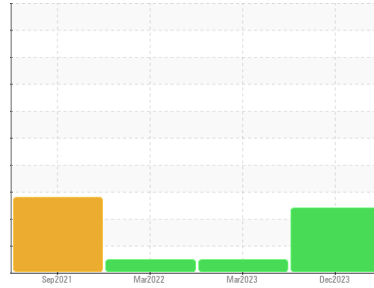


OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id
214231
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 10W30 (--- QTS)

DIAGNOSIS

Recommendation

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

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			PCA0113610	PCA0094463	PCA0068459
Sample Date	Client Info			08 Dec 2023	30 Mar 2023	17 Mar 2022
Machine Age	mls	Client Info		228087	178526	0
Oil Age	mls	Client Info		49561	0	20000
Oil Changed	Client Info			Changed	Changed	Changed
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	57	7	48
Chromium	ppm	ASTM D5185m	>20	1	<1	2
Nickel	ppm	ASTM D5185m	>4	0	<1	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	▲ 9	3	19
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	99	<1	6
Tin	ppm	ASTM D5185m	>15	0	0	2
Antimony	ppm	ASTM D5185m		---	---	---
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

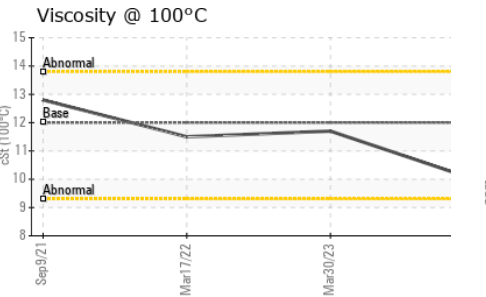
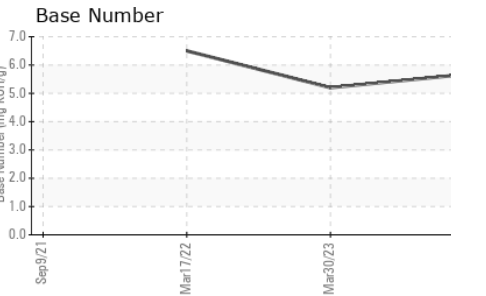
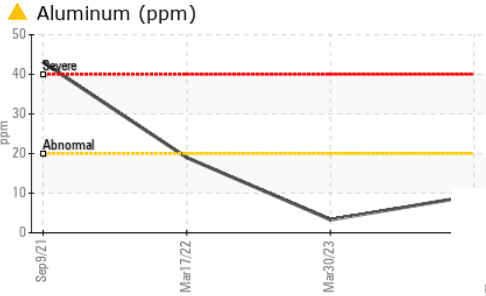
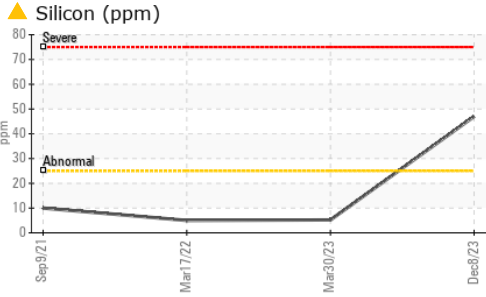
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	159	44	5
Barium	ppm	ASTM D5185m	0	11	0	0
Molybdenum	ppm	ASTM D5185m	50	10	42	58
Manganese	ppm	ASTM D5185m	0	0	<1	1
Magnesium	ppm	ASTM D5185m	950	90	537	996
Calcium	ppm	ASTM D5185m	1050	1079	1686	1248
Phosphorus	ppm	ASTM D5185m	995	860	953	1001
Zinc	ppm	ASTM D5185m	1180	1019	1142	1176
Sulfur	ppm	ASTM D5185m	2600	3218	3656	2470

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	▲ 47	5	5
Sodium	ppm	ASTM D5185m		0	3	3
Potassium	ppm	ASTM D5185m	>20	1	0	29

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.4	0.6	0.6
Nitration	Abs/cm	*ASTM D7624	>20	7.5	11.9	13.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.0	22.4	25.9

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.0	22.2	24.0
Base Number (BN)	mg KOH/g	ASTM D2896		5.7	5.2	6.5

