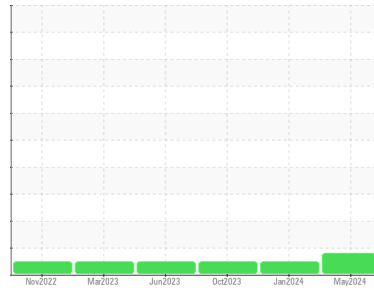


OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id

639276

Component

Diesel Engine

Fluid

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

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All component wear rates are normal. All other component wear rates are normal.

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. 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 condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PCA0127013	PCA0116997	PCA0106309
Sample Date	Client Info		14 May 2024	17 Jan 2024	11 Oct 2023
Machine Age	mls	Client Info	156173	134413	114886
Oil Age	mls	Client Info	0	0	0
Oil Changed	Client Info		Not Chngd	Changed	Not Chngd
Sample Status			ABNORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	<1.0	<1.0
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 D5185m >100	61	30	23
Chromium	ppm	ASTM D5185m >20	3	<1	<1
Nickel	ppm	ASTM D5185m >4	<1	0	<1
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m >3	<1	0	<1
Aluminum	ppm	ASTM D5185m >20	58	8	8
Lead	ppm	ASTM D5185m >40	0	0	0
Copper	ppm	ASTM D5185m >330	▲ 272	3	3
Tin	ppm	ASTM D5185m >15	8	<1	<1
Vanadium	ppm	ASTM D5185m	0	<1	<1
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 2	42	<1	1
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 50	53	60	62
Manganese	ppm	ASTM D5185m 0	4	<1	<1
Magnesium	ppm	ASTM D5185m 950	575	976	1049
Calcium	ppm	ASTM D5185m 1050	1664	1152	1224
Phosphorus	ppm	ASTM D5185m 995	773	1070	1155
Zinc	ppm	ASTM D5185m 1180	891	1300	1488
Sulfur	ppm	ASTM D5185m 2600	2443	2941	3395

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	8	8	8
Sodium	ppm	ASTM D5185m	5	2	2
Potassium	ppm	ASTM D5185m >20	148	18	18

INFRA-RED

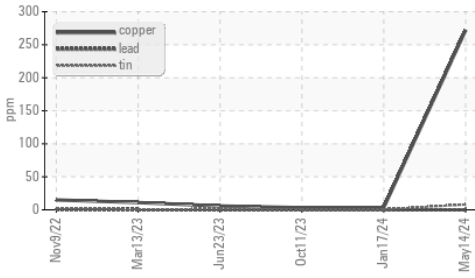
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.4	0.5	0.4
Nitration	Abs/cm	*ASTM D7624 >20	9.3	11.2	10.0
Sulfation	Abs/.1mm	*ASTM D7415 >30	21.9	23.2	20.4

FLUID DEGRADATION

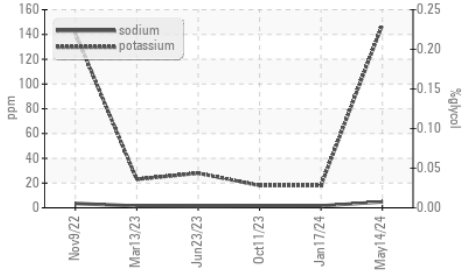
	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	21.6	20.9	17.4
Base Number (BN)	mg KOH/g	ASTM D2896	7.5	5.8	7.0

OIL ANALYSIS REPORT

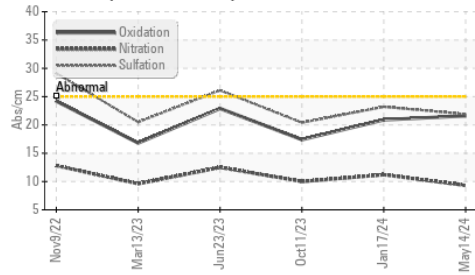
▲ Non-ferrous Metals



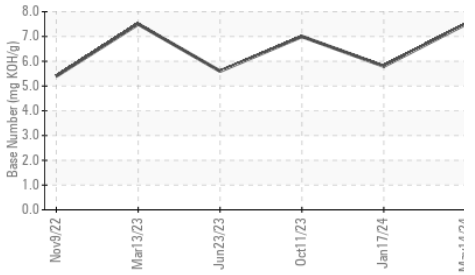
Glycol Contamination



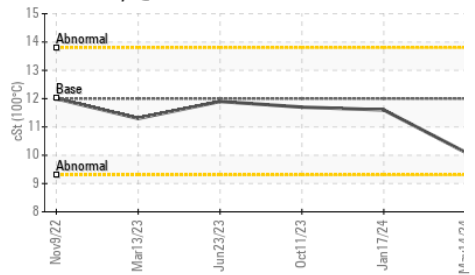
FT-IR (Direct Trend)



Base Number



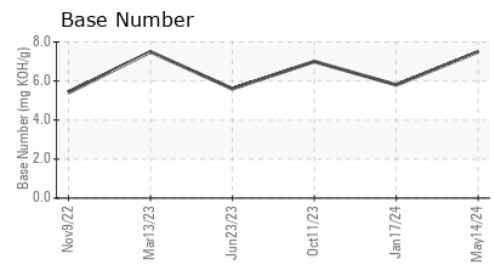
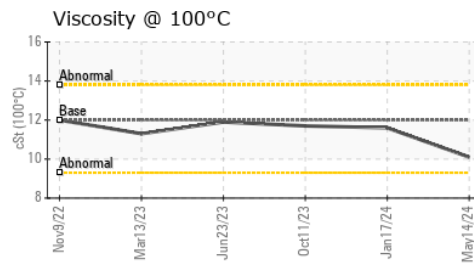
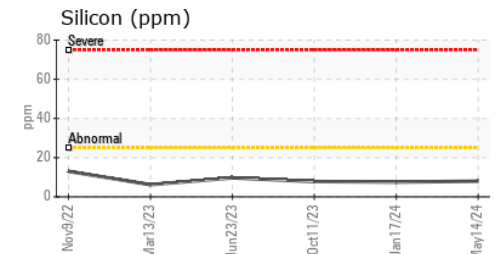
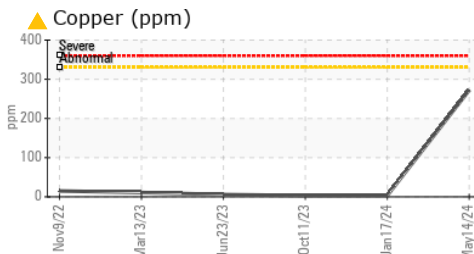
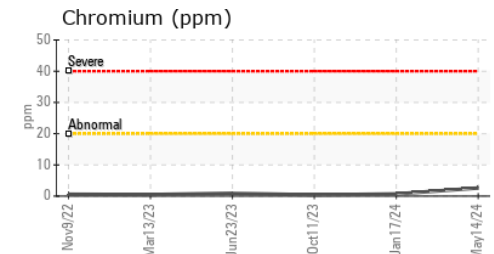
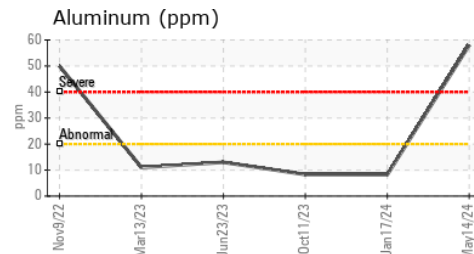
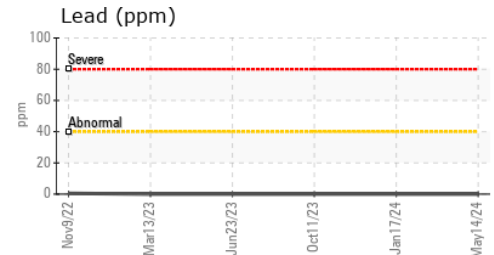
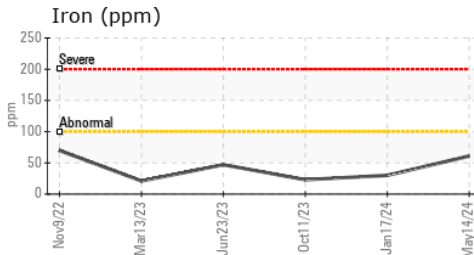
Viscosity @ 100°C



PARAMETER	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	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	10.1	11.6

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0127013 **Received** : 24 May 2024
Lab Number : 06191682 **Tested** : 30 May 2024
Unique Number : 11048434 **Diagnosed** : 30 May 2024 - Sean Felton
Test Package : MOB 1 (Additional Tests: TBN)

MILLER TRUCK LEASING #119
 39 INDUSTRIAL AVE
 HASBROUCK HEIGHTS, NJ
 US 07604
 Contact: MIKE LONGETTE
 mlongette@millertransgroup.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)

F: (201)528-7053