MAR II

WEAR CHECK Inland Marine Oil Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
CLARENCE G FRAME
Machine Id
[CLARENCE G FRAME] 007 574683-7
Component
Port Genset
Fluid
CHEVRON DELO 400 XLE 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

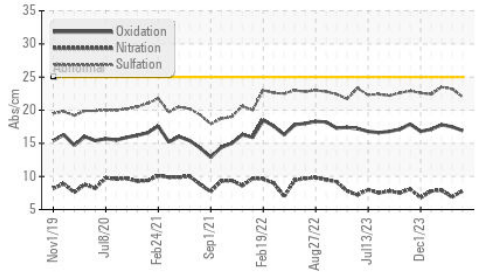
There is no indication of any contamination in the oil.

FLUID CONDITION

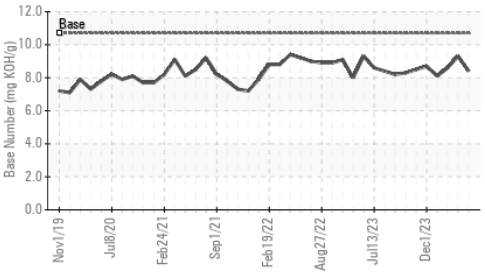
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW06176430	MW06140476	MW06083235
Sample Date		Client Info		17 Apr 2024	22 Mar 2024	28 Jan 2024
Machine Age	hrs	Client Info		19149	18756	18142
Oil Age	hrs	Client Info		393	0	18142
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				NORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>50	10	11	10
Chromium	ppm	ASTM D5185m	>4	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	<1	0
Titanium	ppm	ASTM D5185m		3	<1	1
Silver	ppm	ASTM D5185m	>5	0	0	0
Aluminum	ppm	ASTM D5185m	>12	3	8	2
Lead	ppm	ASTM D5185m	>17	<1	<1	0
Copper	ppm	ASTM D5185m	>70	<1	0	<1
Tin	ppm	ASTM D5185m	>15	<1	<1	<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	8	10	8
Potassium	ppm	ASTM D5185m	>20	2	1	0
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		0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	7.8	6.9	7.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.0	23.2	23.5
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		0	2	1
Boron	ppm	ASTM D5185m		339	593	315
Barium	ppm	ASTM D5185m		2	0	0
Molybdenum	ppm	ASTM D5185m		123	201	122
Manganese	ppm	ASTM D5185m		2	2	2
Magnesium	ppm	ASTM D5185m		666	1064	676
Calcium	ppm	ASTM D5185m		1596	2417	1552
Phosphorus	ppm	ASTM D5185m	760	764	994	699
Zinc	ppm	ASTM D5185m	830	853	1289	823
Sulfur	ppm	ASTM D5185m	2770	2903	4603	2494
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.9	17.5	17.8
Base Number (BN)	mg KOH/g	ASTM D2896	10.7	8.4	9.3	8.6
Visc @ 100°C	cSt	ASTM D445	14.9	12.7	12.8	13.2

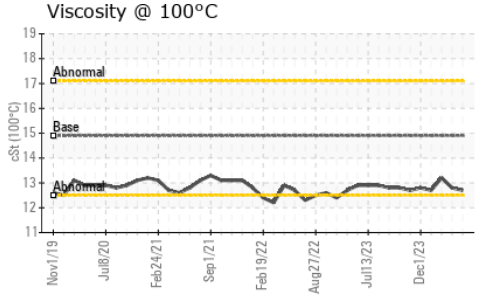
FT-IR (Direct Trend)



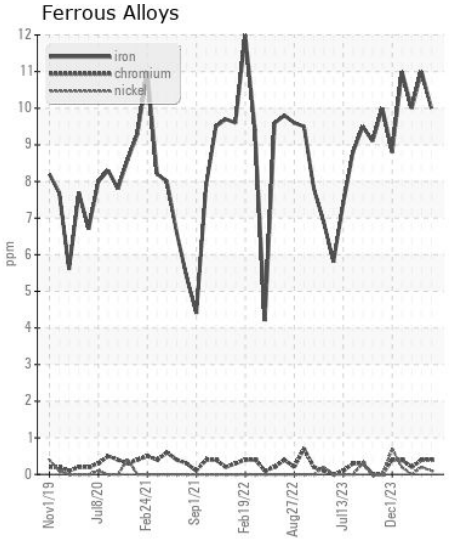
Base Number



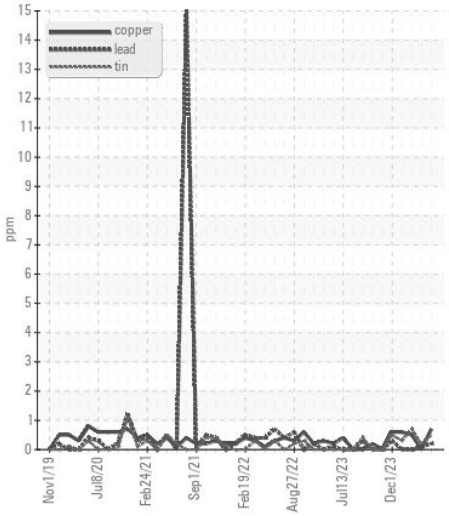
Viscosity @ 100°C



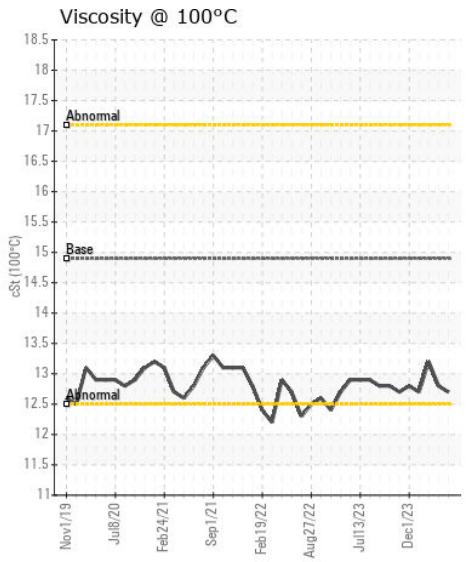
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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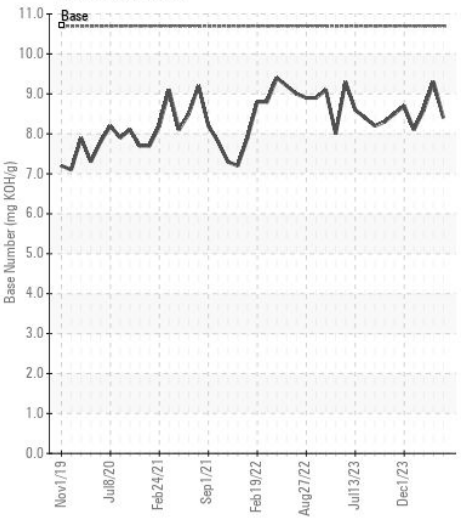

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW06176430
Lab Number : 06176430
Unique Number : 11022483
Test Package : MAR 2

Received : 10 May 2024
Tested : 13 May 2024
Diagnosed : 13 May 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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