



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id
414119

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (--- QTS)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0102586	GFL0107949	GFL0102565
Sample Date		Client Info		11 Jan 2024	05 Jan 2024	13 Dec 2023
Machine Age	hrs	Client Info		596	562	439
Oil Age	hrs	Client Info		600	0	0
Filter Age	hrs	Client Info		600	0	0
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				ATTENTION	ATTENTION	ATTENTION

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>110	44	43	29
Chromium	ppm	ASTM D5185m	>4	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	55	56	47
Lead	ppm	ASTM D5185m	>45	0	0	<1
Copper	ppm	ASTM D5185m	>85	16	18	15
Tin	ppm	ASTM D5185m	>4	<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

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. No other contaminants were detected in the oil.

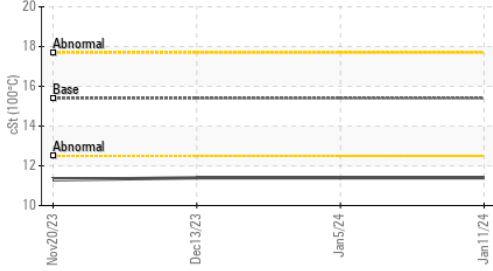
Silicon	ppm	ASTM D5185m	>30	24	25	22
Potassium	ppm	ASTM D5185m	>20	141	144	118
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.5	0.4	0.4
Nitration	Abs/cm	*ASTM D7624	>20	10.0	9.9	9.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.9	21.5	20.6
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

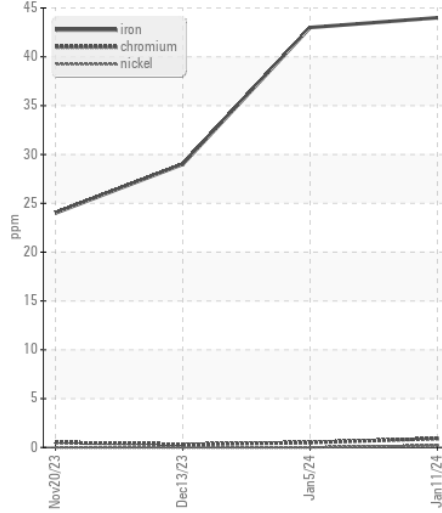
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		6	5	4
Boron	ppm	ASTM D5185m	0	37	46	45
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	14	13	14
Manganese	ppm	ASTM D5185m	0	4	4	4
Magnesium	ppm	ASTM D5185m	1010	764	793	826
Calcium	ppm	ASTM D5185m	1070	1280	1334	1421
Phosphorus	ppm	ASTM D5185m	1150	740	757	800
Zinc	ppm	ASTM D5185m	1270	867	892	867
Sulfur	ppm	ASTM D5185m	2060	2692	3034	2868
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.1	18.7	17.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	6.0	6.2	6.4
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 11.4	▲ 11.4	▲ 11.4

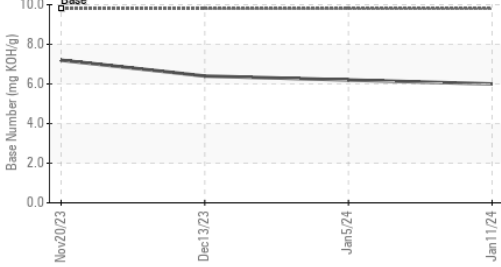
▲ Viscosity @ 100°C



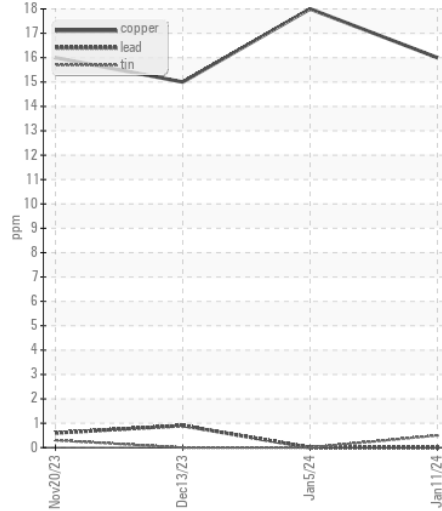
Ferrous Alloys



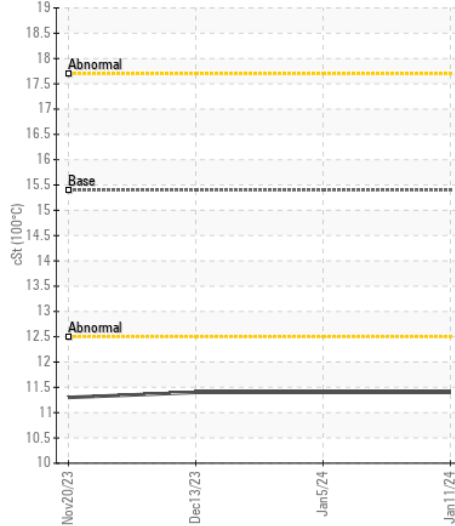
Base Number



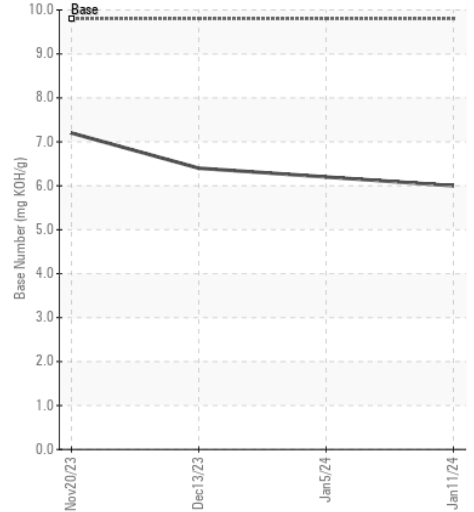
Non-ferrous Metals



▲ Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0102586 **Received** : 16 Jan 2024
Lab Number : 06060618 **Diagnosed** : 17 Jan 2024
Unique Number : 10832000 **Diagnostician** : Angela Borella
Test Package : FLEET

GFL Environmental - 892 - Pauls Valley Hauling
 405 East Airport Industrial Road
 Pauls Valley, OK
 US 73075
 Contact: Tony Graham
 tgraham2@wcamerica.com

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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F: