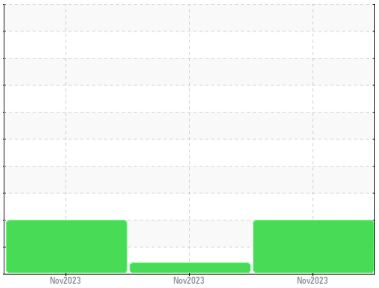
PROBLEM SUMMARY

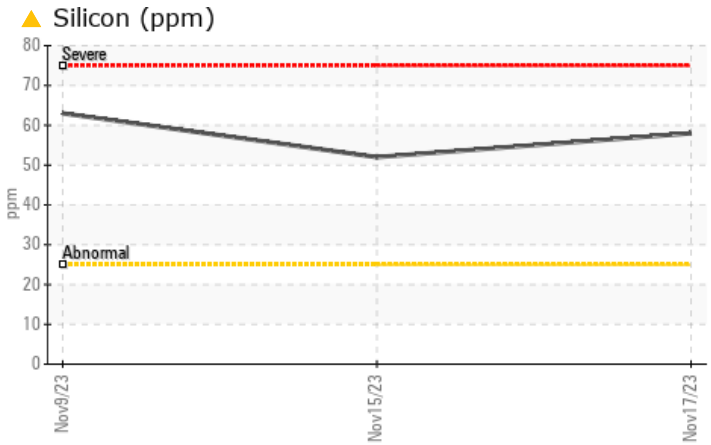
Machine Id
914058
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

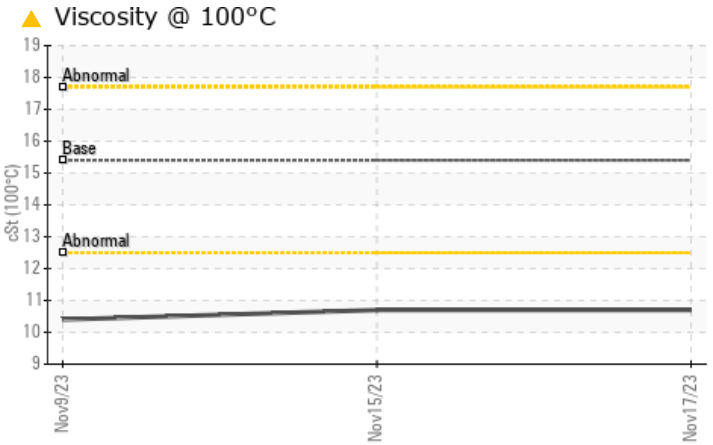
Sample Rating Trend



DIRT

COMPONENT CONDITION SUMMARY





RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. Note that there appears to be a discrepancy in the total time on this component, when compared to the historical data.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	ATTENTION	ABNORMAL
Silicon	ppm	ASTM D5185m	>25	▲ **58**	52	▲ 63
Visc @ 100°C	cSt	ASTM D445	15.4	▲ **10.7**	▲ 10.7	▲ 10.4

Customer Id: GFL415
Sample No.: GFL0101597
Lab Number: 06013635
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.
Alert	---	---	?	Note that there appears to be a discrepancy in the total time on this component, when compared to the historical data.

HISTORICAL DIAGNOSIS

15 Nov 2023 Diag: Sean Felton

VISCOSITY

Resample at the next service interval to monitor.Metal levels are typical for a new component breaking in. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

view report

09 Nov 2023 Diag: Don Baldridge

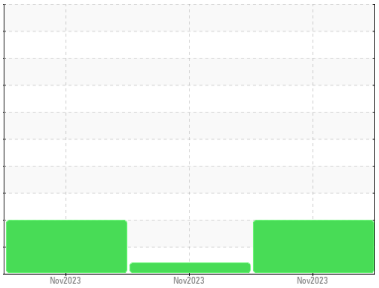
DIRT

No corrective action is recommended at this time. Resample at the next service interval to monitor.Metal levels are typical for a new component breaking in. Fuel content negligible. Elemental level of silicon (Si) above normal indicating ingress of seal material. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



DIRT

Machine Id
914058
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. Note that there appears to be a discrepancy in the total time on this component, when compared to the historical data.

Wear

Metal levels are typical for a new component breaking in.

Contamination

Elemental level of silicon (Si) above normal indicating ingress of seal material.

Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0101597**	GFL0101521	GFL0101559
Sample Date		Client Info		**17 Nov 2023**	15 Nov 2023	09 Nov 2023
Machine Age	hrs	Client Info		**10107**	593	548
Oil Age	hrs	Client Info		**548**	548	0
Oil Changed		Client Info		**Changed**	N/A	N/A
Sample Status				**ABNORMAL**	ATTENTION	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	**<1.0**	<1.0	0.5
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	>120	**42**	37	41
Chromium	ppm	ASTM D5185m	>20	**1**	1	<1
Nickel	ppm	ASTM D5185m	>5	**4**	3	4
Titanium	ppm	ASTM D5185m	>2	**<1**	<1	<1
Silver	ppm	ASTM D5185m	>2	**<1**	<1	1
Aluminum	ppm	ASTM D5185m	>20	**5**	5	4
Lead	ppm	ASTM D5185m	>40	**<1**	2	<1
Copper	ppm	ASTM D5185m	>330	**318**	266	305
Tin	ppm	ASTM D5185m	>15	**3**	2	3
Vanadium	ppm	ASTM D5185m		**0**	<1	<1
Cadmium	ppm	ASTM D5185m		**<1**	0	<1

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**192**	154	198
Barium	ppm	ASTM D5185m	0	**10**	0	<1
Molybdenum	ppm	ASTM D5185m	60	**114**	99	118
Manganese	ppm	ASTM D5185m	0	**4**	4	4
Magnesium	ppm	ASTM D5185m	1010	**719**	699	714
Calcium	ppm	ASTM D5185m	1070	**1333**	1291	1419
Phosphorus	ppm	ASTM D5185m	1150	**722**	680	726
Zinc	ppm	ASTM D5185m	1270	**868**	854	844
Sulfur	ppm	ASTM D5185m	2060	**2374**	1951	2218

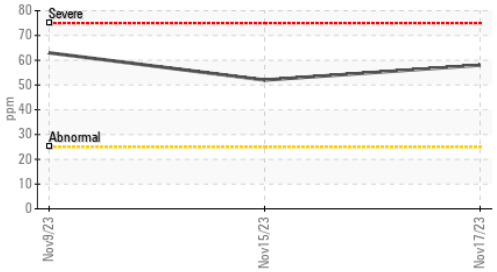
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	▲ **58**	52	▲ 63
Sodium	ppm	ASTM D5185m		**<1**	4	0
Potassium	ppm	ASTM D5185m	>20	**8**	5	8

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>4	**0.6**	0.5	0.5
Nitration	Abs/cm	*ASTM D7624	>20	**9.8**	9.4	9.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	**23.7**	23.6	24.2

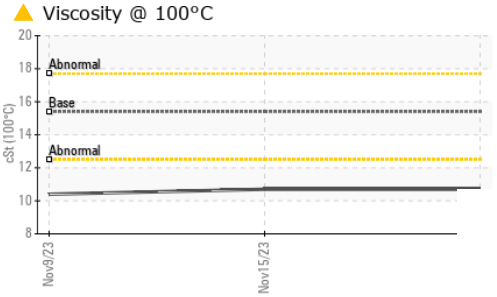
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**21.9**	21.3	22.1
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	**7.8**	8.0	8.0

OIL ANALYSIS REPORT

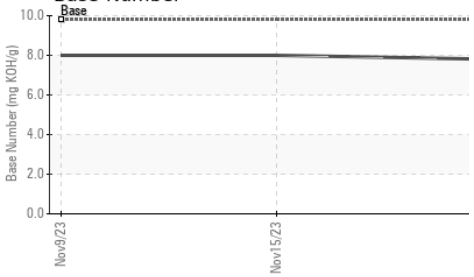
Silicon (ppm)



Viscosity @ 100°C



Base Number

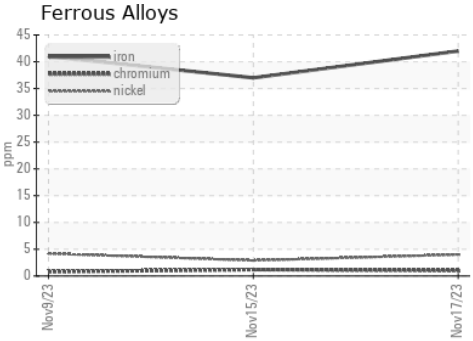


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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

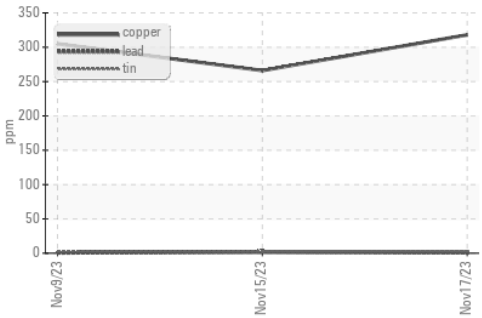
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	▲ **10.7**	▲ 10.7	▲ 10.4

GRAPHS

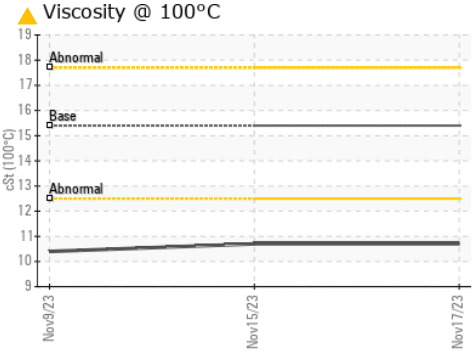
Ferrous Alloys



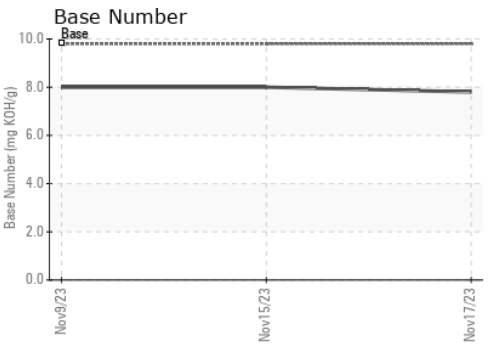
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0101597
Lab Number : 06013635
Unique Number : 10752779
Test Package : FLEET

Received : 21 Nov 2023
Diagnosed : 23 Nov 2023
Diagnostician : Don Baldridge

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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