MAR II

WEAR CHECK
Inland Marine Oil Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
MISS ISABELLA
Machine Id
MIS
Component
Port Main Engine
Fluid
CHEVRON DELO 710 LS (20 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

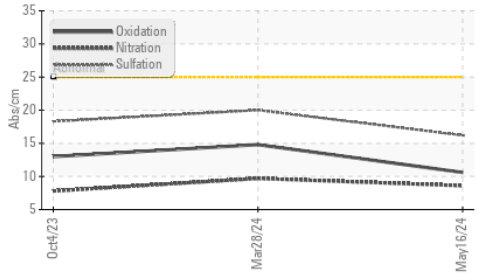
There is no indication of any contamination in the oil.

FLUID CONDITION

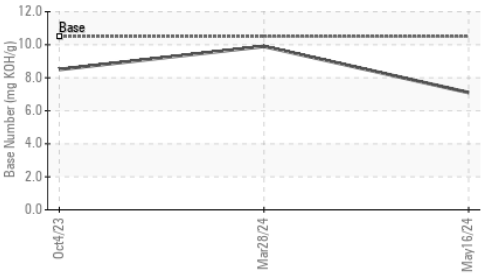
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0065080	MW0065062	MW0054735
Sample Date		Client Info		16 May 2024	28 Mar 2024	04 Oct 2023
Machine Age	hrs	Client Info		25385	24572	22230
Oil Age	hrs	Client Info		0	0	0
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	>120	20	12	6
Chromium	ppm	ASTM D5185m	>10	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m		<1	1	13
Silver	ppm	ASTM D5185m	>5	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	3	4	2
Lead	ppm	ASTM D5185m	>40	<1	0	0
Copper	ppm	ASTM D5185m	>300	2	2	6
Tin	ppm	ASTM D5185m	>10	<1	<1	0
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	>25	4	9	4
Potassium	ppm	ASTM D5185m	>20	2	0	3
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		0.3	0.3	0.2
Nitration	Abs/cm	*ASTM D7624	>20	8.6	9.7	7.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	16.2	20.0	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		<1	3	<1
Boron	ppm	ASTM D5185m		30	15	99
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		32	9	36
Manganese	ppm	ASTM D5185m		0	<1	0
Magnesium	ppm	ASTM D5185m		27	82	672
Calcium	ppm	ASTM D5185m		3112	3091	1458
Phosphorus	ppm	ASTM D5185m		28	73	648
Zinc	ppm	ASTM D5185m		24	85	785
Sulfur	ppm	ASTM D5185m		3170	5035	3354
Oxidation	Abs/.1mm	*ASTM D7414	>25	10.6	14.8	13.0
Base Number (BN)	mg KOH/g	ASTM D2896	10.5	7.1	9.9	8.5
Visc @ 100°C	cSt	ASTM D445	15.5	13.9	14.1	13.3

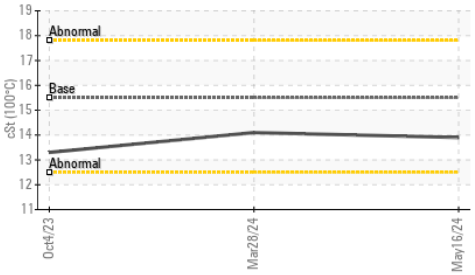
FT-IR (Direct Trend)



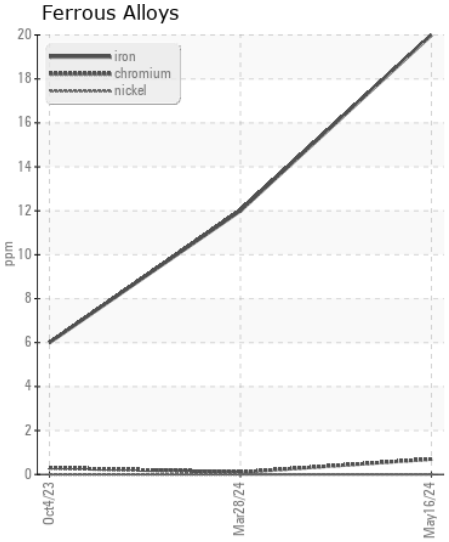
Base Number



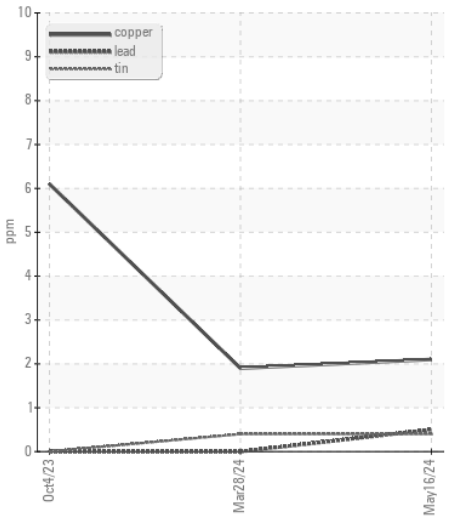
Viscosity @ 100°C



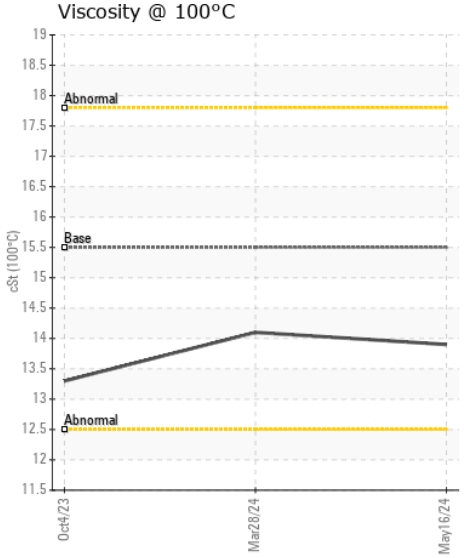
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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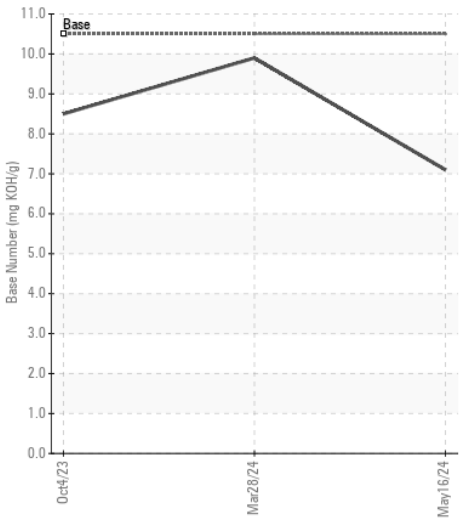

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0065080
Lab Number : 06185920
Unique Number : 11042672
Test Package : MAR 2

Received : 21 May 2024
Tested : 22 May 2024
Diagnosed : 22 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)

AMERICAN RIVER TRANSPORTATION CO.
P.O. BOX 2889
ST. LOUIS, MO
US 63111
Contact: BRIAN GRIEWING
brian.griewing@adm.com
T:
F: (314)481-5278