



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

Area  
**FRANK JOHNSON**  
Machine Id  
**[FRANK JOHNSON] 001 298198-1**  
Component  
**Port Main Engine**  
Fluid  
**CHEVRON DELO 710 LS (380 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW0058586</b>	MW0058645	MW0052526
Sample Date		Client Info		<b>01 Dec 2023</b>	01 Nov 2023	01 Jun 2023
Machine Age	hrs	Client Info		<b>1225</b>	505	25380
Oil Age	hrs	Client Info		<b>1225</b>	505	25380
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>16</b>	17	7
Chromium	ppm	ASTM D5185m	>8	<b>2</b>	1	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m	>3	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>15	<b>2</b>	2	2
Lead	ppm	ASTM D5185m	>18	<b>11</b>	9	4
Copper	ppm	ASTM D5185m	>80	<b>12</b>	14	10
Tin	ppm	ASTM D5185m	>14	<b>9</b>	9	3
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**

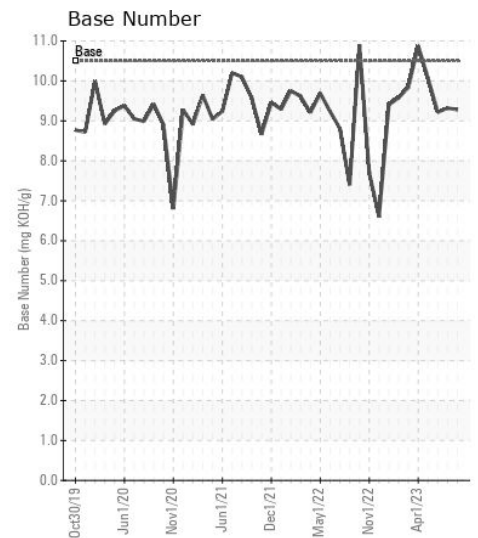
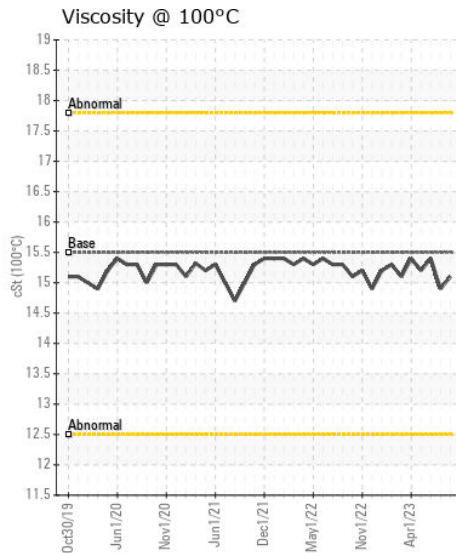
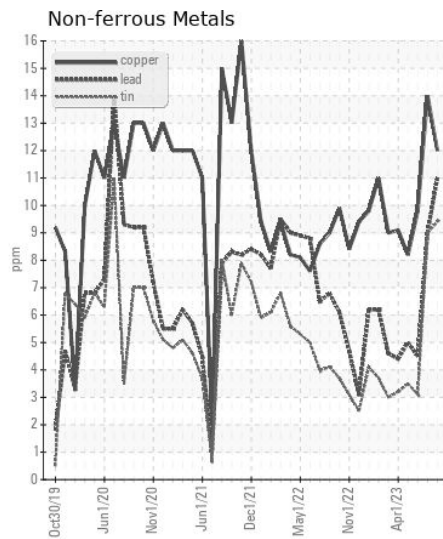
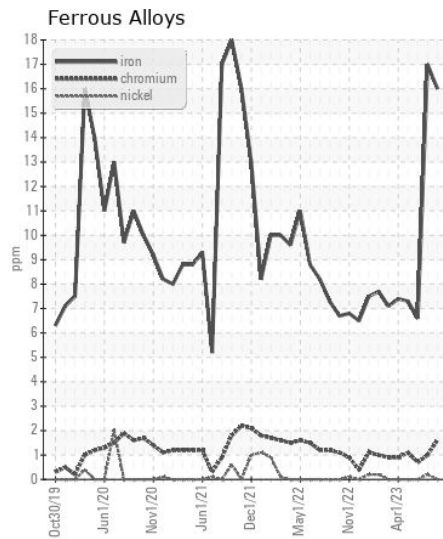
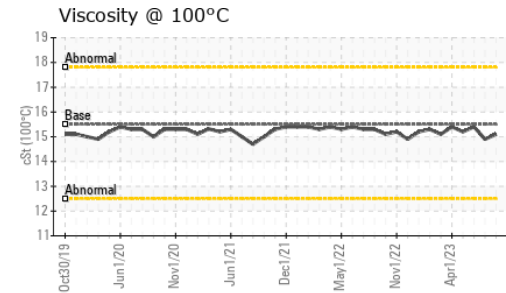
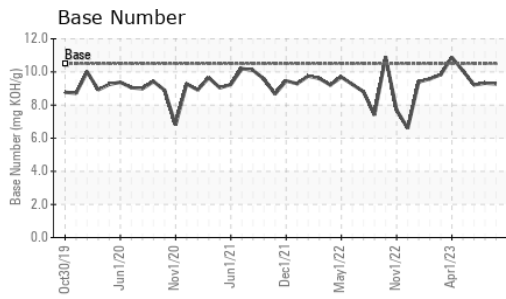
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>8</b>	10	3
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	5	<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>0.2</b>	0.1	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.9</b>	7.7	9.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>16.4</b>	15.1	18.0
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>&lt;1</b>	<1	<1
Boron	ppm	ASTM D5185m		<b>45</b>	47	37
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>47</b>	45	45
Manganese	ppm	ASTM D5185m		<b>1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>30</b>	13	15
Calcium	ppm	ASTM D5185m		<b>3434</b>	3311	3580
Phosphorus	ppm	ASTM D5185m		<b>13</b>	14	8
Zinc	ppm	ASTM D5185m		<b>12</b>	3	0
Sulfur	ppm	ASTM D5185m		<b>2409</b>	2286	2657
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>10.1</b>	8.5	12.5
Base Number (BN)	mg KOH/g	ASTM D2896	10.5	<b>9.28</b>	9.32	9.22
Visc @ 100°C	cSt	ASTM D445	15.5	<b>15.1</b>	14.9	15.4



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW0058586 **Received** : 08 Jan 2024  
**Lab Number** : 06054112 **Diagnosed** : 09 Jan 2024  
**Unique Number** : 10820061 **Diagnostician** : Wes Davis  
**Test Package** : MAR 2

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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