



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



Area  
**(62A1N78) ALEXANDER CITY**  
Machine Id  
**821023-211537**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- LTR)**

**RECOMMENDATION**

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>GFL0081919</b>	GFL0080674	GFL0088611
Sample Date		Client Info		<b>20 Jun 2024</b>	21 May 2024	20 May 2024
Machine Age	hrs	Client Info		<b>22829</b>	22602	22546
Oil Age	hrs	Client Info		<b>3207</b>	2980	2924
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>N/A</b>	Not Changd	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>23</b>	13	10
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m	>5	<b>3</b>	<1	0
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	2	2
Lead	ppm	ASTM D5185m	>40	<b>3</b>	<1	2
Copper	ppm	ASTM D5185m	>330	<b>6</b>	3	2
Tin	ppm	ASTM D5185m	>15	<b>3</b>	1	2
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

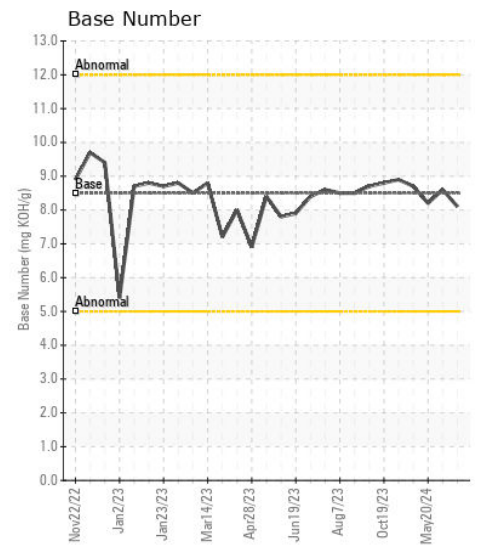
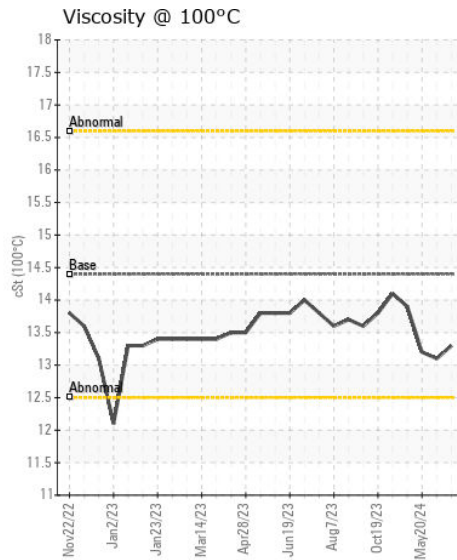
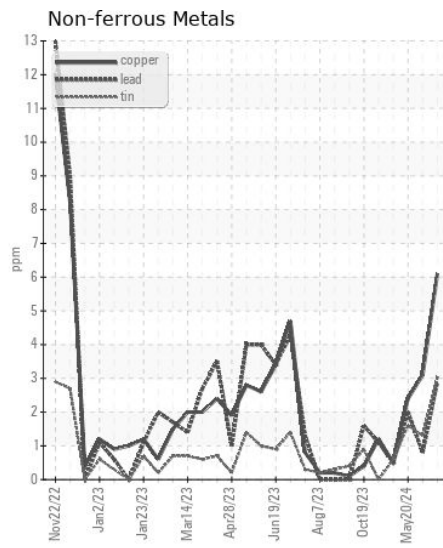
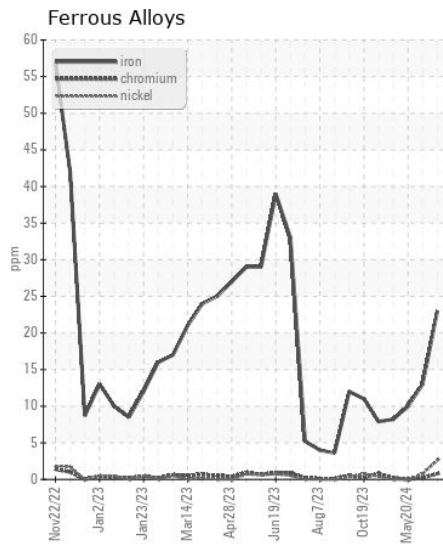
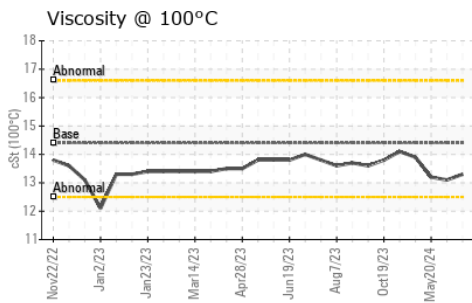
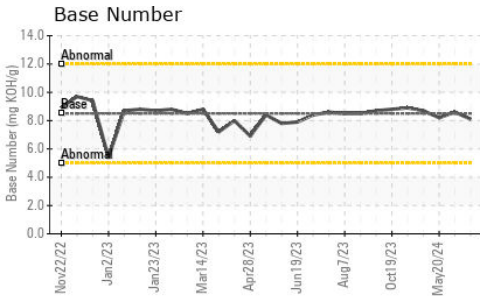
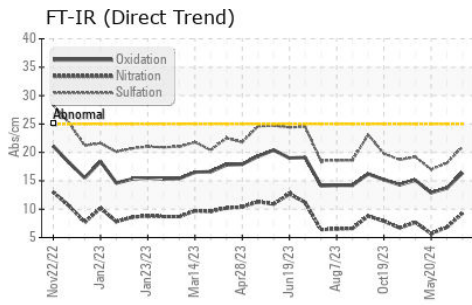
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>15</b>	14	15
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	4	<1
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<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>0.6</b>	0.3	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.3</b>	6.8	5.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.0</b>	18.1	17.0
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>9</b>	5	5
Boron	ppm	ASTM D5185m	250	<b>41</b>	15	21
Barium	ppm	ASTM D5185m	10	<b>1</b>	0	0
Molybdenum	ppm	ASTM D5185m	100	<b>62</b>	62	61
Manganese	ppm	ASTM D5185m		<b>1</b>	0	<1
Magnesium	ppm	ASTM D5185m	450	<b>912</b>	858	897
Calcium	ppm	ASTM D5185m	3000	<b>1078</b>	1034	1028
Phosphorus	ppm	ASTM D5185m	1150	<b>1044</b>	912	1017
Zinc	ppm	ASTM D5185m	1350	<b>1241</b>	1122	1170
Sulfur	ppm	ASTM D5185m	4250	<b>3071</b>	3049	3446
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.4</b>	13.7	12.9
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>8.1</b>	8.6	8.2
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.3</b>	13.1	13.2



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0081919  
**Lab Number** : 06219304  
**Unique Number** : 11097501  
**Test Package** : FLEET

**Received** : 25 Jun 2024  
**Tested** : 25 Jun 2024  
**Diagnosed** : 25 Jun 2024 - Wes Davis

GFL Environmental - 172 - Montgomery-Alexander City-Tallahassee  
 Multiple Sites  
 Montgomery, AL  
 US 36108  
 Contact: RICHARD HATFIELD  
 rhatfield@gflenv.com

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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F: