



Machine Id
905
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 5W30 (--- QTS)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		HRE0000229	---	---
Sample Date		Client Info		20 May 2024	---	---
Machine Age	mls	Client Info		135836	---	---
Oil Age	mls	Client Info		50000	---	---
Filter Age	mls	Client Info		50000	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				SEVERE	---	---

WEAR

The iron level is abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	▲ 296	---	---
Chromium	ppm	ASTM D5185m	>20	13	---	---
Nickel	ppm	ASTM D5185m	>4	2	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m	>3	<1	---	---
Aluminum	ppm	ASTM D5185m	>20	44	---	---
Lead	ppm	ASTM D5185m	>40	20	---	---
Copper	ppm	ASTM D5185m	>330	28	---	---
Tin	ppm	ASTM D5185m	>15	7	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

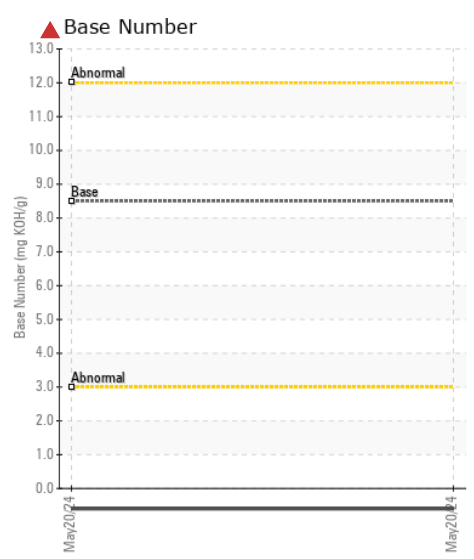
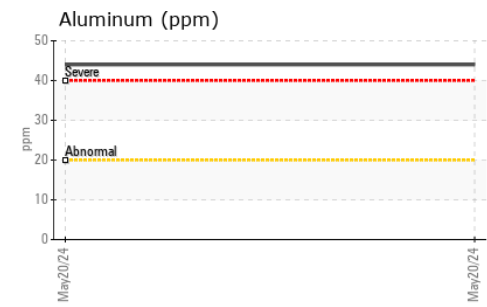
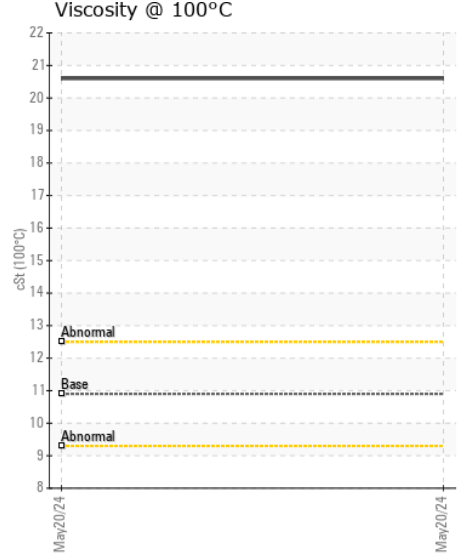
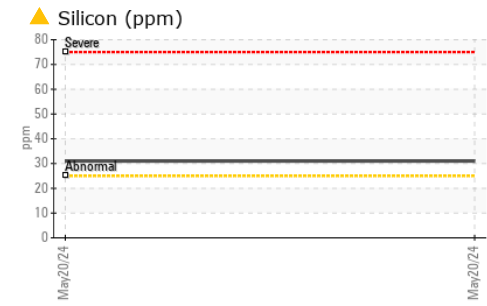
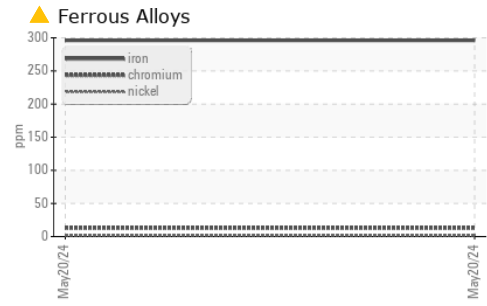
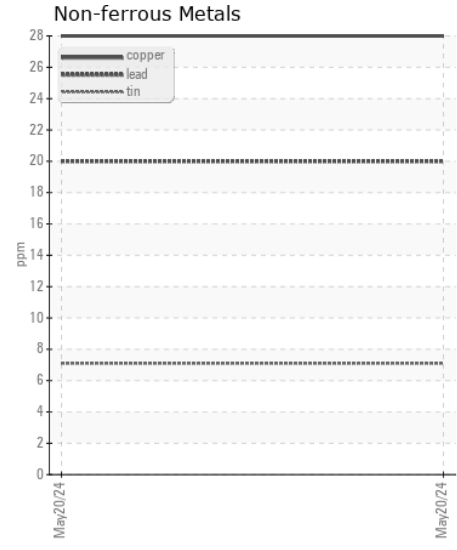
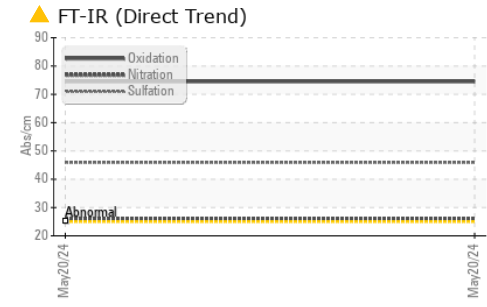
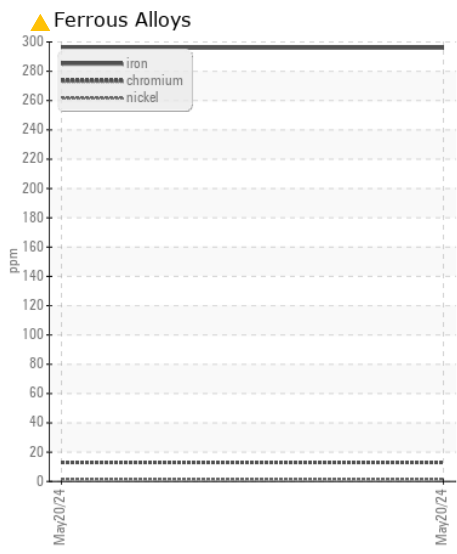
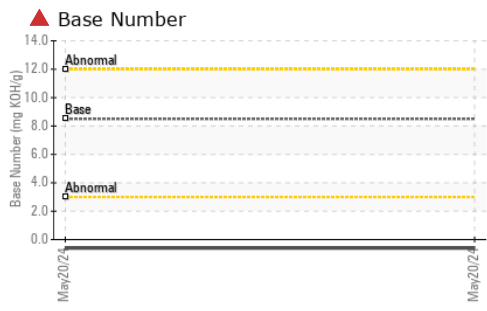
Elemental level of silicon (Si) above normal indicating ingress of seal material.

Silicon	ppm	ASTM D5185m	>25	▲ 31	---	---
Potassium	ppm	ASTM D5185m	>20	115	---	---
Fuel		WC Method	>5	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	1.2	---	---
Nitration	Abs/cm	*ASTM D7624	>20	▲ 25.8	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	▲ 45.9	---	---
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	---	---

FLUID CONDITION

There is a high degree of oxidation indicated. The BN level is low. The oil is no longer serviceable.

Sodium	ppm	ASTM D5185m		7	---	---
Boron	ppm	ASTM D5185m	250	24	---	---
Barium	ppm	ASTM D5185m	10	<1	---	---
Molybdenum	ppm	ASTM D5185m	100	77	---	---
Manganese	ppm	ASTM D5185m		8	---	---
Magnesium	ppm	ASTM D5185m	450	855	---	---
Calcium	ppm	ASTM D5185m	3000	1947	---	---
Phosphorus	ppm	ASTM D5185m	1150	1243	---	---
Zinc	ppm	ASTM D5185m	1350	1645	---	---
Sulfur	ppm	ASTM D5185m	4250	3441	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	▲ 74.5	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	▲ -0.6	---	---
Visc @ 100°C	cSt	ASTM D445	10.9	20.6	---	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : HRE0000229 **Received** : 28 May 2024
Lab Number : 06193238 **Tested** : 30 May 2024
Unique Number : 11049990 **Diagnosed** : 30 May 2024 - Angela Borella
Test Package : FLEET

MABE TRUCKING
 PO BOX 1081
 EDEN, NC
 US 27289

Certificate L2367 **Contact: MAINTENANCE**
 To discuss this sample report, contact Customer Service at 1-800-237-1369. **maintenancemanager@mabetrucking.com**
 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. **T:**
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) **F: (336)635-1791**