CONST

PetroCard™ MORE THAN JUST FUEL.

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
TRUCK - URBAN
Machine Id
KENWORTH 95
Component
Diesel Engine
Fluid
SHELL Rotella T5 15W-40 (10 GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

WEAR

All component wear rates are normal.

CONTAMINATION

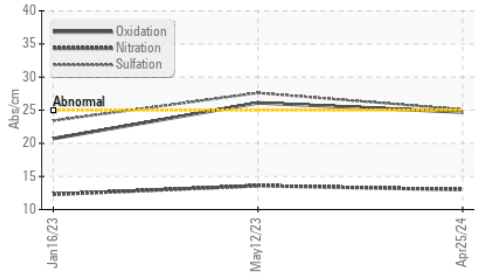
Sodium and/or potassium levels are high.

FLUID CONDITION

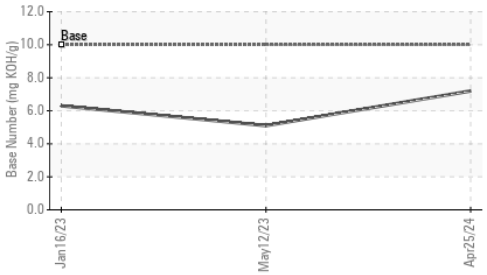
The BN result indicates that there is suitable alkalinity remaining in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PE0003157	PE0001356	PE0000479
Sample Date		Client Info		25 Apr 2024	12 May 2023	16 Jan 2023
Machine Age	hrs	Client Info		32322	5615	4713
Oil Age	hrs	Client Info		486	902	838
Filter Age	hrs	Client Info		486	902	838
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>100	37	47	31
Chromium	ppm	ASTM D5185m	>20	2	2	1
Nickel	ppm	ASTM D5185m	>4	<1	<1	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	5	2	3
Lead	ppm	ASTM D5185m	>40	<1	2	4
Copper	ppm	ASTM D5185m	>330	1	<1	<1
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
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	10	6	5
Potassium	ppm	ASTM D5185m	>20	▲ 77	▲ 176	▲ 96
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.8	1.1	0.7
Nitration	Abs/cm	*ASTM D7624	>20	13.0	13.6	12.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.1	27.6	23.4
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		5	7	6
Boron	ppm	ASTM D5185m		17	20	25
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		57	81	77
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		784	81	121
Calcium	ppm	ASTM D5185m		1282	2160	2021
Phosphorus	ppm	ASTM D5185m		1034	987	953
Zinc	ppm	ASTM D5185m		1242	1226	1175
Sulfur	ppm	ASTM D5185m		3445	4102	3926
Oxidation	Abs/.1mm	*ASTM D7414	>25	24.7	26.1	20.7
Base Number (BN)	mg KOH/g	ASTM D2896	10	7.2	5.1	6.3
Visc @ 100°C	cSt	ASTM D445	14.9	13.3	13.8	13.9

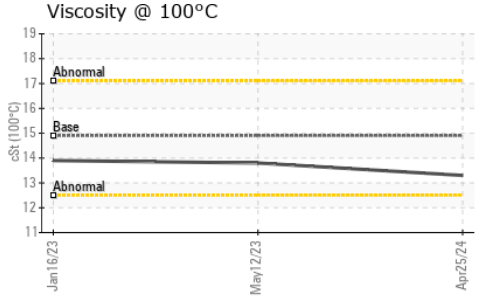
FT-IR (Direct Trend)