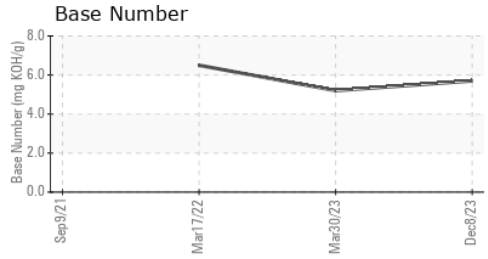
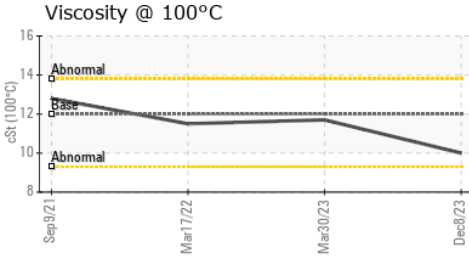
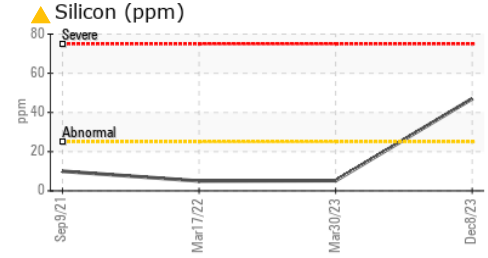
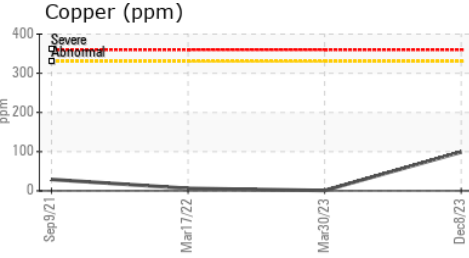
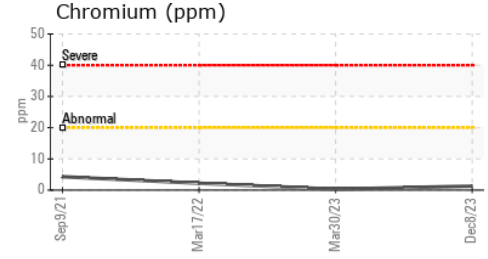
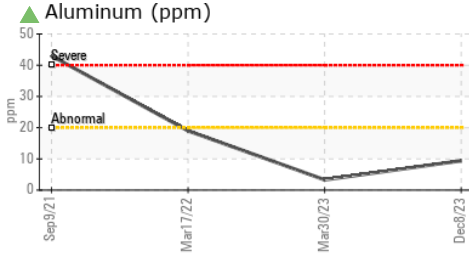
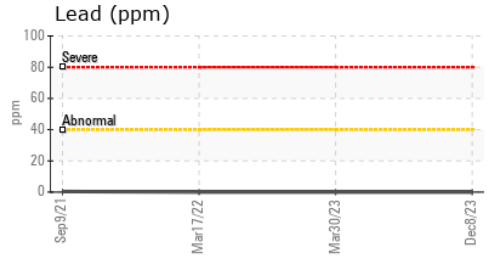
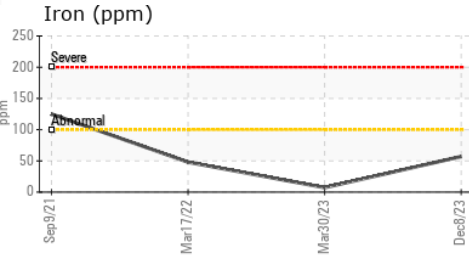
OIL ANALYSIS REPORT



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	10.0	11.7

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0113610 **Recieved** : 02 Jan 2024
Lab Number : 06048607 **Diagnosed** : 03 Jan 2024
Unique Number : 10809215 **Diagnostician** : Don Baldrige
Test Package : MOB 1 (Additional Tests: TBN)

MILLER TRUCK LEASING #114
 63 REPAUPO STATION ROAD
 LOGAN TOWNSHIP, NJ
 US 08085
 Contact: ED DAVIS
 edavis@millertransgroup.com
 T: (856)214-3521
 F: (856)214-3663

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)