



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
MV WAYNE C
Component
Starboard Main Engine
Fluid
CHEVRON DELO 400 SDE SAE 15W40 (19 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. 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		MW0045783	MW0062737	MW0045779
Sample Date		Client Info		06 May 2024	03 Nov 2023	14 May 2023
Machine Age	hrs	Client Info		4873	3830	2929
Oil Age	hrs	Client Info		750	750	0
Filter Age	hrs	Client Info		750	750	0
Oil Changed		Client Info		Changed	Changed	N/A
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				ABNORMAL	NORMAL	ABNORMAL

WEAR

The lead level is abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	42	18	26
Chromium	ppm	ASTM D5185m	>8	2	1	2
Nickel	ppm	ASTM D5185m	>2	<1	0	<1
Titanium	ppm	ASTM D5185m	>3	<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>15	5	3	1
Lead	ppm	ASTM D5185m	>18	▲ 33	12	10
Copper	ppm	ASTM D5185m	>80	6	6	20
Tin	ppm	ASTM D5185m	>14	2	1	2
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

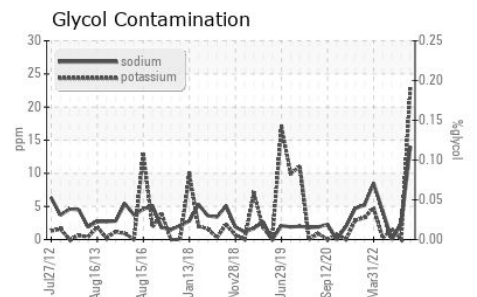
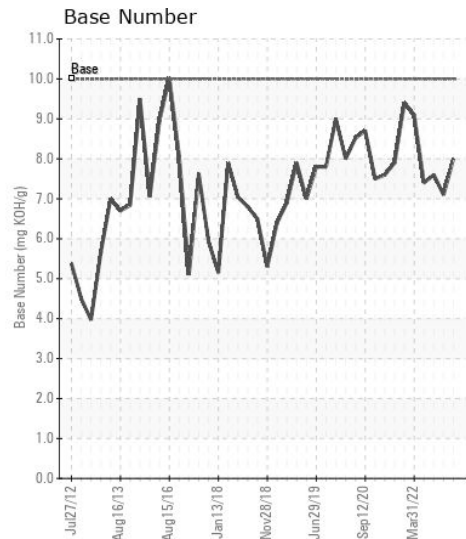
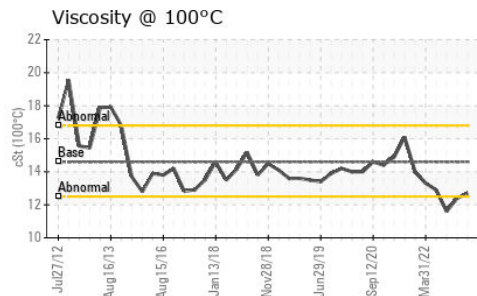
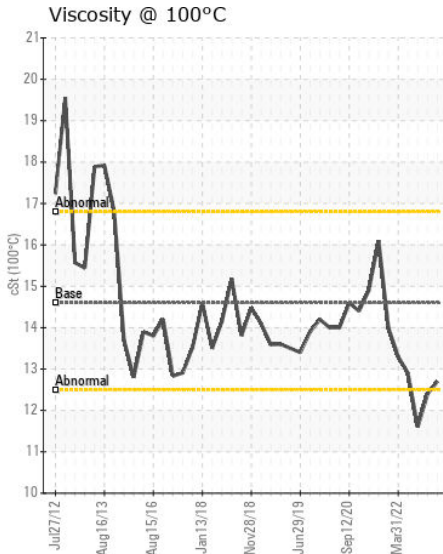
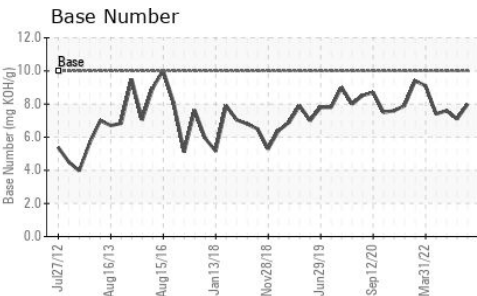
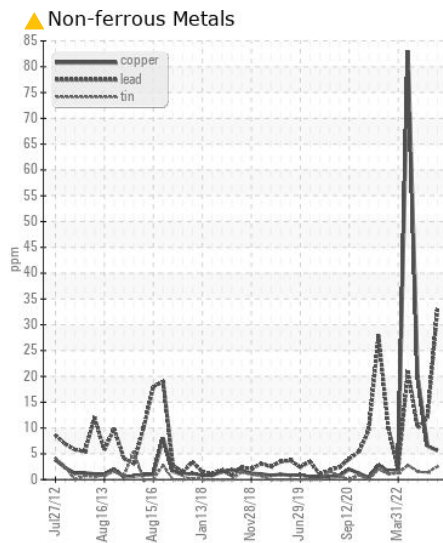
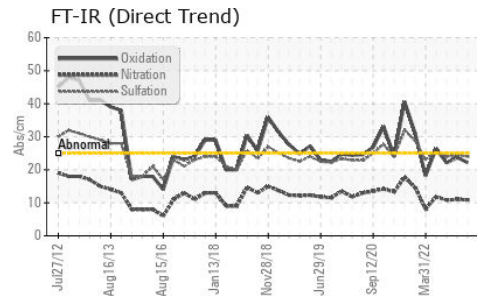
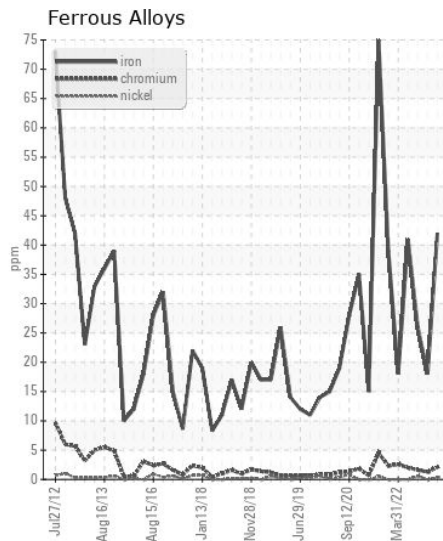
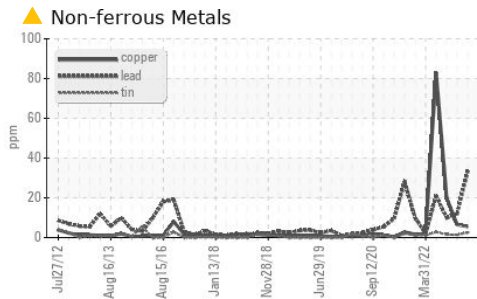
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	8	6	6
Potassium	ppm	ASTM D5185m	>20	23	0	2
Fuel		WC Method	>4.0	<1.0	<1.0	▲ 3.8
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.3	0.3	0.4
Nitration	Abs/cm	*ASTM D7624	>20	10.9	11.0	10.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.0	24.5	24.0
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	14	2	0
Boron	ppm	ASTM D5185m		287	226	183
Barium	ppm	ASTM D5185m		<1	0	0
Molybdenum	ppm	ASTM D5185m		154	111	99
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		824	677	641
Calcium	ppm	ASTM D5185m		1826	1414	1343
Phosphorus	ppm	ASTM D5185m	760	948	715	705
Zinc	ppm	ASTM D5185m	800	1085	855	908
Sulfur	ppm	ASTM D5185m	3000	3270	2311	2364
Oxidation	Abs/.1mm	*ASTM D7414	>25	22.2	23.7	22.1
Base Number (BN)	mg KOH/g	ASTM D2896	10	8.0	7.1	7.6
Visc @ 100°C	cSt	ASTM D445	14.6	12.7	12.4	▲ 11.6



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0045783
Lab Number : 06174872
Unique Number : 11020925
Test Package : MAR 2 (Additional Tests: Glycol)

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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)