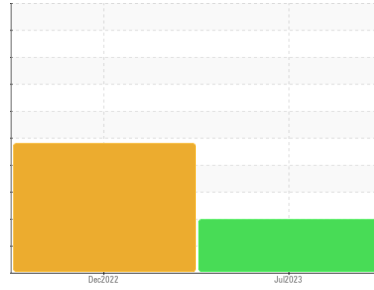


PROBLEM SUMMARY

Sample Rating Trend



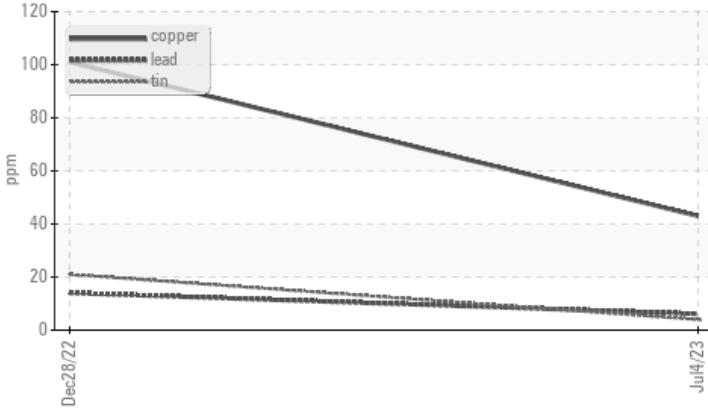
VISUAL METAL



Machine Id
CRUDE EXPORT MOTOR 1 OIL
Component
Drive End Bearing
Fluid
MOBIL DTE OIL HVY MEDIUM (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Non-ferrous Metals



RECOMMENDATION

We advise that you check for visible metal particles in the oil. 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. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

PROBLEMATIC TEST RESULTS

Sample Status	Unit	ASTM D5185(m)	Visual*	ABNORMAL	ABNORMAL	---
Copper	ppm	>5		▲ 43	▲ 101	---
Yellow Metal	scalar	Visual*	NONE	▲ LIGHT	▲ MODER	---
PrtFilter						no image

Customer Id: EXXSTJ
Sample No.: PC12340330
Lab Number: 02573734
Test Package: MAR 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Kevin Marson +1 (289)291-4644 x4644
Kevin.Marson@wearcheck.com

To change component or sample information:
Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Information Required	---	---	?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.
Check For Visual Metal	---	---	?	We advise that you check for visible metal particles in the oil.

HISTORICAL DIAGNOSIS

28 Dec 2022 Diag: Kevin Marson

VISUAL METAL

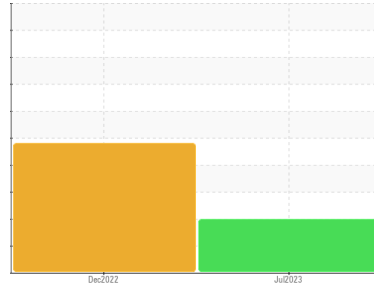


We advise that you check for visible metal particles in the oil. We recommend that you drain the oil from the component if this has not already been done. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Copper, iron and tin ppm levels are abnormal. Moderate concentration of visible metal present. Bearing wear is indicated. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. There is no indication of any contamination in the oil. Viscosity of sample indicates oil is within ISO 68 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

view report



Machine Id
CRUDE EXPORT MOTOR 1 OIL
Component
Drive End Bearing
Fluid
MOBIL DTE OIL HVY MEDIUM (--- GAL)



DIAGNOSIS

Recommendation
We advise that you check for visible metal particles in the oil. 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. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear
Copper ppm levels are abnormal. Light concentration of visible metal present. Bearing wear is indicated.

Contamination
There is no indication of any contamination in the oil.

Fluid Condition
The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	PC12340330	PP12232560	---
Sample Date	Client Info	04 Jul 2023	28 Dec 2022	---
Machine Age	hrs	0	0	---
Oil Age	hrs	0	0	---
Oil Changed	Client Info	N/A	N/A	---
Sample Status		ABNORMAL	ABNORMAL	---

WEAR METALS

method	limit/base	current	history1	history2
PQ	ASTM D8184*	11	55	---
Iron	ppm ASTM D5185(m) >20	4	▲ 31	---
Chromium	ppm ASTM D5185(m) >2	0	<1	---
Nickel	ppm ASTM D5185(m) >2	<1	<1	---
Titanium	ppm ASTM D5185(m)	0	0	---
Silver	ppm ASTM D5185(m)	<1	0	---
Aluminum	ppm ASTM D5185(m) >5	<1	<1	---
Lead	ppm ASTM D5185(m) >25	6	14	---
Copper	ppm ASTM D5185(m) >5	▲ 43	▲ 101	---
Tin	ppm ASTM D5185(m) >15	4	▲ 21	---
Antimony	ppm ASTM D5185(m)	0	1	---
Vanadium	ppm ASTM D5185(m)	0	0	---
Beryllium	ppm ASTM D5185(m)	0	0	---
Cadmium	ppm ASTM D5185(m)	0	0	---

