OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id
PETERBILT 497535
Component
Diesel Engine
Fluid
CITGO CITGUARD 600 15W40 (48 QTS)

RECOMMENDATION

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

WEAR

All component wear rates are normal.

CONTAMINATION

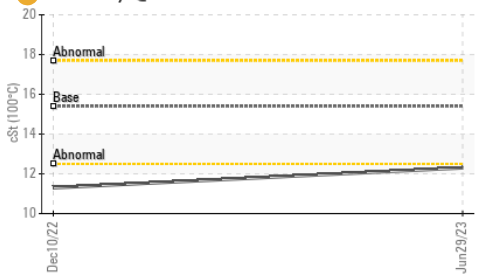
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. No other contaminants were detected in the oil.

FLUID CONDITION

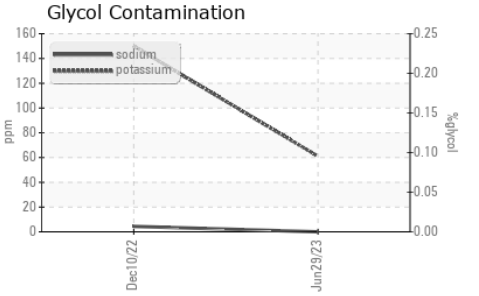
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RPL0004364	RPL0004391	---
Sample Date		Client Info		29 Jun 2023	10 Dec 2022	---
Machine Age	mls	Client Info		44064	17311	---
Oil Age	mls	Client Info		26753	17311	---
Filter Age	mls	Client Info		26753	17311	---
Oil Changed		Client Info		Not Changd	Changed	---
Filter Changed		Client Info		Not Changd	Not Changd	---
Sample Status				ATTENTION	ATTENTION	---
Iron	ppm	ASTM D5185m	>90	49	70	---
Chromium	ppm	ASTM D5185m	>20	2	3	---
Nickel	ppm	ASTM D5185m	>2	<1	0	---
Titanium	ppm	ASTM D5185m	>2	<1	<1	---
Silver	ppm	ASTM D5185m	>2	0	2	---
Aluminum	ppm	ASTM D5185m	>20	17	40	---
Lead	ppm	ASTM D5185m	>40	6	6	---
Copper	ppm	ASTM D5185m	>330	9	38	---
Tin	ppm	ASTM D5185m	>15	2	3	---
Vanadium	ppm	ASTM D5185m		0	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Silicon	ppm	ASTM D5185m	>25	16	46	---
Potassium	ppm	ASTM D5185m	>20	61	150	---
Fuel	%	ASTM D3524	>3.0	<1.0	1.4	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>6	0.5	0.4	---
Nitration	Abs/cm	*ASTM D7624	>20	12.2	11.6	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	26.2	24.7	---
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	4	---
Boron	ppm	ASTM D5185m	13	2	27	---
Barium	ppm	ASTM D5185m	0	10	6	---
Molybdenum	ppm	ASTM D5185m	57	58	21	---
Manganese	ppm	ASTM D5185m		2	6	---
Magnesium	ppm	ASTM D5185m	825	431	669	---
Calcium	ppm	ASTM D5185m	1100	1668	1453	---
Phosphorus	ppm	ASTM D5185m	933	878	729	---
Zinc	ppm	ASTM D5185m	1089	1207	906	---
Sulfur	ppm	ASTM D5185m	2769	3294	3287	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	23.2	20.6	---
Base Number (BN)	mg KOH/g	ASTM D2896	11.0	5.5	6.3	---
Visc @ 100°C	cSt	ASTM D445	15.4	12.3	11.3	---

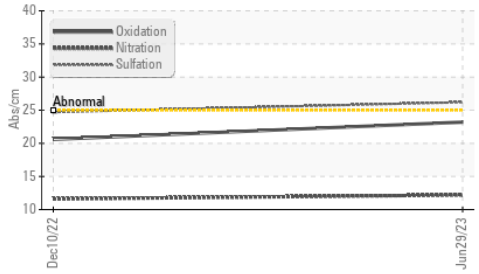
Viscosity @ 100°C



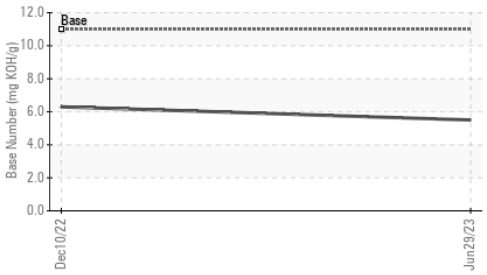
Glycol Contamination



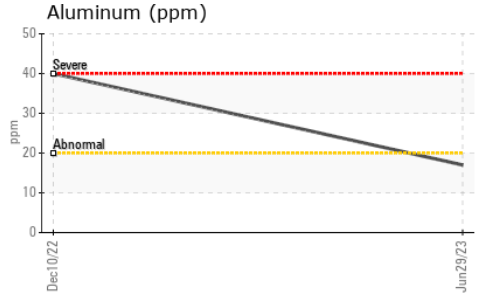
FT-IR (Direct Trend)



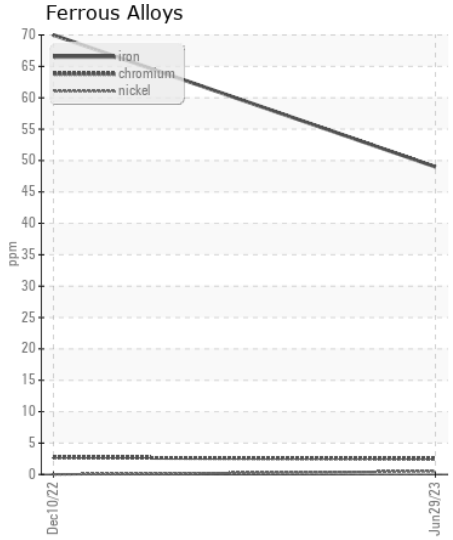
Base Number



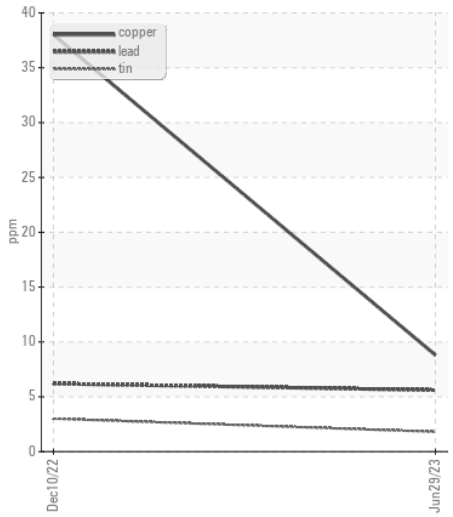
Aluminum (ppm)



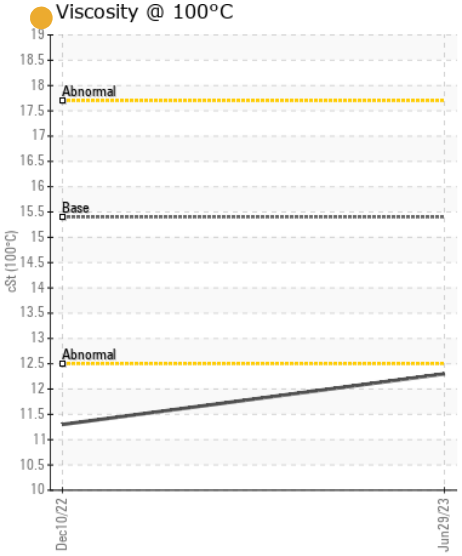
Ferrous Alloys



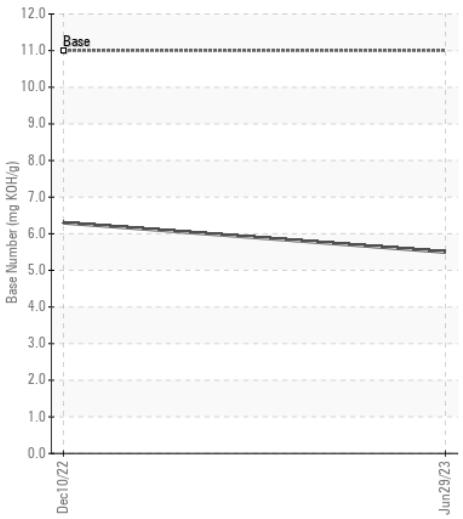
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RPL0004364
Lab Number : 05988541
Unique Number : 10711203
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

Received : 24 Oct 2023
Tested : 28 Oct 2023
Diagnosed : 28 Oct 2023 - 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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