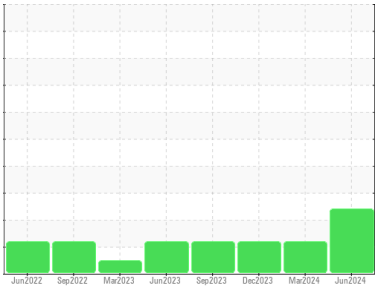
PROBLEM SUMMARY

Sample Rating Trend

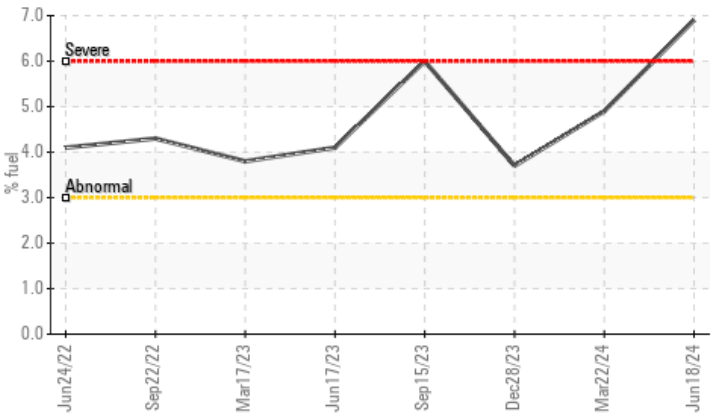


FUEL

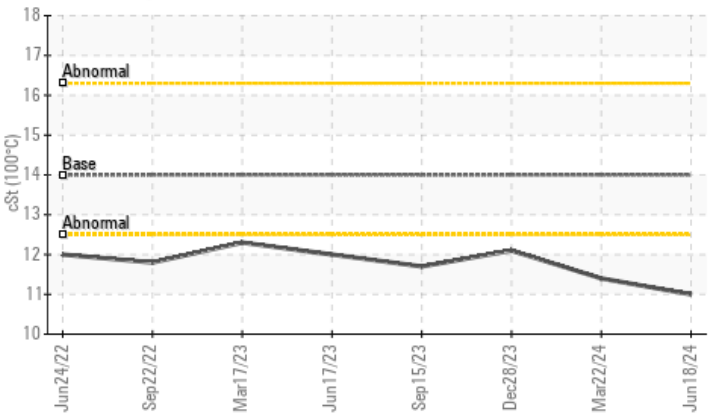
Machine Id
CUMMINS 8464468
Component
Diesel Engine
Fluid
MOBIL DELVAC 1300 SUPER 15W40 (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Fuel Dilution



▲ Viscosity @ 100°C



RECOMMENDATION

We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	ABNORMAL	ABNORMAL
Fuel	%	ASTM D3524	>3.0	▲ **6.9**	▲ 4.9	▲ 3.7
Visc @ 100°C	cSt	ASTM D445	14	▲ **11.0**	▲ 11.4	▲ 12.1

Customer Id: PAC7006
Sample No.: RPL0021100
Lab Number: 06234477
Test Package: FLEET

To manage this report scan the QR code

To discuss the diagnosis or test data:
Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	SKIPPED	Jul 17 2024	?	We recommend that you drain the oil from the component if this has not already been done.
Resample	SKIPPED	Jul 17 2024	?	We recommend an early resample to monitor this condition.
Check Fuel/injector System	SKIPPED	Jul 17 2024	?	We advise that you check the fuel injection system.

