



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Area
[45005210]
 Machine Id
INTERNATIONAL 9571921
 Component
Diesel Engine
 Fluid
MOBIL DELVAC MX 15W40 (--- QTS)

RECOMMENDATION

We advise that you check for faulty combustion, plugged air filters, or aftercoolers. We recommend you service the filters on this component. Resample at the next service interval to monitor. NOTE: High solids (carbon/soot) in the sample have limited the accuracy of Infra-Red data including Total Base Number (TBN) value.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RPL0016519	RPL0016388	---
Sample Date		Client Info		12 Jun 2024	15 Dec 2023	---
Machine Age	mls	Client Info		439169	419050	---
Oil Age	mls	Client Info		0	419050	---
Filter Age	mls	Client Info		0	419050	---
Oil Changed		Client Info		Not Changd	Not Changd	---
Filter Changed		Client Info		Not Changd	Not Changd	---
Sample Status				ABNORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	41	22	---
Chromium	ppm	ASTM D5185m	>20	2	2	---
Nickel	ppm	ASTM D5185m	>4	1	0	---
Titanium	ppm	ASTM D5185m		<1	0	---
Silver	ppm	ASTM D5185m	>3	<1	0	---
Aluminum	ppm	ASTM D5185m	>20	5	3	---
Lead	ppm	ASTM D5185m	>40	2	<1	---
Copper	ppm	ASTM D5185m	>330	17	6	---
Tin	ppm	ASTM D5185m	>15	1	<1	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

There is an abnormal amount of solids and carbon present in the oil.

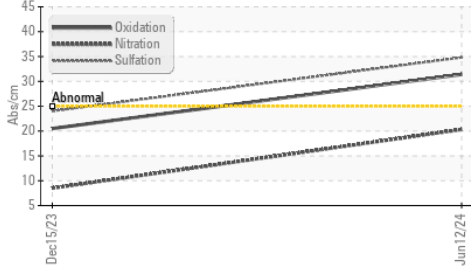
Silicon	ppm	ASTM D5185m	>25	16	14	---
Potassium	ppm	ASTM D5185m	>20	38	26	---
Fuel	%	ASTM D3524	>2.0	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	▲ 4.6	1.3	---
Nitration	Abs/cm	*ASTM D7624	>20	20.3	8.5	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	34.8	24.0	---
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	---

FLUID CONDITION

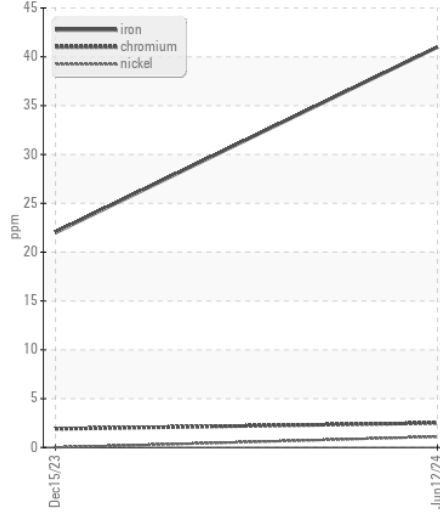
The BN level is low.

Sodium	ppm	ASTM D5185m		21	15	---
Boron	ppm	ASTM D5185m		12	38	---
Barium	ppm	ASTM D5185m		1	0	---
Molybdenum	ppm	ASTM D5185m		46	40	---
Manganese	ppm	ASTM D5185m		2	<1	---
Magnesium	ppm	ASTM D5185m		501	528	---
Calcium	ppm	ASTM D5185m		1753	1676	---
Phosphorus	ppm	ASTM D5185m		761	813	---
Zinc	ppm	ASTM D5185m		960	928	---
Sulfur	ppm	ASTM D5185m		2393	2423	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	31.4	20.5	---
Base Number (BN)	mg KOH/g	ASTM D2896	12	▲ 1.1	12.0	---
Visc @ 100°C	cSt	ASTM D445	14.4	15.7	13.5	---

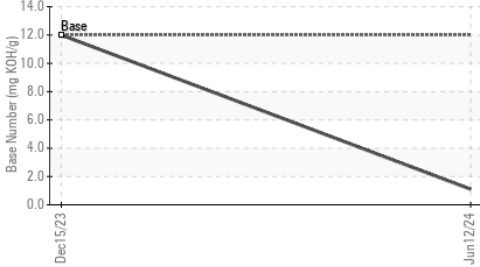
▲ FT-IR (Direct Trend)



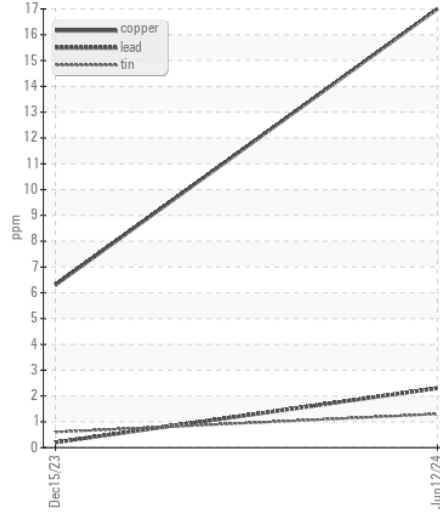
Ferrous Alloys



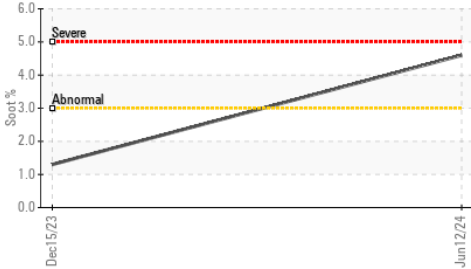
▲ Base Number



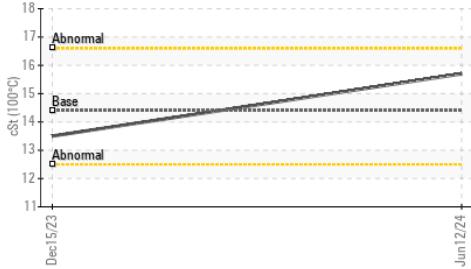
Non-ferrous Metals



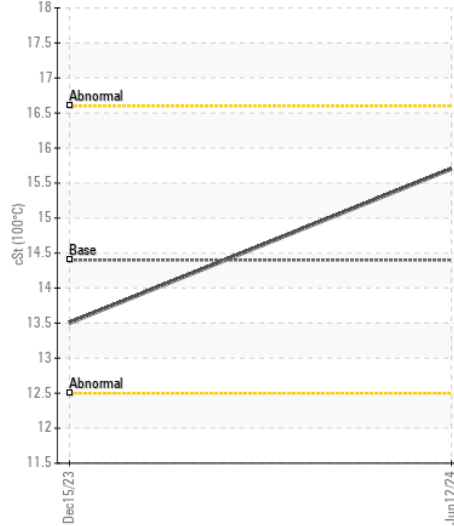
▲ Soot %



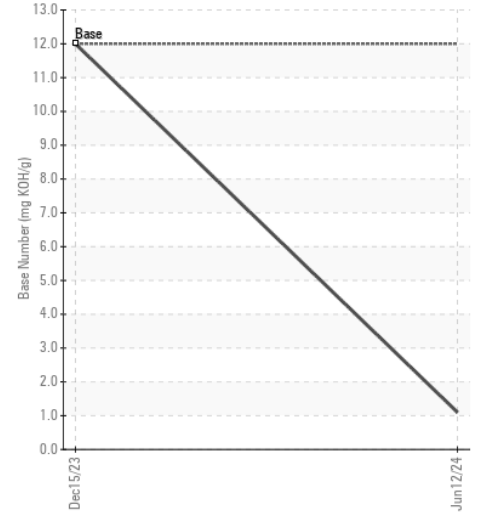
Viscosity @ 100°C



Viscosity @ 100°C



▲ Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : RPL0016519

Lab Number : 06219340

Unique Number : 11097537

Test Package : FLEET (Additional Tests: FuelDilution)

Received : 25 Jun 2024

Tested : 26 Jun 2024

Diagnosed : 26 Jun 2024 - Don Baldrige

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)

RTL PACLEASE - 7002 - San Antonio

8810 IH-10 Frontage Road

Converse, TX

US 78109

Contact: Mike Friel

FrielM@RushEnterprises.Com

T: (210)901-7283

F: