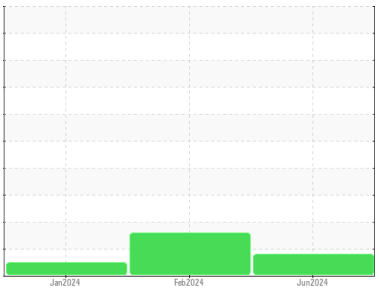
OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
MACK 414000
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 10W30 (--- 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 palier.

Contamination
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. 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		**PC0088350**	GFL0094633	GFL0100798
Sample Date		Client Info		**07 Jun 2024**	07 Feb 2024	10 Jan 2024
Machine Age	hrs	Client Info		**1255**	668	598
Oil Age	hrs	Client Info		**587**	70	598
Oil Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**ABNORMAL**	MARGINAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	**<1.0**	<1.0	<1.0
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	0.0	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>120	**27**	13	61
Chromium	ppm	ASTM D5185(m)	>20	**<1**	0	<1
Nickel	ppm	ASTM D5185(m)	>5	**8**	2	8
Titanium	ppm	ASTM D5185(m)	>2	**0**	0	0
Silver	ppm	ASTM D5185(m)	>2	**<1**	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	**5**	4	15
Lead	ppm	ASTM D5185(m)	>40	**9**	1	6
Copper	ppm	ASTM D5185(m)	>330	▲ **356**	57	251
Tin	ppm	ASTM D5185(m)	>15	**1**	<1	4
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)	250	**7**	30	154
Barium	ppm	ASTM D5185(m)	10	**0**	0	0
Molybdenum	ppm	ASTM D5185(m)	100	**61**	65	115
Manganese	ppm	ASTM D5185(m)		**<1**	<1	4
Magnesium	ppm	ASTM D5185(m)	450	**925**	901	701
Calcium	ppm	ASTM D5185(m)	3000	**1073**	1085	1471
Phosphorus	ppm	ASTM D5185(m)	1150	**956**	994	702
Zinc	ppm	ASTM D5185(m)	1350	**1168**	1102	774
Sulfur	ppm	ASTM D5185(m)	4250	**2269**	2740	2031
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**6**	12	64
Sodium	ppm	ASTM D5185(m)		**2**	<1	4
Potassium	ppm	ASTM D5185(m)	>20	**11**	6	35

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>4	**0.4**	0	0.2
Nitration	Abs/cm	ASTM D7624*	>20	**10.0**	5.7	10.7
Sulfation	Abs/.1mm	ASTM D7415*	>30	**21.3**	18.9	24.6

OIL ANALYSIS REPORT

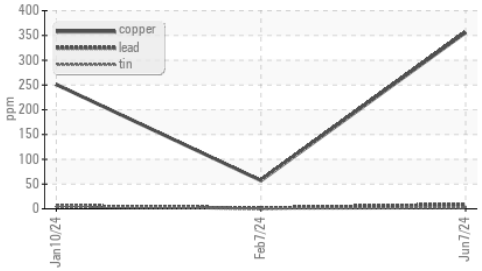
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**17.5**	14.4	22.6

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	**NEG**	▲ .2%	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

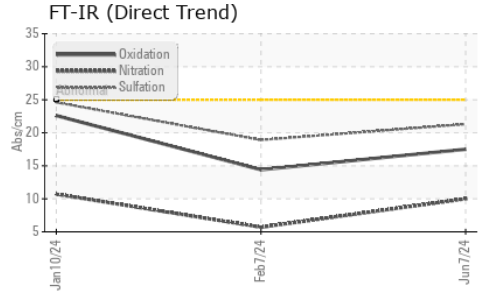
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	73	**70.0**	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	10.9	**10.9**	10.7	9.5
Viscosity Index (VI)	Scale	ASTM D2270*	138	**145**	---	---

GRAPHS

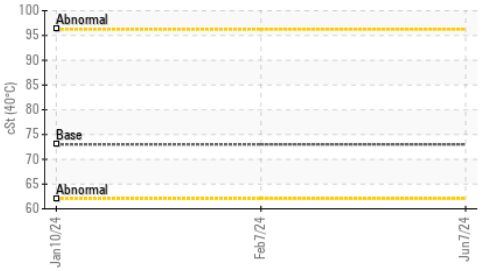
▲ Non-ferrous Metals



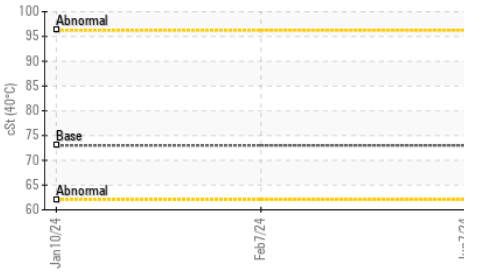
FT-IR (Direct Trend)



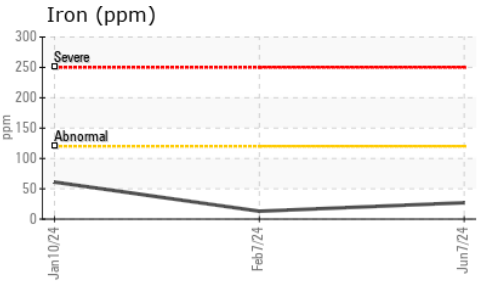
Viscosity @ 40°C



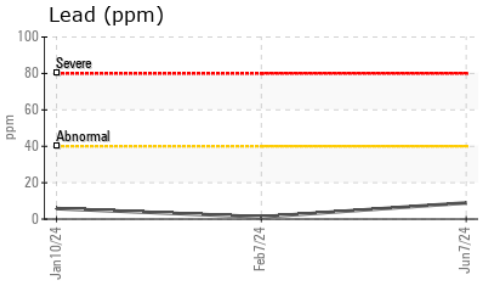
Viscosity @ 40°C



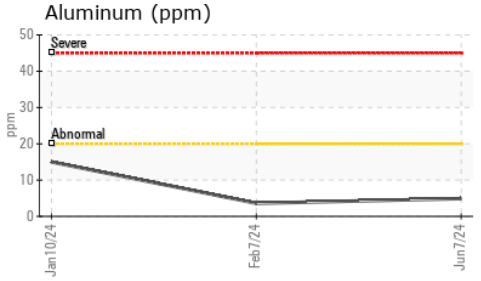
Iron (ppm)



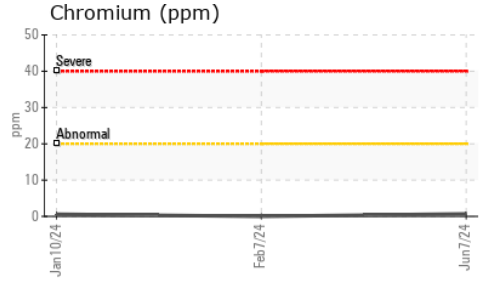
Lead (ppm)



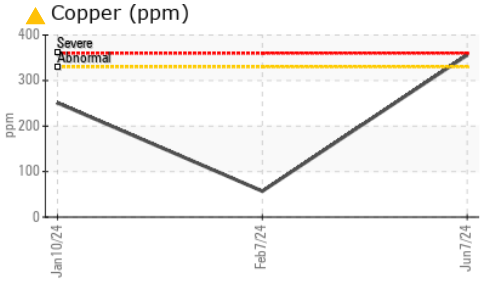
Aluminum (ppm)



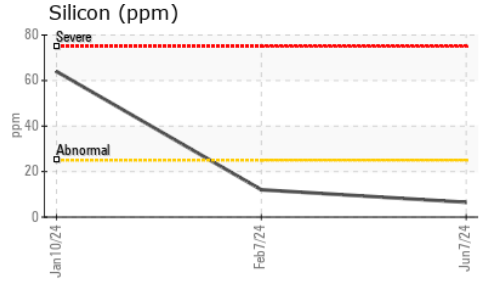
Chromium (ppm)



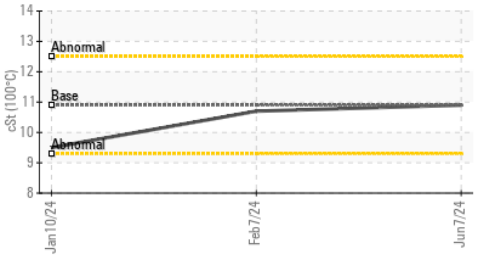
▲ Copper (ppm)



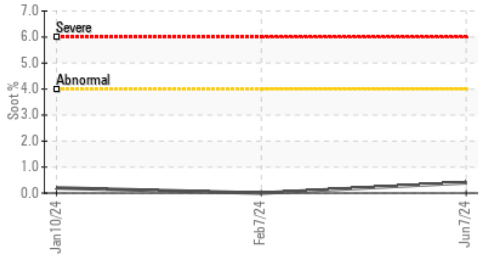
Silicon (ppm)



Viscosity @ 100°C



Soot %



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0088350
Lab Number : 02644551
Unique Number : 5802090
Test Package : MOB 1 (Additional Tests: KV40, VI)

Received : 28 Jun 2024
Tested : 28 Jun 2024
Diagnosed : 28 Jun 2024 - Kevin Marson

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Matane, QC
CA G4W 0J7
Contact: B Berube
bberube@matrec.ca
T:
F:

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.