



WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL

Machine Id
112
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (--- QTS)

RECOMMENDATION

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0719777	WCM1371523	WCM1353863
Sample Date		Client Info		25 Jan 2024	09 Nov 2020	14 Apr 2020
Machine Age	mls	Client Info		43145	0	18036
Oil Age	mls	Client Info		0	0	0
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	N/A
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				SEVERE	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	78	▲ 102	32
Chromium	ppm	ASTM D5185m	>20	2	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	<1	<1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	5	<1	2
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	2	3	1
Tin	ppm	ASTM D5185m	>15	0	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

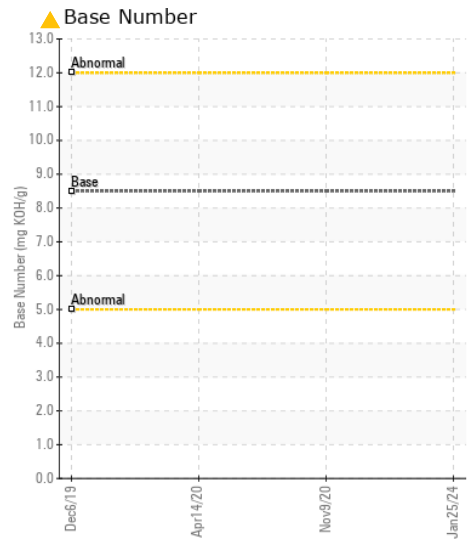
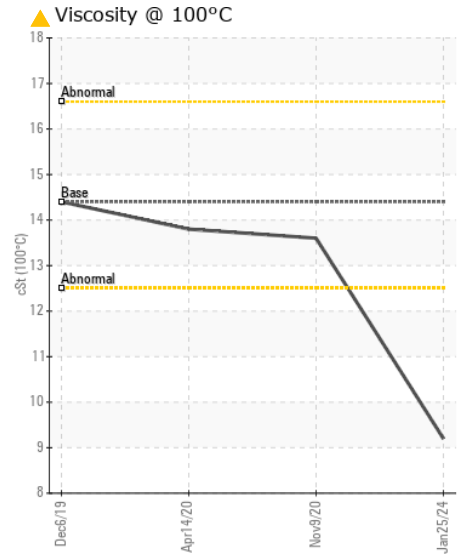
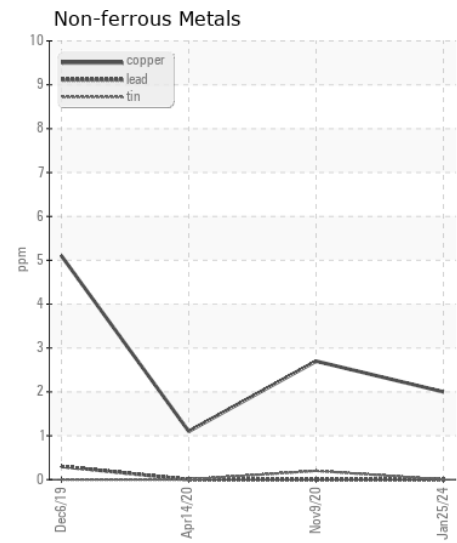
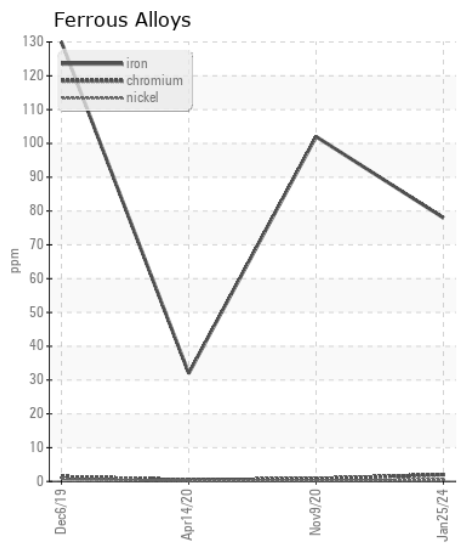
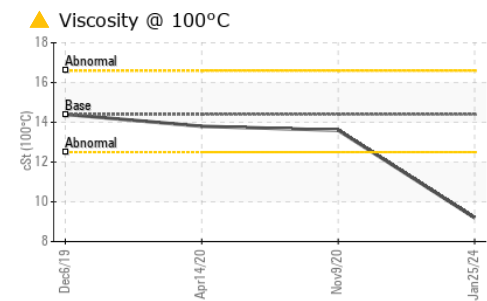
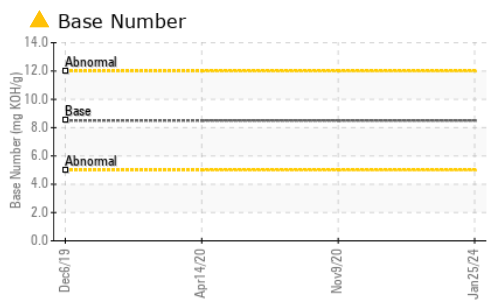
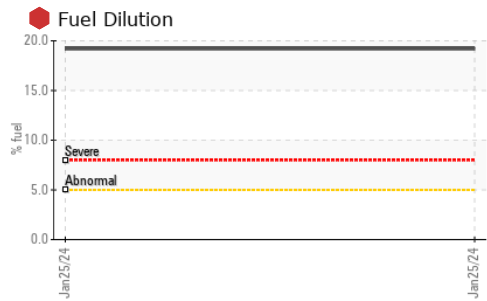
There is a high amount of fuel present in the oil.

Silicon	ppm	ASTM D5185m	>25	8	6	4
Potassium	ppm	ASTM D5185m	>20	2	7	<1
Fuel	%	ASTM D3524	>5	19.2	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.9	1.1	0.8
Nitration	Abs/cm	*ASTM D7624	>20	16.5	12.1	9.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	41.1	26.3	21.3
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

FLUID CONDITION

Fuel is present in the oil and is lowering the viscosity. The BN level is low. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m	>216	0	2	2
Boron	ppm	ASTM D5185m	250	0	2	<1
Barium	ppm	ASTM D5185m	10	0	<1	0
Molybdenum	ppm	ASTM D5185m	100	26	2	<1
Manganese	ppm	ASTM D5185m		<1	1	<1
Magnesium	ppm	ASTM D5185m	450	373	13	8
Calcium	ppm	ASTM D5185m	3000	1133	2280	2424
Phosphorus	ppm	ASTM D5185m	1150	601	896	871
Zinc	ppm	ASTM D5185m	1350	816	1037	1000
Sulfur	ppm	ASTM D5185m	4250	2162	3040	3029
Oxidation	Abs/.1mm	*ASTM D7414	>25	61.8	17.8	14.1
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	▲ 0.0	---	---
Visc @ 100°C	cSt	ASTM D445	14.4	▲ 9.2	13.6	13.8



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0719777 **Received** : 14 Feb 2024
Lab Number : 06089272 **Tested** : 16 Feb 2024
Unique Number : 10876717 **Diagnosed** : 16 Feb 2024 - Jonathan Hester
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

ALMSTEAD TREE & SHRUB CARE CO
 58 BEECHWOOD AVE
 NEW ROCHELLE, NY
 US 10801
 Contact:

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)

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