



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area  
**CHIP LACEY**  
 Machine Id  
**[CHIP LACEY] 008 529830-8**  
 Component  
**Starboard Genset**  
 Fluid  
**CHEVRON DELO 400 XLE 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW0026016</b>	MW0009320	MW0014988
Sample Date		Client Info		<b>23 Jan 2024</b>	01 Nov 2022	14 Aug 2021
Machine Age	hrs	Client Info		<b>38463</b>	37534	38566
Oil Age	hrs	Client Info		<b>297</b>	400	385
Filter Age	hrs	Client Info		<b>0</b>	400	385
Oil Changed		Client Info		<b>N/A</b>	N/A	Changed
Filter Changed		Client Info		<b>N/A</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>9</b>	11	4
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>16</b>	16	16
Silver	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>12	<b>2</b>	1	0
Lead	ppm	ASTM D5185m	>17	<b>&lt;1</b>	<1	0
Copper	ppm	ASTM D5185m	>70	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

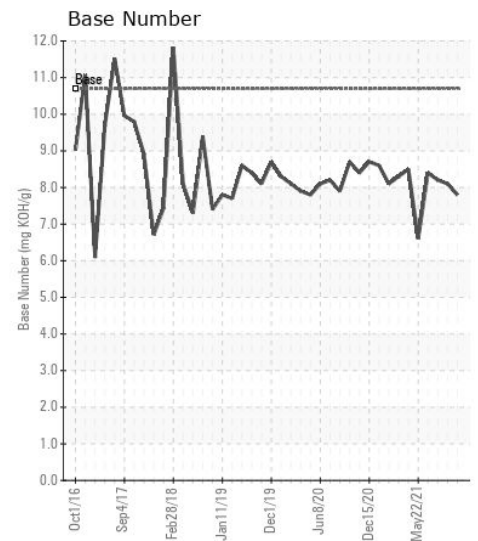
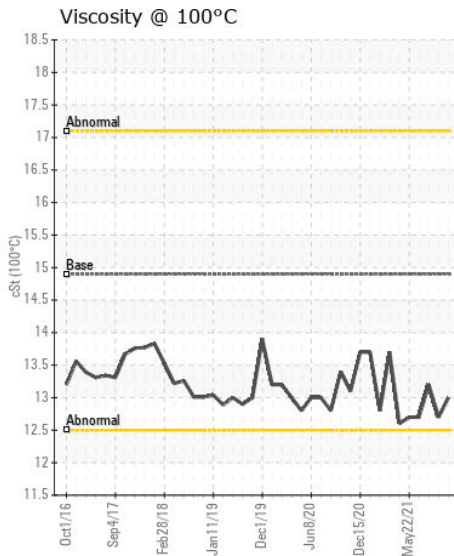
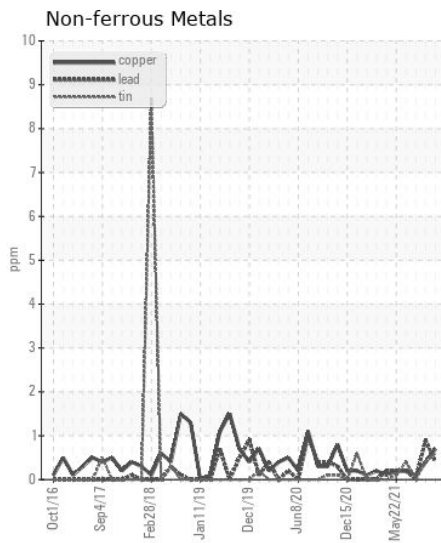
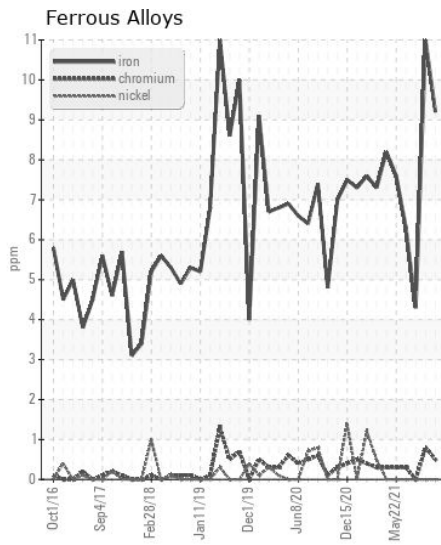
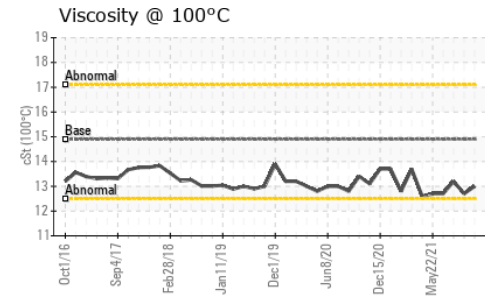
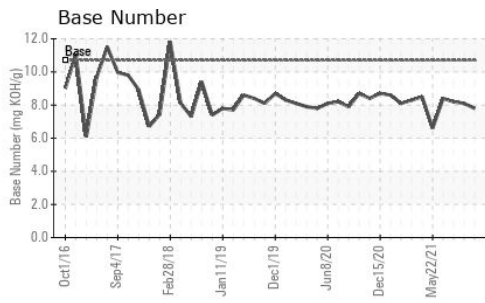
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	5	3
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	<1	2
Fuel		WC Method	>4.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.1</b>	10.9	8.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.2</b>	21.7	18.4
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	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		<b>2</b>	<1	2
Boron	ppm	ASTM D5185m		<b>90</b>	63	93
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>34</b>	31	30
Manganese	ppm	ASTM D5185m		<b>2</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>760</b>	706	680
Calcium	ppm	ASTM D5185m		<b>1580</b>	1610	1536
Phosphorus	ppm	ASTM D5185m	760	<b>745</b>	684	698
Zinc	ppm	ASTM D5185m	830	<b>860</b>	805	793
Sulfur	ppm	ASTM D5185m	2770	<b>3171</b>	3587	2568
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.9</b>	17.6	13.4
Base Number (BN)	mg KOH/g	ASTM D2896	10.7	<b>7.8</b>	8.1	8.2
Visc @ 100°C	cSt	ASTM D445	14.9	<b>13.0</b>	12.7	13.2



Certificate L2367

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

**Sample No.** : MW0026016

**Lab Number** : 06089382

**Unique Number** : 10876827

**Test Package** : MAR 2

**Received** : 14 Feb 2024

**Tested** : 15 Feb 2024

**Diagnosed** : 16 Feb 2024 - Don Baldrige

**INGRAM BARGE**

900 S 3RD ST

PADUCAH, KY

US 42003

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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)