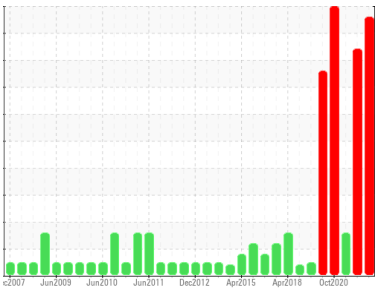
PROBLEM SUMMARY

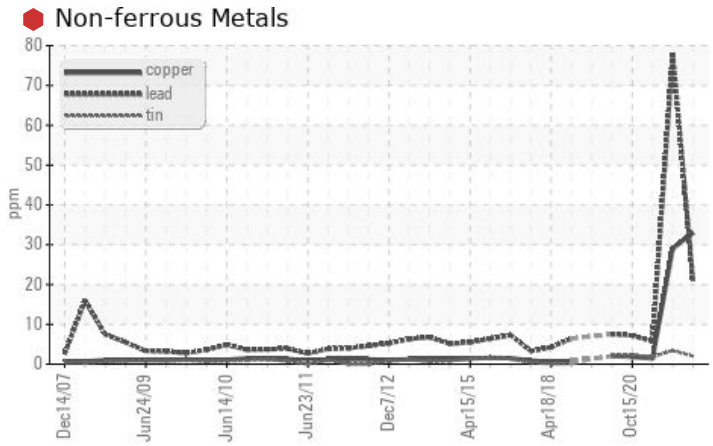
Sample Rating Trend



WEAR

Area
[192031]
Machine Id
PBK G LGBR
Component
Bearing
Fluid
MOBIL DTE OIL HVY MEDIUM (136 LTR)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We advise that you use off-line filtration with water adsorbent filters to attempt to remove the water from this oil. We recommend that you change the oil. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	SEVERE	ABNORMAL
Copper	ppm	ASTM D5185(m)	>13	**33**	29	1
Precipitate	scalar	Visual*	NONE	**LIGHT**	NONE	NONE
Appearance	scalar	Visual*	NORML	**MILKY**	NORML	NORML
Free Water	scalar	Visual*		**5%**	1%	NEG

Customer Id: NEWSTJ
Sample No.: WC0445369
Lab Number: 02517641
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
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Kevin.Marson@wearcheck.com

To change component or sample information:
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gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	MISSED	Dec 21 2022	?	We recommend that you change the oil.
Resample	MISSED	Dec 21 2022	?	We recommend an early resample to monitor this condition.
Check Breathers	MISSED	Dec 21 2022	?	The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather.
Check Water Access	MISSED	Dec 21 2022	?	We advise that you check for the source of water entry.
Check Seals	MISSED	Dec 21 2022	?	Check seals and/or filters for points of contaminant entry.
Filter Fluid	MISSED	Dec 21 2022	?	We advise that you use off-line filtration with water adsorbent filters to attempt to remove the water from this oil.

HISTORICAL DIAGNOSIS

20 Oct 2021 Diag: Kevin Marson

WEAR

We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. We recommend that you drain the oil from the component if this has not already been done. We advise that you follow the water drain-off procedure for this component. We recommend an early resample to monitor this condition. NOTE: Test values may be askew due high concentration of free water present in sample.Copper ppm levels are severe. Lead ppm levels are noted. A sharp increase in the lead level is noted. A sharp increase in the copper level is noted. Bearing wear is indicated. Free water present. 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

30 Apr 2021 Diag: Kevin Marson

ISO

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition.All component wear rates are normal. Particles >14µm are abnormally high. Particles >21µm are abnormally high. Particles >4µm are abnormally high. Particles >6µm are abnormally high. The water content is negligible. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

15 Oct 2020 Diag: Kevin Marson

ISO

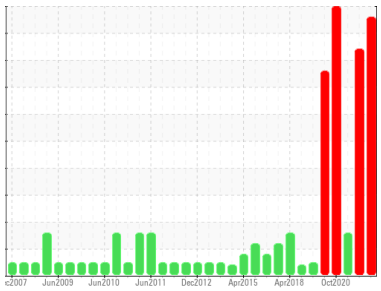
We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. We suspect that the abnormal contaminant(s) is the result of incorrect sampling technique. DISCLAIMER: Interpretation of laboratory tests is based on sample, as received from client. Source of sample and sampling technique cannot be verified.All component wear rates are normal. Particles >71µm are severely high. Particles >14µm are severely high. Particles >21µm are severely high. Particles >38µm are severely high. Particles >6µm are severely high. Particles >4µm are severely high. Moderate concentration of visible dirt/debris present in the oil. The water content is negligible. The AN level is acceptable for this fluid.

