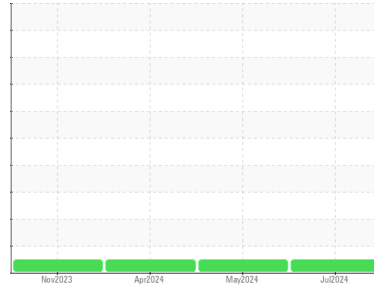




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**829098 PETERBILT 320**  
 Component  
**Diesel Engine**  
 Fluid  
**TIER 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### 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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>GFL0115228</b>	GFL0115301	GFL0102224
Sample Date	Client Info			<b>08 Jul 2024</b>	20 May 2024	10 Apr 2024
Machine Age	hrs	Client Info		<b>18597</b>	18360	18121
Oil Age	hrs	Client Info		<b>53</b>	241	0
Oil Changed	Client Info			<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>110	<b>23</b>	29	16
Chromium	ppm	ASTM D5185m	>4	<b>1</b>	1	1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>2</b>	3	3
Lead	ppm	ASTM D5185m	>45	<b>3</b>	3	<1
Copper	ppm	ASTM D5185m	>85	<b>1</b>	1	2
Tin	ppm	ASTM D5185m	>4	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>18</b>	14	16
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>59</b>	57	56
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>940</b>	889	868
Calcium	ppm	ASTM D5185m		<b>1254</b>	1133	1113
Phosphorus	ppm	ASTM D5185m		<b>1080</b>	1062	1065
Zinc	ppm	ASTM D5185m		<b>1331</b>	1248	1235
Sulfur	ppm	ASTM D5185m		<b>3863</b>	3513	3864

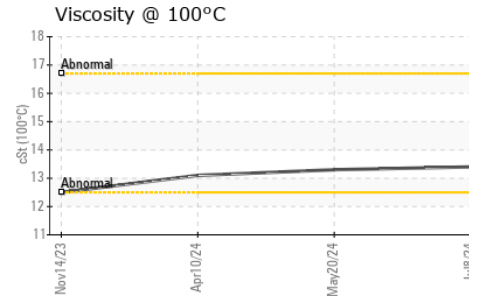
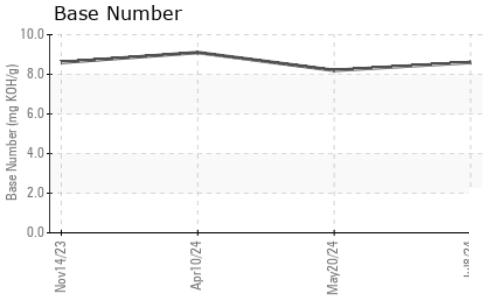
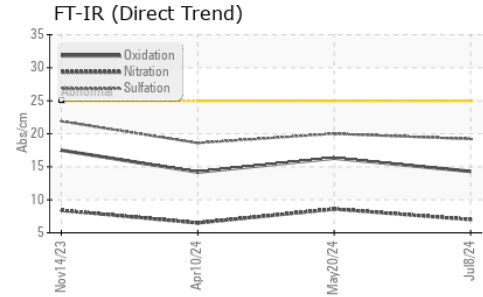
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>30	<b>7</b>	17	15
Sodium	ppm	ASTM D5185m		<b>3</b>	6	4
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	2	2

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	<b>0.4</b>	0.5	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.0</b>	8.6	6.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.2</b>	20.0	18.6

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.3</b>	16.3	14.2
Base Number (BN)	mg KOH/g	ASTM D2896		<b>8.6</b>	8.2	9.1



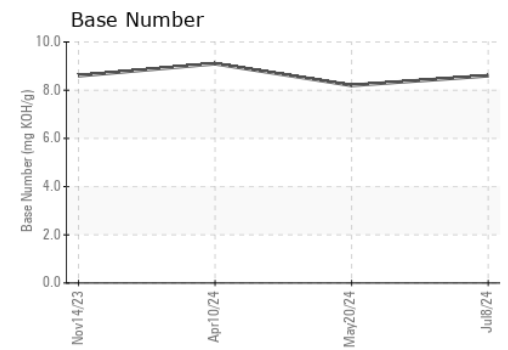
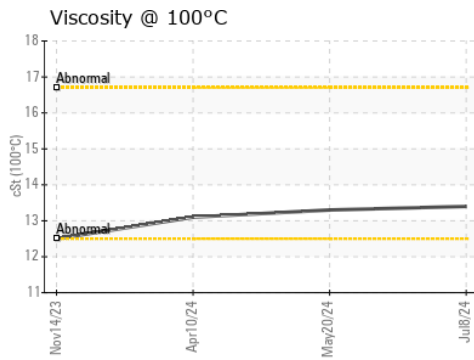
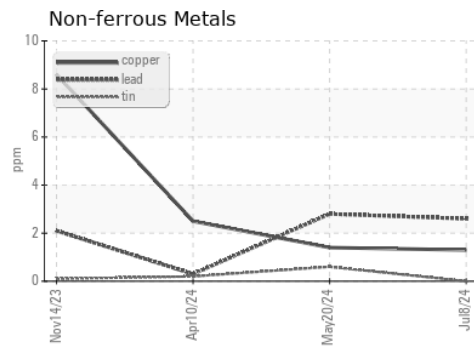
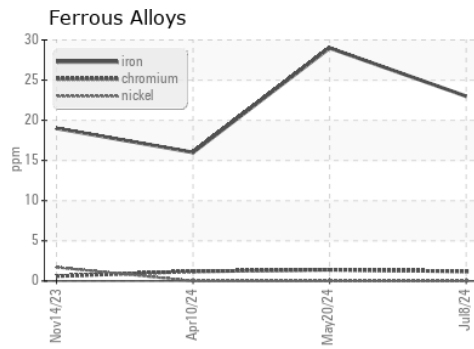
# OIL ANALYSIS REPORT



PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	<b>13.4</b>	13.3	13.1

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0115228      **Received** : 11 Jul 2024  
**Lab Number** : 06234329      **Tested** : 12 Jul 2024  
**Unique Number** : 11123163      **Diagnosed** : 12 Jul 2024 - Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 642- Grand Rapids Hauling**  
 5826 Alden Nash Ave SE  
 Lowell, MI  
 US 49331  
 Contact: Josh Arnett  
 joshuaarnett@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)