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m)	0	<1	---
Barium	ppm ASTM D5185(m)	0	0	---
Molybdenum	ppm ASTM D5185(m)	0	0	---
Manganese	ppm ASTM D5185(m)	0	<1	---
Magnesium	ppm ASTM D5185(m)	0	<1	---
Calcium	ppm ASTM D5185(m)	1	15	---
Phosphorus	ppm ASTM D5185(m)	144	▲ 146	---
Zinc	ppm ASTM D5185(m)	85	▲ 88	---
Sulfur	ppm ASTM D5185(m)	765	821	---
Lithium	ppm ASTM D5185(m)	<1	<1	---

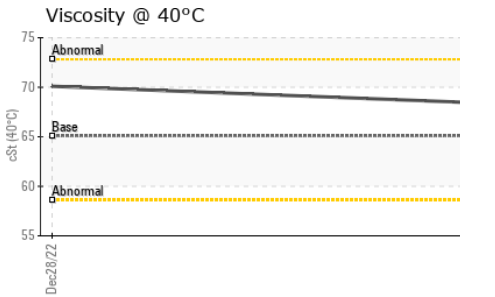
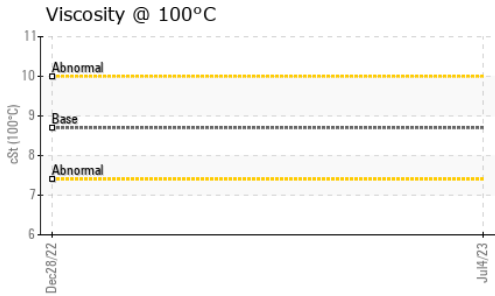
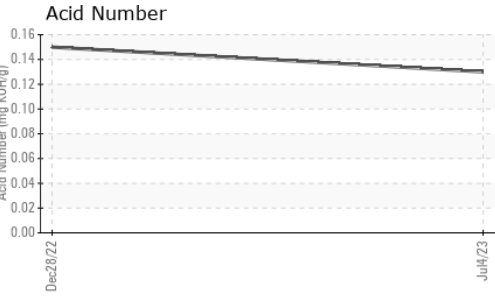
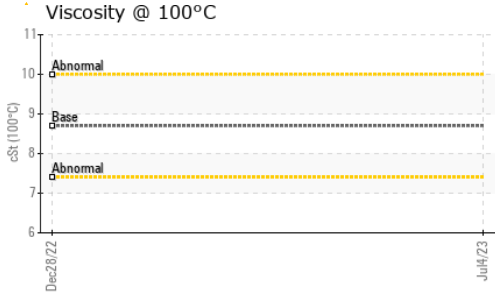
CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >15	<1	2	---
Sodium	ppm ASTM D5185(m)	0	<1	---
Potassium	ppm ASTM D5185(m) >20	0	0	---

FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D974*	0.13	0.15	---

OIL ANALYSIS REPORT

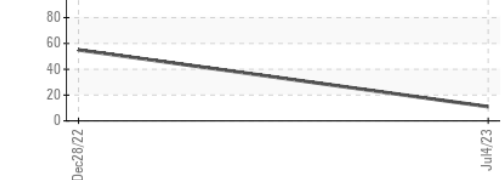
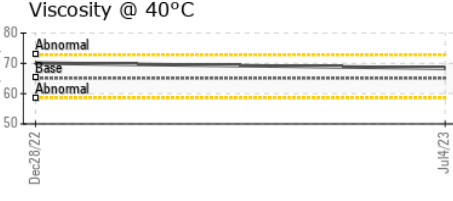
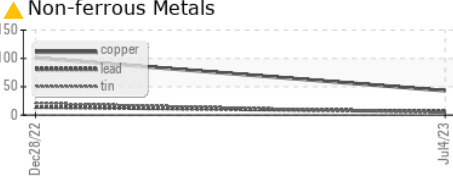
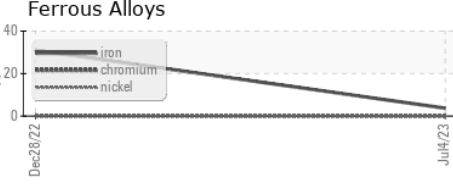


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	VLITE	NONE
Yellow Metal	scalar	Visual*	NONE	▲ LIGHT	▲ MODER
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	VLITE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	65.1	68.4	▲ 70.1
Visc @ 100°C	cSt	ASTM D7279(m)	8.7	9.1	---
Viscosity Index (VI)	Scale	ASTM D2270*	95	108	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					no image
Bottom					no image
PrtFilter					no image

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC12340330
Lab Number : 02573734
Unique Number : 5618785
Test Package : MAR 2 (Additional Tests: BottomAnalysis, FILTERPATCH, KV100, VI)

ExxonMobil Canada East Ltd.
 Hebron-Materials and Repair Coordin, Suite 1000, 100 New Gow
 St. John's, NL
 CA A1C 6K3
 Contact: Liam Maher
 liam.m.maher@exxonmobil.com
 T: (709)273-3729
 F:

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.