



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ATTENTION

Machine Id
526
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON HP 15W40 (--- 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. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0851026	WC0906266	WC0727377
Sample Date		Client Info		25 Apr 2024	11 Mar 2024	21 Feb 2023
Machine Age	mls	Client Info		5000	0	0
Oil Age	mls	Client Info		5000	0	0
Filter Age	mls	Client Info		5000	0	0
Oil Changed		Client Info		Not Changd	N/A	Not Changd
Filter Changed		Client Info		Not Changd	N/A	Not Changd
Sample Status				SEVERE	SEVERE	ABNORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	25	▲ 134	36
Chromium	ppm	ASTM D5185m	>20	1	5	2
Nickel	ppm	ASTM D5185m	>4	<1	<1	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	5	▲ 29	15
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	3	5	2
Tin	ppm	ASTM D5185m	>15	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

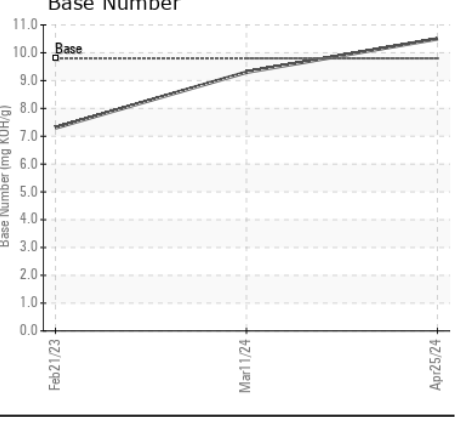
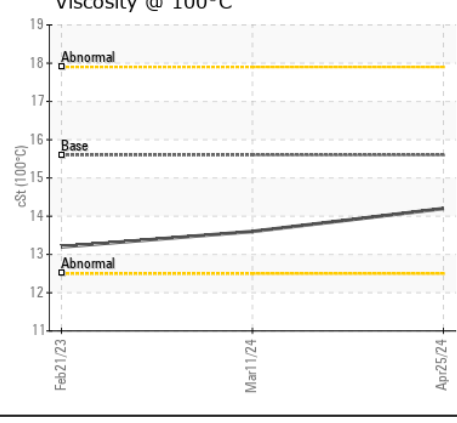
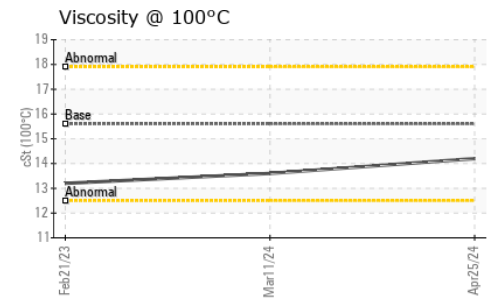
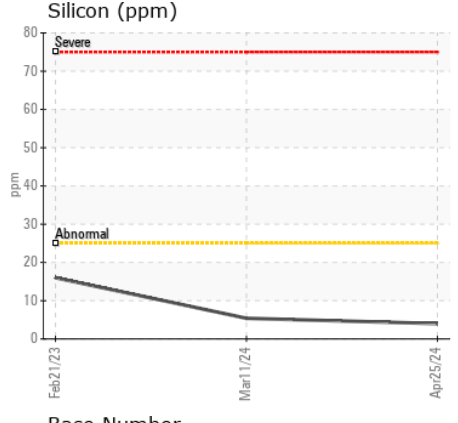
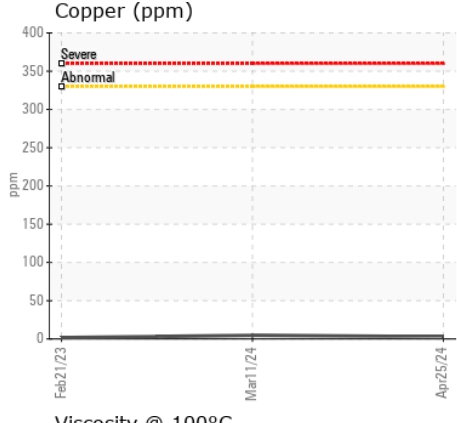
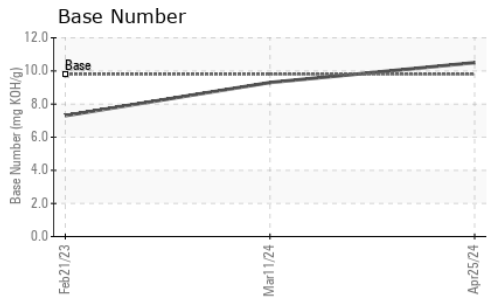
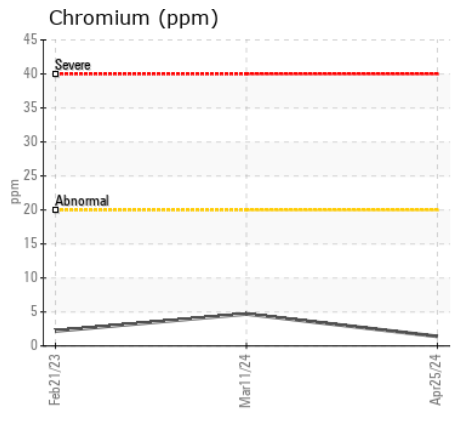
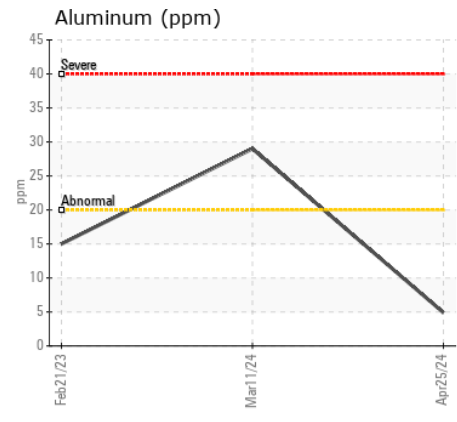
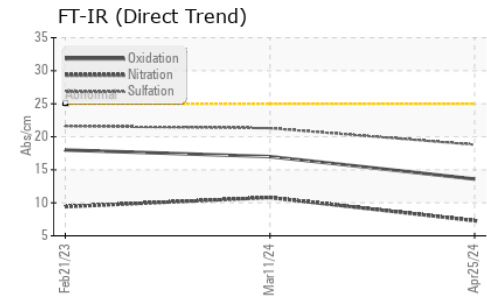
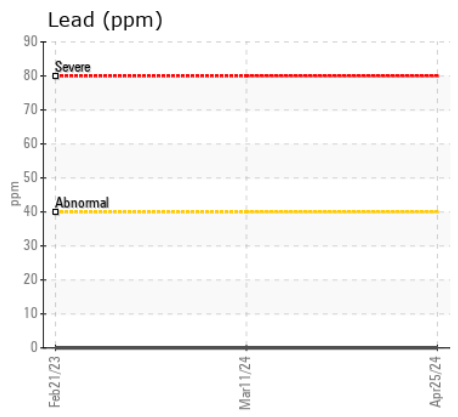
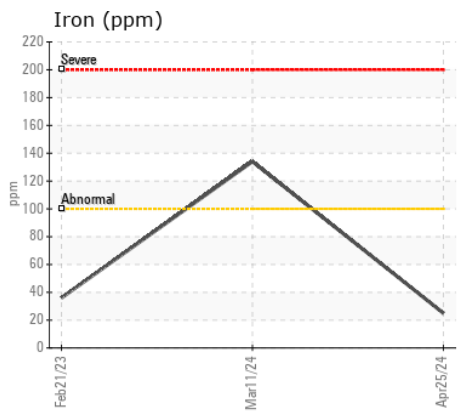
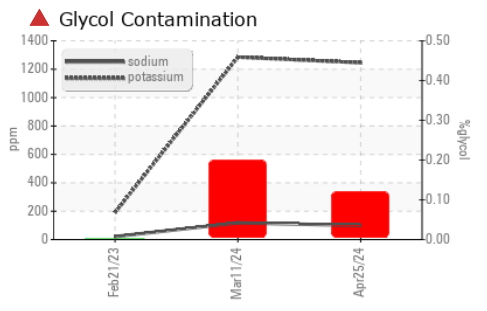
Test for glycol is positive. There is a high concentration of glycol present in the oil.

