MAR II

WEAR CHECK Inland Marine Oil Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
TENNESSEE MERCHANT (S/N 85201420)
Component
Port Genset
Fluid
CHEVRON DELO 400 MULTIGRADE 15W40 (7 GAL)

RECOMMENDATION

The oil 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

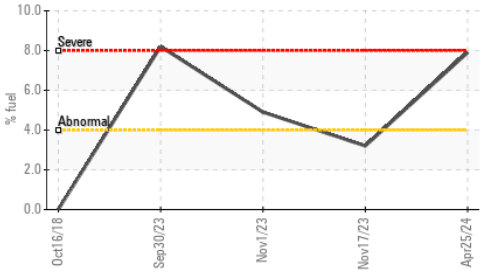
There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

FLUID CONDITION

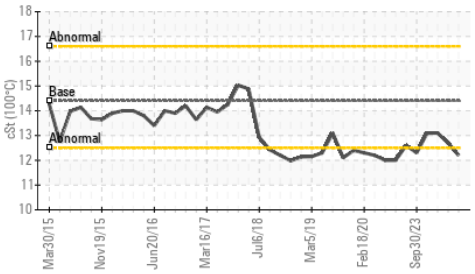
The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0044881	MWM731253	MW0044712
Sample Date		Client Info		25 Apr 2024	02 Dec 2023	17 Nov 2023
Machine Age	hrs	Client Info		3760	3348	3111
Oil Age	hrs	Client Info		497	363	119
Filter Age	hrs	Client Info		497	0	119
Oil Changed		Client Info		Changed	Changed	Not Changd
Filter Changed		Client Info		Changed	Changed	Not Changd
Sample Status				ABNORMAL	NORMAL	MARGINAL
Iron	ppm	ASTM D5185m	>50	11	7	2
Chromium	ppm	ASTM D5185m	>4	<1	0	0
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		10	0	6
Silver	ppm	ASTM D5185m	>5	<1	0	0
Aluminum	ppm	ASTM D5185m	>12	2	2	3
Lead	ppm	ASTM D5185m	>17	<1	0	0
Copper	ppm	ASTM D5185m	>70	1	<1	<1
Tin	ppm	ASTM D5185m	>15	<1	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	7	6	5
Potassium	ppm	ASTM D5185m	>20	5	<1	2
Fuel	%	ASTM D3524	>4.0	▲ 7.9	<1.0	▲ 3.2
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.2	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	11.1	10.7	8.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.3	20.3	19.2
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	>0.1	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m		3	28	2
Boron	ppm	ASTM D5185m	151	78	1	155
Barium	ppm	ASTM D5185m	0.4	0	0	0
Molybdenum	ppm	ASTM D5185m	250	50	56	82
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m	0	635	915	715
Calcium	ppm	ASTM D5185m	2046	1351	1077	1371
Phosphorus	ppm	ASTM D5185m	1043	729	1021	712
Zinc	ppm	ASTM D5185m	943	772	1233	851
Sulfur	ppm	ASTM D5185m	5012	3024	2990	2981
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.4	19.3	15.2
Base Number (BN)	mg KOH/g	ASTM D2896	12.5	6.7	6.6	7.9
Visc @ 100°C	cSt	ASTM D445	14.4	▲ 12.2	12.7	13.1

