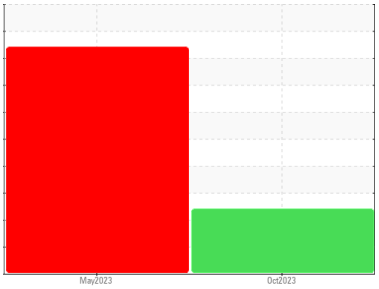
PROBLEM SUMMARY

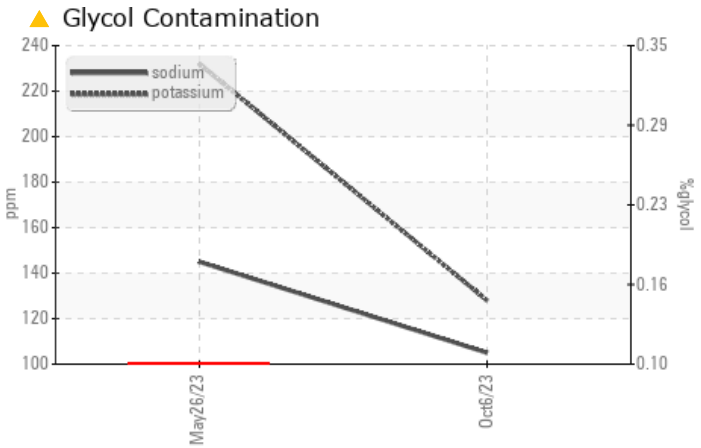
Sample Rating Trend



GLYCOL

Machine Id
S4
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	SEVERE	---
Sodium	ppm	ASTM D5185m	>158	▲ **105**	▲ 145	---
Potassium	ppm	ASTM D5185m	>20	▲ **128**	▲ 232	---

Customer Id: AVWSEW
Sample No.: WC0841465
Lab Number: 05999564
Test Package: CONST

To manage this report scan the QR code

To discuss the diagnosis or test data:
Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
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.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Glycol Access	---	---	?	We advise that you check for the source of the coolant leak.

HISTORICAL DIAGNOSIS

26 May 2023 Diag: Wes Davis

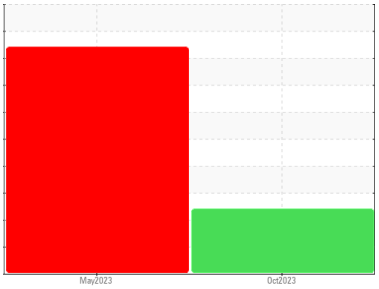
GLYCOL

We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample.All component wear rates are normal. Test for glycol is positive. There is a high concentration of glycol present in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL

Machine Id
S4
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

DIAGNOSIS

Recommendation
We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear
All component wear rates are normal.

Contamination
Sodium and/or potassium levels are high.

Fluid Condition
The BN result indicates that there is suitable alkalinity remaining in the oil.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0841465**	WC0758972	---
Sample Date		Client Info		**06 Oct 2023**	26 May 2023	---
Machine Age	hrs	Client Info		**10310**	9198	---
Oil Age	hrs	Client Info		**527**	585	---
Oil Changed		Client Info		**Changed**	Changed	---
Sample Status				**ABNORMAL**	SEVERE	---

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>5	**<1.0**	<1.0	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>110	**82**	20	---
Chromium	ppm	ASTM D5185m	>4	**1**	<1	---
Nickel	ppm	ASTM D5185m	>2	**<1**	0	---
Titanium	ppm	ASTM D5185m		**0**	0	---
Silver	ppm	ASTM D5185m	>2	**<1**	0	---
Aluminum	ppm	ASTM D5185m	>25	**3**	3	---
Lead	ppm	ASTM D5185m	>45	**<1**	3	---
Copper	ppm	ASTM D5185m	>85	**5**	<1	---
Tin	ppm	ASTM D5185m	>4	**<1**	<1	---
Vanadium	ppm	ASTM D5185m		**0**	0	---
Cadmium	ppm	ASTM D5185m		**0**	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	**20**	44	---
Barium	ppm	ASTM D5185m	10	**0**	0	---
Molybdenum	ppm	ASTM D5185m	100	**84**	131	---
Manganese	ppm	ASTM D5185m		**<1**	<1	---
Magnesium	ppm	ASTM D5185m	450	**801**	73	---
Calcium	ppm	ASTM D5185m	3000	**1387**	2326	---
Phosphorus	ppm	ASTM D5185m	1150	**1089**	1038	---
Zinc	ppm	ASTM D5185m	1350	**1351**	1261	---
Sulfur	ppm	ASTM D5185m	4250	**3649**	4559	---

