MAR II

WEAR CHECK
Inland Marine Oil Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id
AGC
Component
Port Main Engine
Fluid
CHEVRON DELO 400 XLE 15W40 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

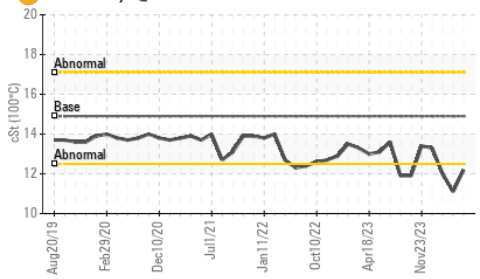
There is no indication of any contamination in the oil.

FLUID CONDITION

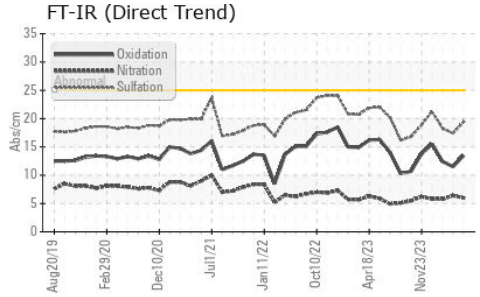
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW06151654	MW06111203	MW06071449
Sample Date		Client Info		16 Apr 2024	06 Mar 2024	25 Jan 2024
Machine Age	hrs	Client Info		62992	62218	61112
Oil Age	hrs	Client Info		774	1106	474
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ATTENTION	ATTENTION	ATTENTION
Iron	ppm	ASTM D5185m	>75	0	2	1
Chromium	ppm	ASTM D5185m	>8	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m	>3	0	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>15	1	2	<1
Lead	ppm	ASTM D5185m	>18	0	0	<1
Copper	ppm	ASTM D5185m	>80	0	<1	<1
Tin	ppm	ASTM D5185m	>14	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>20	3	3	3
Potassium	ppm	ASTM D5185m	>20	0	3	<1
Fuel	%	ASTM D3524	>4.0	<1.0	<1.0	0.9
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	6.0	6.4	5.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.4	17.4	18.3
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	>0.1	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m	>75	0	<1	1
Boron	ppm	ASTM D5185m		271	65	167
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		47	17	53
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m		236	85	250
Calcium	ppm	ASTM D5185m		1784	2153	1952
Phosphorus	ppm	ASTM D5185m	760	949	885	779
Zinc	ppm	ASTM D5185m	830	1095	1057	912
Sulfur	ppm	ASTM D5185m	2770	3686	3815	2722
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.5	11.5	12.4
Base Number (BN)	mg KOH/g	ASTM D2896	10.7	7.0	6.5	7.5
Visc @ 100°C	cSt	ASTM D445	14.9	12.2	11.1	12.0

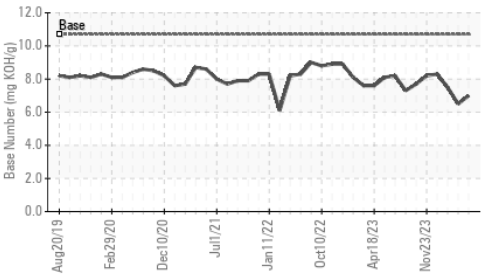
Viscosity @ 100°C



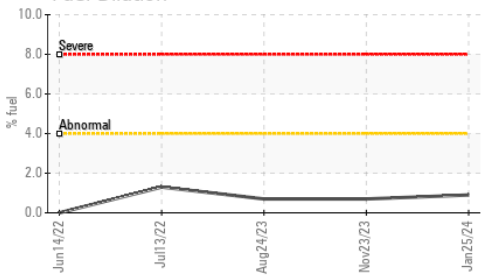
FT-IR (Direct Trend)



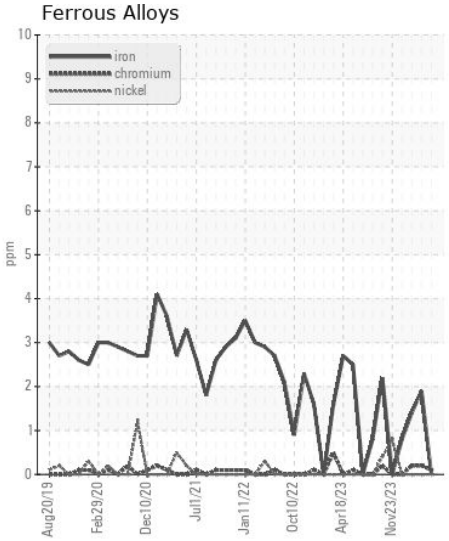
Base Number



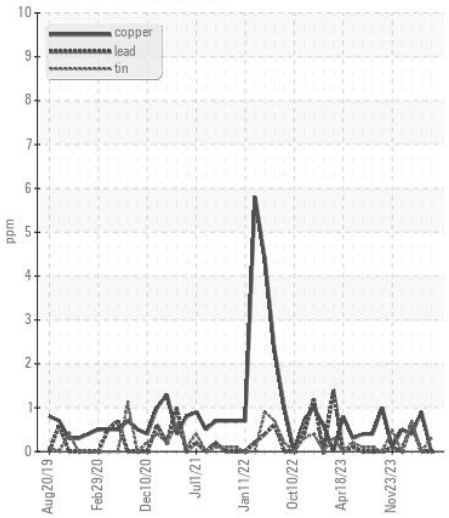
Fuel Dilution



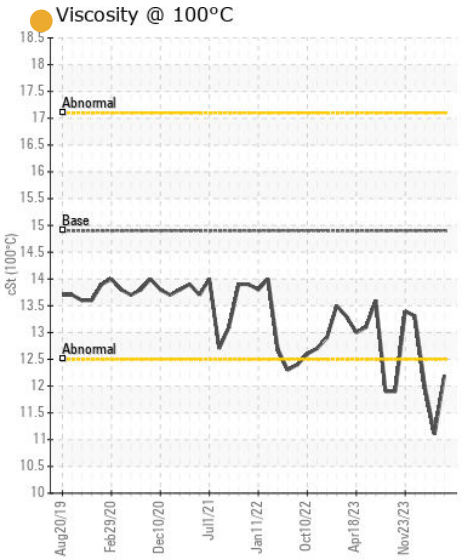
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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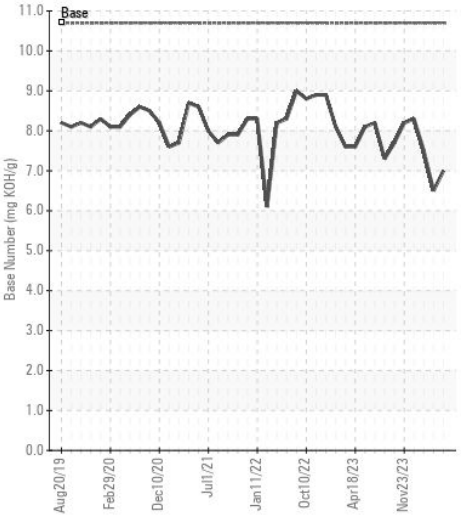

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW06151654
Lab Number : 06151654
Unique Number : 10981732
Test Package : MAR 2 (Additional Tests: FuelDilution)

Received : 17 Apr 2024
Tested : 18 Apr 2024
Diagnosed : 19 Apr 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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