NationaLease

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
8764
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

WEAR

Metal levels are typical for a new component breaking in.

CONTAMINATION

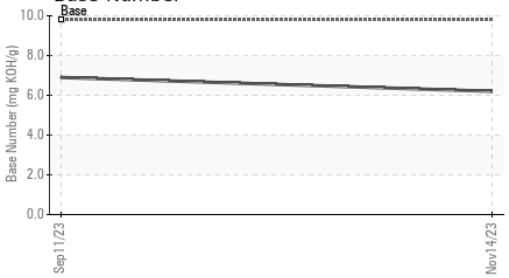
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

FLUID CONDITION

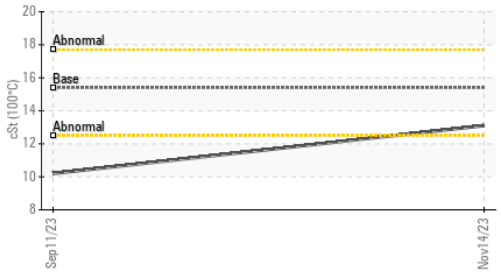
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		NL0001786	NL0000566	---
Sample Date		Client Info		14 Nov 2023	11 Sep 2023	---
Machine Age	mls	Client Info		70124	30908	---
Oil Age	mls	Client Info		45000	30000	---
Filter Age	mls	Client Info		45000	30000	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	ATTENTION	---
Iron	ppm	ASTM D5185m	>100	24	43	---
Chromium	ppm	ASTM D5185m	>20	<1	<1	---
Nickel	ppm	ASTM D5185m	>4	0	<1	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m	>3	0	<1	---
Aluminum	ppm	ASTM D5185m	>20	21	40	---
Lead	ppm	ASTM D5185m	>40	<1	<1	---
Copper	ppm	ASTM D5185m	>330	128	157	---
Tin	ppm	ASTM D5185m	>15	3	6	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Silicon	ppm	ASTM D5185m	>25	10	61	---
Potassium	ppm	ASTM D5185m	>20	58	122	---
Fuel		WC Method	>5	<1.0	0.3	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.7	0.5	---
Nitration	Abs/cm	*ASTM D7624	>20	9.6	10.7	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.1	24.3	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	---
Sodium	ppm	ASTM D5185m		0	<1	---
Boron	ppm	ASTM D5185m	0	3	92	---
Barium	ppm	ASTM D5185m	0	<1	5	---
Molybdenum	ppm	ASTM D5185m	60	68	124	---
Manganese	ppm	ASTM D5185m	0	<1	3	---
Magnesium	ppm	ASTM D5185m	1010	865	684	---
Calcium	ppm	ASTM D5185m	1070	1113	1434	---
Phosphorus	ppm	ASTM D5185m	1150	871	732	---
Zinc	ppm	ASTM D5185m	1270	1092	819	---
Sulfur	ppm	ASTM D5185m	2060	2231	2494	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.4	22.9	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	6.2	6.9	---
Visc @ 100°C	cSt	ASTM D445	15.4	13.1	▲ 10.2	---

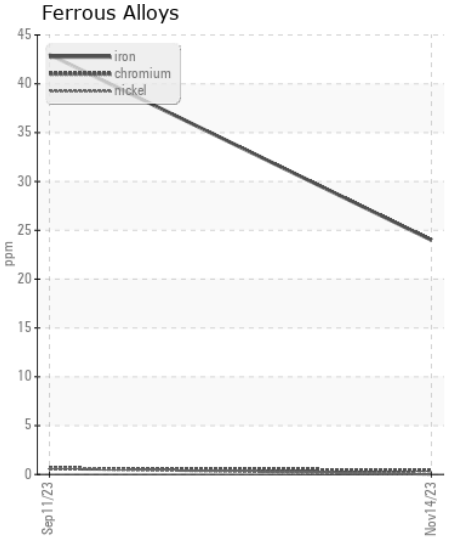
Base Number



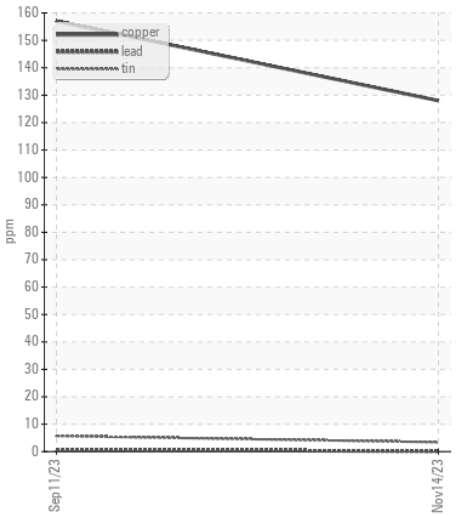
Viscosity @ 100°C



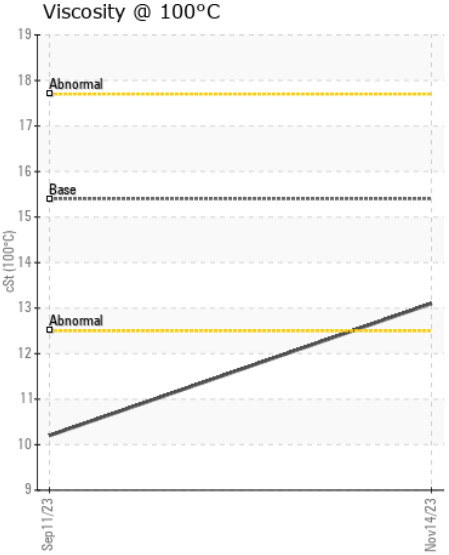
Ferrous Alloys



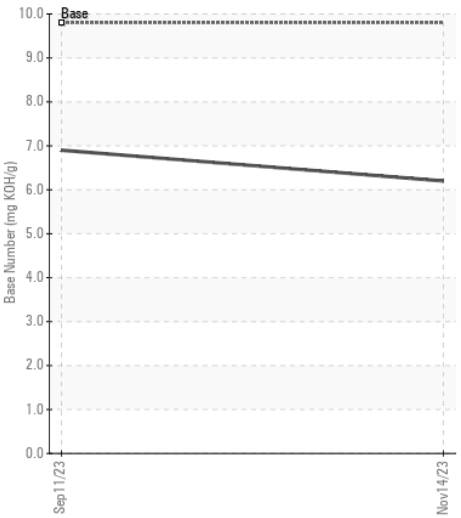
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory	: WearCheck USA - 501 Madison Ave., Cary, NC 27513		
Sample No.	: NL0001786	**Recieved**	: 01 Feb 2024
Lab Number	: 06076708	**Diagnosed**	: 02 Feb 2024
Unique Number	: 10858799	**Diagnostician**	: Wes Davis
Test Package	: FLEET		

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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