



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



Area  
**(24588UA)**  
Machine Id  
**426026-4675**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- LTR)**

**RECOMMENDATION**

No corrective action is recommended at this time. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0120833</b>	GFL0077764	GFL0077811
Sample Date		Client Info		<b>02 Jul 2024</b>	04 Apr 2024	11 Oct 2023
Machine Age	hrs	Client Info		<b>38433</b>	38195	37705
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Chngd</b>	Changed	Changed
Filter Changed		Client Info		<b>Not Chngd</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	ABNORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>21</b>	33	27
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>&lt;1</b>	3	2
Lead	ppm	ASTM D5185m	>40	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	1	2
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

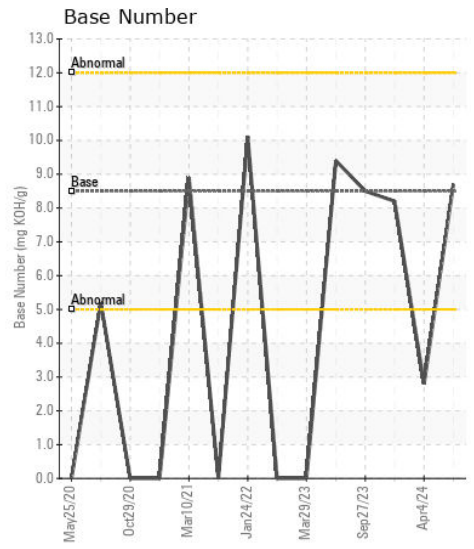
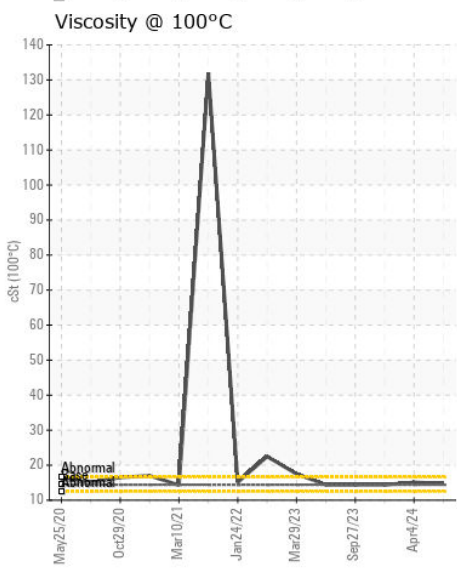
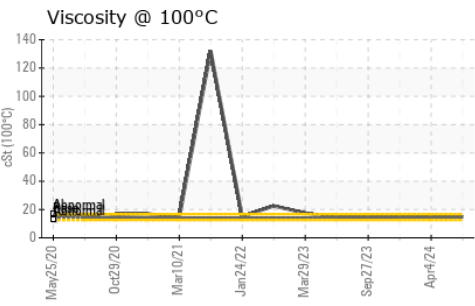
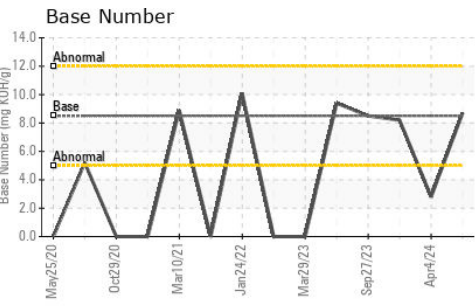
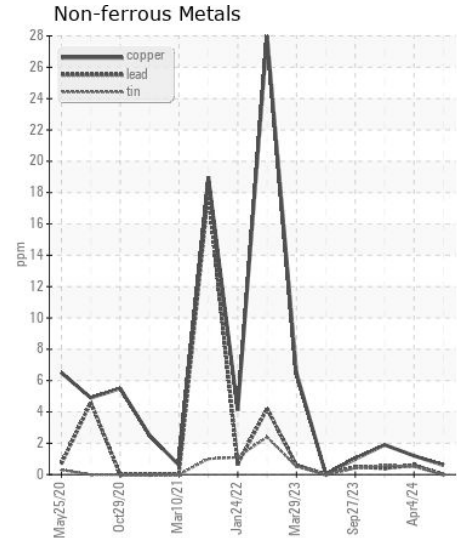
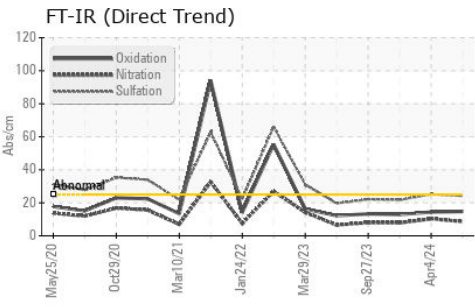
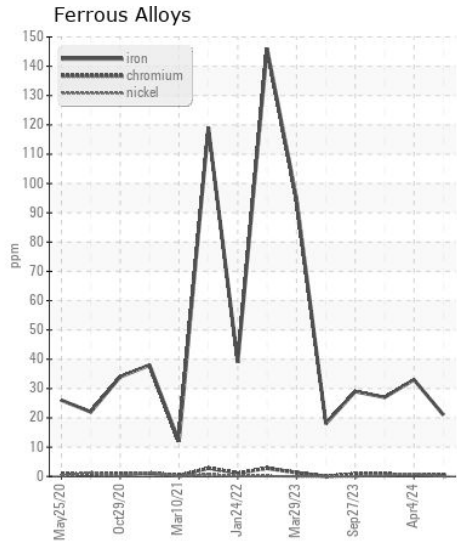
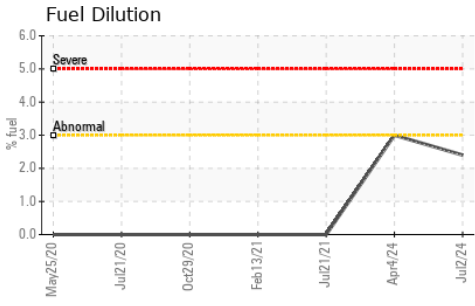
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>2</b>	3	6
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	4	5
Fuel	%	ASTM D3524	>3.0	<b>2.4</b>	▲ 3.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>4	<b>3.4</b>	▲ 4.6	2.7
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.6</b>	10.3	7.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.2</b>	25.2	21.7
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

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

Sodium	ppm	ASTM D5185m	>158	<b>&lt;1</b>	1	2
Boron	ppm	ASTM D5185m	250	<b>2</b>	8	15
Barium	ppm	ASTM D5185m	10	<b>0</b>	0	12
Molybdenum	ppm	ASTM D5185m	100	<b>56</b>	56	60
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>994</b>	898	914
Calcium	ppm	ASTM D5185m	3000	<b>1101</b>	1029	1014
Phosphorus	ppm	ASTM D5185m	1150	<b>1045</b>	1000	961
Zinc	ppm	ASTM D5185m	1350	<b>1282</b>	1191	1173
Sulfur	ppm	ASTM D5185m	4250	<b>3618</b>	3404	2904
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.7</b>	14.4	12.9
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>8.7</b>	▲ 2.8	8.2
Visc @ 100°C	cSt	ASTM D445	14.4	<b>14.8</b>	15.1	14.4



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0120833 **Received** : 05 Jul 2024  
**Lab Number** : 06229587 **Tested** : 10 Jul 2024  
**Unique Number** : 11113080 **Diagnosed** : 10 Jul 2024 - Wes Davis  
**Test Package** : FLEET ( Additional Tests: PercentFuel )

**GFL Environmental - 650 - West Point Hauling**  
 7825 Parham Landing Road  
 West Point, VA  
 US 23181  
 Contact: Jason Smith  
 jasonsmith@gflenv.com  
 T: (804)843-9288

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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