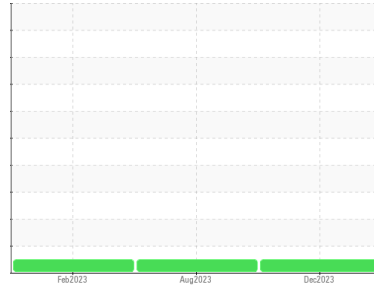


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
737099
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 10W30 (--- GAL)

DIAGNOSIS

Recommendation

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

Wear

All 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. No other contaminants were detected 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		PCA0112226	PCA0102893	PCA0093287
Sample Date	Client Info		04 Dec 2023	09 Aug 2023	22 Feb 2023
Machine Age	mls	Client Info	224504	49736	0
Oil Age	mls	Client Info	224504	49736	0
Oil Changed	Client Info		Not Chngd	Changed	N/A
Sample Status			NORMAL	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	62	87	67
Chromium	ppm	ASTM D5185m >20	3	6	5
Nickel	ppm	ASTM D5185m >4	1	<1	<1
Titanium	ppm	ASTM D5185m	1	3	0
Silver	ppm	ASTM D5185m >3	<1	<1	0
Aluminum	ppm	ASTM D5185m >20	24	59	58
Lead	ppm	ASTM D5185m >40	<1	0	2
Copper	ppm	ASTM D5185m >330	29	91	285
Tin	ppm	ASTM D5185m >15	1	1	4
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	<1	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 2	1	8	28
Barium	ppm	ASTM D5185m 0	12	0	0
Molybdenum	ppm	ASTM D5185m 50	62	72	37
Manganese	ppm	ASTM D5185m 0	1	1	4
Magnesium	ppm	ASTM D5185m 950	917	1037	496
Calcium	ppm	ASTM D5185m 1050	1262	1759	2092
Phosphorus	ppm	ASTM D5185m 995	986	1197	831
Zinc	ppm	ASTM D5185m 1180	1273	1641	1049
Sulfur	ppm	ASTM D5185m 2600	2626	3554	1817

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	12	12	12
Sodium	ppm	ASTM D5185m	0	<1	4
Potassium	ppm	ASTM D5185m >20	56	134	134

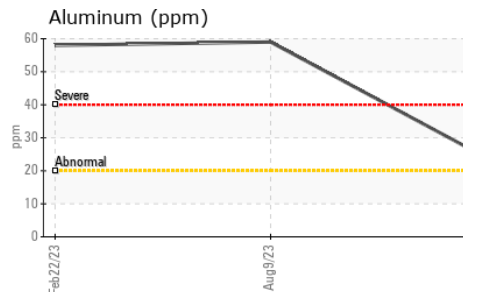
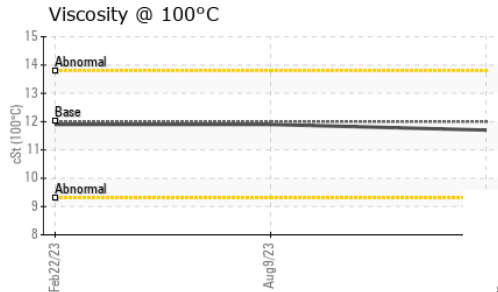
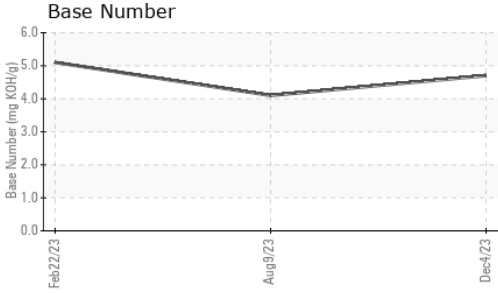
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	1.7	1.8	1.3
Nitration	Abs/cm	*ASTM D7624 >20	13.6	16.1	15.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	26.7	28.3	27.4

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	26.7	30.2	33.2
Base Number (BN)	mg KOH/g	ASTM D2896	4.7	4.1	5.1

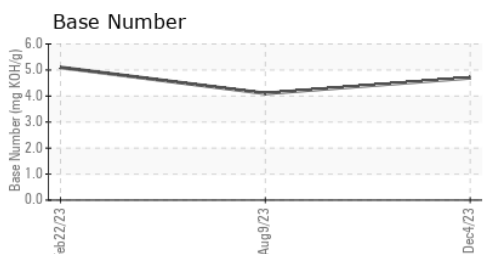
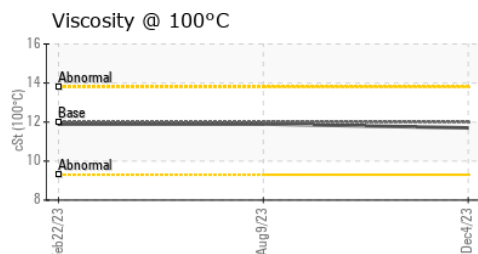
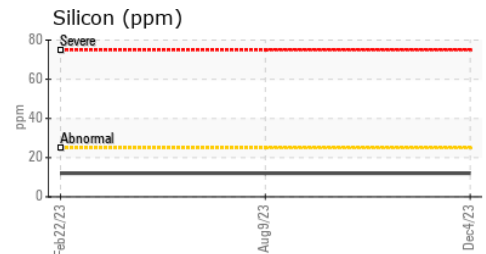
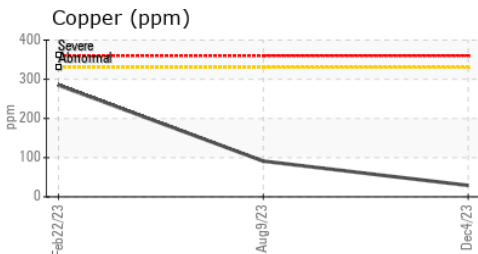
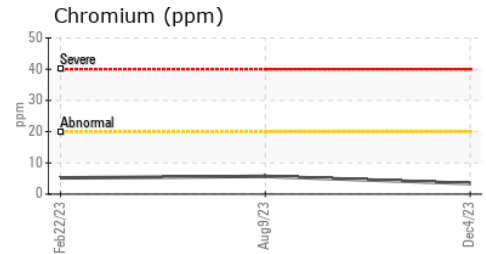
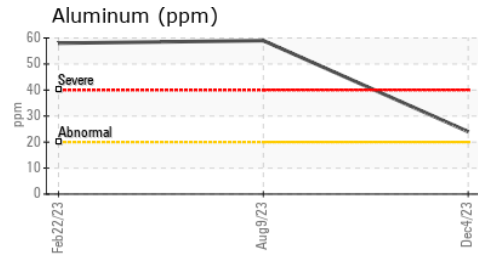
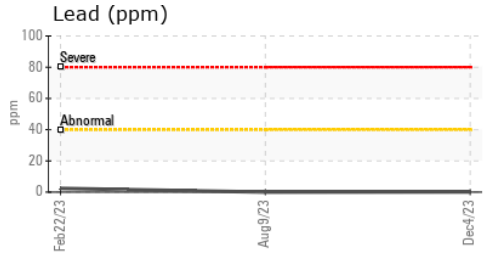
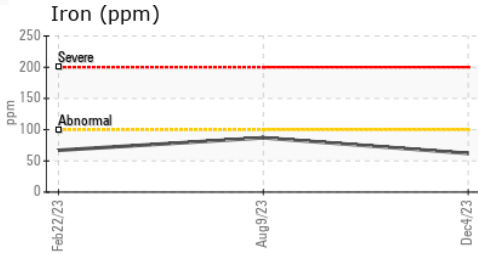
OIL ANALYSIS REPORT



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	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	11.7	11.9

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0112226 **Received** : 15 Dec 2023
Lab Number : 06035820 **Diagnosed** : 19 Dec 2023
Unique Number : 10791049 **Diagnostician** : Don Baldrige
Test Package : MOB 1 (Additional Tests: TBN)

MILLER TRUCK LEASING #118
 2196 BENNETT ROAD
 PHILADELPHIA, PA
 US 19116
 Contact: ROSTY VITER
 rviter@millertransgroup.com
 T: (215)552-9832
 F: (215)552-9892

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)