



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
1955
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 5W30 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		HRE0000131	WC0887585	WC0827025
Sample Date		Client Info		09 Apr 2024	05 Feb 2024	14 Dec 2023
Machine Age	mls	Client Info		0	0	103378
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				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	12	9	14
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	<1	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	4	4	3
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	<1	<1	<1
Tin	ppm	ASTM D5185m	>15	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

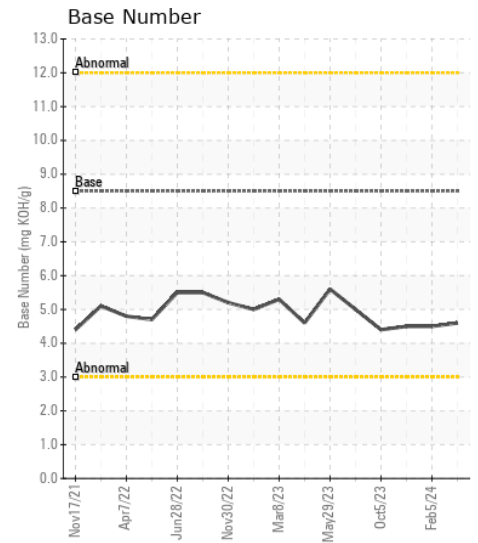
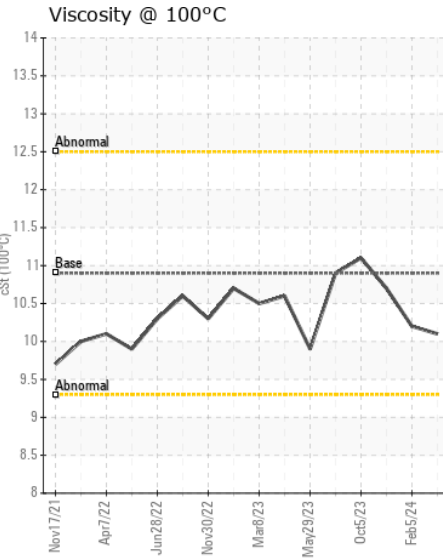
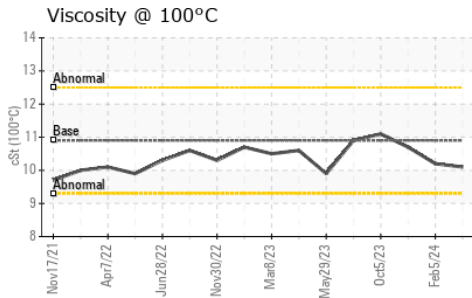
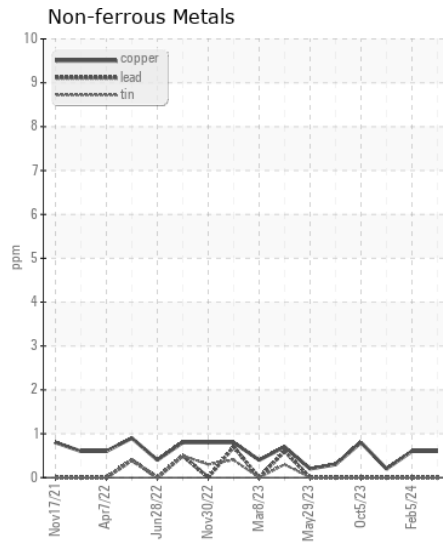
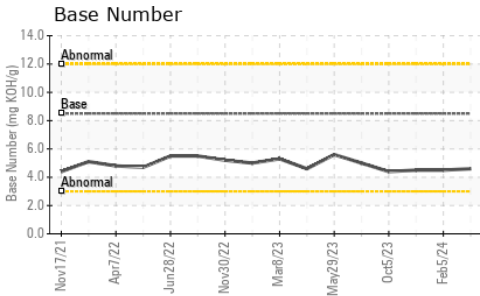
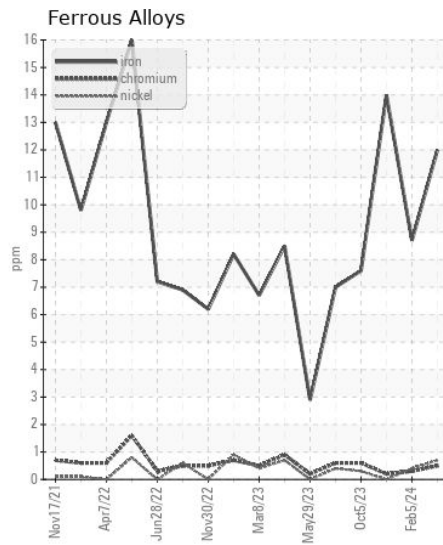
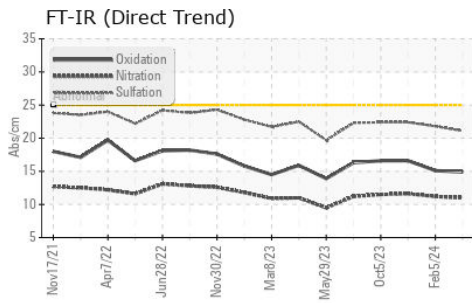
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	18	17	18
Potassium	ppm	ASTM D5185m	>20	2	2	0
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	0	0	0
Nitration	Abs/cm	*ASTM D7624	>20	11.0	11.2	11.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.1	21.8	22.4
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

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		1	1	2
Boron	ppm	ASTM D5185m	250	32	23	18
Barium	ppm	ASTM D5185m	10	<1	10	0
Molybdenum	ppm	ASTM D5185m	100	204	187	165
Manganese	ppm	ASTM D5185m		4	4	2
Magnesium	ppm	ASTM D5185m	450	543	557	552
Calcium	ppm	ASTM D5185m	3000	1150	1068	1134
Phosphorus	ppm	ASTM D5185m	1150	520	597	491
Zinc	ppm	ASTM D5185m	1350	637	667	653
Sulfur	ppm	ASTM D5185m	4250	2264	2641	2301
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.9	15.1	16.6
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	4.6	4.5	4.5
Visc @ 100°C	cSt	ASTM D445	10.9	10.1	10.2	10.7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : HRE0000131
Lab Number : 06148479
Unique Number : 10978557
Test Package : FLEET
Received : 15 Apr 2024
Tested : 16 Apr 2024
Diagnosed : 17 Apr 2024 - Jonathan Hester

TOWN OF CHAPEL HILL
 6900 MILLHOUSE RD
 CHAPEL HILL, NC
 US 27516

Contact: Lisa DePasqua
 ldepasqua@townofchapelhill.org

T: (919)696-4941

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)

F: