OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL

Machine Id
729
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- QTS)

RECOMMENDATION

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.

WEAR

All component wear rates are normal.

CONTAMINATION

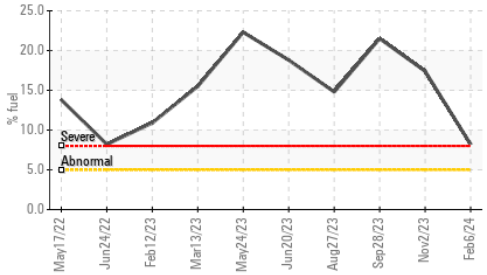
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

FLUID CONDITION

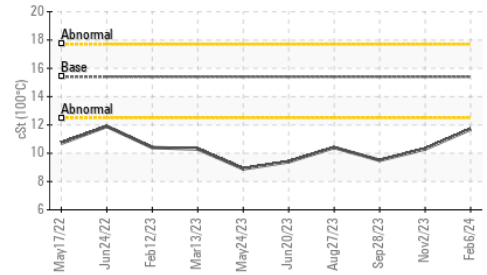
The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0817197	WC0773726	WC0773708
Sample Date		Client Info		06 Feb 2024	02 Nov 2023	28 Sep 2023
Machine Age	hrs	Client Info		25618	0	25211
Oil Age	hrs	Client Info		0	0	25211
Filter Age	hrs	Client Info		0	0	25211
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				SEVERE	SEVERE	SEVERE
Iron	ppm	ASTM D5185m	>100	3	3	<1
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	<1	2	<1
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	0	0	0
Tin	ppm	ASTM D5185m	>15	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	2	3	3
Potassium	ppm	ASTM D5185m	>20	0	1	0
Fuel	%	ASTM D3524	>5	8.2	17.4	21.5
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	5.7	6.5	7.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.9	21.0	21.4
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
Sodium	ppm	ASTM D5185m		0	0	0
Boron	ppm	ASTM D5185m	0	5	1	1
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	56	50	44
Manganese	ppm	ASTM D5185m	0	<1	0	<1
Magnesium	ppm	ASTM D5185m	1010	851	784	808
Calcium	ppm	ASTM D5185m	1070	932	883	848
Phosphorus	ppm	ASTM D5185m	1150	858	876	838
Zinc	ppm	ASTM D5185m	1270	1115	1052	1036
Sulfur	ppm	ASTM D5185m	2060	2881	2840	2564
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.0	20.5	21.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.1	7.6	7.3
Visc @ 100°C	cSt	ASTM D445	15.4	11.7	10.3	9.5

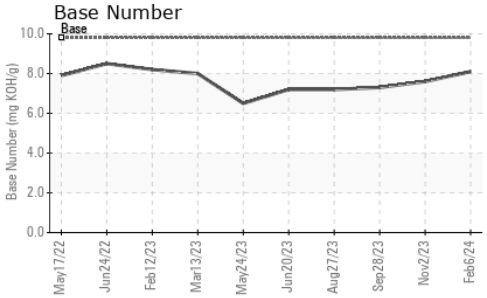
Fuel Dilution



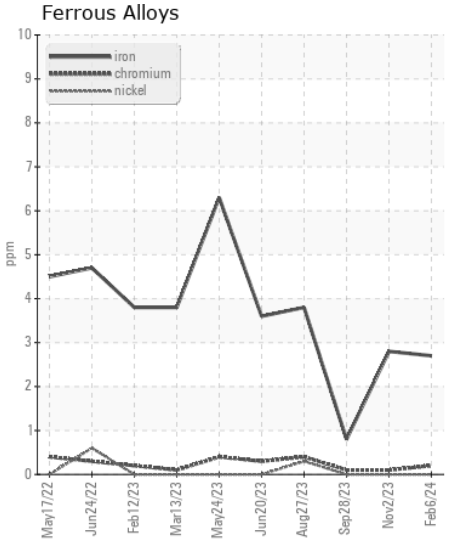
Viscosity @ 100°C



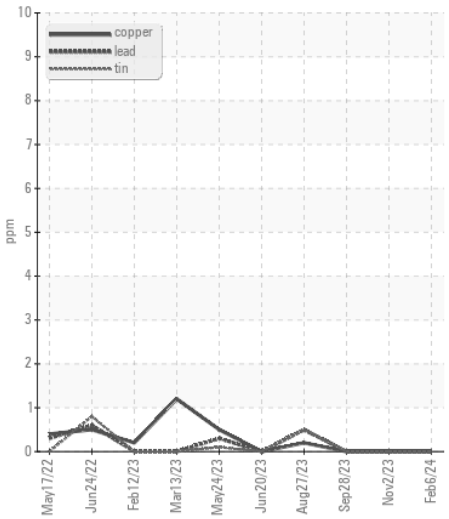
Base Number



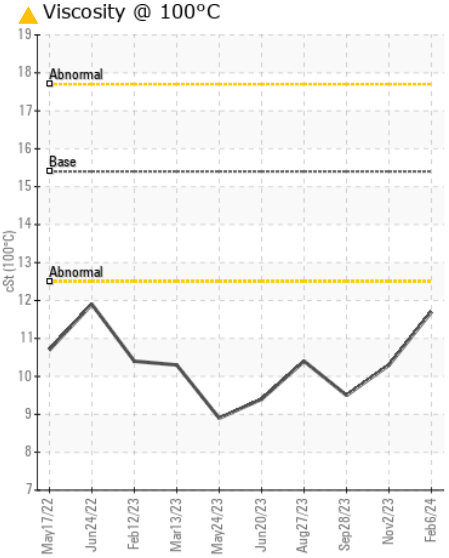
Ferrous Alloys



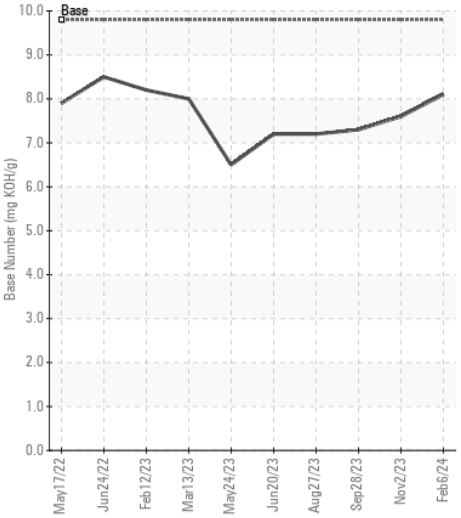
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0817197
Lab Number : 06089259
Unique Number : 10876704
Test Package : FLEET (Additional Tests: PercentFuel)

Received : 14 Feb 2024
Tested : 16 Feb 2024
Diagnosed : 16 Feb 2024 - Wes Davis

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)

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