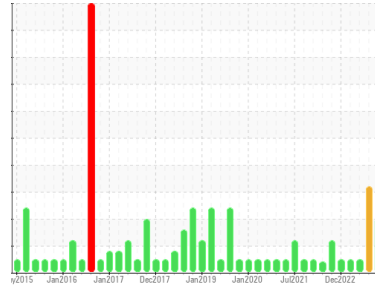




PROBLEM SUMMARY

Sample Rating Trend



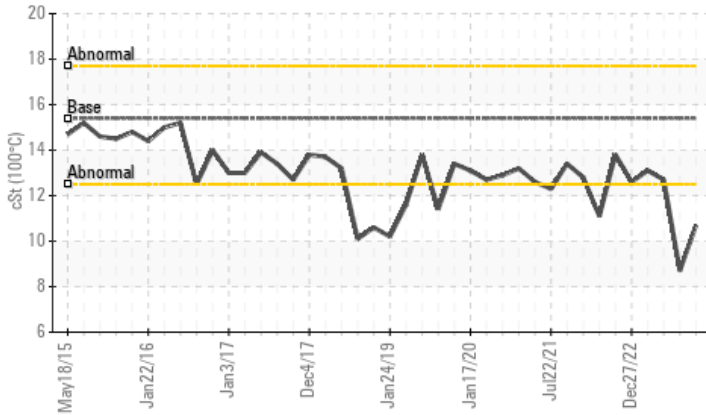
VISCOSITY



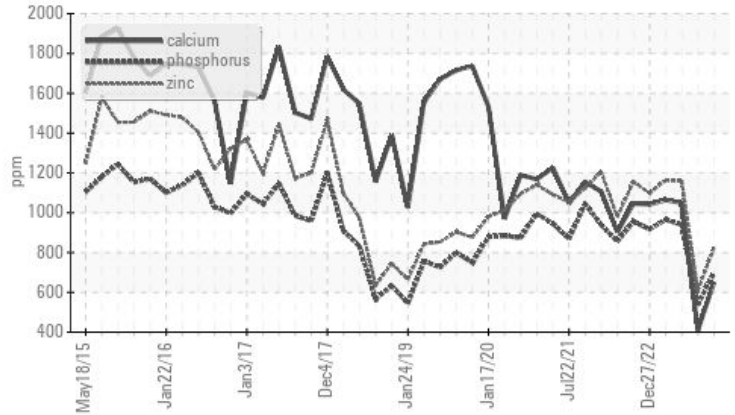
Machine Id
10528
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (11 GAL)

COMPONENT CONDITION SUMMARY

▲ Viscosity @ 100°C



▲ Additives



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				ATTENTION	ATTENTION	NORMAL
Magnesium	ppm	ASTM D5185m	1010	▲ 569	▲ 344	871
Calcium	ppm	ASTM D5185m	1070	▲ 649	▲ 410	1049
Phosphorus	ppm	ASTM D5185m	1150	▲ 696	▲ 538	940
Zinc	ppm	ASTM D5185m	1270	▲ 823	▲ 609	1158
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 10.7	▲ 8.7	12.7

Customer Id: GFL095
Sample No.: GFL0074637
Lab Number: 06008933
Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldrige +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

14 Sep 2023 Diag: Doug Bogart

DEGRADATION



We recommend that you drain the oil and perform a filter service on this component if not already done. Resample at the next service interval to monitor. All component wear rates are normal. Light fuel dilution occurring. No other contaminants were detected in the oil. The oil viscosity is lower than normal. This plus the additive levels indicates the addition of a different brand, or type of oil. The BN level is low.

[view report](#)



14 Jun 2023 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](#)



09 Mar 2023 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.

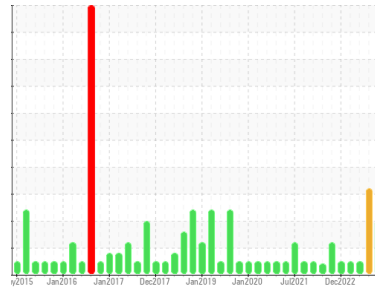
[view report](#)





OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Machine Id
10528

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (11 GAL)

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 oil viscosity is lower than normal. This plus the additive levels indicates the addition of a different brand, or type of oil. The BN result indicates that there is suitable alkalinity remaining in the oil.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0074637	GFL0092462	GFL0083630
Sample Date	Client Info	13 Nov 2023	14 Sep 2023	14 Jun 2023
Machine Age	hrs	49641	21566	20975
Oil Age	hrs	559	88	576
Oil Changed	Client Info	Changed	Not Changd	Changed
Sample Status		ATTENTION	ATTENTION	NORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >75	10	5	4
Chromium	ppm	ASTM D5185m >5	<1	<1	<1
Nickel	ppm	ASTM D5185m >4	<1	<1	0
Titanium	ppm	ASTM D5185m >2	0	0	<1
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >15	2	<1	0
Lead	ppm	ASTM D5185m >25	0	0	0
Copper	ppm	ASTM D5185m >100	0	0	<1
Tin	ppm	ASTM D5185m >4	<1	<1	<1
Vanadium	ppm	ASTM D5185m	0	0	<1
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 0	5	<1	8
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 60	39	21	62
Manganese	ppm	ASTM D5185m 0	<1	<1	<1
Magnesium	ppm	ASTM D5185m 1010	▲ 569	▲ 344	871
Calcium	ppm	ASTM D5185m 1070	▲ 649	▲ 410	1049
Phosphorus	ppm	ASTM D5185m 1150	▲ 696	▲ 538	940
Zinc	ppm	ASTM D5185m 1270	▲ 823	▲ 609	1158
Sulfur	ppm	ASTM D5185m 2060	1922	1713	3370

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	3	3	3
Sodium	ppm	ASTM D5185m	7	6	3
Potassium	ppm	ASTM D5185m >20	2	2	0
Fuel	%	ASTM D3524 >3.0	<1.0	1.6	<1.0

INFRA-RED

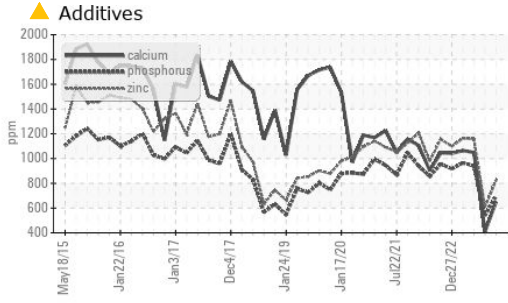
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844 >6	0.4	0.2	0.3
Nitration	Abs/cm	*ASTM D7624 >20	7.6	4.3	5.9
Sulfation	Abs/.1mm	*ASTM D7415 >30	17.6	13.7	17.5

FLUID DEGRADATION

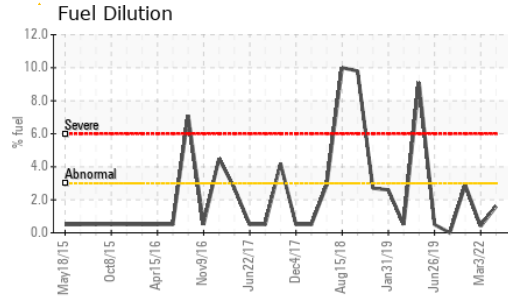
method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	13.2	6.9	12.2
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	5.4	▲ 3.0	7.7



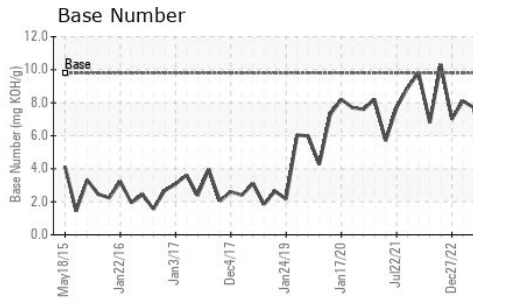
OIL ANALYSIS REPORT



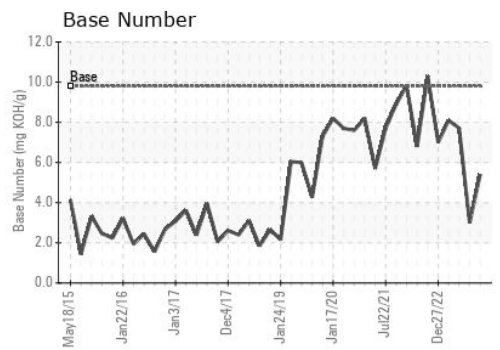
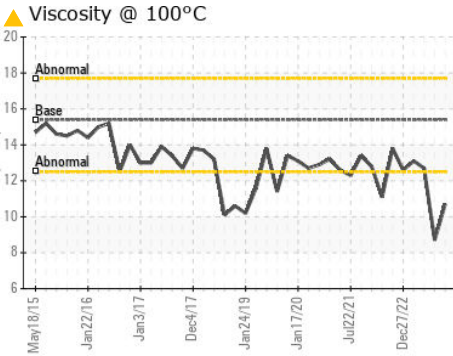
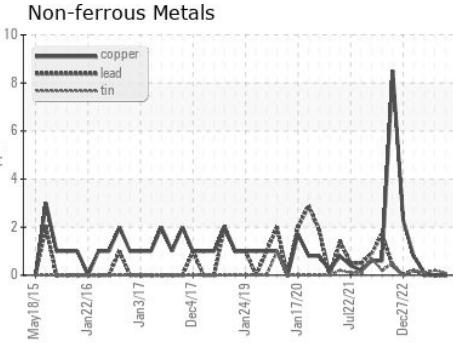
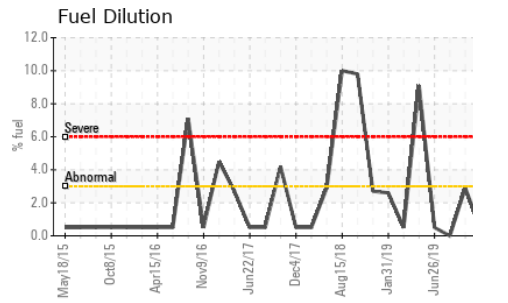
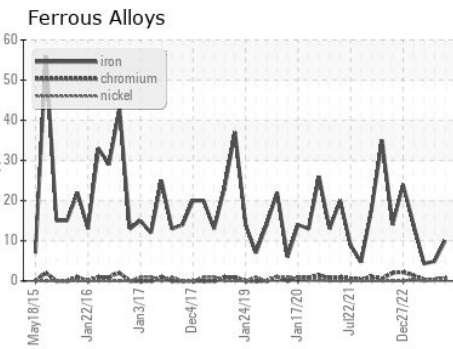
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	15.4	▲ 10.7	▲ 8.7



GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0074637 **Received** : 15 Nov 2023
Lab Number : 06008933 **Diagnosed** : 18 Nov 2023
Unique Number : 10742695 **Diagnostician** : Don Baldrige
Test Package : FLEET (Additional Tests: FuelDilution)

GFL Environmental - 095 - Atlanta West
 2699 Cochran Industrial Blvd
 Douglasville, GA
 US 30127-1332
 Contact: Darrell Welch
 darrell.welch@gflenv.com
 T: (800)207-6618
 F:

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)