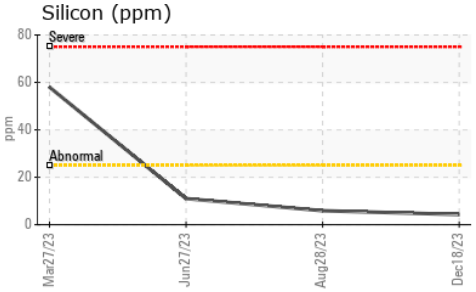
Chromium (ppm)



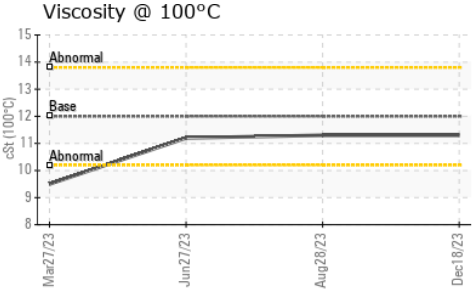
Copper (ppm)



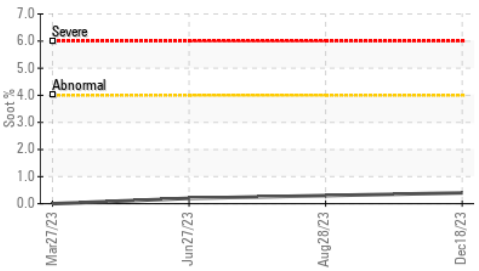
Silicon (ppm)



Viscosity @ 100°C



Soot %



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0091124 **Recieved** : 21 Dec 2023
Lab Number : 02604595 **Diagnosed** : 31 Jan 2024
Unique Number : 5697680 **Diagnostician** : Bill Quesnel
Test Package : MOB 1 (Additional Tests: FT-IR(Diff))

To discuss this sample report, contact Customer Service at 1-800-268-2131.
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
Validity of results and interpretation are based on the sample and information as supplied.

Matrec - 791 - Rimouski
350 Avenue de L`Industrie
Rimouski, QC
CA G5M 1W4
Contact: Vincent Maltais
info@foretsstar.com
T: 4(18)388-2626
F: (418)388-2038