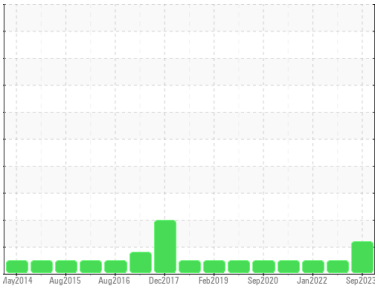
OIL DIAGNOSTICS

PROBLEM SUMMARY

Sample Rating Trend



DEGRADATION

Machine Id
FREIGHTLINER 2119
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 10W30 (24 QTS)

COMPONENT CONDITION SUMMARY

No relevant graphs to display

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	NORMAL	NORMAL
Base Number (BN)	mg KOH/g	ASTM D2896		▲ **1.4**	8.7	7.1

Customer Id: MIDFAR
Sample No.: PCA0088672
Lab Number: 05994049
Test Package: FLEET

To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldridge +1
don.b505@comcast.net

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

HISTORICAL DIAGNOSIS

24 Aug 2022 Diag: Don Baldridge

NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

14 Jan 2022 Diag: Wes Davis

NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

23 Aug 2021 Diag: Don Baldridge

NORMAL

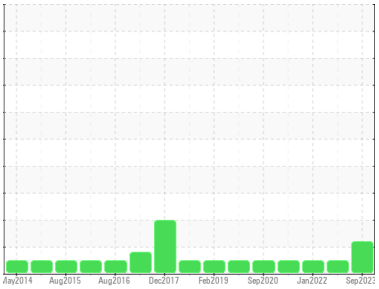
Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

OIL DIAGNOSTICS

OIL ANALYSIS REPORT

Sample Rating Trend



DEGRADATION

Machine Id
FREIGHTLINER 2119
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 10W30 (24 QTS)

DIAGNOSIS

Recommendation
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
There is no indication of any contamination in the oil.

Fluid Condition
The BN level is low.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PCA0088672**	PCA0051879	PCA0051727
Sample Date		Client Info		**01 Sep 2023**	24 Aug 2022	14 Jan 2022
Machine Age	mls	Client Info		**17325**	246568	230210
Oil Age	mls	Client Info		**17325**	16202	10643
Oil Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**ABNORMAL**	NORMAL	NORMAL

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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>75	**64**	45	22
Chromium	ppm	ASTM D5185m	>5	**2**	2	1
Nickel	ppm	ASTM D5185m	>4	**0**	0	0
Titanium	ppm	ASTM D5185m	>2	**0**	0	0
Silver	ppm	ASTM D5185m	>2	**0**	<1	<1
Aluminum	ppm	ASTM D5185m	>15	**4**	6	3
Lead	ppm	ASTM D5185m	>25	**2**	2	1
Copper	ppm	ASTM D5185m	>100	**2**	2	2
Tin	ppm	ASTM D5185m	>4	**<1**	<1	<1
Antimony	ppm	ASTM D5185m		**---**	---	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

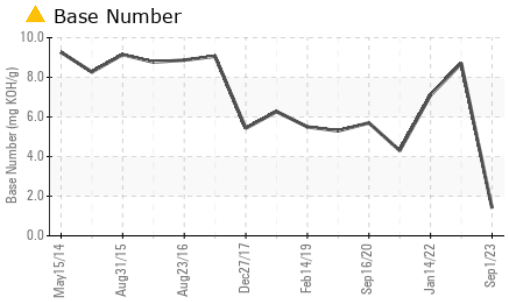
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	**<1**	4	6
Barium	ppm	ASTM D5185m	0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	50	**60**	67	55
Manganese	ppm	ASTM D5185m	0	**<1**	<1	<1
Magnesium	ppm	ASTM D5185m	950	**912**	880	948
Calcium	ppm	ASTM D5185m	1050	**1110**	1137	1157
Phosphorus	ppm	ASTM D5185m	995	**1022**	1008	1012
Zinc	ppm	ASTM D5185m	1180	**1168**	1252	1306
Sulfur	ppm	ASTM D5185m	2600	**2655**	3004	2703

