



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
PRS
Component
Starboard Main Engine
Fluid
CHEVRON DELO 400 XLE 15W40 (28 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW05823790	MW05663147	MW05630731
Sample Date		Client Info		18 Apr 2023	10 Oct 2022	30 Aug 2022
Machine Age	hrs	Client Info		28766	27634	27044
Oil Age	hrs	Client Info		580	590	756
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	4	3	6
Chromium	ppm	ASTM D5185m	>8	<1	0	0
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m	>3	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>15	0	<1	2
Lead	ppm	ASTM D5185m	>18	0	0	0
Copper	ppm	ASTM D5185m	>80	<1	0	<1
Tin	ppm	ASTM D5185m	>14	0	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

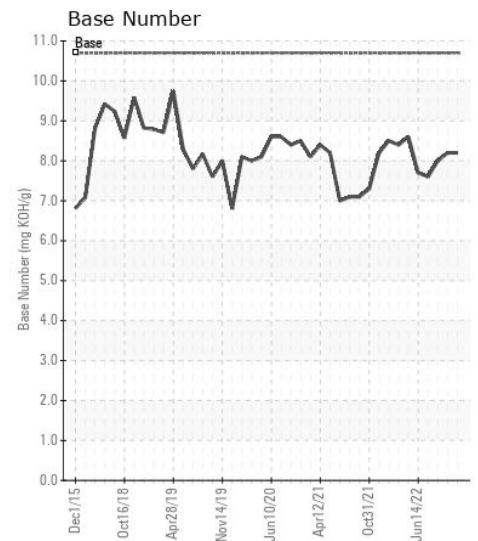
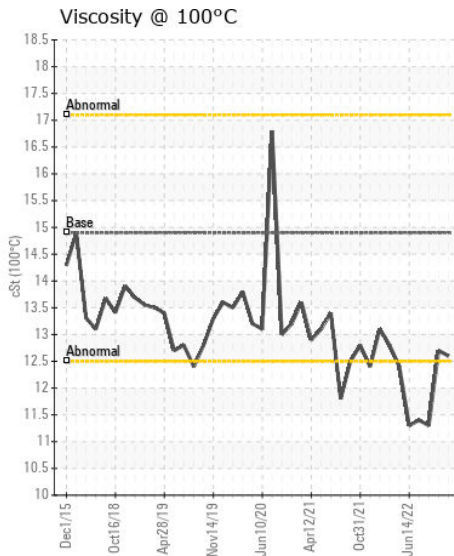
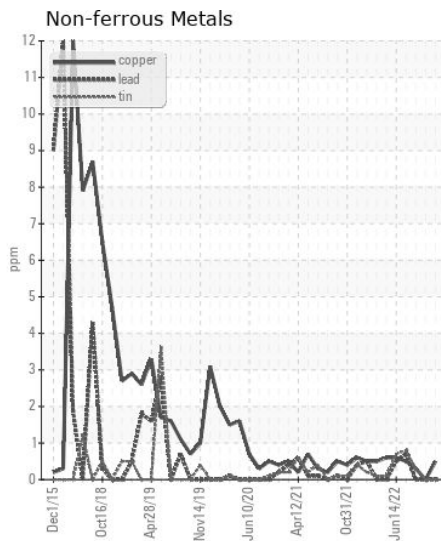
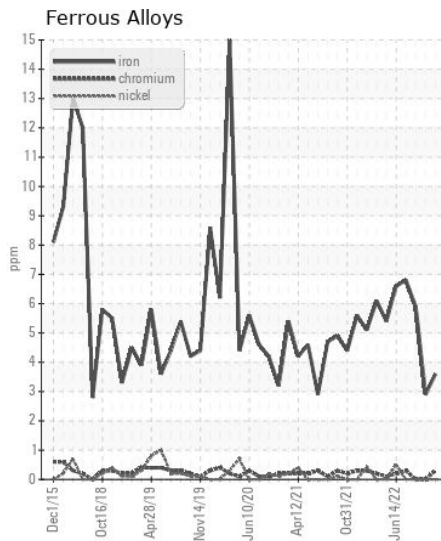
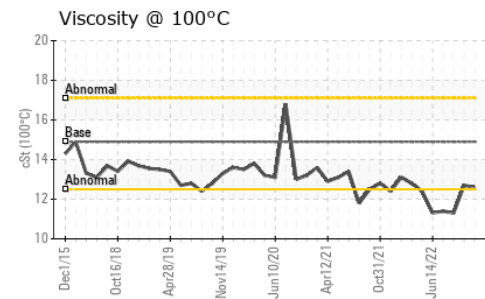
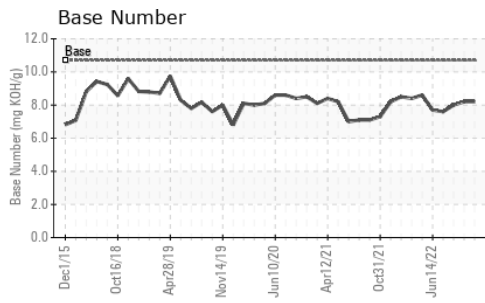
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	5	3	4
Potassium	ppm	ASTM D5185m	>20	8	7	37
Fuel		WC Method	>4.0	<1.0	<1.0	▲ 3.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	0.0
Soot %	%	*ASTM D7844		0.1	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	5.8	6.0	7.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.2	22.0	22.7
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	9	4	12
Boron	ppm	ASTM D5185m		300	301	258
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		99	82	103
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		489	375	488
Calcium	ppm	ASTM D5185m		1577	1349	1205
Phosphorus	ppm	ASTM D5185m	760	731	898	693
Zinc	ppm	ASTM D5185m	830	876	1077	835
Sulfur	ppm	ASTM D5185m	2770	2733	3256	2448
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.2	16.5	18.0
Base Number (BN)	mg KOH/g	ASTM D2896	10.7	8.2	8.2	8.0
Visc @ 100°C	cSt	ASTM D445	14.9	12.6	12.7	● 11.3



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW05823790
Lab Number : 05823790
Unique Number : 10431873
Test Package : MAR 2
Received : 19 Apr 2023
Tested : 20 Apr 2023
Diagnosed : 20 Apr 2023 - 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)