



WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	NORMAL



Machine Id
7809M
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- QTS)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0108877	GFL0101509	GFL0072904
Sample Date		Client Info		19 Mar 2024	01 Dec 2023	25 Apr 2023
Machine Age	hrs	Client Info		4590	4350	3572
Oil Age	hrs	Client Info		4590	0	720
Filter Age	hrs	Client Info		0	0	720
Oil Changed		Client Info		Not Chngd	Changed	Changed
Filter Changed		Client Info		Not Chngd	Changed	Changed
Sample Status				MARGINAL	SEVERE	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	28	7	35
Chromium	ppm	ASTM D5185m	>20	0	0	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m	>2	0	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	6	<1	3
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	0	0	<1
Tin	ppm	ASTM D5185m	>15	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

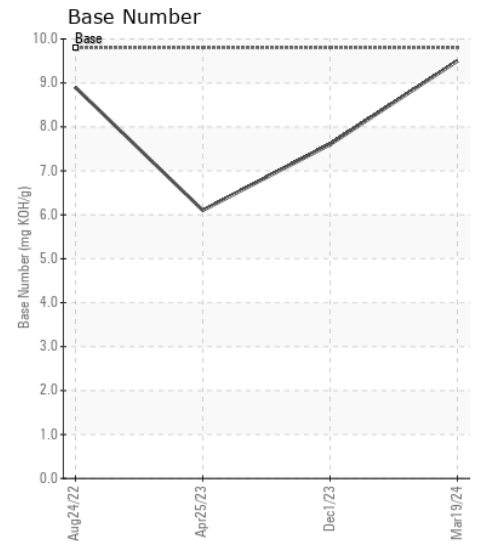
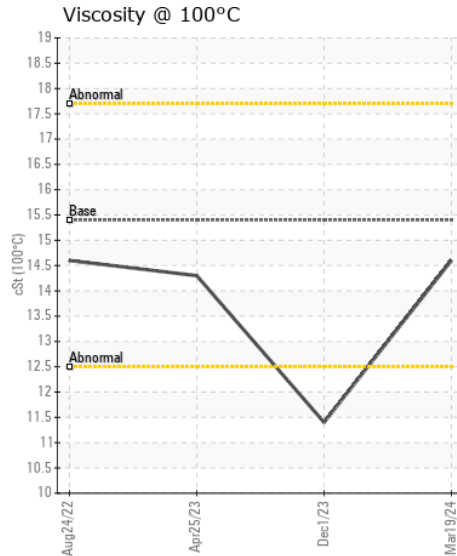
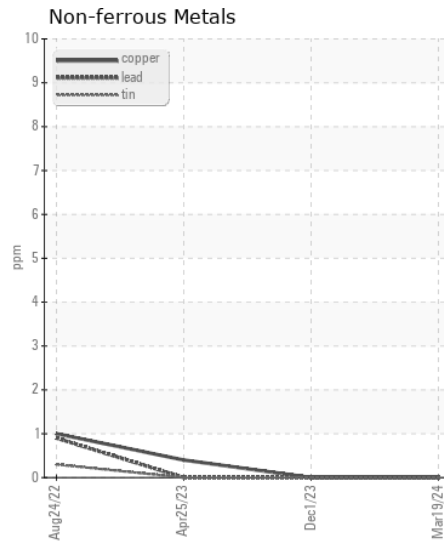
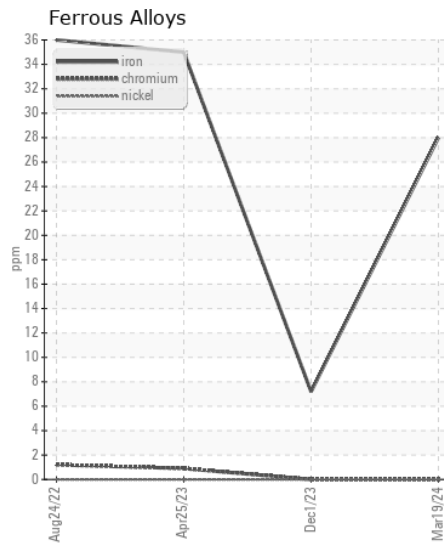
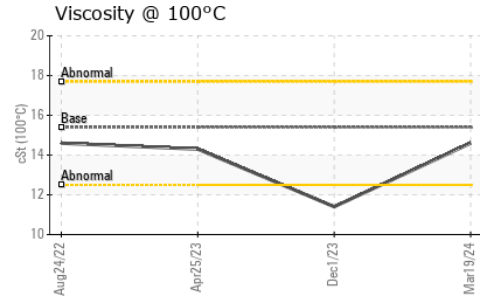
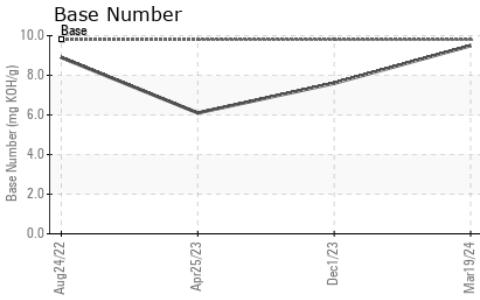
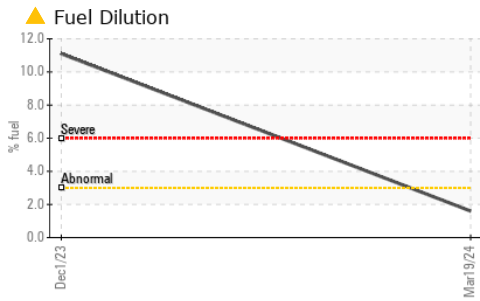
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185m	>25	4	2	5
Potassium	ppm	ASTM D5185m	>20	12	0	2
Fuel	%	ASTM D3524	>3.0	▲ 1.6	▲ 11.1	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	1.4	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	11.6	8.2	10.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.4	19.3	22.2
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

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		18	5	6
Boron	ppm	ASTM D5185m	0	<1	0	3
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	56	46	61
Manganese	ppm	ASTM D5185m	0	0	0	<1
Magnesium	ppm	ASTM D5185m	1010	937	782	956
Calcium	ppm	ASTM D5185m	1070	1046	903	1172
Phosphorus	ppm	ASTM D5185m	1150	1043	733	1009
Zinc	ppm	ASTM D5185m	1270	1230	1039	1283
Sulfur	ppm	ASTM D5185m	2060	3410	2418	2798
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.0	15.8	22.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	9.5	7.6	6.1
Visc @ 100°C	cSt	ASTM D445	15.4	14.6	▲ 11.4	14.3



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0108877 **Received** : 21 Mar 2024
Lab Number : 06124610 **Tested** : 22 Mar 2024
Unique Number : 10938761 **Diagnosed** : 22 Mar 2024 - Wes Davis
Test Package : FLEET (Additional Tests: PercentFuel)

GFL Environmental - 415 - Michigan East
 6200 Elmridge
 Sterling Heights, MI
 US 48313
 Contact: Frank Wolak
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 T: (586)825-9514
 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)