



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

Machine Id  
**MRC**  
Component  
**Port Main Engine**  
Fluid  
**CHEVRON DELO 400 XLE 15W40 (--- GAL)**

**RECOMMENDATION**

No corrective action is recommended at this time. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW05823778</b>	MW05765706	MW05745140
Sample Date		Client Info		<b>18 Apr 2023</b>	12 Feb 2023	19 Jan 2023
Machine Age	hrs	Client Info		<b>6280</b>	5674	5046
Oil Age	hrs	Client Info		<b>606</b>	2594	1964
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

**WEAR**

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

Iron	ppm	ASTM D5185m	>75	<b>26</b>	22	16
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>3</b>	3	2
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>15	<b>0</b>	2	2
Lead	ppm	ASTM D5185m	>18	<b>▲ 74</b>	▲ 63	▲ 47
Copper	ppm	ASTM D5185m	>80	<b>18</b>	19	18
Tin	ppm	ASTM D5185m	>14	<b>1</b>	2	0
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.

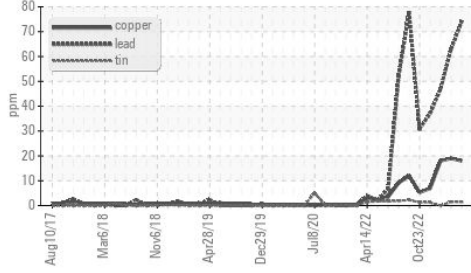
Silicon	ppm	ASTM D5185m	>20	<b>5</b>	4	4
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	<1	0
Fuel		WC Method	>4.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>0.7</b>	0.7	0.6
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.0</b>	10.0	9.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>25.4</b>	25.3	24.6
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**

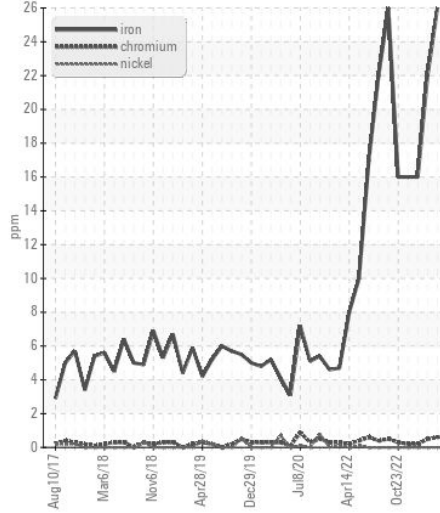
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>75	<b>1</b>	2	0
Boron	ppm	ASTM D5185m		<b>149</b>	167	180
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>100</b>	98	92
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>580</b>	579	519
Calcium	ppm	ASTM D5185m		<b>1554</b>	1567	1436
Phosphorus	ppm	ASTM D5185m	760	<b>696</b>	691	627
Zinc	ppm	ASTM D5185m	830	<b>878</b>	842	730
Sulfur	ppm	ASTM D5185m	2770	<b>2663</b>	3086	2670
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>21.3</b>	21.0	20.3
Base Number (BN)	mg KOH/g	ASTM D2896	10.7	<b>6.3</b>	6.6	6.8
Visc @ 100°C	cSt	ASTM D445	14.9	<b>13.0</b>	13.2	13.1

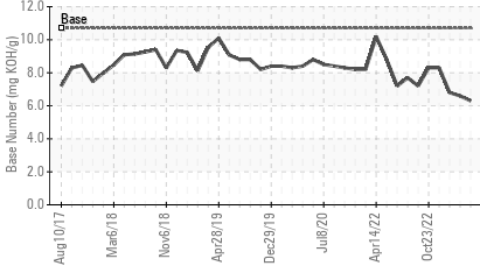
▲ Non-ferrous Metals



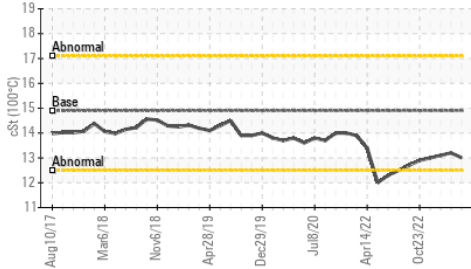
Ferrous Alloys



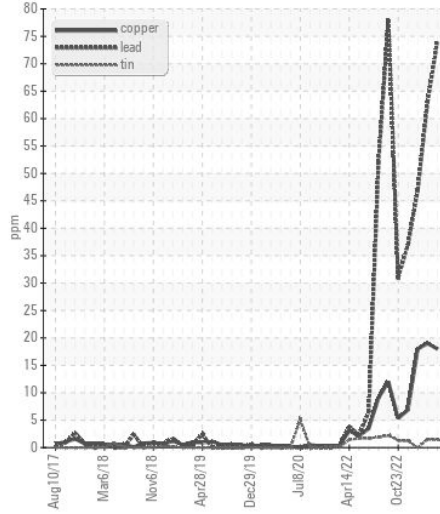
Base Number



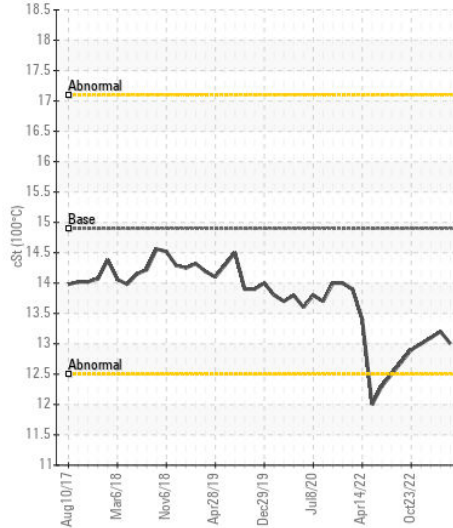
Viscosity @ 100°C



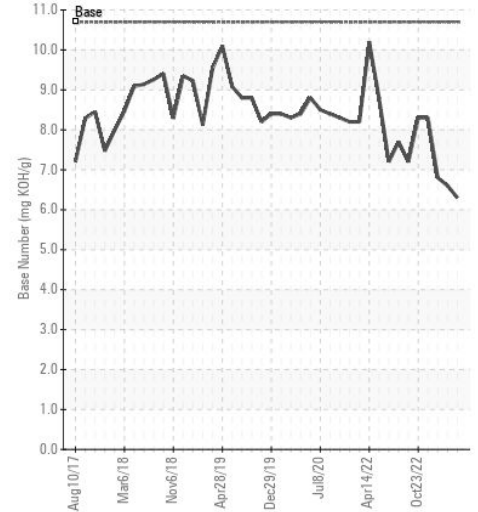
▲ Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW05823778  
**Lab Number** : 05823778  
**Unique Number** : 10431861  
**Test Package** : MAR 2  
**Received** : 19 Apr 2023  
**Tested** : 20 Apr 2023  
**Diagnosed** : 21 Apr 2023 - Don Baldrige

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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)