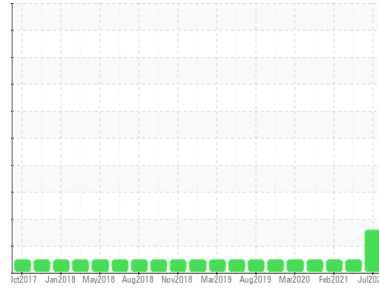




# PROBLEM SUMMARY

Sample Rating Trend

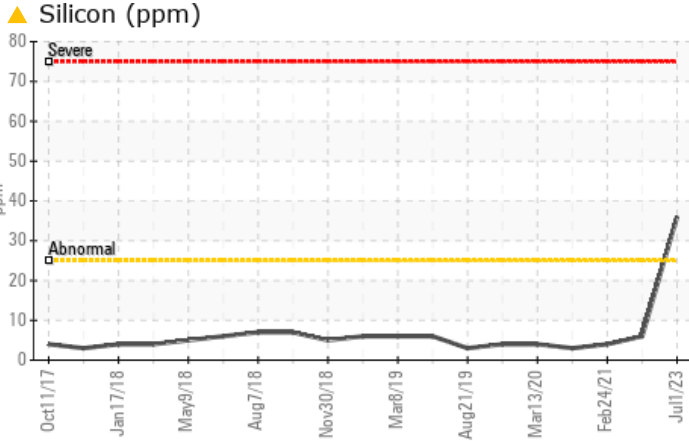


**DIRT**



Area  
**GM Renton Dump Truck Shop**  
 Machine Id  
**[GM Renton Dump Truck Shop] S12-214**  
 Component  
**Diesel Engine**  
 Fluid  
**CASTROL Vecton LD 10W30 (--- GAL)**

## COMPONENT CONDITION SUMMARY



## 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.

## PROBLEMATIC TEST RESULTS

Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL
Silicon	ppm	ASTM D5185m	>25	▲ 36	6	4

Customer Id: GARSEA  
 Sample No.: PE0001227  
 Lab Number: 05903674  
 Test Package: CONST



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Don Baldrige +1  
[don.b505@comcast.net](mailto:don.b505@comcast.net)

To change component or sample information:  
 Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

## HISTORICAL DIAGNOSIS

### 26 Jul 2021 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

[view report](#)



### 24 Feb 2021 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

[view report](#)



### 13 Aug 2020 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

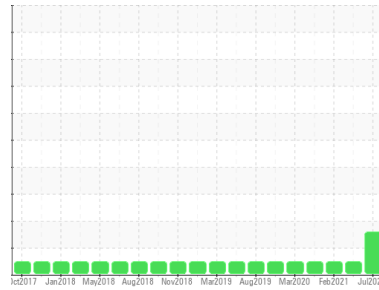
[view report](#)





# OIL ANALYSIS REPORT

Sample Rating Trend



**DIRT**



Area  
**GM Renton Dump Truck Shop**  
 Machine Id  
**[GM Renton Dump Truck Shop] S12-214**  
 Component  
**Diesel Engine**  
 Fluid  
**CASTROL Vecton LD 10W30 (--- GAL)**

## DIAGNOSIS

### ▲ 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.

### Wear

All component wear rates are normal.

### ▲ Contamination

Elemental level of silicon (Si) above normal.

### 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>PE0001227</b>	PE12290263	PE12290316
Sample Date	Client Info		<b>01 Jul 2023</b>	26 Jul 2021	24 Feb 2021
Machine Age	hrs	Client Info	<b>14541</b>	13696	12801
Oil Age	hrs	Client Info	<b>1740</b>	895	1864
Oil Changed	Client Info		<b>Changed</b>	Not Changd	Changed
Sample Status			<b>ABNORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	<b>35</b>	10	21
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	1	1
Nickel	ppm	ASTM D5185m >4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185m >20	<b>4</b>	1	3
Lead	ppm	ASTM D5185m >40	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >330	<b>7</b>	6	5
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	0	0
Antimony	ppm	ASTM D5185m	<b>---</b>	0	2
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	---	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>17</b>	30	18
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>63</b>	65	69
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	---	---
Magnesium	ppm	ASTM D5185m	<b>1094</b>	1055	1138
Calcium	ppm	ASTM D5185m	<b>1041</b>	1029	1159
Phosphorus	ppm	ASTM D5185m	<b>1021</b>	1061	1197
Zinc	ppm	ASTM D5185m	<b>1333</b>	1309	1383
Sulfur	ppm	ASTM D5185m	<b>3867</b>	---	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>▲ 36</b>	6	4
Sodium	ppm	ASTM D5185m	<b>3</b>	0	0
Potassium	ppm	ASTM D5185m >20	<b>3</b>	1	2