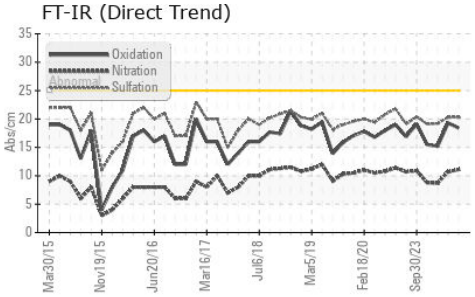
Fuel Dilution



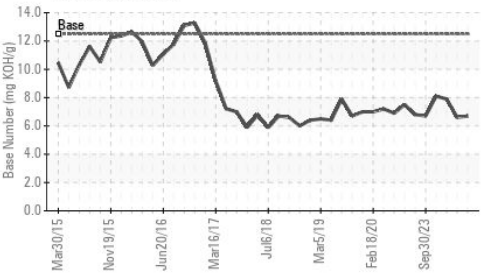
Viscosity @ 100°C



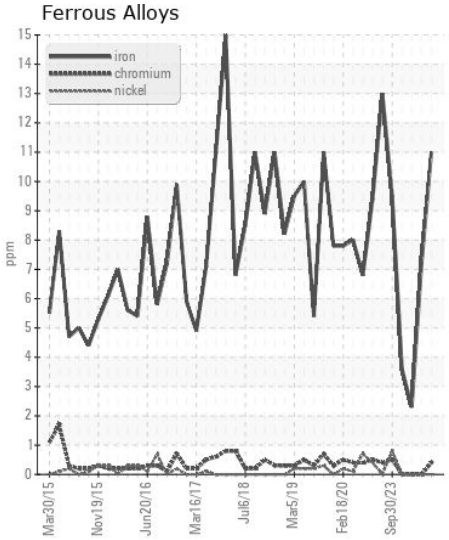
FT-IR (Direct Trend)



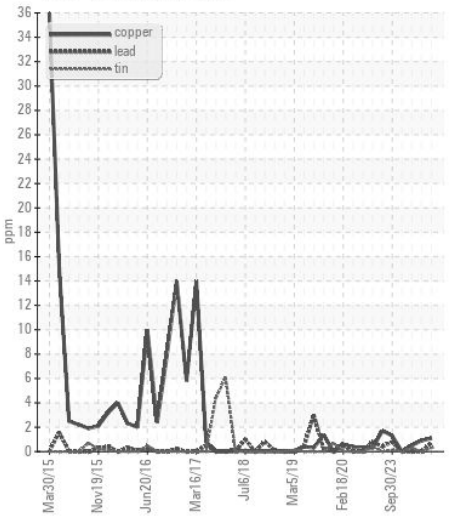
Base Number



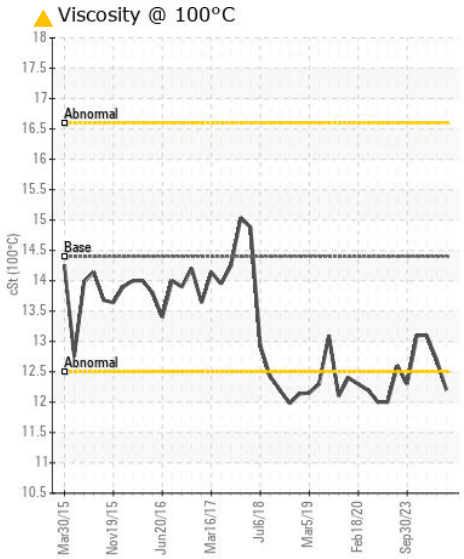
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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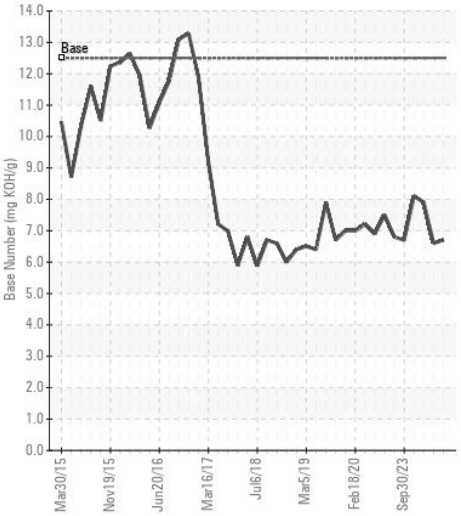

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0044881 **Received** : 21 May 2024
Lab Number : 06185884 **Tested** : 24 May 2024
Unique Number : 11042636 **Diagnosed** : 24 May 2024 - Wes Davis
Test Package : MAR 2 (Additional Tests: FuelDilution, PercentFuel)

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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