



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
GM Renton Dump Truck Shop
 Machine Id
[GM Renton Dump Truck Shop] S12-219
 Component
Diesel Engine
 Fluid
CASTROL Vecton LD 10W30 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PE0001225	PE0000302	PE12290234
Sample Date		Client Info		01 Jul 2023	02 Nov 2022	27 Oct 2021
Machine Age	hrs	Client Info		6725	5805	4888
Oil Age	hrs	Client Info		1837	917	1799
Filter Age	hrs	Client Info		1837	0	---
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	Not Changed	---
Sample Status				NORMAL	NORMAL	MARGINAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	47	28	67
Chromium	ppm	ASTM D5185m	>20	<1	<1	0
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	8	5	12
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	4	3	5
Tin	ppm	ASTM D5185m	>15	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

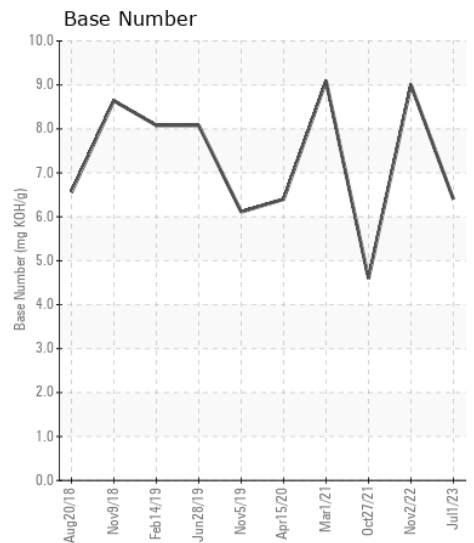
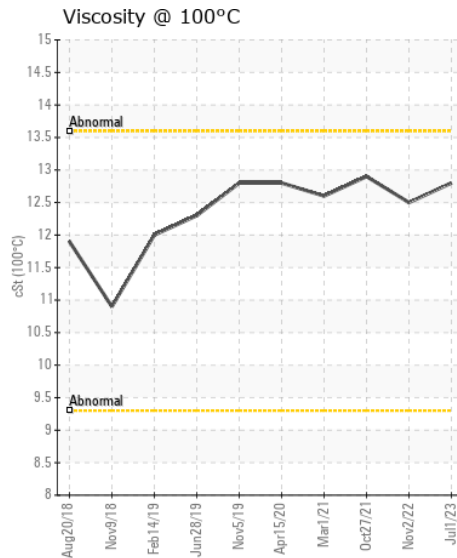
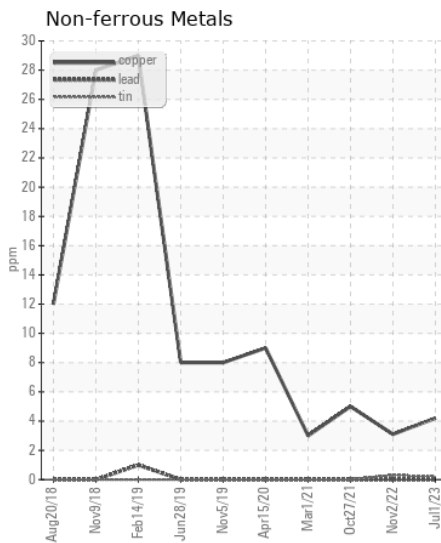
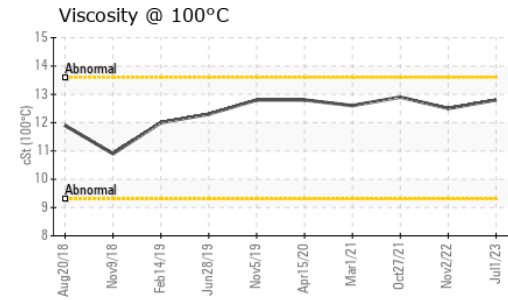
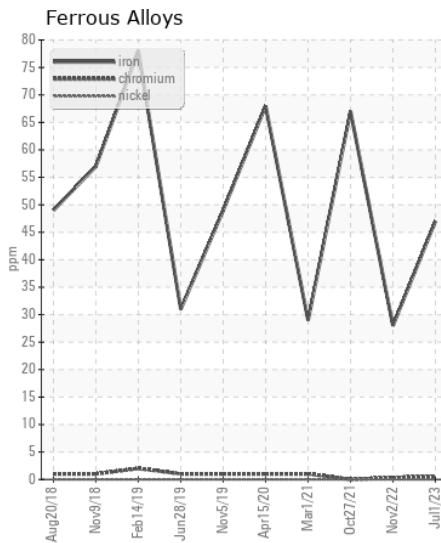
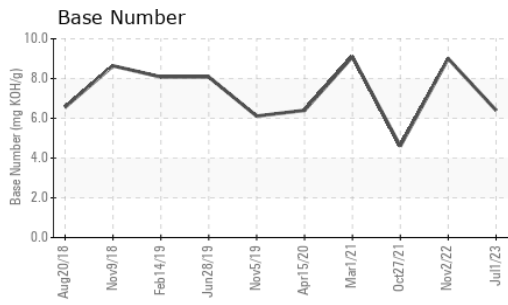
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	6	7	8
Potassium	ppm	ASTM D5185m	>20	17	14	33
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1.2	0.8	0.6
Nitration	Abs/cm	*ASTM D7624	>20	12.4	11.2	15
Sulfation	Abs/.1mm	*ASTM D7415	>30	26.1	23.6	---
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	---

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		3	<1	4
Boron	ppm	ASTM D5185m		24	31	17
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		58	68	73
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m		1012	1138	1254
Calcium	ppm	ASTM D5185m		1269	1058	1322
Phosphorus	ppm	ASTM D5185m		1088	1116	1276
Zinc	ppm	ASTM D5185m		1395	1356	1533
Sulfur	ppm	ASTM D5185m		3859	3940	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	22.9	19.8	27
Base Number (BN)	mg KOH/g	ASTM D2896		6.4	9	▲ 4.60
Visc @ 100°C	cSt	ASTM D445		12.8	12.5	12.9



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PE0001225 **Received** : 20 Jul 2023
Lab Number : 05903673 **Diagnosed** : 24 Jul 2023
Unique Number : 10565029 **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
 T:
 F:

Certificate L2367
 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)