



# OIL ANALYSIS REPORT

WEAR	<b>ABNORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Area

[20242920]

Machine Id

Cummins 20439 Seneca Meadows

Component

Natural Gas Engine

Fluid

DIESEL ENGINE OIL SAE 15W40 (12 GAL)

## 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		DC0037077	---	---
Sample Date		Client Info		21 Jun 2024	---	---
Machine Age	hrs	Client Info		0	---	---
Oil Age	hrs	Client Info		1	---	---
Filter Age	hrs	Client Info		1	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---

## WEAR

The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<1	---	---
Chromium	ppm	ASTM D5185m	>4	0	---	---
Nickel	ppm	ASTM D5185m	>2	0	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m	>3	0	---	---
Aluminum	ppm	ASTM D5185m	>9	<1	---	---
Lead	ppm	ASTM D5185m	>30	4	---	---
Copper	ppm	ASTM D5185m	>35	▲ 123	---	---
Tin	ppm	ASTM D5185m	>4	0	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

## CONTAMINATION

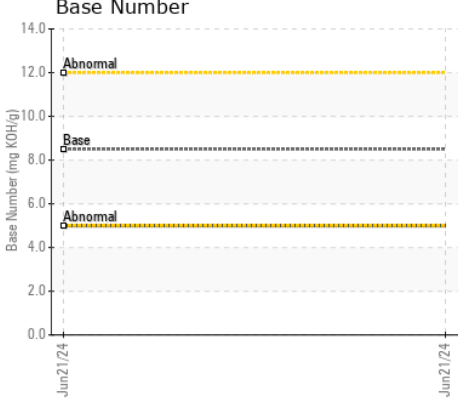
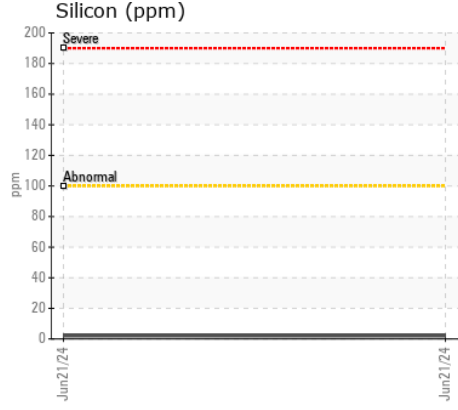
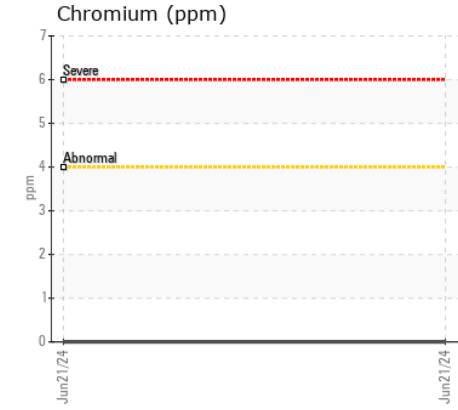
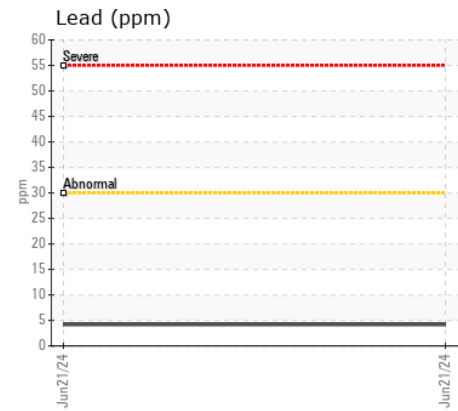
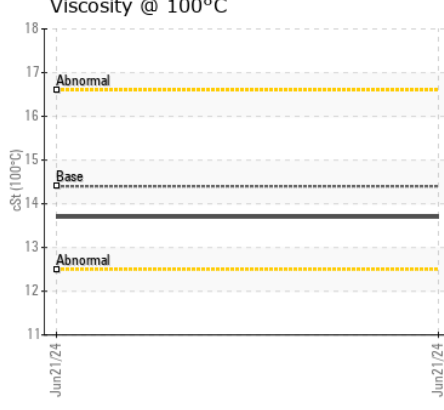
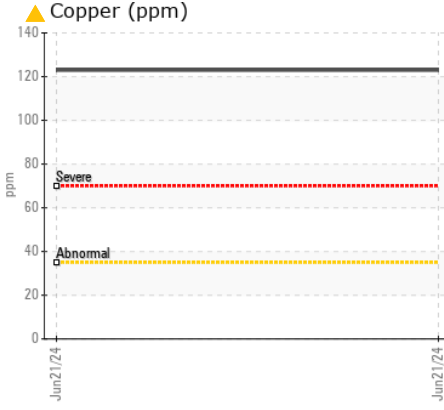
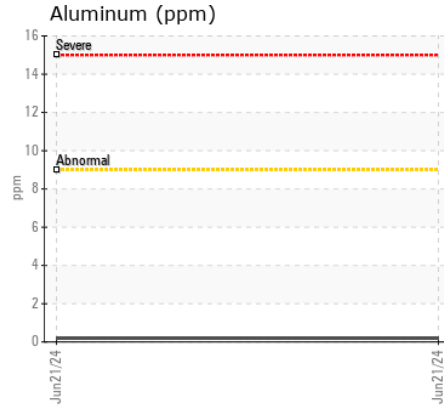
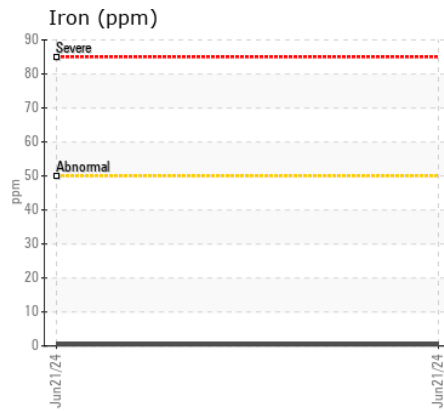
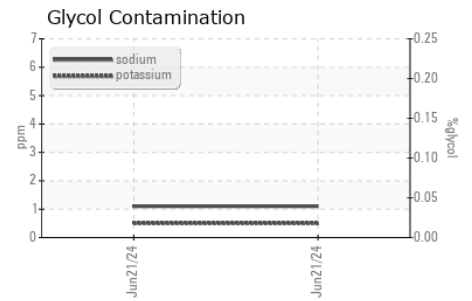
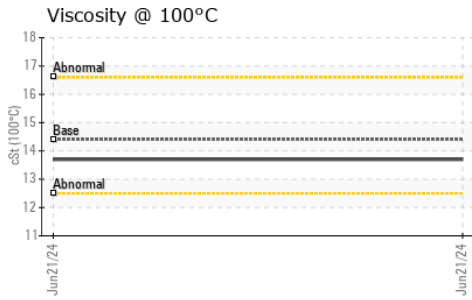
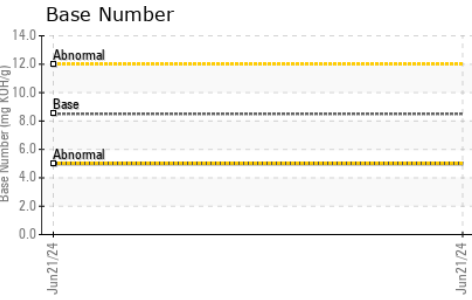
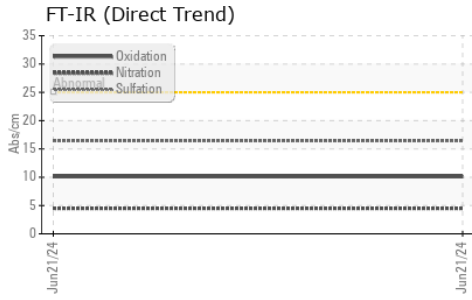
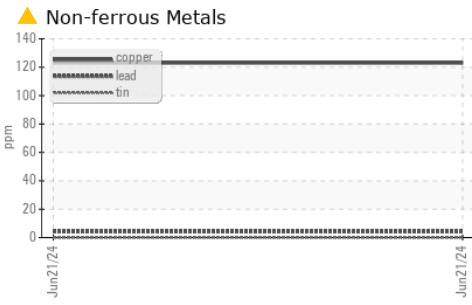
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>+100	2	---	---
Potassium	ppm	ASTM D5185m	>20	<1	---	---
Water		WC Method	>0.1	NEG	---	---
Soot %	%	*ASTM D7844		0	---	---
Nitration	Abs/cm	*ASTM D7624	>20	4.5	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	16.4	---	---
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	>0.1	NEG	---	---

## FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>158	1	---	---
Boron	ppm	ASTM D5185m	250	7	---	---
Barium	ppm	ASTM D5185m	10	0	---	---
Molybdenum	ppm	ASTM D5185m	100	6	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m	450	75	---	---
Calcium	ppm	ASTM D5185m	3000	1442	---	---
Phosphorus	ppm	ASTM D5185m	1150	720	---	---
Zinc	ppm	ASTM D5185m	1350	892	---	---
Sulfur	ppm	ASTM D5185m	4250	3698	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	10.1	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	5.0	---	---
Visc @ 100°C	cSt	ASTM D445	14.4	13.7	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : DC0037077 **Received** : 11 Jul 2024  
**Lab Number** : 06234169 **Tested** : 14 Jul 2024  
**Unique Number** : 11123003 **Diagnosed** : 14 Jul 2024 - Don Baldrige  
**Test Package** : MOB 1 ( Additional Tests: Glycol, 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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