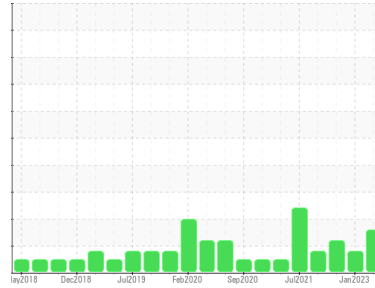




PROBLEM SUMMARY

Sample Rating Trend

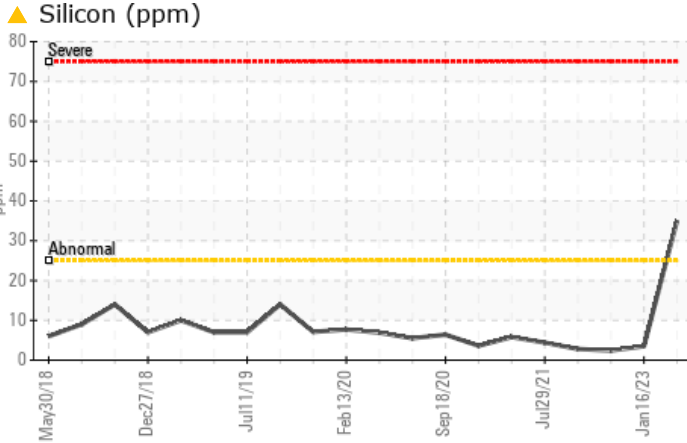


Machine Id
10883

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (5 GAL)

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.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	MARGINAL	ABNORMAL
Silicon	ppm	ASTM D5185m	>25	▲ 35	4	2

Customer Id: GFL005
Sample No.: GFL0058848
Lab Number: 05939468
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

16 Jan 2023 Diag: Wes Davis

FUEL



No corrective action is recommended at this time. 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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

[view report](#)



11 Jul 2022 Diag: Don Baldrige

FUEL



We advise that you check the fuel injection system. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a high amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

[view report](#)



03 Mar 2022 Diag: Wes Davis

FUEL



We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

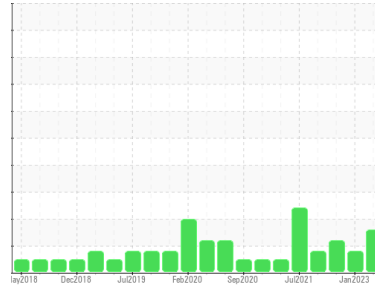
[view report](#)





OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id
10883

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (5 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.

Wear

All component wear rates are normal.

Contamination

Elemental level of silicon (Si) above normal.

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	GFL0058848	GFL0058818	GFL0048823
Sample Date	Client Info	24 Aug 2023	16 Jan 2023	11 Jul 2022
Machine Age	hrs	Client Info	13293	0
Oil Age	hrs	Client Info	600	0
Oil Changed	Client Info	Changed	N/A	Not Changd
Sample Status		ABNORMAL	MARGINAL	ABNORMAL

CONTAMINATION

method	limit/base	current	history1	history2	
Fuel	WC Method	>3.0	<1.0	▲ 3.0	▲ 7.1
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2		
Iron	ppm	ASTM D5185m	>90	54	8	3
Chromium	ppm	ASTM D5185m	>20	2	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	3
Aluminum	ppm	ASTM D5185m	>20	6	2	<1
Lead	ppm	ASTM D5185m	>40	<1	<1	<1
Copper	ppm	ASTM D5185m	>330	5	1	<1
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Antimony	ppm	ASTM D5185m		---	---	---
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	<1

ADDITIVES

method	limit/base	current	history1	history2		
Boron	ppm	ASTM D5185m	0	6	6	10
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	53	55	54
Manganese	ppm	ASTM D5185m	0	3	<1	<1
Magnesium	ppm	ASTM D5185m	1010	691	881	863
Calcium	ppm	ASTM D5185m	1070	1044	990	1055
Phosphorus	ppm	ASTM D5185m	1150	774	936	929
Zinc	ppm	ASTM D5185m	1270	991	1153	1111
Sulfur	ppm	ASTM D5185m	2060	2489	3403	3444

CONTAMINANTS

method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185m	>25	▲ 35	4	2
Sodium	ppm	ASTM D5185m		40	4	1
Potassium	ppm	ASTM D5185m	>20	10	1	0

INFRA-RED

method	limit/base	current	history1	history2		
Soot %	%	*ASTM D7844	>6	1.2	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	14.5	6.4	7.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	27.4	17.4	18.7

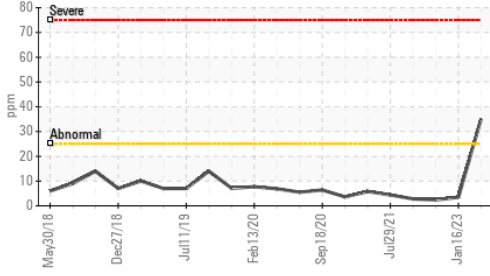
FLUID DEGRADATION

method	limit/base	current	history1	history2		
Oxidation	Abs/.1mm	*ASTM D7414	>25	27.6	13.7	15.3
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	5.3	9.3	9.4

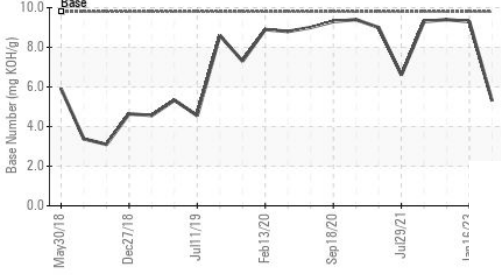


OIL ANALYSIS REPORT

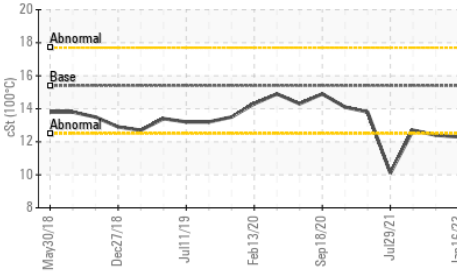
▲ Silicon (ppm)



Base Number



Viscosity @ 100°C

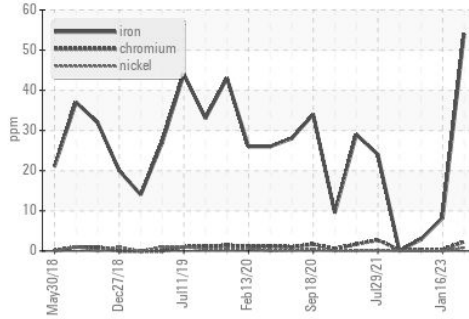


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

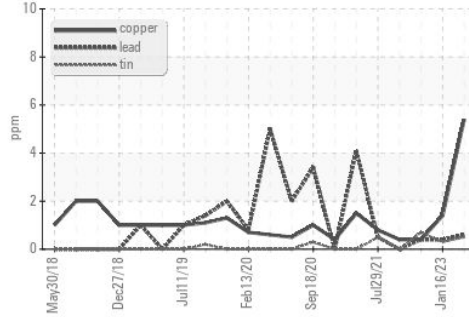
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.0	12.3 ▲ 12.4

GRAPHS

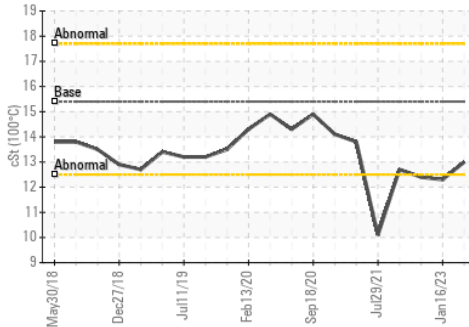
Ferrous Alloys



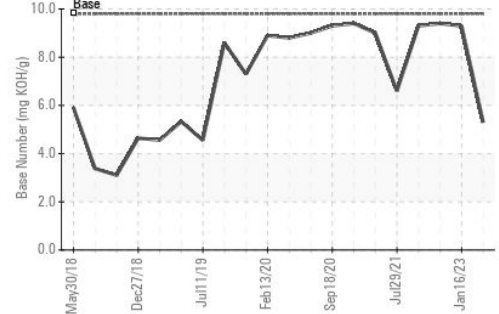
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0058848 **Received** : 31 Aug 2023
Lab Number : 05939468 **Diagnosed** : 01 Sep 2023
Unique Number : 10630080 **Diagnostician** : Don Baldrige
Test Package : FLEET

GFL Environmental - 005 - Wilson/Tri-East(CNG)
 2810 Contentnea Road S
 Wilson, NC
 US 27893-8501
 Contact: SPENCER LIGGON
 spencer.liggon@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)