



Machine Id
10682
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (40 GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. We recommend that you drain the oil from the component if this has not already been done. We advise that you flush the component thoroughly before re-filling with oil. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0099016	GFL0098880	GFL0098938
Sample Date		Client Info		02 Apr 2024	20 Mar 2024	05 Feb 2024
Machine Age	hrs	Client Info		18697	18697	18697
Oil Age	hrs	Client Info		18544	18544	18544
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		None	None	N/A
Sample Status				SEVERE	SEVERE	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	30	20	6
Chromium	ppm	ASTM D5185m	>5	2	1	<1
Nickel	ppm	ASTM D5185m	>4	1	<1	0
Titanium	ppm	ASTM D5185m	>2	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	<1	<1	0
Aluminum	ppm	ASTM D5185m	>15	3	2	1
Lead	ppm	ASTM D5185m	>25	3	1	0
Copper	ppm	ASTM D5185m	>100	2	1	<1
Tin	ppm	ASTM D5185m	>4	1	<1	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

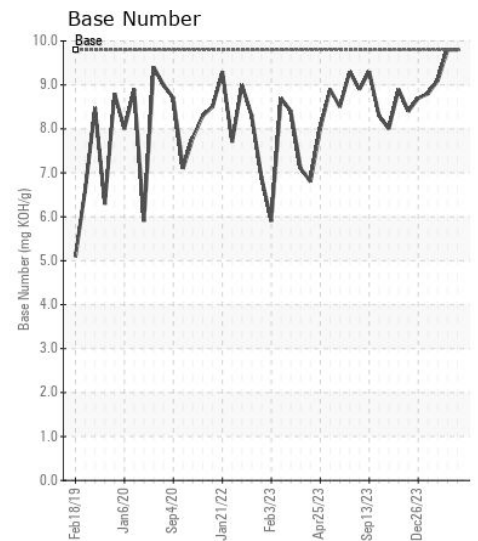
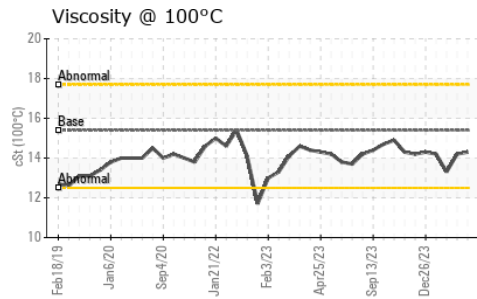
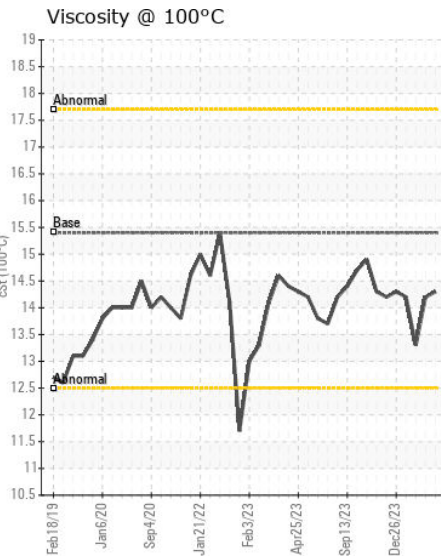
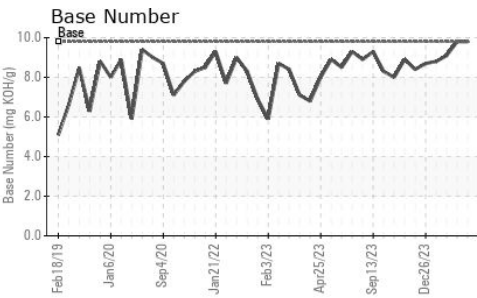
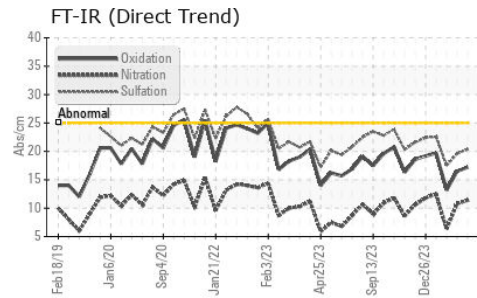
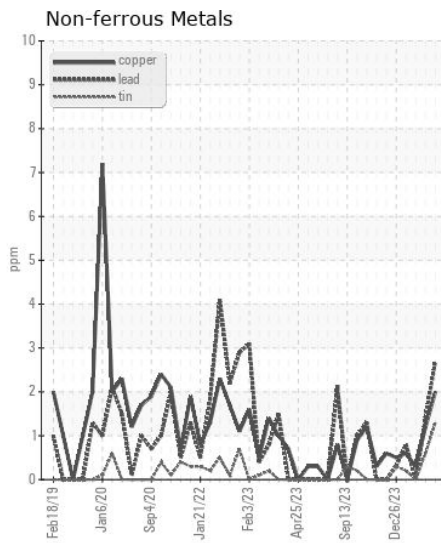
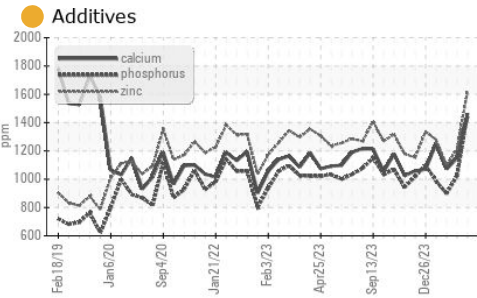
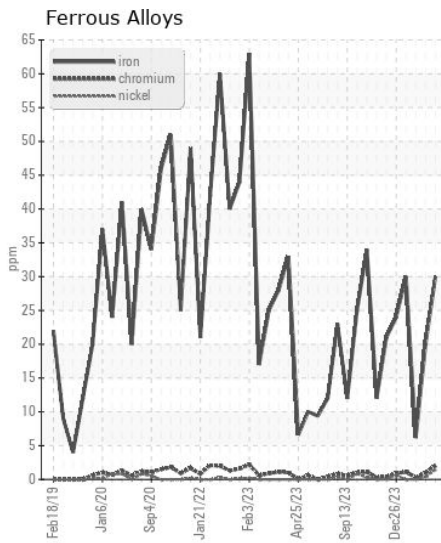
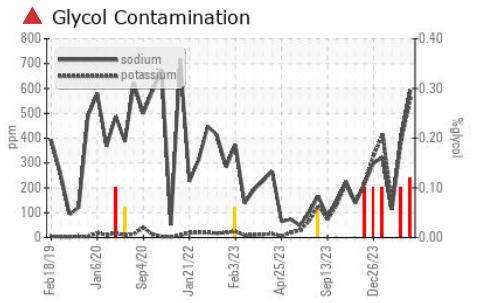
Test for glycol is positive. There is a high concentration of glycol present in the oil.

Silicon	ppm	ASTM D5185m	>25	9	7	6
Potassium	ppm	ASTM D5185m	>20	558	390	129
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		0.12	0.10	NEG
Soot %	%	*ASTM D7844	>6	0.2	0.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	11.4	10.8	6.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.4	19.6	17.5
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

Additive levels indicate the addition of a different brand, or type of 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.

Sodium	ppm	ASTM D5185m		593	404	113
Boron	ppm	ASTM D5185m	0	<1	<1	2
Barium	ppm	ASTM D5185m	0	<1	0	11
Molybdenum	ppm	ASTM D5185m	60	114	88	59
Manganese	ppm	ASTM D5185m	0	1	<1	0
Magnesium	ppm	ASTM D5185m	1010	1167	895	792
Calcium	ppm	ASTM D5185m	1070	1442	1150	1072
Phosphorus	ppm	ASTM D5185m	1150	1472	1024	897
Zinc	ppm	ASTM D5185m	1270	1626	1212	1102
Sulfur	ppm	ASTM D5185m	2060	4603	3043	3155
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.2	16.5	13.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	9.8	9.8	9.1
Visc @ 100°C	cSt	ASTM D445	15.4	14.3	14.2	13.3



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0099016
Lab Number : 06152733
Unique Number : 10982811
Test Package : FLEET

Received : 18 Apr 2024
Tested : 19 Apr 2024
Diagnosed : 19 Apr 2024 - Wes Davis

GFL Environmental - 084 - Clarksville
 699 Jack Miller Boulevard
 Clarksville, TN
 US 37042

Contact: ROBERT THIBAUT
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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)