



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**DEBORAH MILES**  
Component  
**Port Main Engine**  
Fluid  
**CHEVRON DELO 400 SAE 40 (125 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW0062040</b>	MW0061822	MW0058022
Sample Date		Client Info		<b>10 Apr 2024</b>	30 Jan 2024	20 Dec 2023
Machine Age	hrs	Client Info		<b>48605</b>	47150	46436
Oil Age	hrs	Client Info		<b>1432</b>	1502	788
Filter Age	hrs	Client Info		<b>733</b>	849	135
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Changed</b>	None	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	<b>4</b>	6	5
Chromium	ppm	ASTM D5185m	>8	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m	>3	<b>7</b>	7	7
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>15	<b>1</b>	2	1
Lead	ppm	ASTM D5185m	>18	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>80	<b>3</b>	4	5
Tin	ppm	ASTM D5185m	>14	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	<1
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.

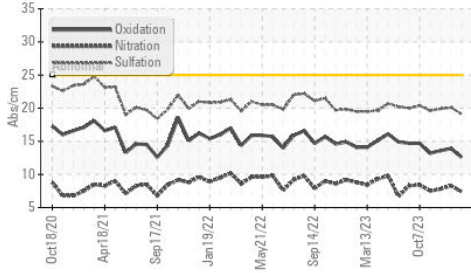
Silicon	ppm	ASTM D5185m	>20	<b>4</b>	4	4
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	1
Fuel		WC Method	>4.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>0.2</b>	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.4</b>	8.3	7.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.1</b>	20.1	19.9
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**

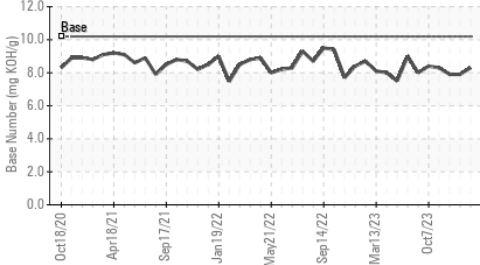
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>75	<b>1</b>	3	2
Boron	ppm	ASTM D5185m		<b>239</b>	254	235
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>48</b>	58	58
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>467</b>	463	459
Calcium	ppm	ASTM D5185m		<b>2306</b>	2195	2191
Phosphorus	ppm	ASTM D5185m	1160	<b>849</b>	830	779
Zinc	ppm	ASTM D5185m	1270	<b>976</b>	970	974
Sulfur	ppm	ASTM D5185m		<b>3866</b>	3169	3150
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>12.6</b>	13.9	13.6
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	<b>8.3</b>	7.9	7.9
Visc @ 100°C	cSt	ASTM D445	14.9	<b>13.7</b>	13.9	13.8

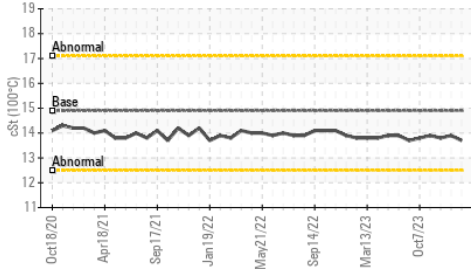
**FT-IR (Direct Trend)**



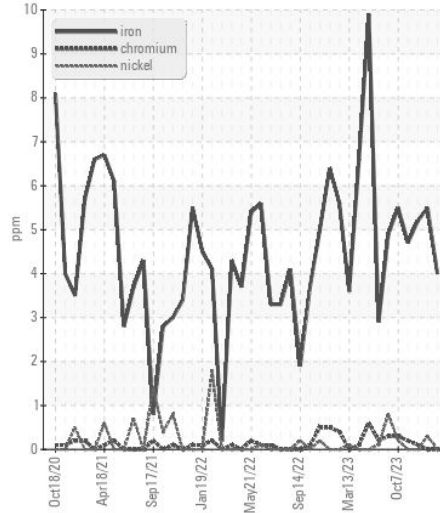
**Base Number**



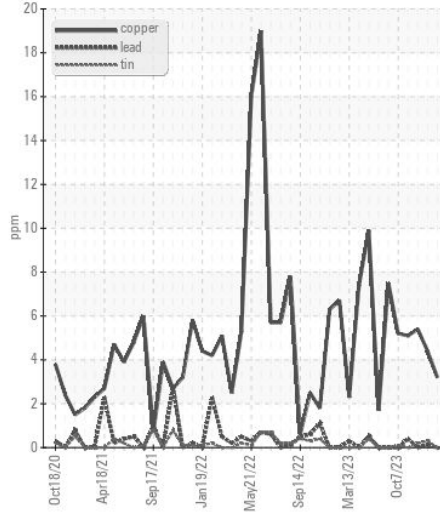
**Viscosity @ 100°C**



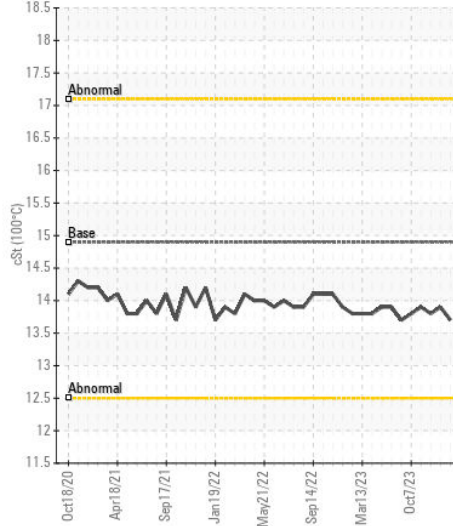
**Ferrous Alloys**



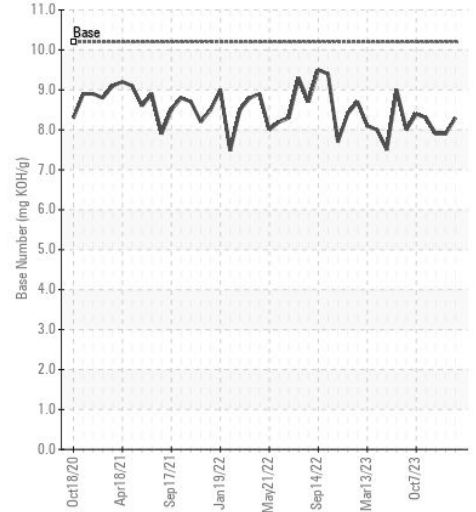
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW0062040  
**Lab Number** : 06159681  
**Unique Number** : 10995104  
**Test Package** : MAR 2

**Received** : 24 Apr 2024  
**Tested** : 25 Apr 2024  
**Diagnosed** : 25 Apr 2024 - Wes Davis

**MAGNOLIA MARINE TRANSPORT**  
 697 HAINING ROAD  
 VICKSBURG, MS  
 US 39183  
 Contact: MMT MAINTENANCE PLANNERS  
 mmtmaintenanceplanners@ergon.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)

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