



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

Area  
**RONALD L SENSENBACH**  
Machine Id  
[RONALD L SENSENBACH] 001 685579-1  
Component  
**Port Main Engine**  
Fluid  
**CHEVRON DELO 400 XLE 15W40 (220 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW0070717</b>	MW0068213	MW0068206
Sample Date		Client Info		<b>01 Jul 2024</b>	01 Jun 2024	01 May 2024
Machine Age	hrs	Client Info		<b>31894</b>	31231	30529
Oil Age	hrs	Client Info		<b>1237</b>	574	1382
Filter Age	hrs	Client Info		<b>519</b>	574	657
Oil Changed		Client Info		<b>Changed</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Changed</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>3</b>	5	2
Chromium	ppm	ASTM D5185m	>8	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	>3	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>15	<b>3</b>	4	3
Lead	ppm	ASTM D5185m	>18	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>80	<b>2</b>	4	4
Tin	ppm	ASTM D5185m	>14	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>LIGHT</b>	LIGHT	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

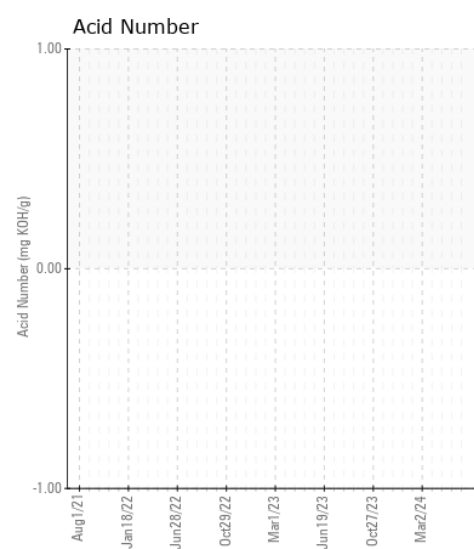
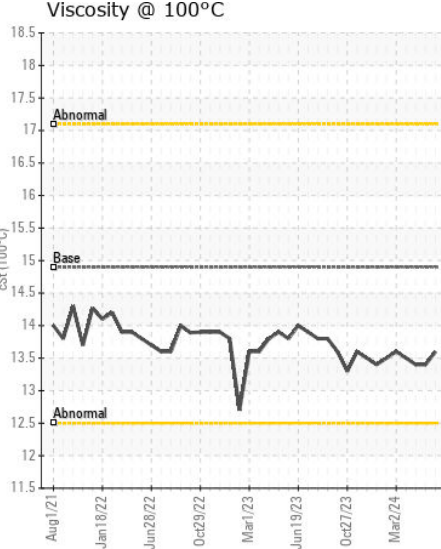
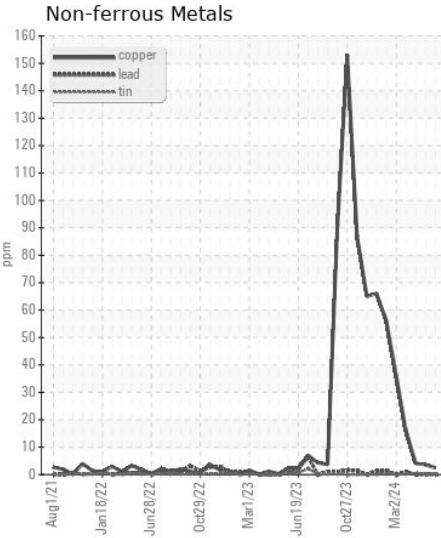
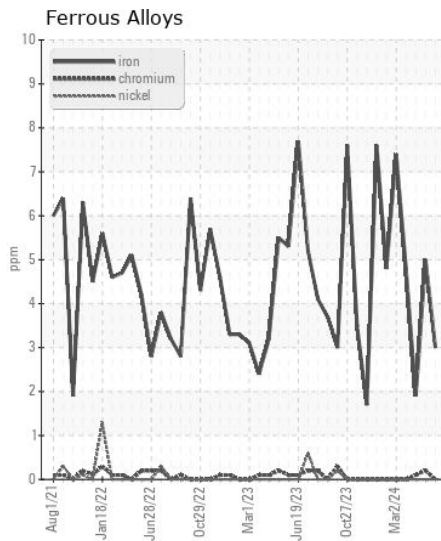
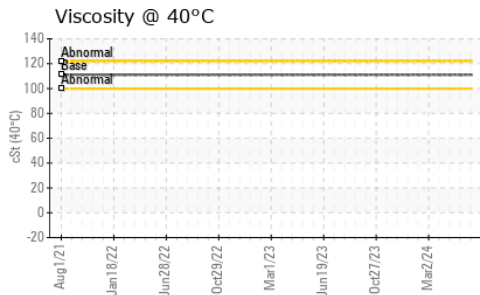
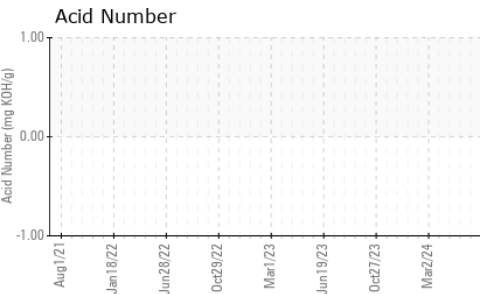
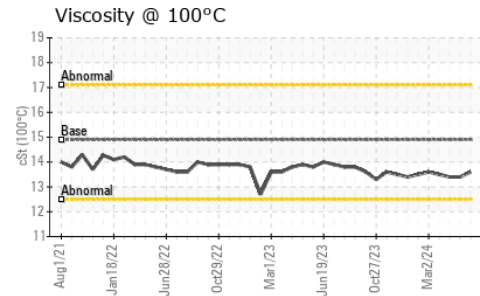
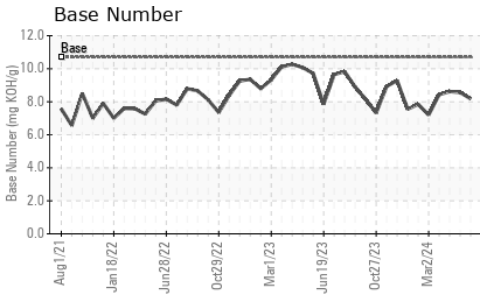
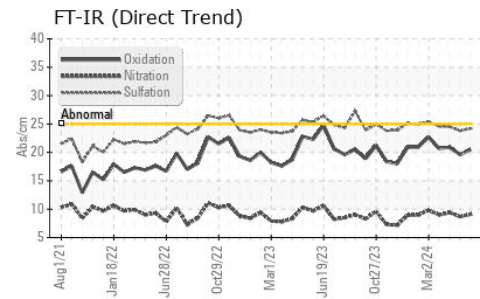
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>5</b>	5	5
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	2	<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		<b>0.2</b>	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.1</b>	8.7	9.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.2</b>	23.8	24.5
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>1</b>	2	<1
Boron	ppm	ASTM D5185m		<b>300</b>	394	334
Barium	ppm	ASTM D5185m		<b>0</b>	0	1
Molybdenum	ppm	ASTM D5185m		<b>119</b>	122	124
Manganese	ppm	ASTM D5185m		<b>2</b>	<1	1
Magnesium	ppm	ASTM D5185m		<b>646</b>	603	668
Calcium	ppm	ASTM D5185m		<b>1575</b>	1477	1502
Phosphorus	ppm	ASTM D5185m	760	<b>803</b>	743	709
Zinc	ppm	ASTM D5185m	830	<b>966</b>	857	829
Sulfur	ppm	ASTM D5185m	2770	<b>3163</b>	2497	2788
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>20.5</b>	19.6	20.9
Base Number (BN)	mg KOH/g	ASTM D2896	10.7	<b>8.18</b>	8.56	8.62
Visc @ 100°C	cSt	ASTM D445	14.9	<b>13.6</b>	13.4	13.4



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW0070717  
**Lab Number** : 06227685  
**Unique Number** : 11111178  
**Test Package** : MAR 2 ( Additional Tests: KV40, TAN Man )

**Received** : 03 Jul 2024  
**Tested** : 06 Jul 2024  
**Diagnosed** : 06 Jul 2024 - Don Baldrige

**INGRAM BARGE**  
 900 S 3RD ST  
 PADUCAH, KY  
 US 42003  
 Contact: MVJPA  
 mvjpa@ingrambarga.com

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)