



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
MARI LAMPTON
Component
Starboard Main Engine
Fluid
CHEVRON DELO 400 LE 15W40 (165 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0058117	MW0044312	MW0049272
Sample Date		Client Info		11 Jun 2024	25 Apr 2024	20 Feb 2024
Machine Age	hrs	Client Info		39511	38535	37343
Oil Age	hrs	Client Info		462	954	953
Filter Age	hrs	Client Info		462	230	241
Oil Changed		Client Info		Changed	Not Changed	Not Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	4	2	3
Chromium	ppm	ASTM D5185m	>8	<1	<1	0
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m	>3	16	16	14
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>15	2	2	<1
Lead	ppm	ASTM D5185m	>18	0	<1	<1
Copper	ppm	ASTM D5185m	>80	2	2	2
Tin	ppm	ASTM D5185m	>14	0	<1	0
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

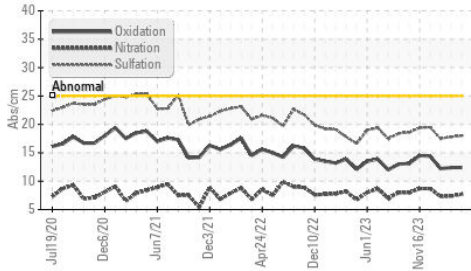
Silicon	ppm	ASTM D5185m	>20	5	5	5
Potassium	ppm	ASTM D5185m	>20	4	4	2
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	7.7	7.4	7.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.0	17.8	17.5
Silt	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

FLUID CONDITION

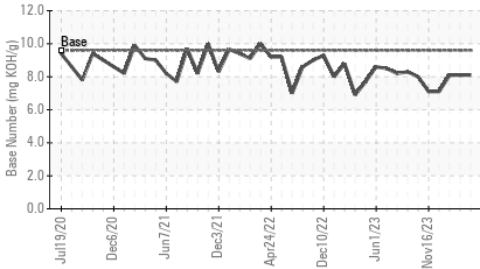
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>75	2	<1	4
Boron	ppm	ASTM D5185m		89	107	90
Barium	ppm	ASTM D5185m		0	1	0
Molybdenum	ppm	ASTM D5185m		30	30	28
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m		724	654	717
Calcium	ppm	ASTM D5185m		1488	1411	1514
Phosphorus	ppm	ASTM D5185m	1200	769	696	682
Zinc	ppm	ASTM D5185m	1300	827	738	794
Sulfur	ppm	ASTM D5185m	3200	3060	3052	3544
Oxidation	Abs/.1mm	*ASTM D7414	>25	12.4	12.4	12.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.6	8.1	8.1	8.1
Visc @ 100°C	cSt	ASTM D445	15.7	14.0	14.0	13.9

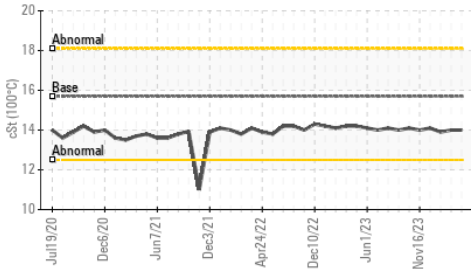
FT-IR (Direct Trend)



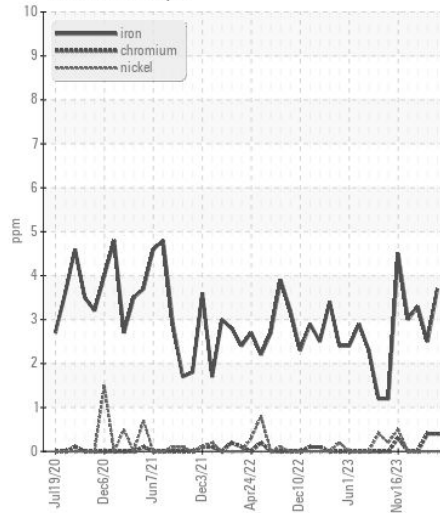
Base Number



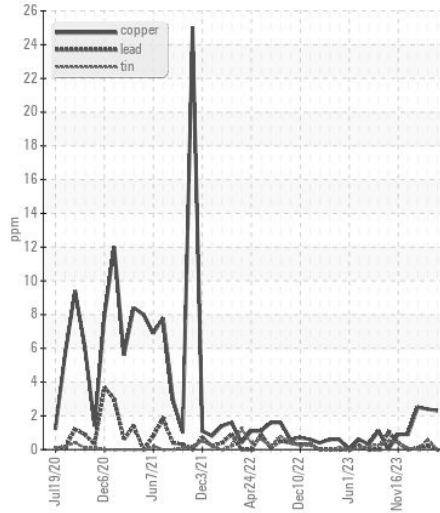
Viscosity @ 100°C



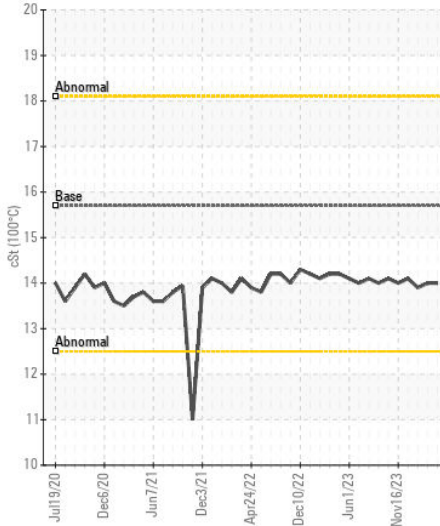
Ferrous Alloys



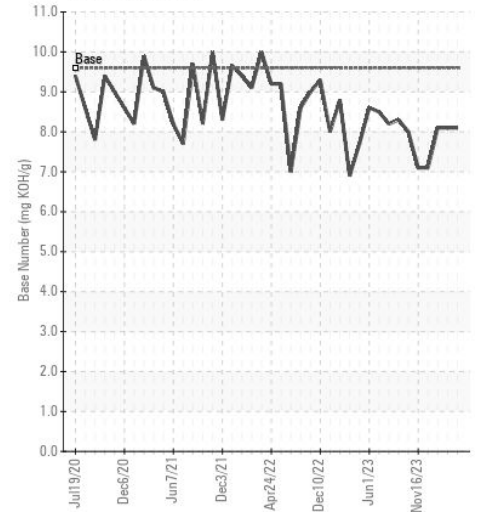
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : MW0058117

Lab Number : 06224221

Unique Number : 11102418

Test Package : MAR 2

Received : 28 Jun 2024

Tested : 01 Jul 2024

Diagnosed : 01 Jul 2024 - Angela Borella

MAGNOLIA MARINE TRANSPORT

697 HAINING ROAD

VICKSBURG, MS

US 39183

Contact: MMT MAINTENANCE PLANNERS

mmtmaintenanceplanners@ergon.com

T: x:

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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