## INFRA-RED

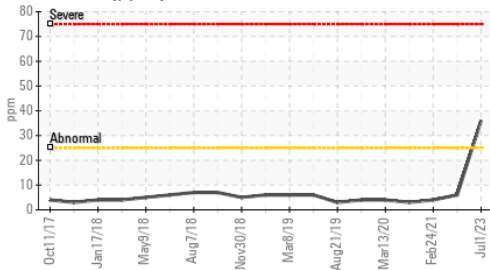
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.6</b>	0.1	0.2
Nitration	Abs/cm	*ASTM D7624 >20	<b>11.0</b>	10	13
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>22.8</b>	---	---

## FLUID DEGRADATION

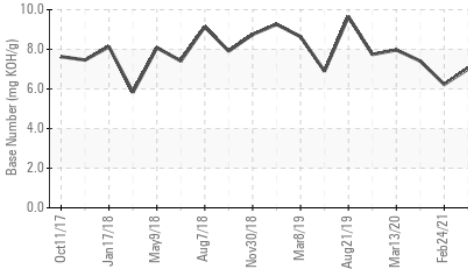
	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>19.7</b>	18	23
Base Number (BN)	mg KOH/g	ASTM D2896	<b>6.9</b>	7.01	6.23

# OIL ANALYSIS REPORT

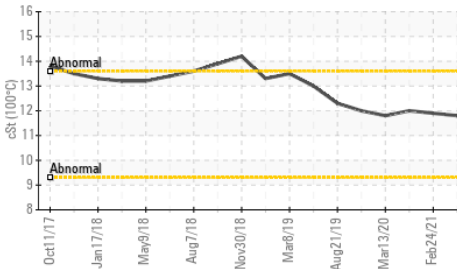
▲ Silicon (ppm)



Base Number



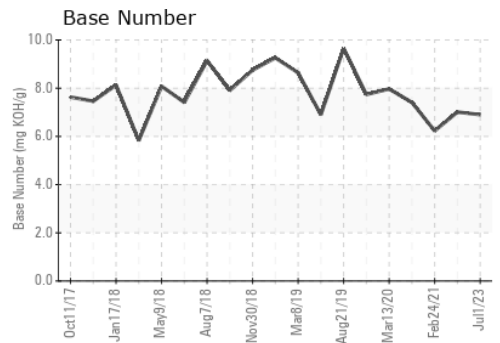
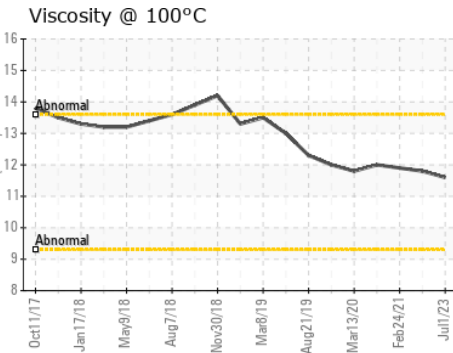
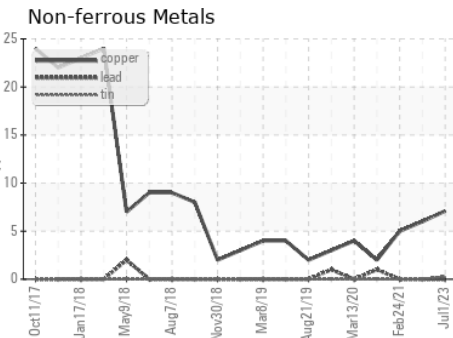
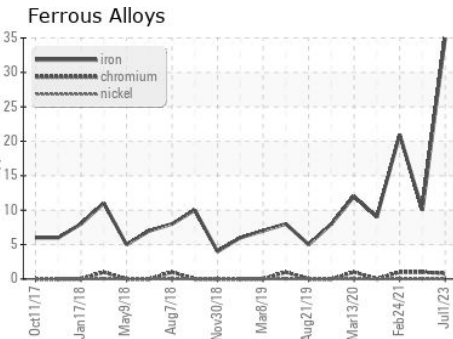
Viscosity @ 100°C



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	11.6	11.8	11.9

### GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PE0001227 **Received** : 20 Jul 2023  
**Lab Number** : 05903674 **Diagnosed** : 24 Jul 2023  
**Unique Number** : 10565030 **Diagnostician** : Don Baldrige  
**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)

T:  
F: