NationaLease

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
REED JOHNNIE - TLD O/O
Machine Id
FREIGHTLINER 3023437
Component
Diesel Engine
Fluid
{not provided} (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

WEAR

Cylinder, crank, or cam shaft wear is indicated. All other component wear rates are normal.

CONTAMINATION

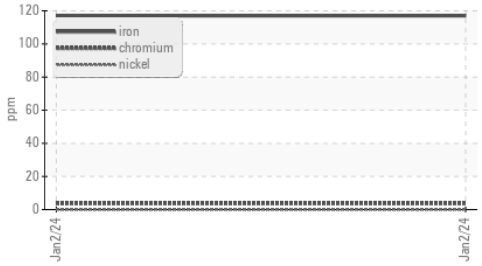
Fuel content negligible. Elemental level of silicon (Si) above normal indicating ingress of seal material. Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components.

FLUID CONDITION

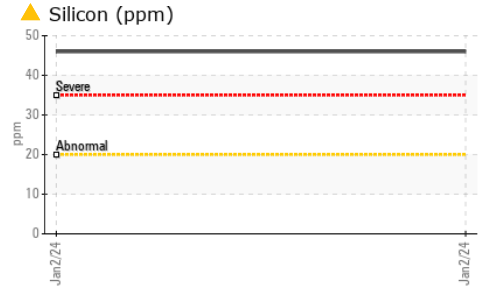
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		NL0002011	---	---
Sample Date		Client Info		02 Jan 2024	---	---
Machine Age	mls	Client Info		55123	---	---
Oil Age	mls	Client Info		0	---	---
Filter Age	mls	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				ABNORMAL	---	---
Iron	ppm	ASTM D5185m	>80	▲ 117	---	---
Chromium	ppm	ASTM D5185m	>5	4	---	---
Nickel	ppm	ASTM D5185m	>2	0	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m	>3	<1	---	---
Aluminum	ppm	ASTM D5185m	>30	86	---	---
Lead	ppm	ASTM D5185m	>30	6	---	---
Copper	ppm	ASTM D5185m	>150	25	---	---
Tin	ppm	ASTM D5185m	>5	5	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Silicon	ppm	ASTM D5185m	>20	▲ 46	---	---
Potassium	ppm	ASTM D5185m	>20	250	---	---
Fuel	%	ASTM D3524	>5	0.3	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.8	---	---
Nitration	Abs/cm	*ASTM D7624	>20	11.3	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.0	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---	---
Sodium	ppm	ASTM D5185m		7	---	---
Boron	ppm	ASTM D5185m		26	---	---
Barium	ppm	ASTM D5185m		4	---	---
Molybdenum	ppm	ASTM D5185m		45	---	---
Manganese	ppm	ASTM D5185m		7	---	---
Magnesium	ppm	ASTM D5185m		545	---	---
Calcium	ppm	ASTM D5185m		1508	---	---
Phosphorus	ppm	ASTM D5185m		724	---	---
Zinc	ppm	ASTM D5185m		877	---	---
Sulfur	ppm	ASTM D5185m		2423	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	25.8	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		6.2	---	---
Visc @ 100°C	cSt	ASTM D445		10.7	---	---

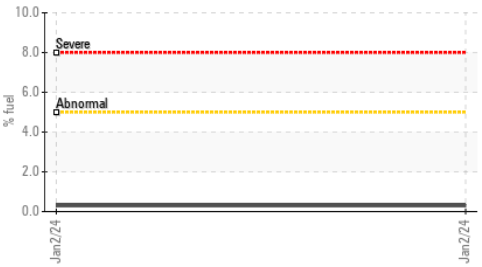
Ferrous Alloys



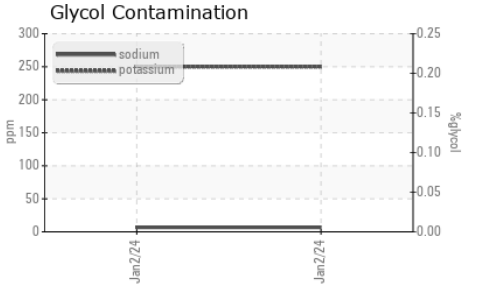
Silicon (ppm)



