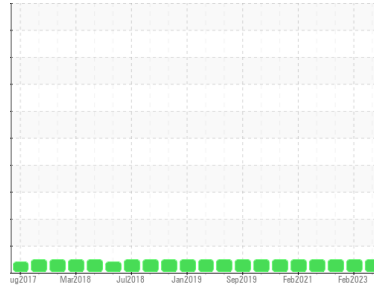




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**GM Renton Dump Truck Shop**  
 Machine Id  
**[GM Renton Dump Truck Shop] S12-216**  
 Component  
**Diesel Engine**  
 Fluid  
**CASTROL Vecton LD 10W30 (--- 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>PE0002343</b>	PE0001850	PE12230626
Sample Date	Client Info			<b>08 Dec 2023</b>	13 Feb 2023	23 May 2022
Machine Age	hrs	Client Info		<b>13585</b>	12689	11783
Oil Age	hrs	Client Info		<b>896</b>	1823	917
Oil Changed	Client Info			<b>Not Chngd</b>	Changed	Not Chngd
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>14</b>	28	17
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>25	<b>3</b>	5	3
Lead	ppm	ASTM D5185m	>45	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>85	<b>6</b>	6	5
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	0
Antimony	ppm	ASTM D5185m		<b>---</b>	---	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	---

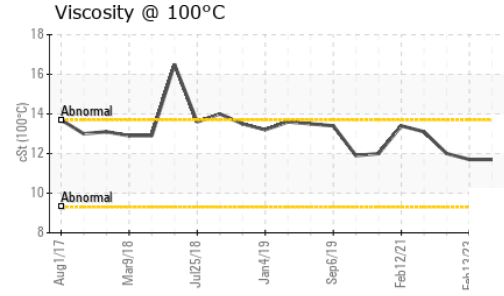
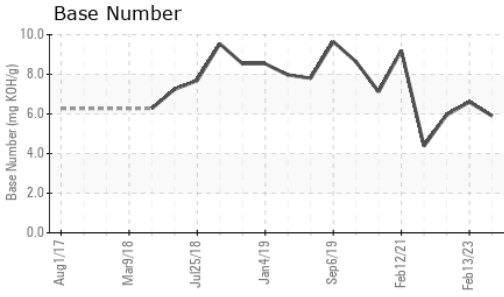
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>47</b>	15	25
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>15</b>	53	58
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185m		<b>210</b>	853	978
Calcium	ppm	ASTM D5185m		<b>1816</b>	1125	1075
Phosphorus	ppm	ASTM D5185m		<b>1000</b>	944	1010
Zinc	ppm	ASTM D5185m		<b>1134</b>	1175	1202
Sulfur	ppm	ASTM D5185m		<b>3162</b>	3123	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>30	<b>6</b>	7	4
Sodium	ppm	ASTM D5185m		<b>3</b>	2	1
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	6	3

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	<b>0.6</b>	0.9	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.9</b>	11.7	12
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.6</b>	24.0	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.6</b>	21.0	19
Base Number (BN)	mg KOH/g	ASTM D2896		<b>5.9</b>	6.6	5.95

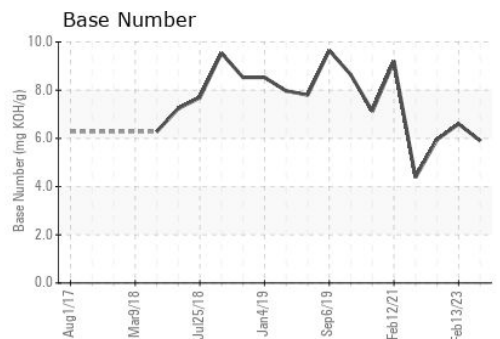
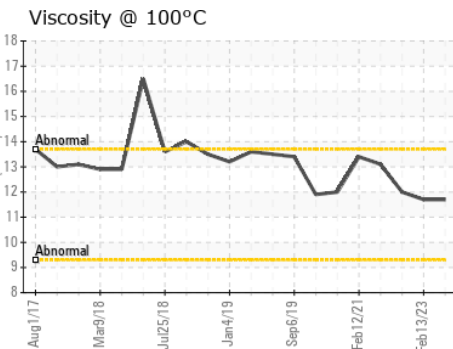
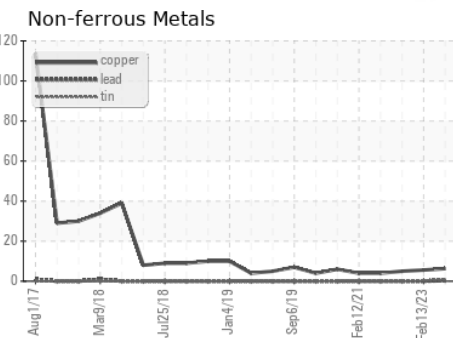
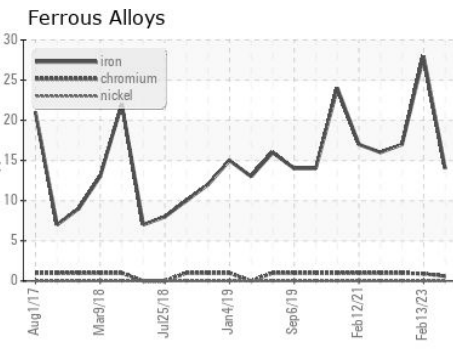
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
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	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	<b>11.7</b>	11.7	12.0

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PE0002343 **Received** : 12 Jan 2024  
**Lab Number** : **06060119** **Diagnosed** : 16 Jan 2024  
**Unique Number** : 10831501 **Diagnostician** : Doug Bogart  
**Test Package** : CONST ( Additional Tests: FT-IR, ICP, KV100, SCREEN, TBN )

**Gary Merlino Construction - Off Road Shop**  
 9125 10TH AVE SOUTH  
 SEATTLE, WA  
 US 98108  
 Contact: Zack  
 oilsamples@gmccinc.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)