



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

Area  
**MARTHA LYNN**  
Machine Id  
[**MARTHA LYNN**] 002 504678-2  
Component  
**Center Main Engine**  
Fluid  
**CHEVRON DELO 710 LS (350 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW0067947</b>	MW0067776	MW0067756
Sample Date		Client Info		<b>01 Jun 2024</b>	01 May 2024	01 Apr 2024
Machine Age	hrs	Client Info		<b>21646</b>	20969	20249
Oil Age	hrs	Client Info		<b>21646</b>	20969	20249
Filter Age	hrs	Client Info		<b>21646</b>	539	399
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>None</b>	Not Changd	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	<b>9</b>	8	9
Chromium	ppm	ASTM D5185m	>8	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>15	<b>2</b>	1	2
Lead	ppm	ASTM D5185m	>18	<b>7</b>	5	4
Copper	ppm	ASTM D5185m	>80	<b>12</b>	12	12
Tin	ppm	ASTM D5185m	>14	<b>4</b>	4	4
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
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.

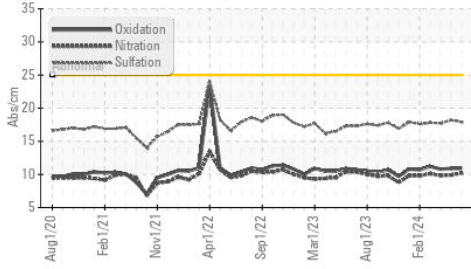
Silicon	ppm	ASTM D5185m	>20	<b>4</b>	3	4
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	<1	2
Fuel		WC Method	>4.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.3</b>	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.2</b>	9.9	9.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>17.9</b>	18.2	17.7
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**

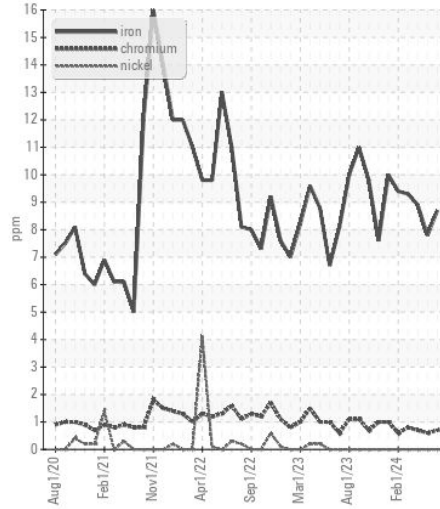
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>75	<b>0</b>	<1	2
Boron	ppm	ASTM D5185m		<b>41</b>	40	43
Barium	ppm	ASTM D5185m		<b>0</b>	1	0
Molybdenum	ppm	ASTM D5185m		<b>48</b>	45	45
Manganese	ppm	ASTM D5185m		<b>2</b>	2	2
Magnesium	ppm	ASTM D5185m		<b>0</b>	31	12
Calcium	ppm	ASTM D5185m		<b>4078</b>	3402	3460
Phosphorus	ppm	ASTM D5185m		<b>&lt;1</b>	23	7
Zinc	ppm	ASTM D5185m		<b>15</b>	24	0
Sulfur	ppm	ASTM D5185m		<b>2883</b>	2566	2612
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>10.9</b>	10.9	10.8
Base Number (BN)	mg KOH/g	ASTM D2896	10.5	<b>8.75</b>	9.42	8.73
Visc @ 100°C	cSt	ASTM D445	15.5	<b>14.8</b>	14.9	14.8

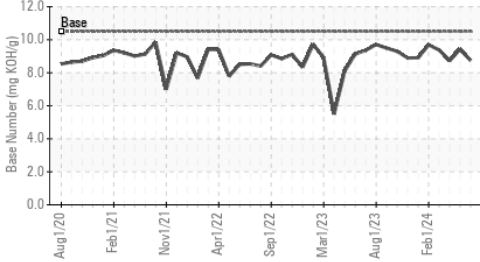
**FT-IR (Direct Trend)**



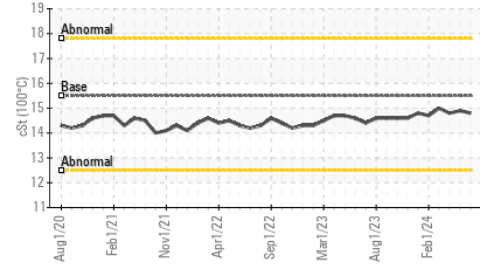
**Ferrous Alloys**



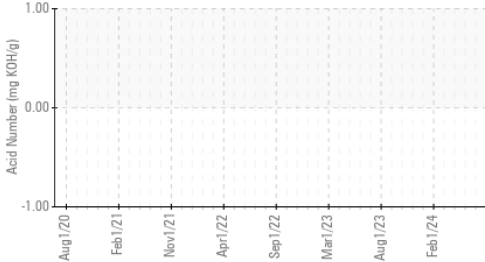
**Base Number**



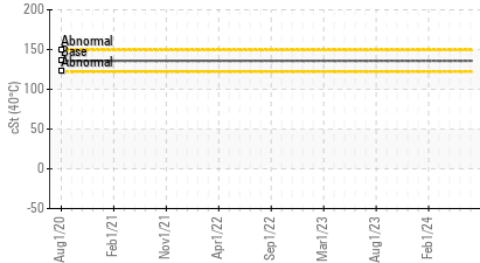
**Viscosity @ 100°C**



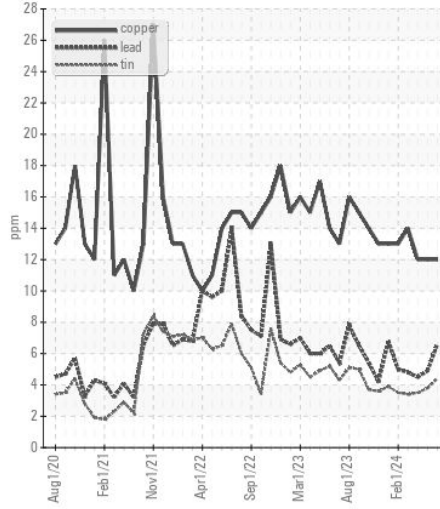
**Acid Number**



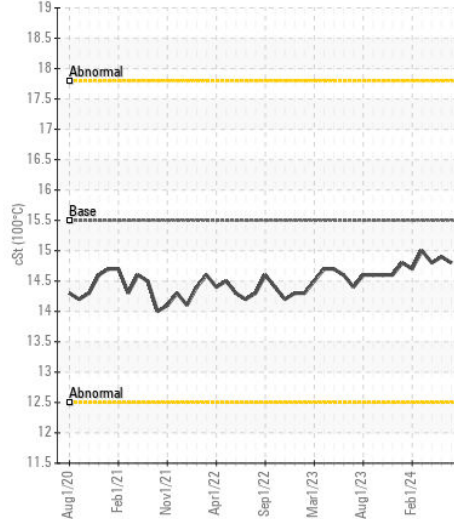
**Viscosity @ 40°C**



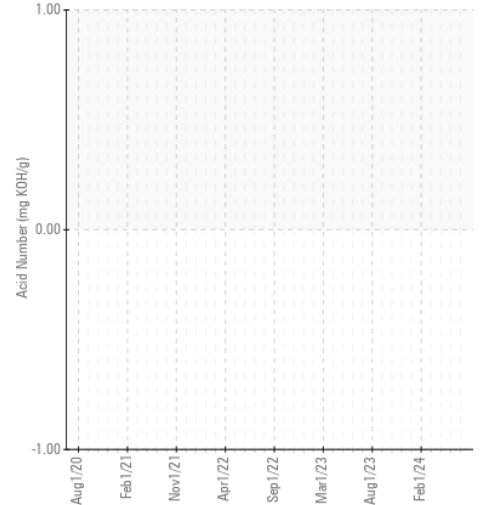
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Acid Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW0067947 **Received** : 28 Jun 2024  
**Lab Number** : 06224104 **Tested** : 02 Jul 2024  
**Unique Number** : 11102301 **Diagnosed** : 02 Jul 2024 - Jonathan Hester  
**Test Package** : MAR 2 ( Additional Tests: KV40, TAN Man )

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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