



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
ROBIN B INGRAM
Machine Id
[ROBIN B INGRAM] 008 617985-8
Component
Starboard Genset
Fluid
CHEVRON DELO 400 XLE 15W40 (--- GAL)

RECOMMENDATION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW06159619	MW0064602	MW06055148
Sample Date		Client Info		22 Feb 2024	01 Feb 2024	01 Dec 2023
Machine Age	hrs	Client Info		2006	1642	1218
Oil Age	hrs	Client Info		0	400	400
Filter Age	hrs	Client Info		0	400	0
Oil Changed		Client Info		N/A	Changed	N/A
Filter Changed		Client Info		N/A	Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	8	6	5
Chromium	ppm	ASTM D5185m	>4	0	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	<1	<1
Titanium	ppm	ASTM D5185m		<1	1	<1
Silver	ppm	ASTM D5185m	>5	0	0	0
Aluminum	ppm	ASTM D5185m	>12	2	4	2
Lead	ppm	ASTM D5185m	>17	<1	<1	<1
Copper	ppm	ASTM D5185m	>70	48	20	34
Tin	ppm	ASTM D5185m	>15	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

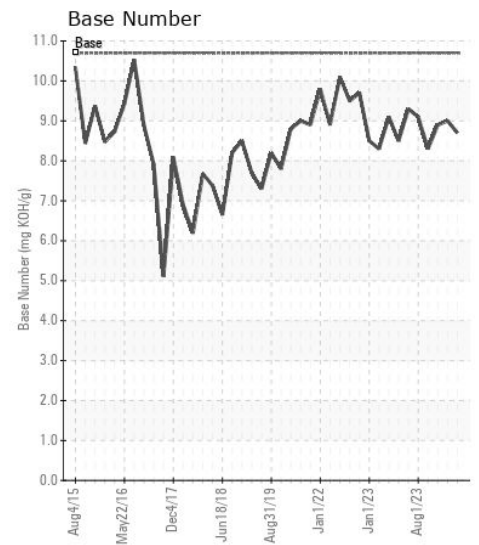
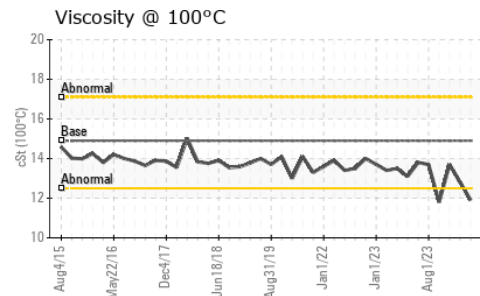
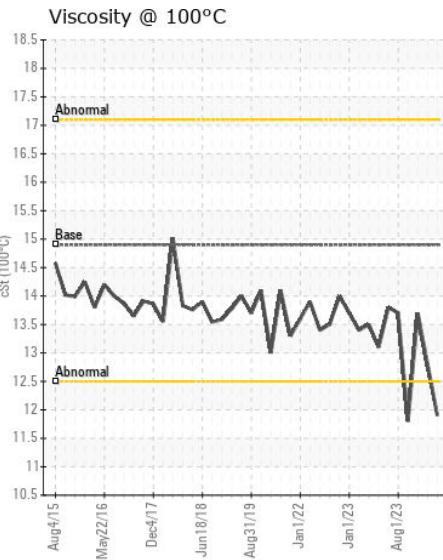
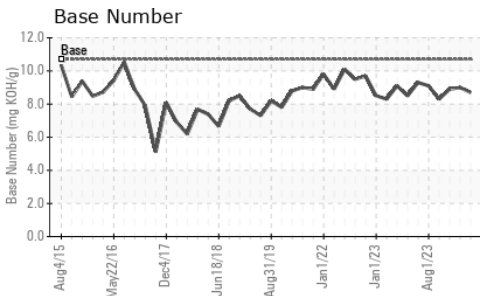
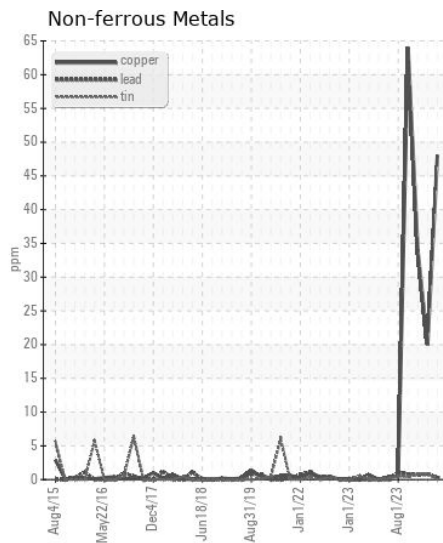
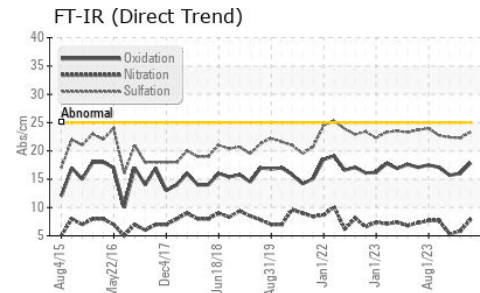
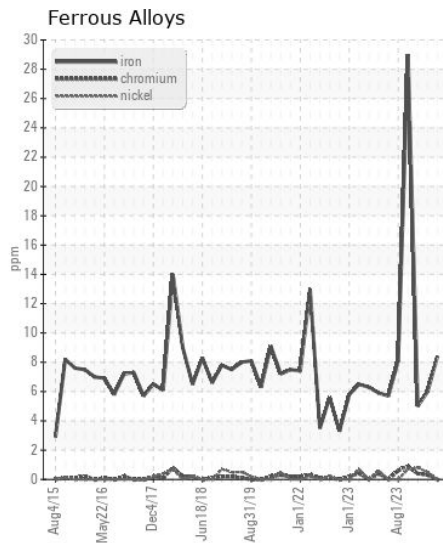
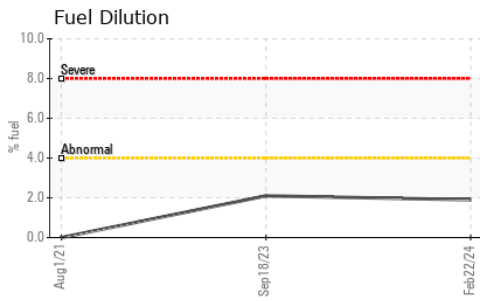
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185m	>25	6	6	8
Potassium	ppm	ASTM D5185m	>20	0	2	2
Fuel	%	ASTM D3524	>4.0	1.9	<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	7.9	5.8	5.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.3	22.3	22.4
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		<1	0	0
Boron	ppm	ASTM D5185m		311	435	328
Barium	ppm	ASTM D5185m		0	2	0
Molybdenum	ppm	ASTM D5185m		126	131	113
Manganese	ppm	ASTM D5185m		3	2	1
Magnesium	ppm	ASTM D5185m		669	654	602
Calcium	ppm	ASTM D5185m		1650	1673	1392
Phosphorus	ppm	ASTM D5185m	760	718	757	633
Zinc	ppm	ASTM D5185m	830	902	928	809
Sulfur	ppm	ASTM D5185m	2770	3137	2963	2411
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.9	16.0	15.7
Base Number (BN)	mg KOH/g	ASTM D2896	10.7	8.7	9.0	8.9
Visc @ 100°C	cSt	ASTM D445	14.9	11.9	12.8	13.7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW06159619
Lab Number : 06159619
Unique Number : 10995042
Test Package : MAR 2 (Additional Tests: FuelDilution, PercentFuel)

Received : 24 Apr 2024
Tested : 29 Apr 2024
Diagnosed : 29 Apr 2024 - Wes Davis

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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)