



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
914044
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0110169	GFL0110191	GFL0110174
Sample Date		Client Info		22 Apr 2024	07 Feb 2024	22 Jan 2024
Machine Age	hrs	Client Info		1264	713	560
Oil Age	hrs	Client Info		600	200	560
Filter Age	hrs	Client Info		600	200	560
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	Not Changd	Changed
Sample Status				ABNORMAL	NORMAL	ABNORMAL

WEAR

The copper level is abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>110	23	5	36
Chromium	ppm	ASTM D5185m	>4	2	0	1
Nickel	ppm	ASTM D5185m	>2	2	1	7
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>2	<1	<1	<1
Aluminum	ppm	ASTM D5185m	>25	3	2	5
Lead	ppm	ASTM D5185m	>45	<1	0	1
Copper	ppm	ASTM D5185m	>85	▲ 79	17	▲ 131
Tin	ppm	ASTM D5185m	>4	2	<1	3
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

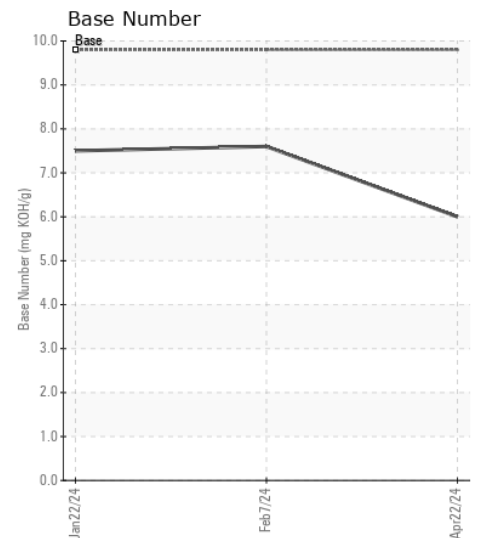
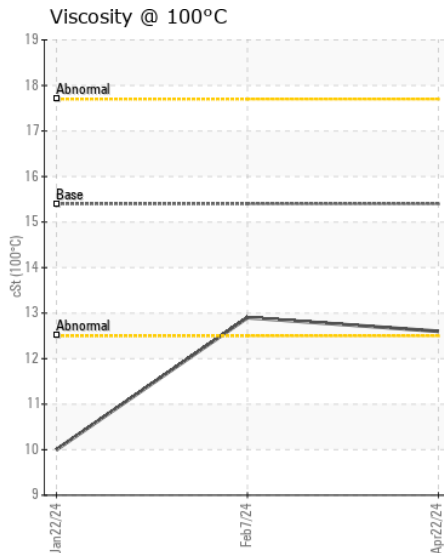
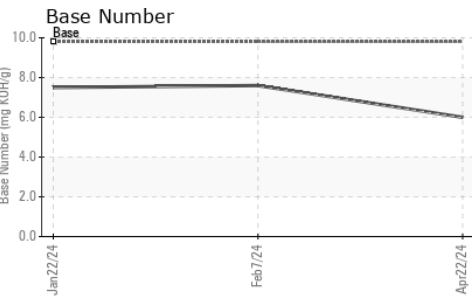
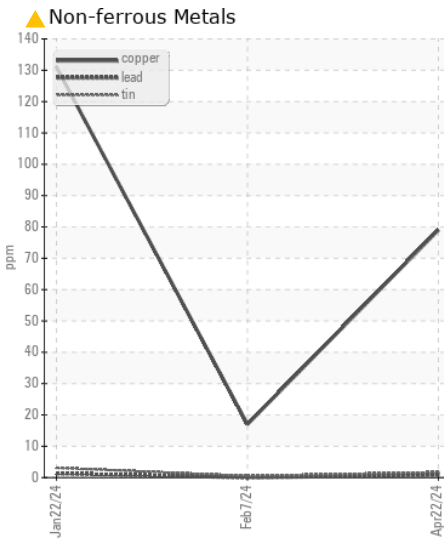
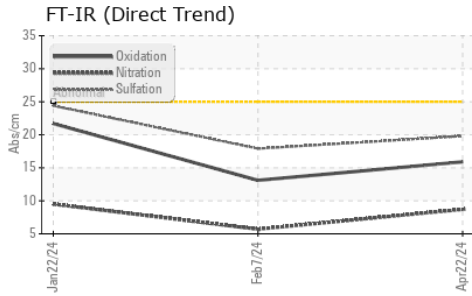
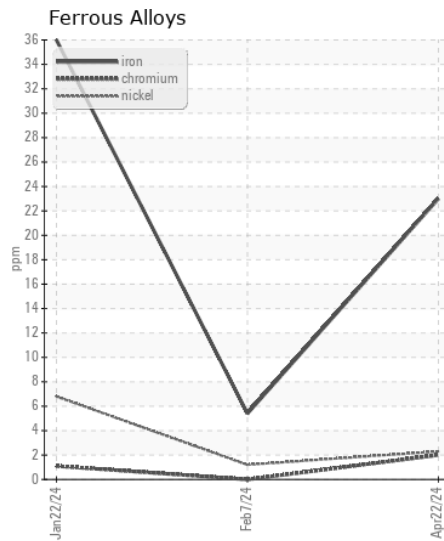
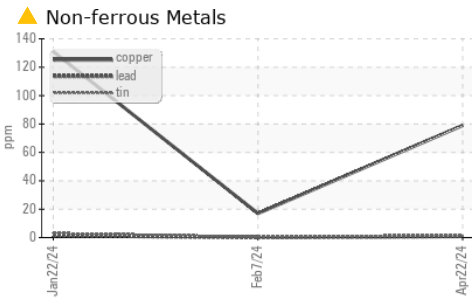
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>30	12	13	▲ 78
Potassium	ppm	ASTM D5185m	>20	2	<1	6
Fuel		WC Method	>5	<1.0	<1.0	0.4
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.5	0.2	0.4
Nitration	Abs/cm	*ASTM D7624	>20	8.7	5.7	9.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.8	17.9	24.4
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		3	<1	4
Boron	ppm	ASTM D5185m	0	17	23	190
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	62	59	103
Manganese	ppm	ASTM D5185m	0	2	<1	4
Magnesium	ppm	ASTM D5185m	1010	851	834	665
Calcium	ppm	ASTM D5185m	1070	1106	1019	1342
Phosphorus	ppm	ASTM D5185m	1150	1058	1009	674
Zinc	ppm	ASTM D5185m	1270	1171	1190	767
Sulfur	ppm	ASTM D5185m	2060	2918	3078	2124
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.9	13.1	21.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	6.0	7.6	7.5
Visc @ 100°C	cSt	ASTM D445	15.4	12.6	12.9	● 10.0



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0110169
Lab Number : 06161131
Unique Number : 10996554
Test Package : FLEET

Received : 25 Apr 2024
Tested : 29 Apr 2024
Diagnosed : 29 Apr 2024 - Don Baldrige

GFL Environmental - 660 - Lynchburg Hauling
 2410 Mayflower Drive
 Lynchburg, VA
 US 24501

Contact: Delbert Beasley
 dbeasley@countyrecycling.net

T: (434)665-5998

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)