



WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	ABNORMAL

Machine Id
7827L
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (--- QTS)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		IL0032482	---	---
Sample Date		Client Info		21 Mar 2024	---	---
Machine Age	mls	Client Info		30491	---	---
Oil Age	mls	Client Info		40000	---	---
Filter Age	mls	Client Info		40000	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	65	---	---
Chromium	ppm	ASTM D5185m	>20	5	---	---
Nickel	ppm	ASTM D5185m	>4	0	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m	>3	<1	---	---
Aluminum	ppm	ASTM D5185m	>20	14	---	---
Lead	ppm	ASTM D5185m	>40	12	---	---
Copper	ppm	ASTM D5185m	>330	16	---	---
Tin	ppm	ASTM D5185m	>15	4	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

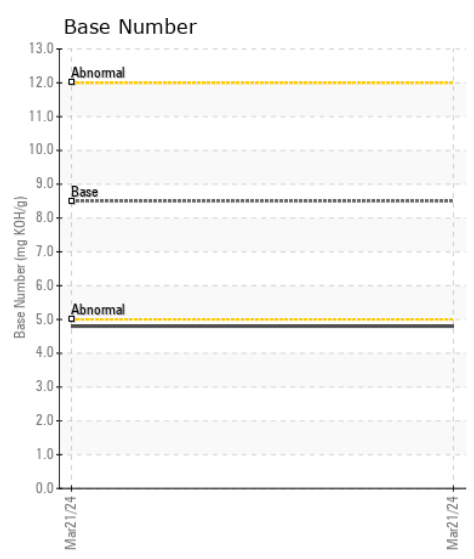
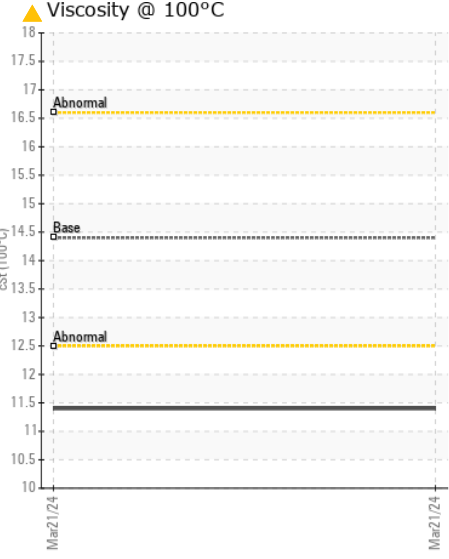
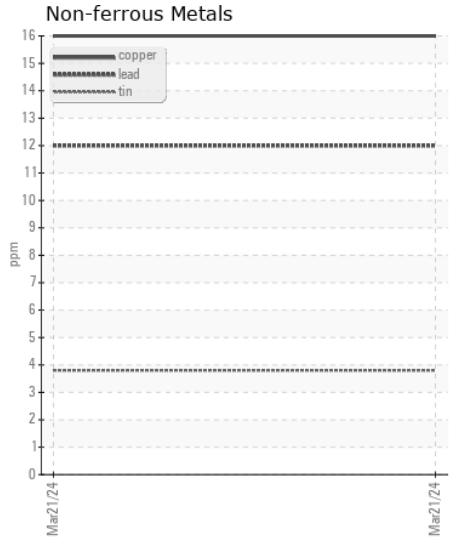
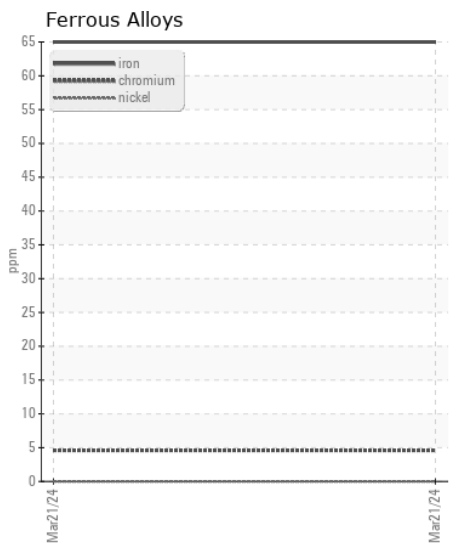
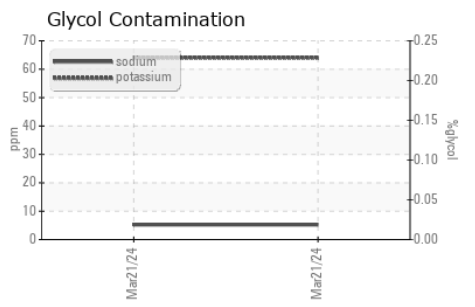
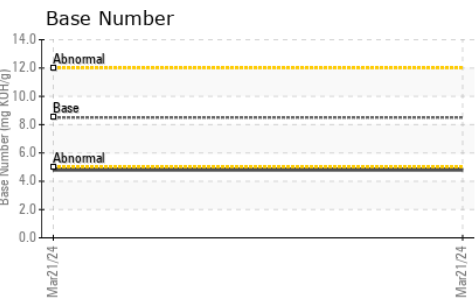
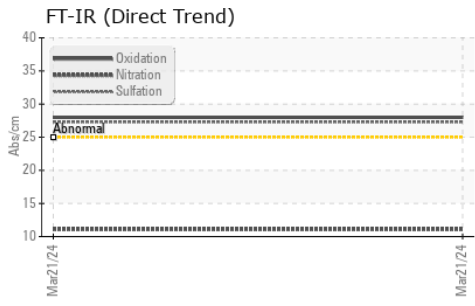
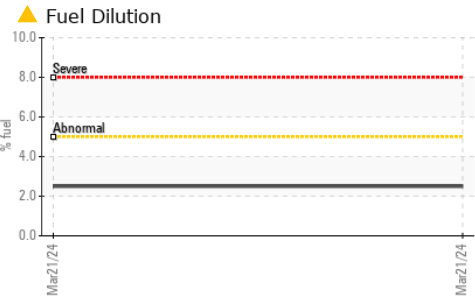
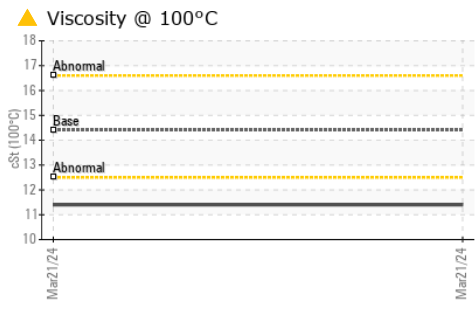
Light fuel dilution occurring. Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components.

Silicon	ppm	ASTM D5185m	>25	44	---	---
Potassium	ppm	ASTM D5185m	>20	64	---	---
Fuel	%	ASTM D3524	>5	▲ 2.5	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol	%	*ASTM D2982		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.5	---	---
Nitration	Abs/cm	*ASTM D7624	>20	11.1	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	27.3	---	---
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

Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m	>158	5	---	---
Boron	ppm	ASTM D5185m	250	42	---	---
Barium	ppm	ASTM D5185m	10	3	---	---
Molybdenum	ppm	ASTM D5185m	100	61	---	---
Manganese	ppm	ASTM D5185m		6	---	---
Magnesium	ppm	ASTM D5185m	450	443	---	---
Calcium	ppm	ASTM D5185m	3000	1705	---	---
Phosphorus	ppm	ASTM D5185m	1150	965	---	---
Zinc	ppm	ASTM D5185m	1350	1172	---	---
Sulfur	ppm	ASTM D5185m	4250	3448	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	28.0	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	4.8	---	---
Visc @ 100°C	cSt	ASTM D445	14.4	▲ 11.4	---	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : IL0032482 **Received** : 10 May 2024
Lab Number : 06175161 **Tested** : 15 May 2024
Unique Number : 11021214 **Diagnosed** : 15 May 2024 - Sean Felton
Test Package : FLEET (Additional Tests: FuelDilution, Glycol, PercentFuel)

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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)