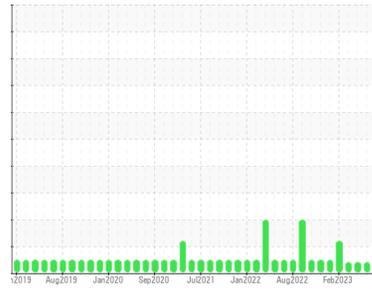




# OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Area

**CRYSTAL D TAYLOR**

Machine Id

**[CRYSTAL D TAYLOR] 008 503329-8**

Component

**Starboard Genset**

Fluid

**CHEVRON DELO 400 XLE 15W40 (8 GAL)**

## DIAGNOSIS

### Recommendation

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

### Wear

All component wear rates are normal.

### Contamination

Light fuel dilution occurring. No other contaminants were detected 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.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>MW0068236</b>	MW0068262	MW0046475
Sample Date	Client Info		<b>25 Mar 2024</b>	24 Feb 2024	30 Apr 2023
Machine Age	hrs	Client Info	<b>26327</b>	25985	25127
Oil Age	hrs	Client Info	<b>318</b>	25537	390
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>MARGINAL</b>	ATTENTION	ATTENTION

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>50	<b>7</b>	6	6
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>1</b>	<1	6
Silver	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	0
Aluminum	ppm	ASTM D5185m	>12	<b>4</b>	3	2
Lead	ppm	ASTM D5185m	>17	<b>1</b>	2	<1
Copper	ppm	ASTM D5185m	>70	<b>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
Cadmium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		<b>357</b>	337	233
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>129</b>	98	87
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>668</b>	541	616
Calcium	ppm	ASTM D5185m		<b>1596</b>	1698	1700
Phosphorus	ppm	ASTM D5185m	760	<b>843</b>	913	689
Zinc	ppm	ASTM D5185m	830	<b>989</b>	1136	839
Sulfur	ppm	ASTM D5185m	2770	<b>2858</b>	3663	2741

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>25	<b>7</b>	5	5
Sodium	ppm	ASTM D5185m		<b>1</b>	2	3
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	<1
Fuel	%	ASTM D3524	>4.0	<b>▲ 2.6</b>	<1.0	<1.0

## INFRA-RED

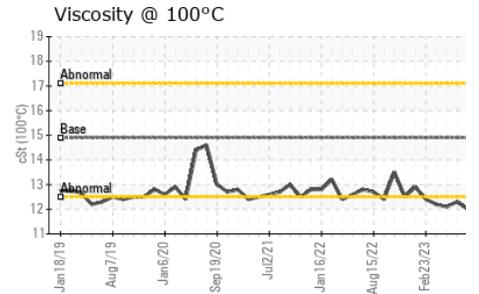
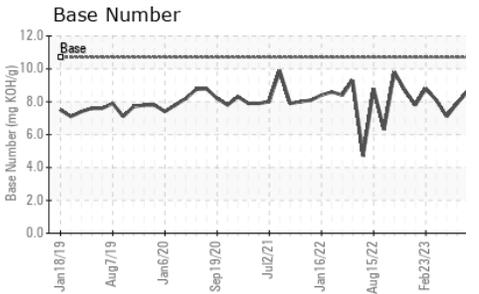
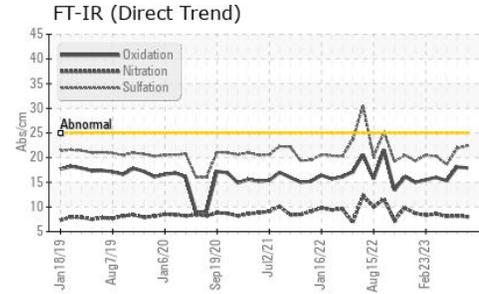
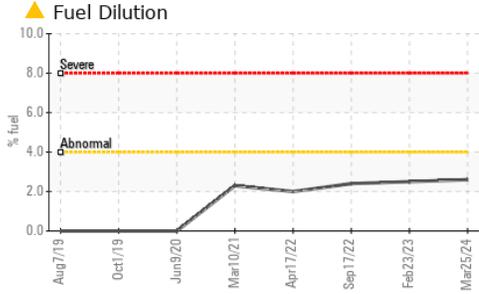
	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844		<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.0</b>	8.2	8.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.4</b>	21.9	18.6

## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.9</b>	18.1	15.3
Base Number (BN)	mg KOH/g	ASTM D2896	10.7	<b>8.6</b>	7.9	7.1



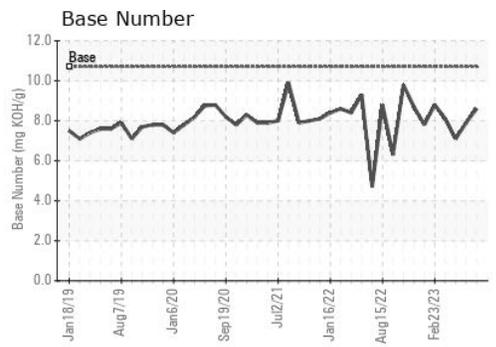
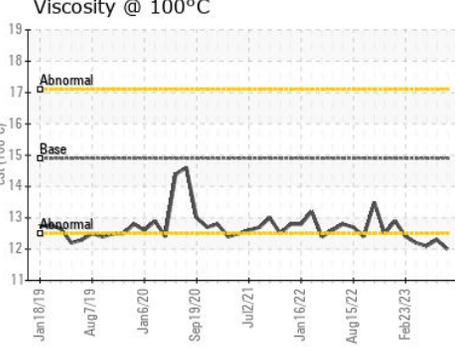
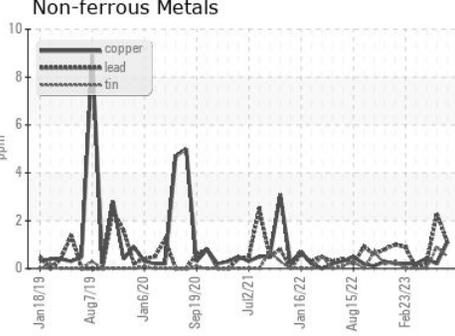
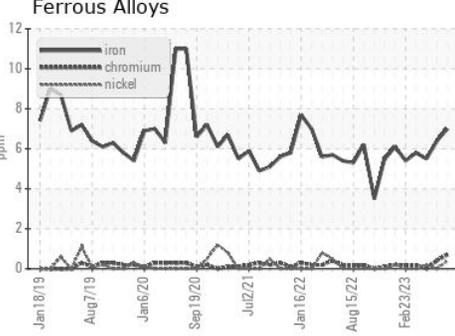
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.9	12.0	12.3

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW0068236      **Received** : 05 Apr 2024  
**Lab Number** : 06140553      **Tested** : 09 Apr 2024  
**Unique Number** : 10965361      **Diagnosed** : 09 Apr 2024 - Wes Davis  
**Test Package** : MAR 2 ( Additional Tests: FuelDilution, PercentFuel )

**INGRAM BARGE**  
 900 S 3RD ST  
 PADUCAH, KY  
 US 42003  
 Contact: JUSTIN WHEELER  
 justin.wheeler@ingrambarga.com

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)