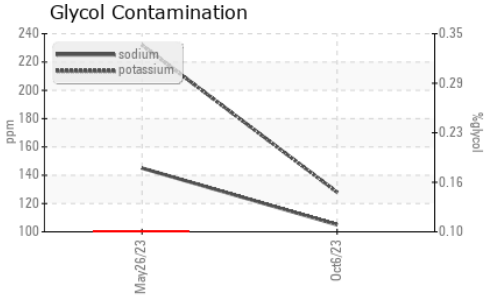
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>30	**6**	7	---
Sodium	ppm	ASTM D5185m	>158	▲ **105**	▲ 145	---
Potassium	ppm	ASTM D5185m	>20	▲ **128**	▲ 232	---
Glycol	%	*ASTM D2982		**NEG**	⬢ 0.10	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	**0.3**	0.5	---
Nitration	Abs/cm	*ASTM D7624	>20	**7.1**	11.8	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	**18.7**	22.1	---

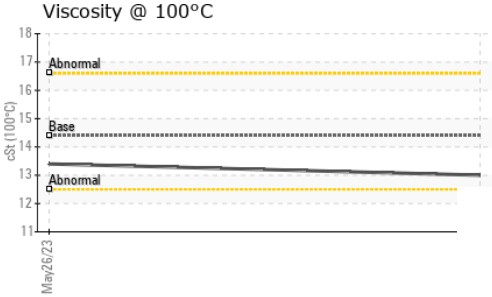
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**13.3**	16.5	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	**8.9**	5.6	---

OIL ANALYSIS REPORT

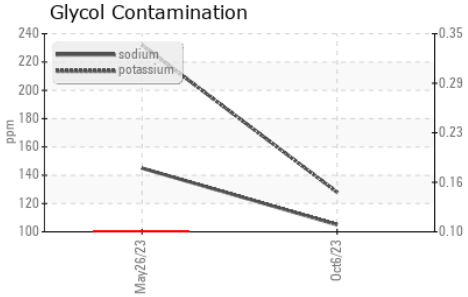
Glycol Contamination



Viscosity @ 100°C



Glycol Contamination

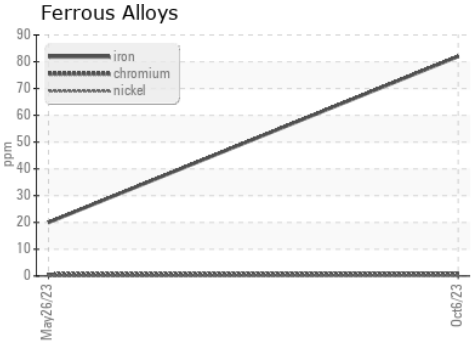


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	---
Silt	scalar	*Visual	NONE	**NONE**	NONE	---
Debris	scalar	*Visual	NONE	**NONE**	NONE	---
Sand/Dirt	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	---

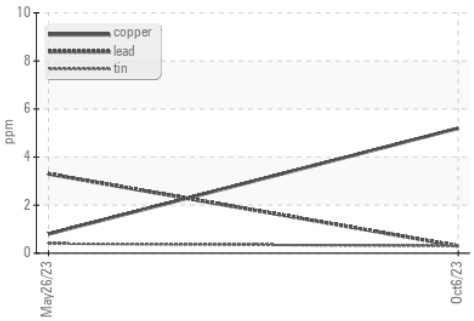
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	**13.0**	13.4	---

GRAPHS

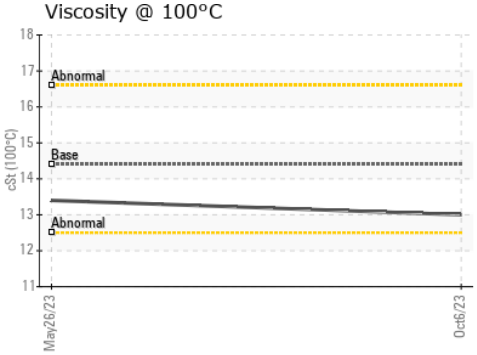
Ferrous Alloys



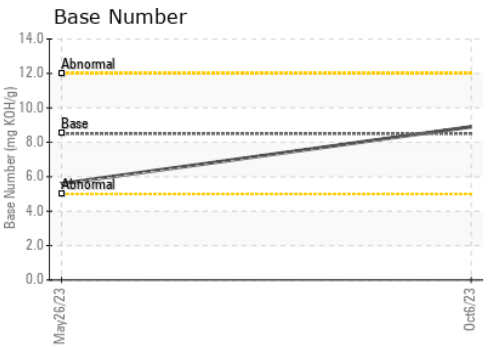
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0841465 **Received** : 06 Nov 2023
Lab Number : 05999564 **Diagnosed** : 08 Nov 2023
Unique Number : 10727924 **Diagnostician** : Jonathan Hester
Test Package : CONST (Additional Tests: TBN)

Apple Valley Waste - SEW Location
309 Salina Road
Sewell, NJ
US 08080
Contact: Service Manager

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: