



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
4556M
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0108875	GFL0101481	GFL0101455
Sample Date		Client Info		19 Mar 2024	04 Dec 2023	28 Nov 2023
Machine Age	hrs	Client Info		13167	12629	12598
Oil Age	hrs	Client Info		13167	12598	11351
Filter Age	hrs	Client Info		0	12598	11351
Oil Changed		Client Info		Not Changd	Not Changd	Changed
Filter Changed		Client Info		Not Changd	Not Changd	Changed
Sample Status				NORMAL	NORMAL	SEVERE

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	29	51	▲ 371
Chromium	ppm	ASTM D5185m	>20	0	<1	10
Nickel	ppm	ASTM D5185m	>2	0	0	3
Titanium	ppm	ASTM D5185m	>2	0	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	6	2	● 10
Lead	ppm	ASTM D5185m	>40	0	0	5
Copper	ppm	ASTM D5185m	>330	0	2	17
Tin	ppm	ASTM D5185m	>15	0	0	2
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

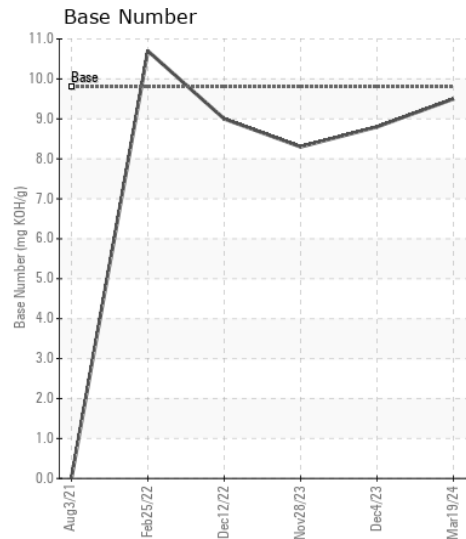
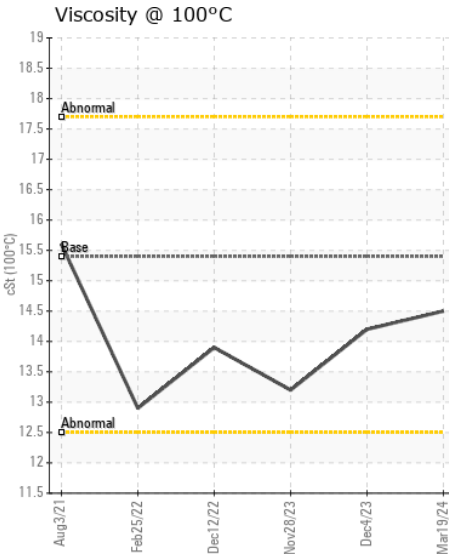
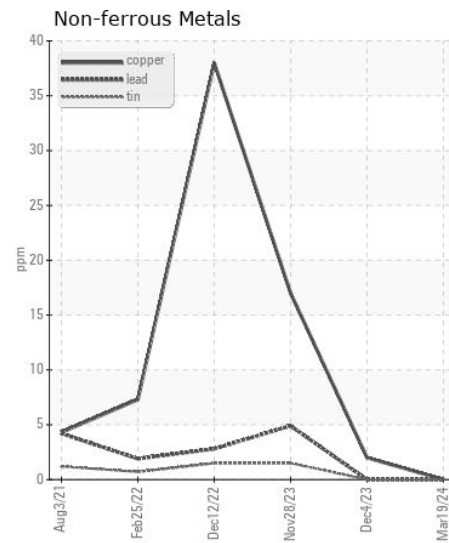
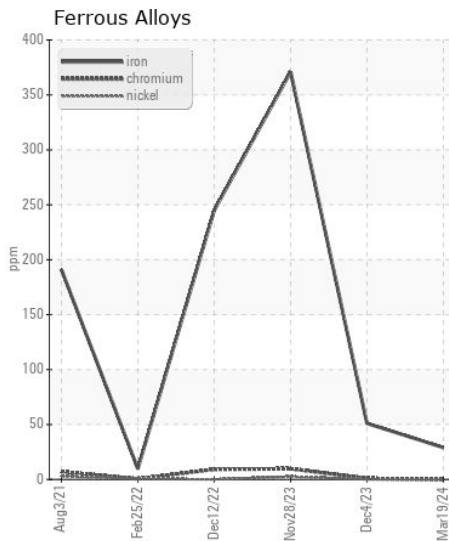
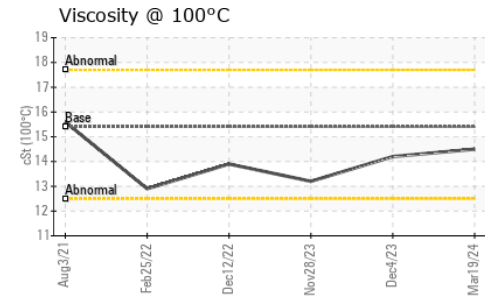
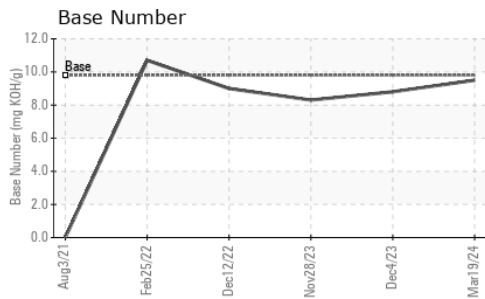
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	4	6	▲ 33
Potassium	ppm	ASTM D5185m	>20	12	2	9
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	▲ 0.06
Soot %	%	*ASTM D7844	>6	1.4	0.6	3.3
Nitration	Abs/cm	*ASTM D7624	>20	11.6	6.8	17.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.5	19.2	31.6
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		17	2	▲ 348
Boron	ppm	ASTM D5185m	0	<1	0	10
Barium	ppm	ASTM D5185m	0	0	2	0
Molybdenum	ppm	ASTM D5185m	60	56	55	62
Manganese	ppm	ASTM D5185m	0	0	0	3
Magnesium	ppm	ASTM D5185m	1010	944	853	858
Calcium	ppm	ASTM D5185m	1070	1052	1005	1014
Phosphorus	ppm	ASTM D5185m	1150	1045	903	914
Zinc	ppm	ASTM D5185m	1270	1251	1113	1125
Sulfur	ppm	ASTM D5185m	2060	3459	3074	2188
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.0	15.2	29.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	9.5	8.8	8.3
Visc @ 100°C	cSt	ASTM D445	15.4	14.5	14.2	13.2



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0108875
Lab Number : 06124612
Unique Number : 10938763
Test Package : FLEET
Received : 21 Mar 2024
Tested : 22 Mar 2024
Diagnosed : 22 Mar 2024 - Wes Davis

GFL Environmental - 415 - Michigan East
 6200 Elmridge
 Sterling Heights, MI
 US 48313
 Contact: Frank Wolak
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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)