



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

**RECOMMENDATION**

We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW05904212</b>	MW05843076	MW05823799
Sample Date		Client Info		<b>20 Jul 2023</b>	09 May 2023	18 Apr 2023
Machine Age	hrs	Client Info		<b>36889</b>	35715	34136
Oil Age	hrs	Client Info		<b>974</b>	815	866
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>	NORMAL	ABNORMAL

**WEAR**

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

Iron	ppm	ASTM D5185m	>75	<b>13</b>	8	8
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>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>15	<b>1</b>	2	0
Lead	ppm	ASTM D5185m	>18	<b>▲ 62</b>	8	<b>▲ 29</b>
Copper	ppm	ASTM D5185m	>80	<b>1</b>	<1	<1
Tin	ppm	ASTM D5185m	>14	<b>&lt;1</b>	<1	<1
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**

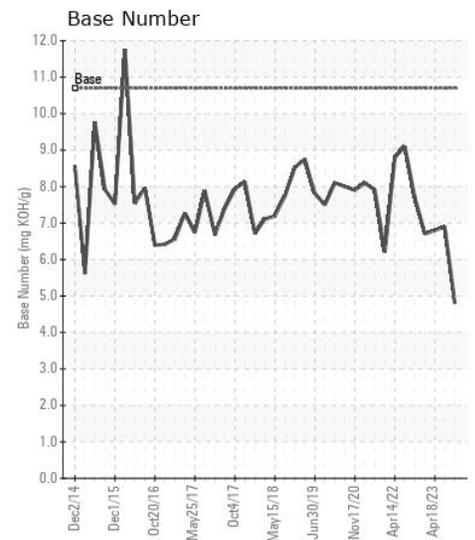
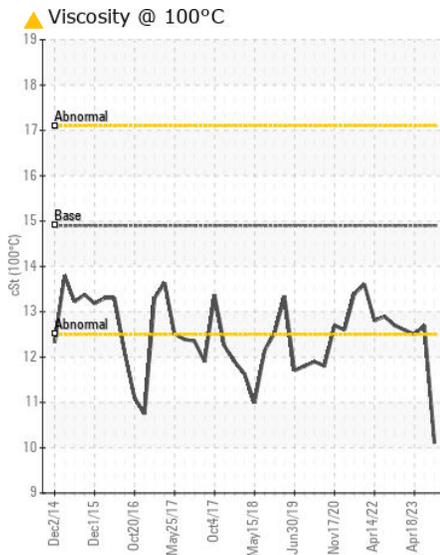
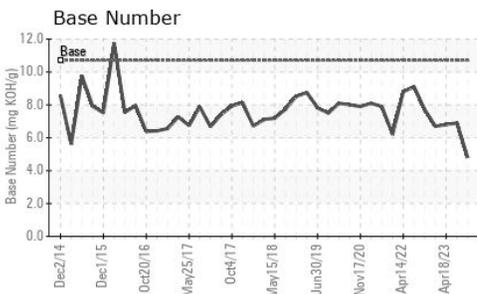
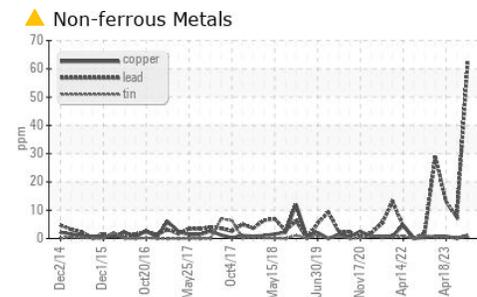
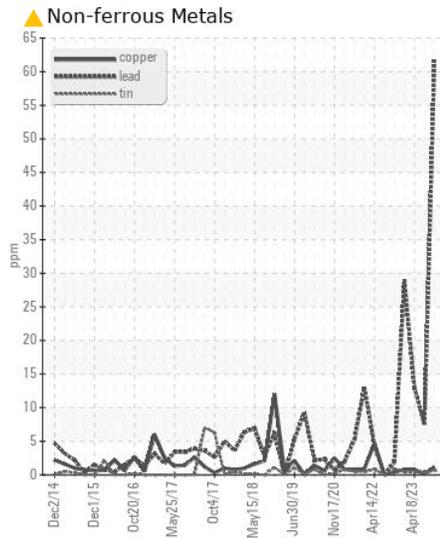
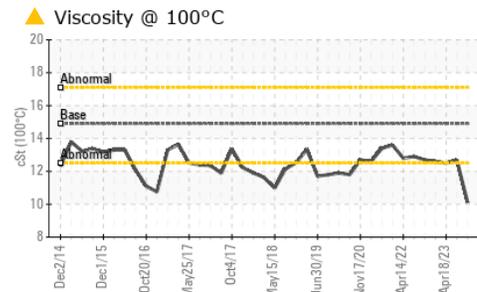
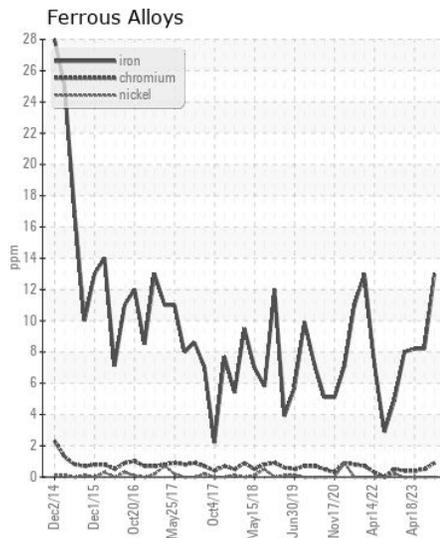
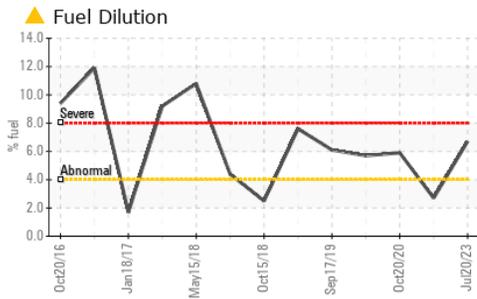
Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>4</b>	5	5
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	3	1
Fuel	%	ASTM D3524	>4.0	<b>▲ 6.7</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>1</b>	1	0.6
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.8</b>	7.8	7.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.3</b>	25.2	24.3
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 oil viscosity is lower than normal. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m	>75	<b>3</b>	2	2
Boron	ppm	ASTM D5185m		<b>88</b>	270	310
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>30</b>	88	97
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>224</b>	499	499
Calcium	ppm	ASTM D5185m		<b>2082</b>	1326	1364
Phosphorus	ppm	ASTM D5185m	760	<b>837</b>	733	768
Zinc	ppm	ASTM D5185m	830	<b>1026</b>	911	942
Sulfur	ppm	ASTM D5185m	2770	<b>3786</b>	2764	2400
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>21.8</b>	20.0	20.3
Base Number (BN)	mg KOH/g	ASTM D2896	10.7	<b>4.8</b>	6.9	6.8
Visc @ 100°C	cSt	ASTM D445	14.9	<b>▲ 10.1</b>	12.7	12.5



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW05904212 **Received** : 21 Jul 2023  
**Lab Number** : 05904212 **Tested** : 24 Jul 2023  
**Unique Number** : 10565568 **Diagnosed** : 24 Jul 2023 - Angela Borella  
**Test Package** : MAR 2 ( Additional Tests: FuelDilution, PercentFuel )

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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)