MAR II

WEAR CHECK Inland Marine Oil Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
ELEANOR G MCDONALD
Machine Id
[ELEANOR G MCDONALD] 001 552824-1
Component
Port Main Engine
Fluid
CHEVRON DELO 710 LS (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

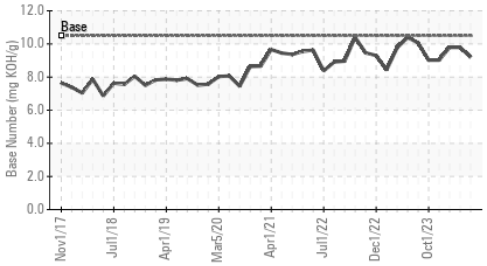
There is no indication of any contamination in the oil.

FLUID CONDITION

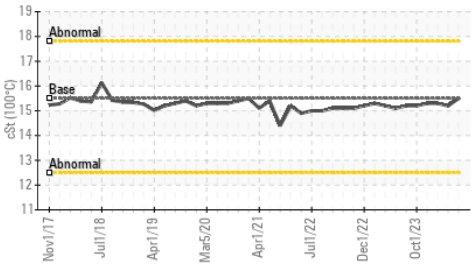
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0065705	MW0065696	MW0055470
Sample Date		Client Info		05 Mar 2024	01 Jan 2024	01 Dec 2023
Machine Age	hrs	Client Info		12723	93794	11454
Oil Age	hrs	Client Info		12723	12213	11454
Filter Age	hrs	Client Info		466	407	286
Oil Changed		Client Info		N/A	N/A	Changed
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>75	35	19	18
Chromium	ppm	ASTM D5185m	>8	3	2	2
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m	>3	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>15	4	2	2
Lead	ppm	ASTM D5185m	>18	8	6	4
Copper	ppm	ASTM D5185m	>80	30	18	18
Tin	ppm	ASTM D5185m	>14	10	6	6
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>20	8	4	5
Potassium	ppm	ASTM D5185m	>20	3	<1	2
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		1.7	1.5	1.4
Nitration	Abs/cm	*ASTM D7624	>20	9.0	8.9	8.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.7	18.6	18.5
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	>75	2	<1	<1
Boron	ppm	ASTM D5185m		68	39	42
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		74	47	45
Manganese	ppm	ASTM D5185m		2	1	1
Magnesium	ppm	ASTM D5185m		44	29	30
Calcium	ppm	ASTM D5185m		5485	3529	3383
Phosphorus	ppm	ASTM D5185m		44	23	25
Zinc	ppm	ASTM D5185m		41	22	19
Sulfur	ppm	ASTM D5185m		4218	2603	2323
Oxidation	Abs/.1mm	*ASTM D7414	>25	8.9	8.9	9.2
Base Number (BN)	mg KOH/g	ASTM D2896	10.5	9.20	9.79	9.79
Visc @ 100°C	cSt	ASTM D445	15.5	15.5	15.2	15.3

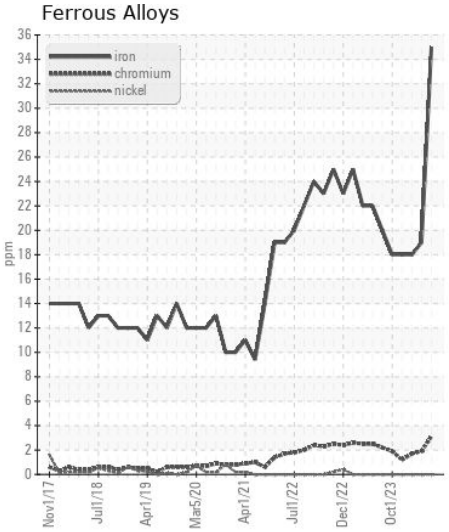
Base Number



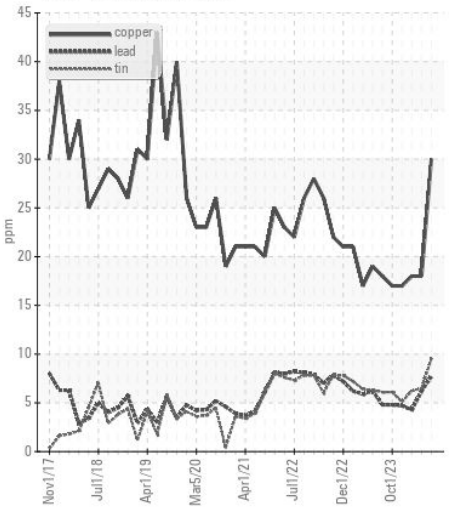
Viscosity @ 100°C



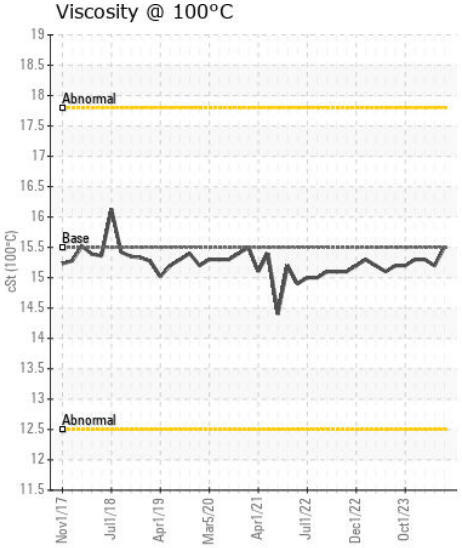
Ferrous Alloys



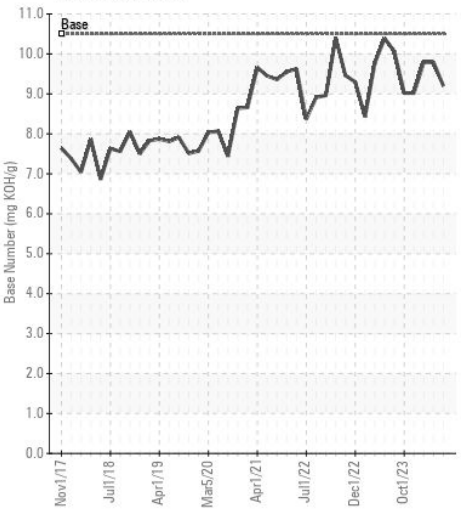
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0065705
Lab Number : 06121741
Unique Number : 10930574
Test Package : MAR 2

Received : 18 Mar 2024
Tested : 19 Mar 2024
Diagnosed : 21 Mar 2024 - Sean Felton

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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