CONST

WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	ABNORMAL

Area
YARD FERROUS
Machine Id
SENNEBOGEN 830M C195 (S/N 830.0.2061)
Component
Diesel Engine
Fluid
SHELL 15W40 (--- GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

WEAR

All component wear rates are normal.

CONTAMINATION

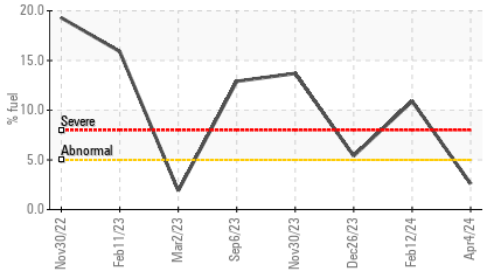
Light fuel dilution occurring. No other contaminants were detected in the oil.

FLUID CONDITION

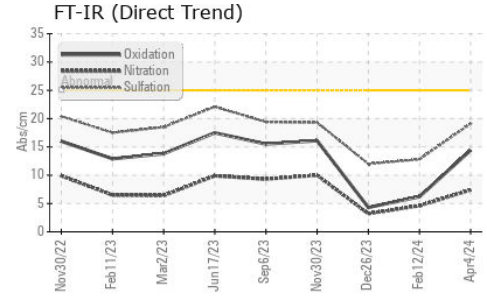
Sulfur ppm levels are abnormally high. The BN result indicates that there is suitable alkalinity remaining in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0902264	WC0902270	WC0870248
Sample Date		Client Info		04 Apr 2024	12 Feb 2024	26 Dec 2023
Machine Age	hrs	Client Info		11580	11520	11486
Oil Age	hrs	Client Info		50	34	0
Filter Age	hrs	Client Info		50	34	0
Oil Changed		Client Info		Changed	Changed	N/A
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				ABNORMAL	SEVERE	ABNORMAL
Iron	ppm	ASTM D5185m	>100	16	16	5
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m		83	10	4
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	3	4	2
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	2	<1	<1
Tin	ppm	ASTM D5185m	>15	<1	0	<1
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	5	3	<1
Potassium	ppm	ASTM D5185m	>20	2	6	2
Fuel	%	ASTM D3524	>5	▲ 2.6	▲ 10.9	▲ 5.4
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.3	0.2
Nitration	Abs/cm	*ASTM D7624	>20	7.4	4.6	3.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.1	12.8	12.0
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
Sodium	ppm	ASTM D5185m	>150	2	2	1
Boron	ppm	ASTM D5185m		137	16	4
Barium	ppm	ASTM D5185m		1	0	0
Molybdenum	ppm	ASTM D5185m		4	9	3
Manganese	ppm	ASTM D5185m		1	0	<1
Magnesium	ppm	ASTM D5185m		414	180	98
Calcium	ppm	ASTM D5185m		1627	▲ 352	● 186
Phosphorus	ppm	ASTM D5185m		970	499	415
Zinc	ppm	ASTM D5185m		1143	605	527
Sulfur	ppm	ASTM D5185m		▲ 4036	1440	1104
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.4	6.2	4.3
Base Number (BN)	mg KOH/g	ASTM D2896		8.1	3.3	▲ 1.2
Visc @ 100°C	cSt	ASTM D445		12.9	▲ 7.1	▲ 7.1

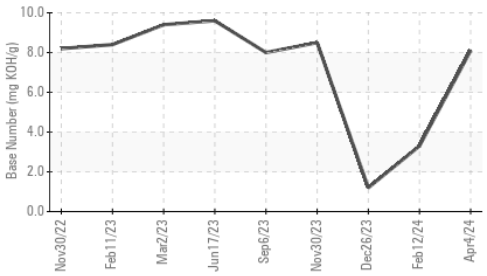
Fuel Dilution



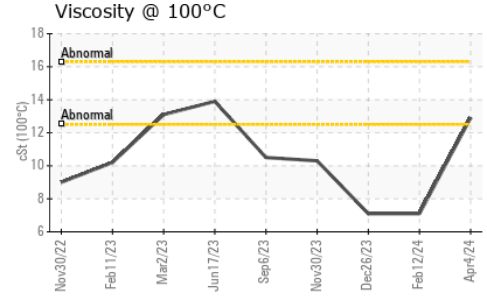
FT-IR (Direct Trend)



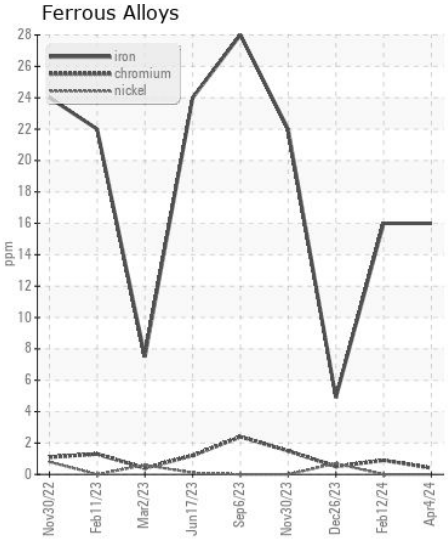
Base Number



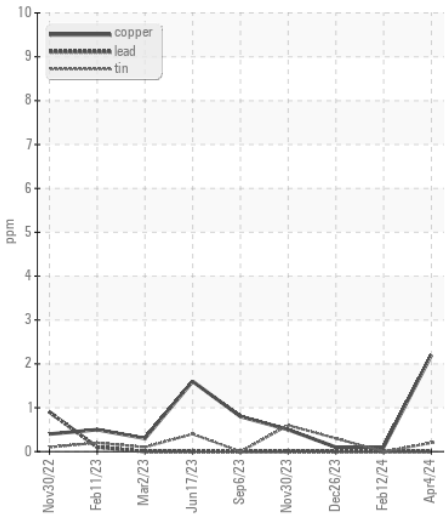
Viscosity @ 100°C



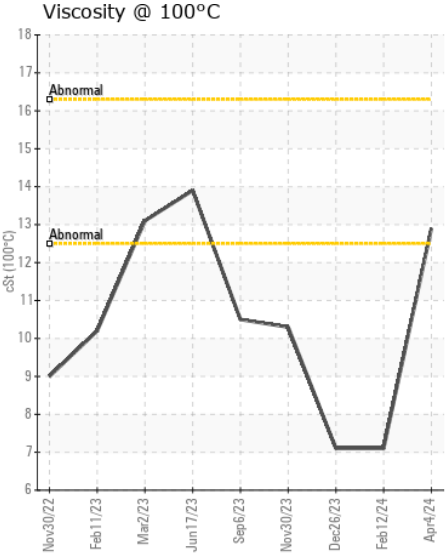
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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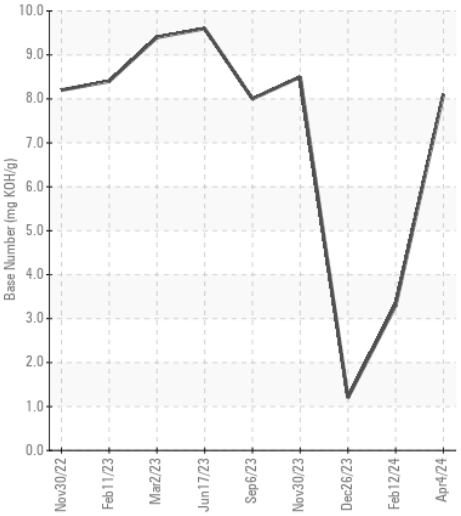

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0902264
Lab Number : 06155764
Unique Number : 10991187
Test Package : CONST (Additional Tests: PercentFuel, TBN)

Received : 22 Apr 2024
Tested : 25 Apr 2024
Diagnosed : 25 Apr 2024 - Wes Davis

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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