



WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	ABNORMAL

Area
ERNA E HONEYCUTT
Machine Id
[ERNA E HONEYCUTT] 008 641346-8
Component
Starboard Genset
Fluid
CHEVRON DELO 400 LE 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0063216	MW0043036	MW0052550
Sample Date		Client Info		24 Dec 2023	14 Oct 2023	01 Oct 2023
Machine Age	hrs	Client Info		4094	3229	2910
Oil Age	hrs	Client Info		433	347	78
Filter Age	hrs	Client Info		0	0	78
Oil Changed		Client Info		N/A	N/A	Not Changd
Filter Changed		Client Info		N/A	N/A	Not Changd
Sample Status				ABNORMAL	MARGINAL	NORMAL

WEAR

All component wear rates are normal.

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

CONTAMINATION

Light fuel dilution occurring.

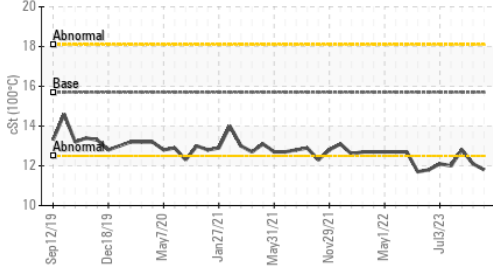
Silicon	ppm	ASTM D5185m	>25	7	7	6
Potassium	ppm	ASTM D5185m	>20	2	1	2
Fuel	%	ASTM D3524	>4.0	▲ 3.8	▲ 3.5	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.1	0.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	7.8	7.9	5.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.0	22.8	21.4
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	LIGHT
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

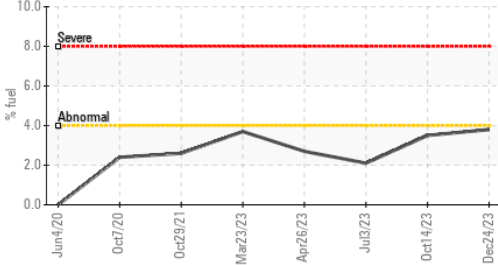
The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		0	<1	0
Boron	ppm	ASTM D5185m		313	302	366
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		118	118	129
Manganese	ppm	ASTM D5185m		2	1	0
Magnesium	ppm	ASTM D5185m		615	601	644
Calcium	ppm	ASTM D5185m		1440	1454	1472
Phosphorus	ppm	ASTM D5185m	1200	720	655	670
Zinc	ppm	ASTM D5185m	1300	784	812	845
Sulfur	ppm	ASTM D5185m	3200	2640	2335	2686
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.6	17.5	15.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.6	8.5	9.2	8.7
Visc @ 100°C	cSt	ASTM D445	15.7	▲ 11.8	12.1	12.8

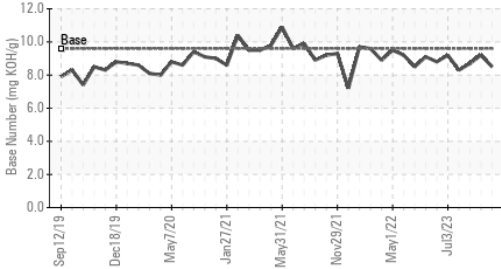
▲ Viscosity @ 100°C



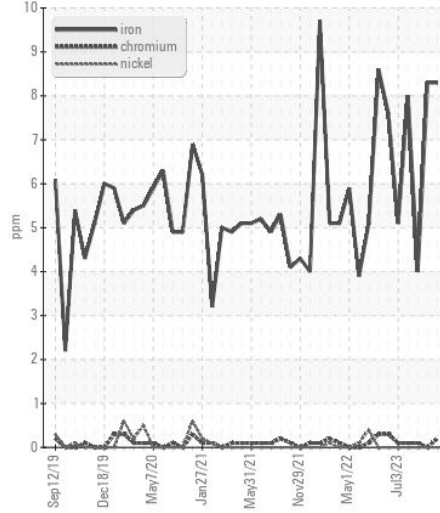
▲ Fuel Dilution



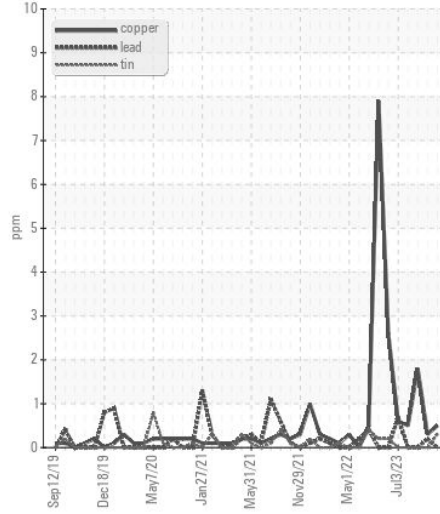
Base Number



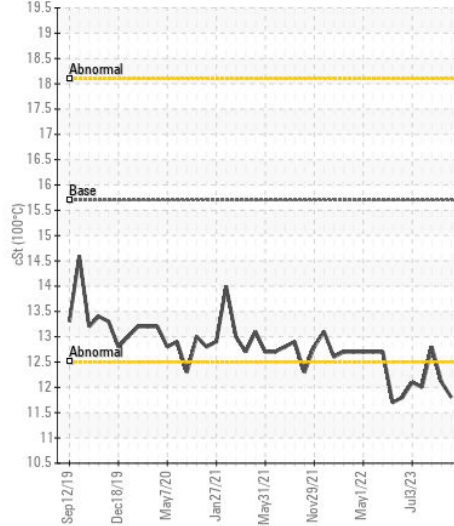
Ferrous Alloys



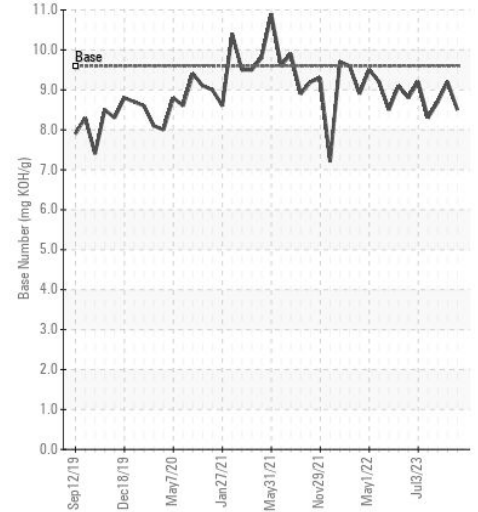
Non-ferrous Metals



▲ Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0063216 **Received** : 11 Jan 2024
Lab Number : 06058622 **Diagnosed** : 15 Jan 2024
Unique Number : 10830004 **Diagnostician** : Wes Davis
Test Package : MAR 2 (Additional Tests: FuelDilution, PercentFuel)

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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