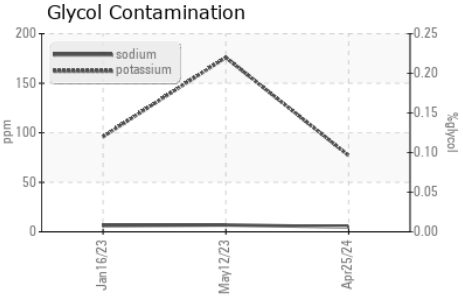
Base Number



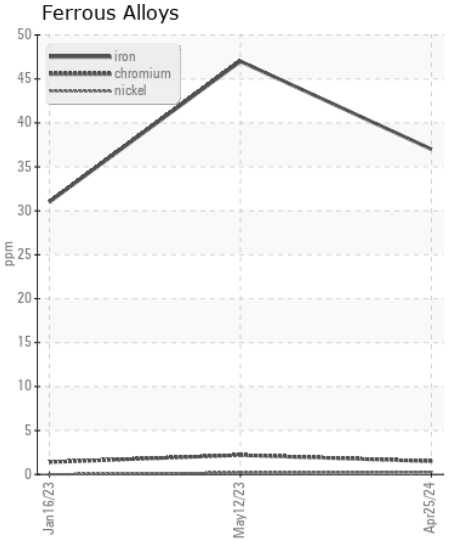
Viscosity @ 100°C



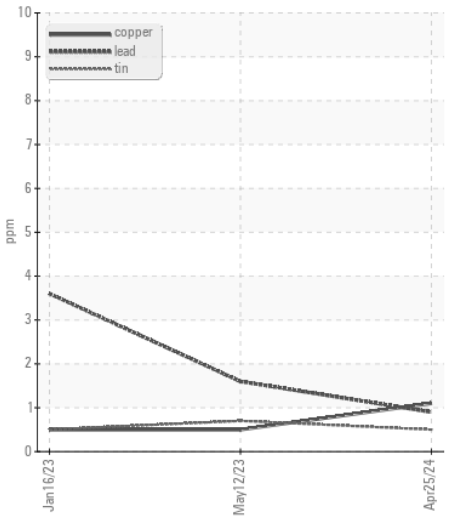
Glycol Contamination



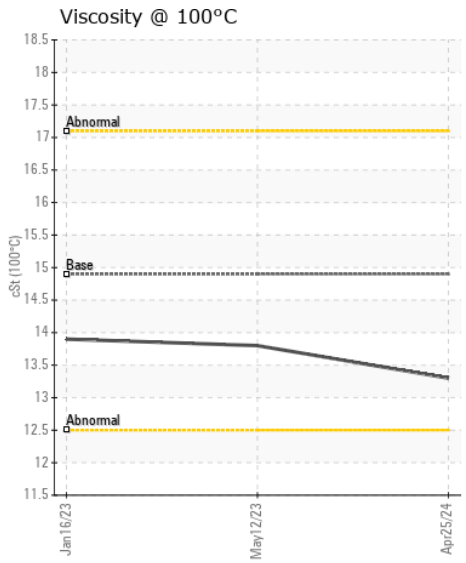
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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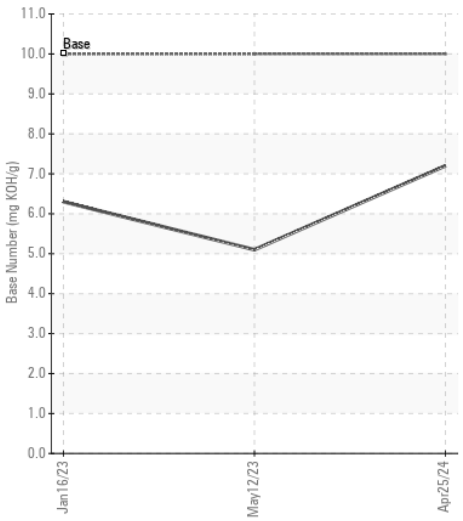

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PE0003157 **Received** : 17 Jun 2024
Lab Number : 06212756 **Tested** : 19 Jun 2024
Unique Number : 11085620 **Diagnosed** : 19 Jun 2024 - Angela Borella
Test Package : CONST (Additional Tests: FT-IR, Glycol, ICP, KV100, SCREEN, TBN)

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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