view report

OIL ANALYSIS REPORT

Area
[192031]
Machine Id
PBK G LGBR
Component
Bearing
Fluid
MOBIL DTE OIL HVY MEDIUM (136 LTR)

Sample Rating Trend



WEAR

DIAGNOSIS

Recommendation

We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We advise that you use off-line filtration with water adsorbent filters to attempt to remove the water from this oil. We recommend that you change the oil. We recommend an early resample to monitor this condition.

Wear

Copper ppm levels are severe. Bearing wear is indicated.

Contamination

There is a moderate concentration of water present in the oil. Free water present.

Fluid Condition

The white residue present in the sample is oil additive precipitate. 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		**WC0445369**	WC0445207	WC0327923
Sample Date		Client Info		**02 Jun 2022**	20 Oct 2021	30 Apr 2021
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**SEVERE**	SEVERE	ABNORMAL

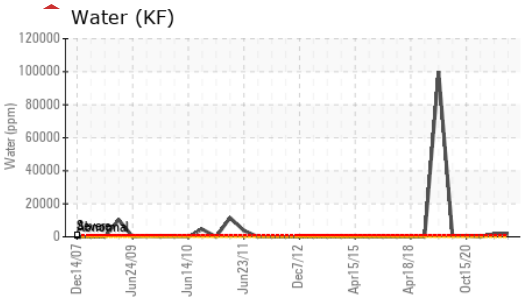
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*		**0**	0	0
Iron	ppm	ASTM D5185(m)	>63	**19**	21	29
Chromium	ppm	ASTM D5185(m)		**0**	0	0
Nickel	ppm	ASTM D5185(m)		**0**	<1	<1
Titanium	ppm	ASTM D5185(m)		**0**	0	0
Silver	ppm	ASTM D5185(m)		**0**	<1	0
Aluminum	ppm	ASTM D5185(m)	>2	**0**	0	0
Lead	ppm	ASTM D5185(m)	>161	**21**	▲ 78	6
Copper	ppm	ASTM D5185(m)	>13	● **33**	● 29	1
Tin	ppm	ASTM D5185(m)	>27	**2**	3	2
Antimony	ppm	ASTM D5185(m)		**<1**	<1	<1
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**<1**	1	<1

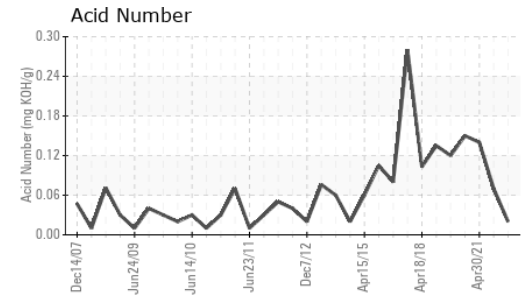
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**0**	<1	<1
Barium	ppm	ASTM D5185(m)		**0**	<1	0
Molybdenum	ppm	ASTM D5185(m)		**0**	0	0
Manganese	ppm	ASTM D5185(m)		**<1**	<1	<1
Magnesium	ppm	ASTM D5185(m)		**0**	0	<1
Calcium	ppm	ASTM D5185(m)		**<1**	1	<1
Phosphorus	ppm	ASTM D5185(m)		**131**	131	3
Zinc	ppm	ASTM D5185(m)		**17**	24	13
Sulfur	ppm	ASTM D5185(m)		**800**	774	2341
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

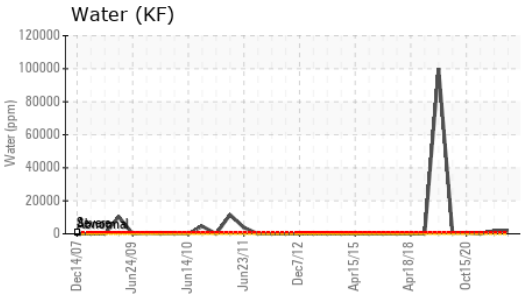
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>12	**<1**	1	<1
Sodium	ppm	ASTM D5185(m)		**0**	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	**<1**	0	<1
Water	%	ASTM D6304*	>2	**0.164**	0.181	0.003
ppm Water	ppm	ASTM D6304*		**1644.5**	1811.1	35.5

