



Area
(YA156332)
Machine Id
910027
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (8 GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0115976	GFL0089968	GFL0080556
Sample Date		Client Info		29 May 2024	24 Oct 2023	04 Oct 2023
Machine Age	hrs	Client Info		2632	2632	2632
Oil Age	hrs	Client Info		0	2632	2632
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	N/A	Changed
Filter Changed		Client Info		N/A	N/A	Changed
Sample Status				SEVERE	SEVERE	SEVERE

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>165	31	33	23
Chromium	ppm	ASTM D5185m	>5	5	8	6
Nickel	ppm	ASTM D5185m	>4	<1	2	<1
Titanium	ppm	ASTM D5185m	>2	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	6	3	2
Lead	ppm	ASTM D5185m	>150	4	39	20
Copper	ppm	ASTM D5185m	>90	5	4	2
Tin	ppm	ASTM D5185m	>5	1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

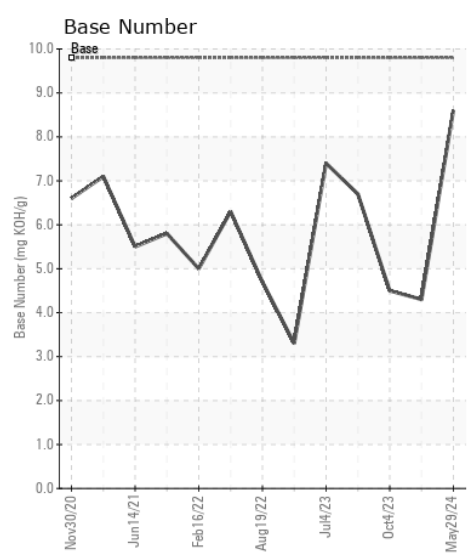
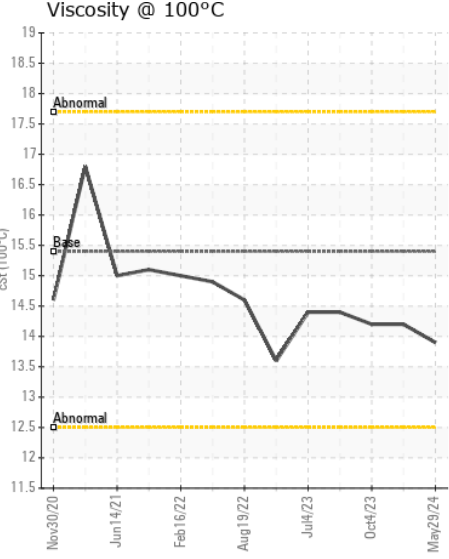
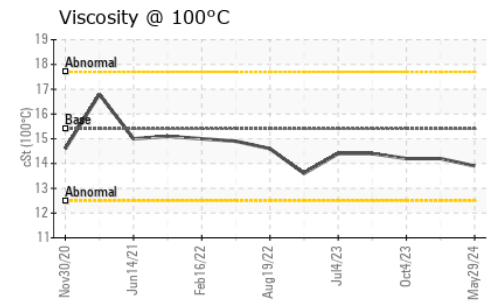
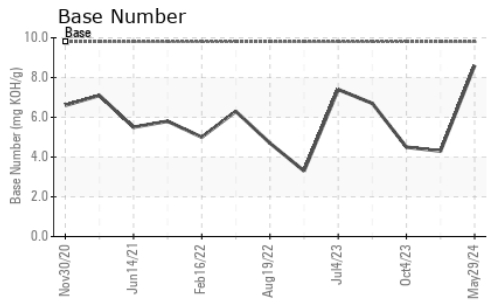
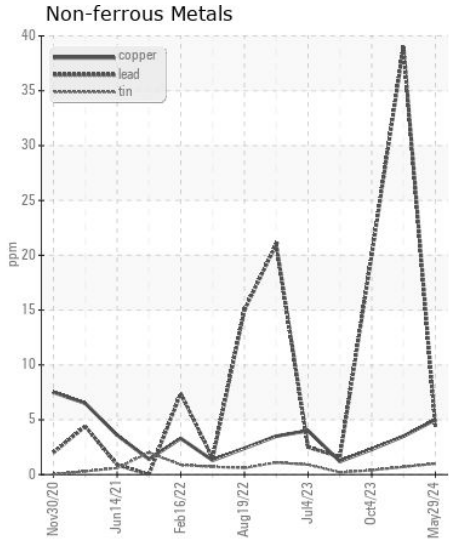
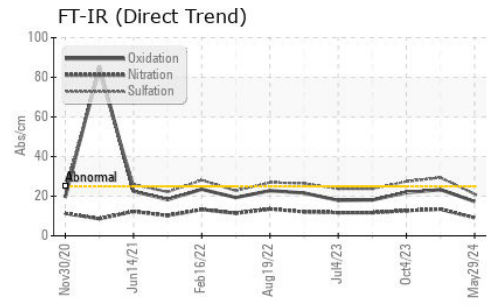
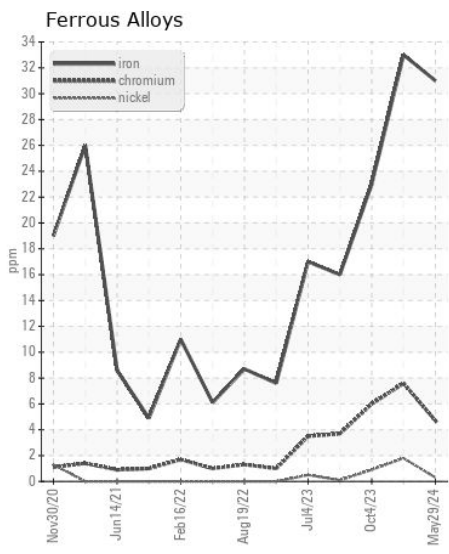
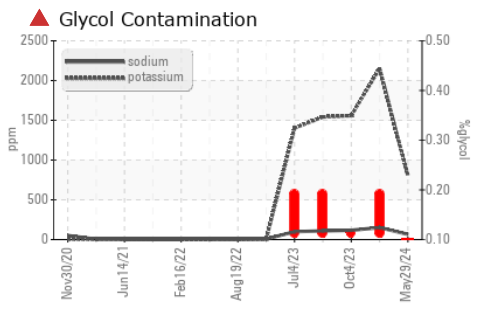
Test for glycol is positive. There is a high concentration of glycol present in the oil.

Silicon	ppm	ASTM D5185m	>35	15	12	10
Potassium	ppm	ASTM D5185m	>20	804	2152	1559
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		0.10	0.20	0.12
Soot %	%	*ASTM D7844	>7.5	0.1	0.1	0
Nitration	Abs/cm	*ASTM D7624	>20	9.1	13.5	12.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.1	29.4	27.4
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 oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m		66	151	117
Boron	ppm	ASTM D5185m	0	20	6	7
Barium	ppm	ASTM D5185m	0	<1	3	0
Molybdenum	ppm	ASTM D5185m	60	60	64	58
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	850	593	632
Calcium	ppm	ASTM D5185m	1070	1378	1703	1701
Phosphorus	ppm	ASTM D5185m	1150	919	792	759
Zinc	ppm	ASTM D5185m	1270	1056	1082	1088
Sulfur	ppm	ASTM D5185m	2060	3179	3097	2838
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.3	23.3	21.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.6	4.3	4.5
Visc @ 100°C	cSt	ASTM D445	15.4	13.9	14.2	14.2



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0115976
Lab Number : 06195094
Unique Number : 11057217
Test Package : FLEET
Received : 30 May 2024
Tested : 31 May 2024
Diagnosed : 31 May 2024 - Wes Davis

GFL Environmental - 018 - Fayetteville
 4621 Marracco Drive
 Hope Mills, NC
 US 28348
 Contact: Robert Carter
 robert.carter@gflenv.com
 T: (910)596-1170
 F:

Certificate L2367
 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)