



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

Area

**ROBIN B INGRAM**

Machine Id

**[ROBIN B INGRAM] 001 617985-1**

Component

**Port Main Engine**

Fluid

**CHEVRON DELO 710 LS (250 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW06159855</b>	MW06159857	MW0053728
Sample Date		Client Info		<b>24 Apr 2024</b>	29 Feb 2024	01 Feb 2024
Machine Age	hrs	Client Info		<b>64747</b>	63956	63409
Oil Age	hrs	Client Info		<b>0</b>	0	63409
Filter Age	hrs	Client Info		<b>0</b>	0	400
Oil Changed		Client Info		<b>N/A</b>	N/A	Not 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	>75	<b>7</b>	7	7
Chromium	ppm	ASTM D5185m	>8	<b>1</b>	1	0
Nickel	ppm	ASTM D5185m	>2	<b>1</b>	1	0
Titanium	ppm	ASTM D5185m	>3	<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Aluminum	ppm	ASTM D5185m	>15	<b>2</b>	2	<1
Lead	ppm	ASTM D5185m	>18	<b>3</b>	3	2
Copper	ppm	ASTM D5185m	>80	<b>9</b>	9	7
Tin	ppm	ASTM D5185m	>14	<b>2</b>	2	1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	LIGHT	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

There is no indication of any contamination in the oil.

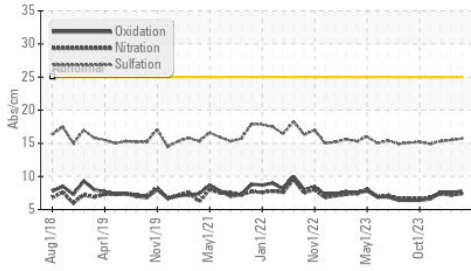
Silicon	ppm	ASTM D5185m	>20	<b>5</b>	5	4
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	3	<1
Fuel		WC Method	>4.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.6</b>	0.6	0.6
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.4</b>	7.2	7.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>15.7</b>	15.5	15.3
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**

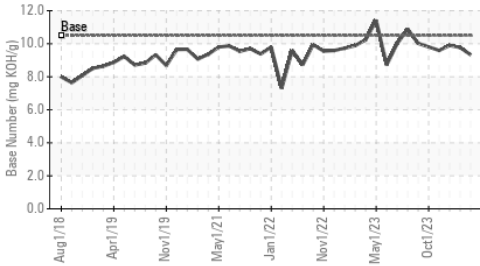
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>75	<b>3</b>	8	10
Boron	ppm	ASTM D5185m		<b>43</b>	44	40
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Molybdenum	ppm	ASTM D5185m		<b>46</b>	44	42
Manganese	ppm	ASTM D5185m		<b>2</b>	2	<1
Magnesium	ppm	ASTM D5185m		<b>37</b>	15	29
Calcium	ppm	ASTM D5185m		<b>3332</b>	3322	3439
Phosphorus	ppm	ASTM D5185m		<b>33</b>	13	14
Zinc	ppm	ASTM D5185m		<b>29</b>	5	19
Sulfur	ppm	ASTM D5185m		<b>2657</b>	2671	2718
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>7.8</b>	7.5	7.6
Base Number (BN)	mg KOH/g	ASTM D2896	10.5	<b>9.33</b>	9.77	9.90
Visc @ 100°C	cSt	ASTM D445	15.5	<b>14.7</b>	14.7	14.6

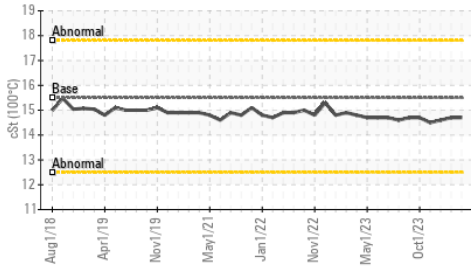
**FT-IR (Direct Trend)**



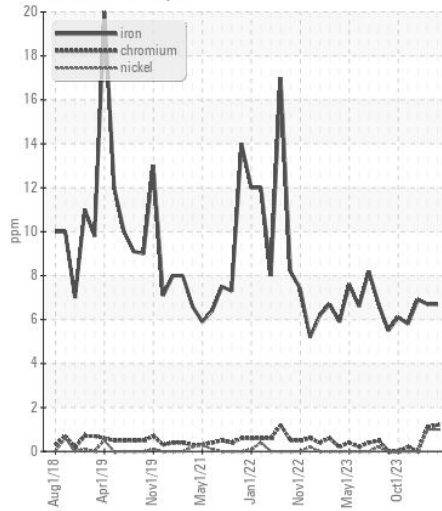
**Base Number**



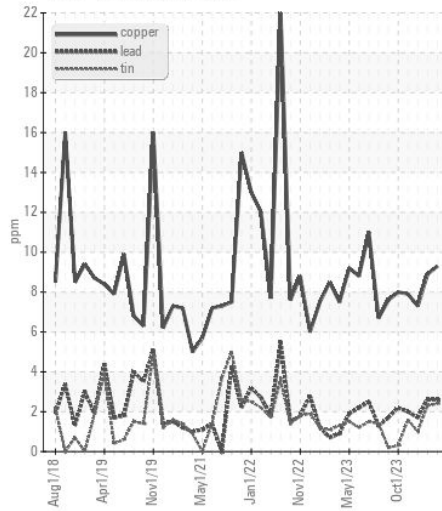
**Viscosity @ 100°C**



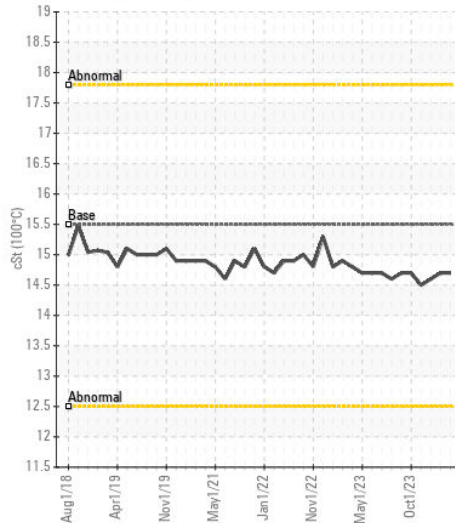
**Ferrous Alloys**



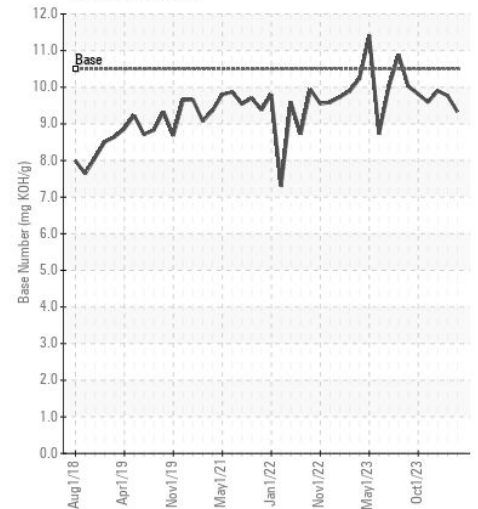
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

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

**Sample No.** : MW06159855

**Lab Number** : 06159855

**Unique Number** : 10995278

**Test Package** : MAR 2

**Received** : 24 Apr 2024

**Tested** : 25 Apr 2024

**Diagnosed** : 25 Apr 2024 - Wes Davis

**INGRAM BARGE**

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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)