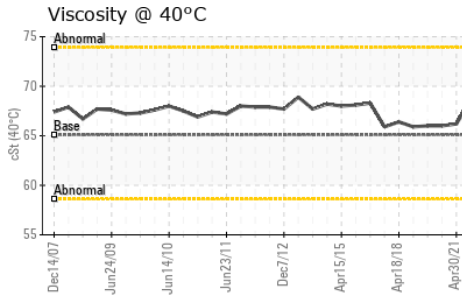
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		**0.02**	0.07	0.14

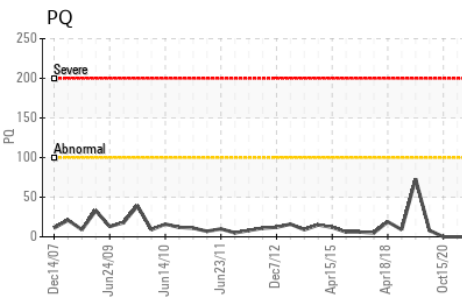
OIL ANALYSIS REPORT





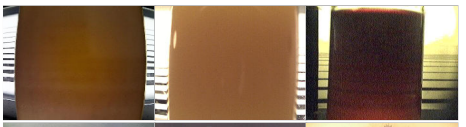
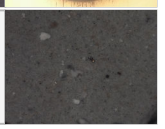




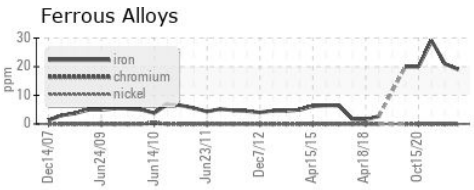


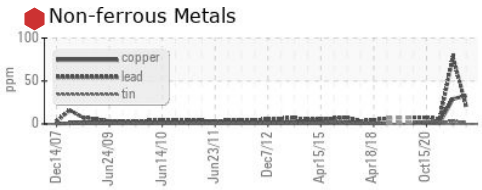
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Precipitate	scalar	Visual*	NONE	▲ **LIGHT**	NONE	NONE
Silt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Debris	scalar	Visual*	NONE	**NONE**	NONE	VLITE
Sand/Dirt	scalar	Visual*	NONE	**NONE**	NONE	VLITE
Appearance	scalar	Visual*	NORML	▲ **MILKY**	NORML	NORML
Odor	scalar	Visual*	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	Visual*	>2	**.5%**	1%	.2%
Free Water	scalar	Visual*		▲ **5%**	▲ 1%	NEG

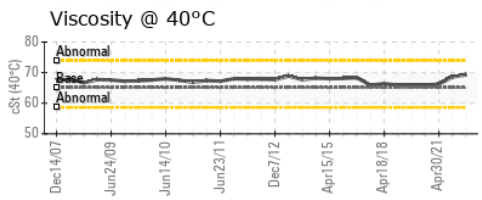
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	65.1	**69.3**	68.6	66.2

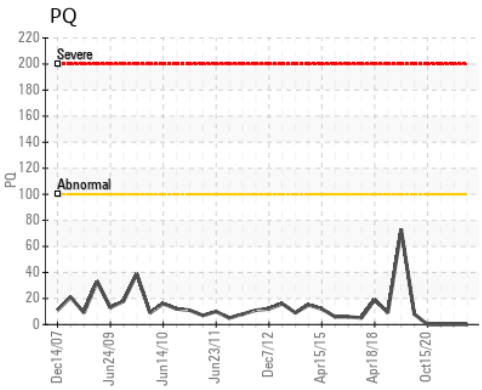
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					
PrtFilter				*no image*	*no image* 

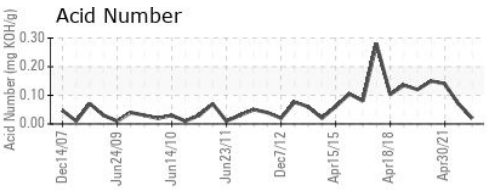
GRAPHS











ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0445369 **Received** : 20 Oct 2022
Lab Number : 02517641 **Diagnosed** : 24 Oct 2022
Unique Number : 5474621 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: Bottom, KF)

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.

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