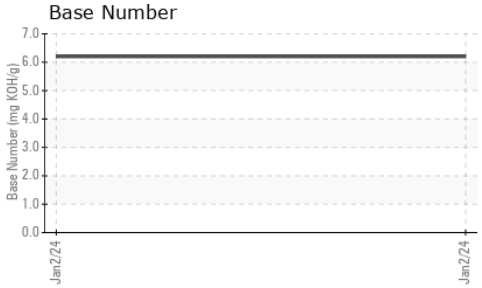
Fuel Dilution



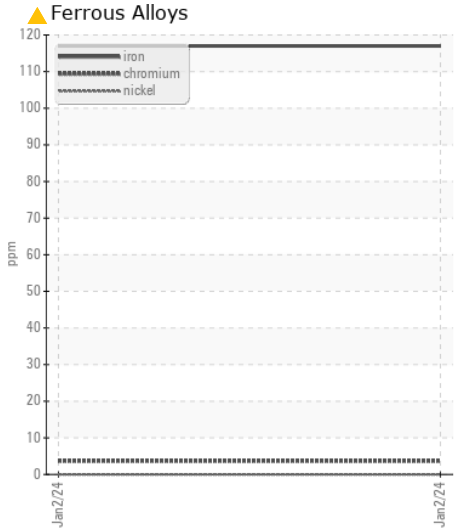
Glycol Contamination



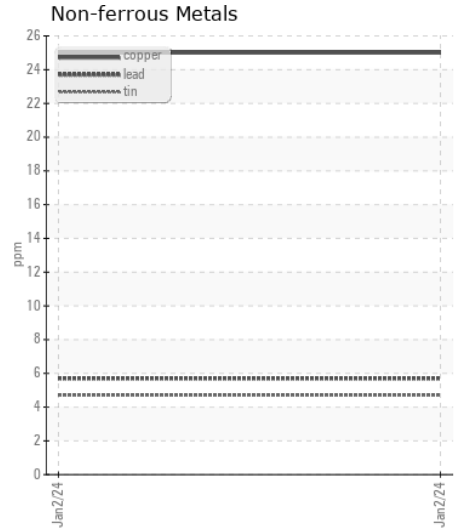
Base Number



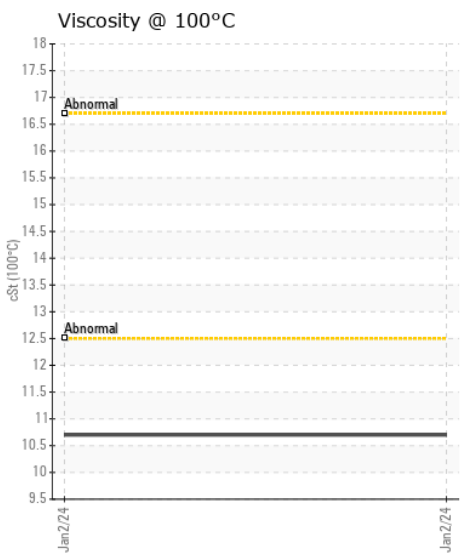
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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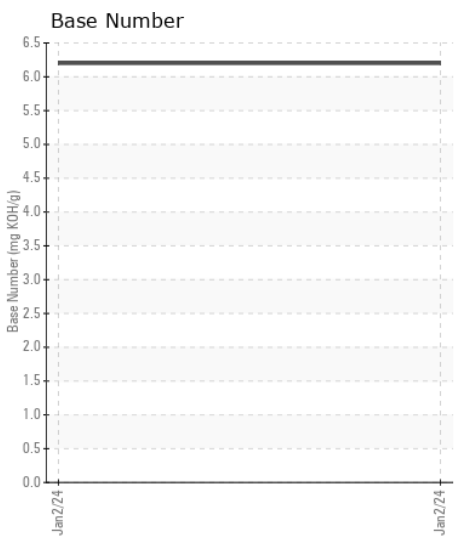

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : NL0002011
Lab Number : 06124243
Unique Number : 10938394
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

Received : 20 Mar 2024
Tested : 23 Mar 2024
Diagnosed : 23 Mar 2024 - Don Baldridge

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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