HISTORICAL DIAGNOSIS

FUEL

22 Mar 2024 Diag: Wes Davis

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.Metal levels are typical for a new component breaking in. There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

view report

FUEL

28 Dec 2023 Diag: Wes Davis

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.Metal levels are typical for a new component breaking in. There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

view report

FUEL

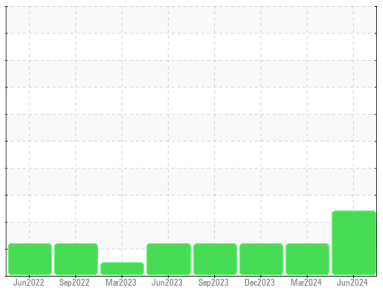
15 Sep 2023 Diag: Don Baldridge

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.All component wear rates are normal. There is a moderate amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



FUEL

Machine Id
CUMMINS 8464468
Component
Diesel Engine
Fluid
MOBIL DELVAC 1300 SUPER 15W40 (--- GAL)

DIAGNOSIS

▲ Recommendation
We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Wear
Metal levels are typical for a new component breaking in.

▲ Contamination
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

▲ Fluid Condition
The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**RPL0021100**	RPL0019413	RPL0017422
Sample Date		Client Info		**18 Jun 2024**	22 Mar 2024	28 Dec 2023
Machine Age	mls	Client Info		**46979**	44792	43483
Oil Age	mls	Client Info		**5569**	44792	2073
Oil Changed		Client Info		**Not Changd**	Not Changd	Not Changd
Sample Status				**SEVERE**	ABNORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	**11**	8	2
Chromium	ppm	ASTM D5185m	>20	**<1**	1	<1
Nickel	ppm	ASTM D5185m	>2	**0**	<1	0
Titanium	ppm	ASTM D5185m	>2	**0**	<1	0
Silver	ppm	ASTM D5185m	>2	**<1**	0	<1
Aluminum	ppm	ASTM D5185m	>20	**7**	5	2
Lead	ppm	ASTM D5185m	>40	**1**	1	0
Copper	ppm	ASTM D5185m	>330	**<1**	<1	<1
Tin	ppm	ASTM D5185m	>15	**1**	1	<1
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**7**	4	6
Barium	ppm	ASTM D5185m	0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	0	**59**	62	60
Manganese	ppm	ASTM D5185m		**0**	<1	<1
Magnesium	ppm	ASTM D5185m	0	**926**	932	942
Calcium	ppm	ASTM D5185m		**1034**	1079	1014
Phosphorus	ppm	ASTM D5185m		**1063**	940	1078
Zinc	ppm	ASTM D5185m		**1272**	1189	1230
Sulfur	ppm	ASTM D5185m		**3817**	3253	3131

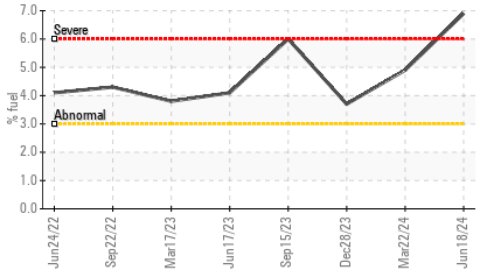
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**4**	5	3
Sodium	ppm	ASTM D5185m		**<1**	0	0
Potassium	ppm	ASTM D5185m	>20	**26**	22	7
Fuel	%	ASTM D3524	>3.0	**▲ 6.9**	▲ 4.9	▲ 3.7

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>6	**0.2**	0.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	**7.3**	6.6	5.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	**19.3**	18.8	18.5

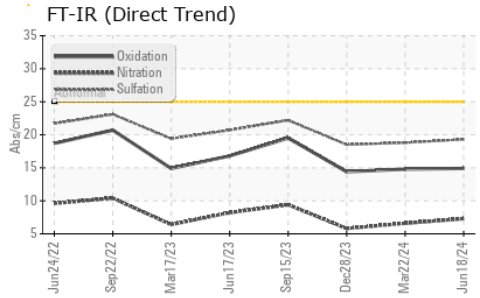
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**14.9**	14.8	14.4
Base Number (BN)	mg KOH/g	ASTM D2896	9.4	**8.2**	8.8	9.0

OIL ANALYSIS REPORT

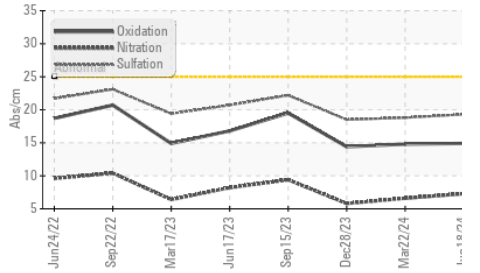
Fuel Dilution



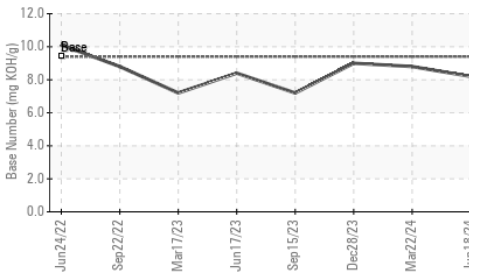
FT-IR (Direct Trend)



FT-IR (Direct Trend)



Base Number

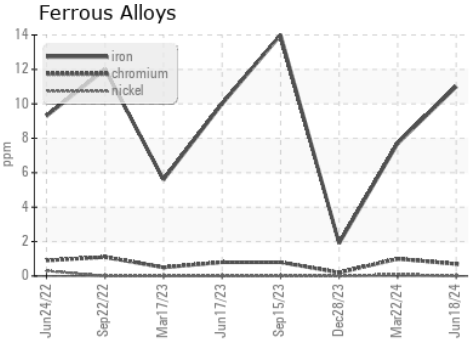


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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
Free Water	scalar	*Visual		**NEG**	NEG	NEG

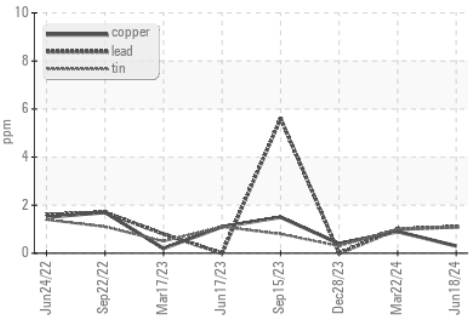
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14	▲ **11.0**	▲ 11.4	▲ 12.1

GRAPHS

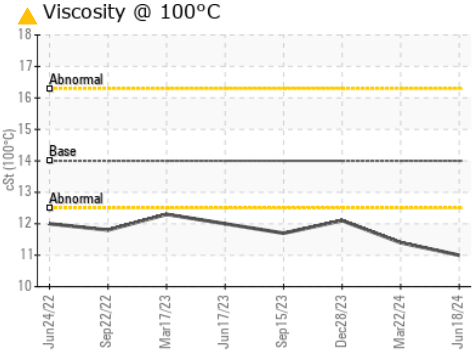
Ferrous Alloys



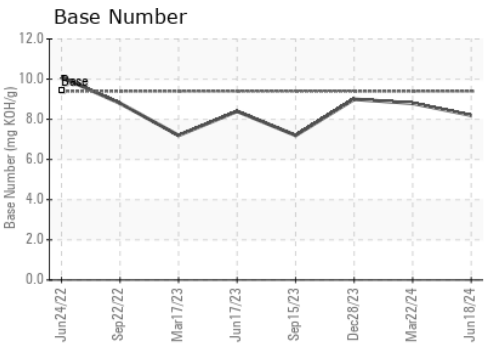
Non-ferrous Metals



▲ Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RPL0021100
Lab Number : 06234477
Unique Number : 11123311
Test Package : FLEET (Additional Tests: PercentFuel)

Received : 12 Jul 2024
Tested : 16 Jul 2024
Diagnosed : 16 Jul 2024 - Wes Davis

RTL PACLEASE - 7006 - Pico Rivera
7837 Telegraph Rd
Pico Rivera, CA
US 90660
Contact: GERARDO CARROLA
carrolag@rushenterprises.com
T:
F:

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)