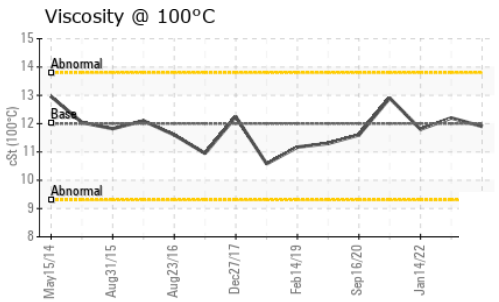
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**11**	10	5
Sodium	ppm	ASTM D5185m		**7**	5	<1
Potassium	ppm	ASTM D5185m	>20	**2**	6	3

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>6	**1.4**	2.2	0.7
Nitration	Abs/cm	*ASTM D7624	>20	**15.1**	15.2	11.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	**32.3**	28.9	25.8

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**35.6**	25.4	24.4
Base Number (BN)	mg KOH/g	ASTM D2896		**1.4**	8.7	7.1

OIL ANALYSIS REPORT

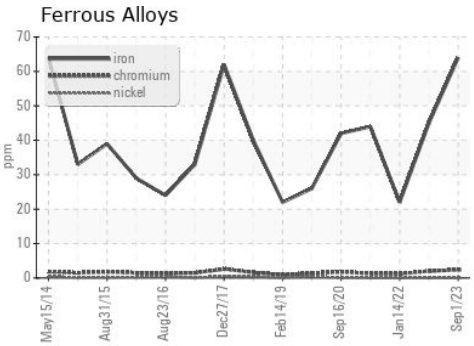


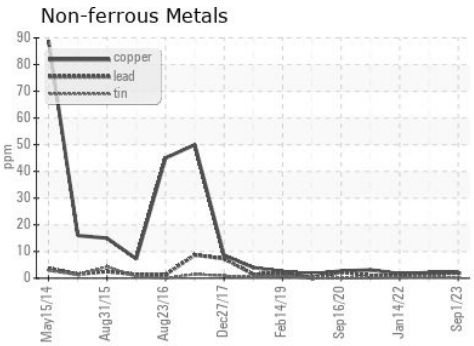


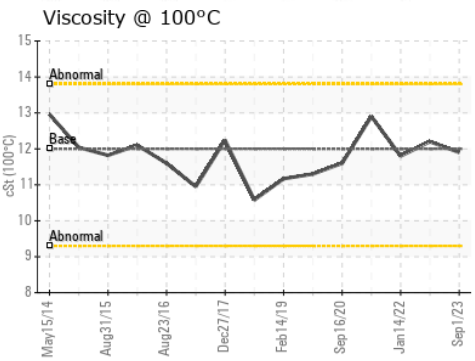
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

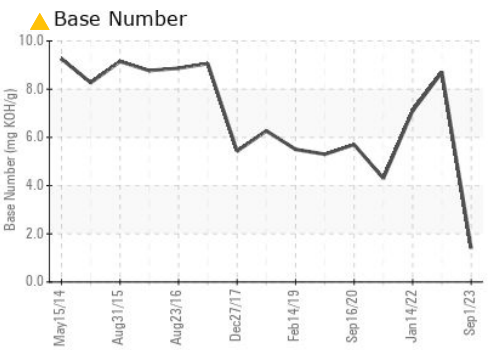
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	**11.9**	12.2	11.8

GRAPHS









Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0088672 **Received** : 31 Oct 2023
Lab Number : 05994049 **Diagnosed** : 01 Nov 2023
Unique Number : 10722409 **Diagnostician** : Don Baldridge
Test Package : FLEET

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)

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Report Id: MIDFAR [WUSCAR] 05994049 (Generated: 11/01/2023 12:48:51) Rev: 1

Submitted By: ?