Silicon	ppm	ASTM D5185m	>25	4	5	16
Potassium	ppm	ASTM D5185m	>20	▲ 1246	▲ 1285	▲ 190
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		▲ 0.12	▲ 0.20	0.0
Soot %	%	*ASTM D7844	>3	0.3	0.6	0.5
Nitration	Abs/cm	*ASTM D7624	>20	7.3	10.8	9.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.8	21.3	21.6
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 oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m		● 99	▲ 118	21
Boron	ppm	ASTM D5185m		4	11	156
Barium	ppm	ASTM D5185m		0	0	<1
Molybdenum	ppm	ASTM D5185m		66	79	51
Manganese	ppm	ASTM D5185m		0	1	<1
Magnesium	ppm	ASTM D5185m		761	874	348
Calcium	ppm	ASTM D5185m		1222	1176	1710
Phosphorus	ppm	ASTM D5185m		1036	942	872
Zinc	ppm	ASTM D5185m		1184	1195	1092
Sulfur	ppm	ASTM D5185m		3462	3618	3476
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.6	17.0	18.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	10.5	9.3	7.3
Visc @ 100°C	cSt	ASTM D445	15.6	14.2	13.6	13.2



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0851026 **Received** : 14 May 2024
Lab Number : 06178558 **Tested** : 16 May 2024
Unique Number : 11029884 **Diagnosed** : 16 May 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: TBN)

WAYNE CO SCHOOL BUS GARAGE
 1603 SALEM CHURCH RD
 GOLDSBORO, NC
 US 27530
 Contact: BRANDON BRIGGS
 brandonbriggs@wcps.org

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)