

Machine Id
69
Component
Diesel Engine
Fluid
PETRO CANADA DURON HP 15W40 (--- GAL)

RECOMMENDATION

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		PC0078524	PC0077497	PC0032819
Sample Date		Client Info		27 Dec 2023	14 Sep 2023	17 Feb 2023
Machine Age	kms	Client Info		18358	12162	105682
Oil Age	kms	Client Info		8000	8000	8000
Filter Age	kms	Client Info		8000	8000	8000
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	MARGINAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>200	6	23	14
Chromium	ppm	ASTM D5185(m)	>20	<1	2	<1
Nickel	ppm	ASTM D5185(m)	>2	0	0	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	<1
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>30	1	3	2
Lead	ppm	ASTM D5185(m)	>30	<1	13	6
Copper	ppm	ASTM D5185(m)	>30	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>15	0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

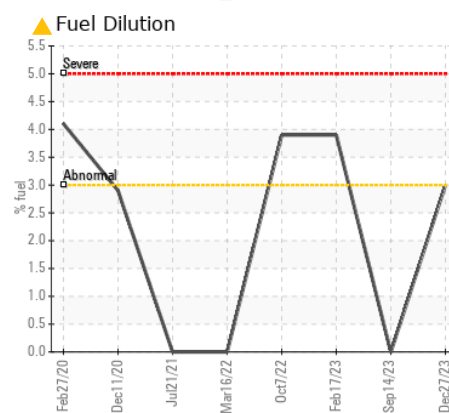
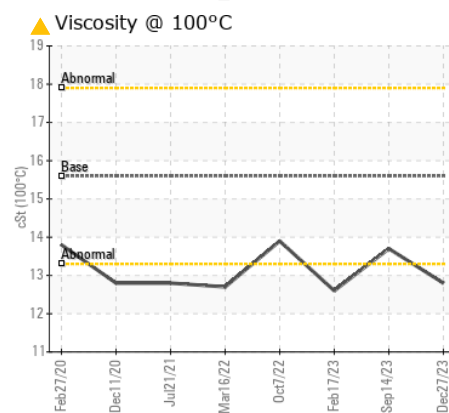
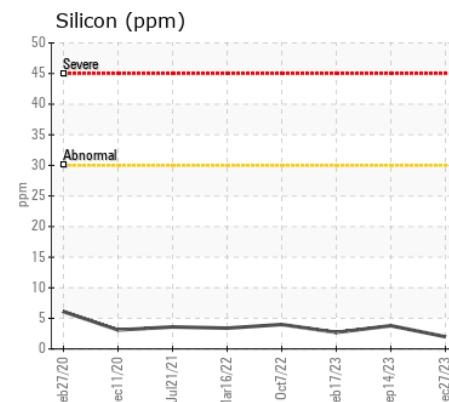
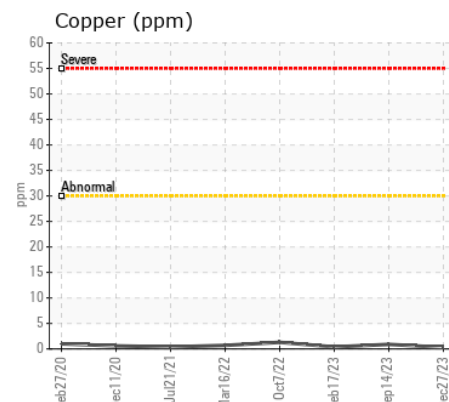
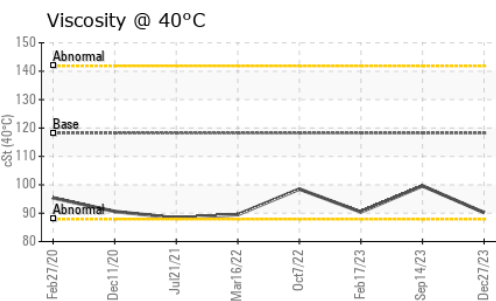
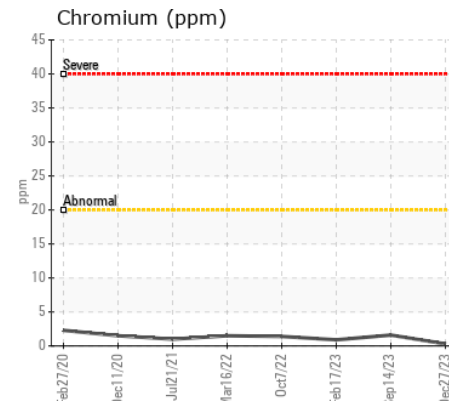
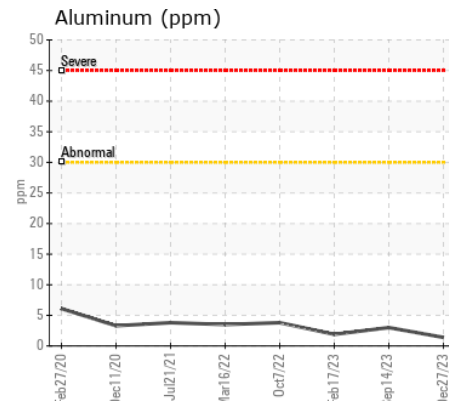
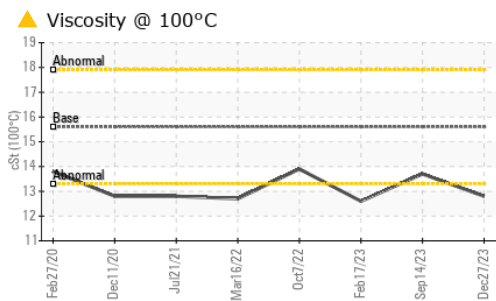
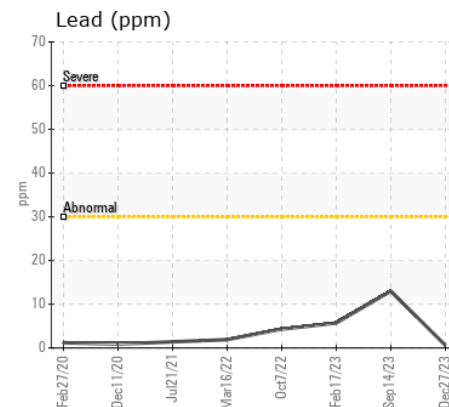
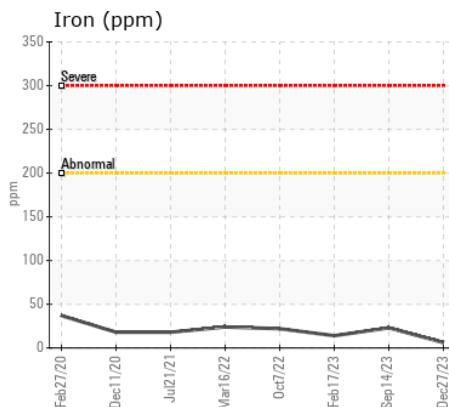
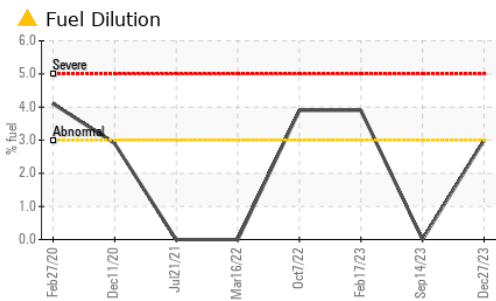
There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185(m)	>30	2	4	3
Potassium	ppm	ASTM D5185(m)	>20	<1	2	<1
Fuel	%	ASTM D7593*	>3.0	▲ 3	<1.0	▲ 3.9
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0.5	2.1	1.1
Nitration	Abs/cm	ASTM D7624*	>20	8.8	11.5	11.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.9	25.7	25.4
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		2	5	2
Boron	ppm	ASTM D5185(m)	0	17	4	2
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	56	59	63
Manganese	ppm	ASTM D5185(m)	0	0	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	837	964	1009
Calcium	ppm	ASTM D5185(m)	1070	1218	1106	1129
Phosphorus	ppm	ASTM D5185(m)	1150	1020	1067	1139
Zinc	ppm	ASTM D5185(m)	1270	1157	1194	1203
Sulfur	ppm	ASTM D5185(m)	2060	2876	2614	2734
Oxidation	Abs/.1mm	ASTM D7414*	>25	17.0	19.9	19.9
Visc @ 40°C	cSt	ASTM D7279(m)	118.2	90.2	99.6	90.4
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	▲ 12.8	13.7	12.6
Viscosity Index (VI)	Scale	ASTM D2270*	139	139	138	135



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0078524 **Received** : 22 Jan 2024
Lab Number : 02610154 **Diagnosed** : 23 Jan 2024
Unique Number : 5711240 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: FuelDilution, KV40, PercentFuel, VI)

BEAVER BUS LINES
 339, ACHIBAULD ST
 WINNIPEG, MB
 CA R2J 0W6
 Contact: Roger Roman
 roger@beaverbus.com
 T: (204)989-7033
 F: (204)237-2645

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.