MOB II WEAR CHECK

OIL ANALYSIS REPORT

WEAR	SEVERE
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
Unit #3, East FD Fan In Board (S/N 8392)
Component
Inboard Bearing
Fluid
PETRO CANADA HYDREX AW 68 (15 LTR)

RECOMMENDATION

We advise that you check all areas where contaminants can enter the system. 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 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. We suspect that the abnormal contaminant(s) is the result of incorrect sampling technique. DISCLAIMER: Interpretation of results is based on the sample as received from the customer. The condition of the sample and the method of sampling cannot be verified.

WEAR

Iron and lead ppm levels are severe. Copper and tin ppm levels are abnormal. Antimony ppm levels are noted. Bearing wear is indicated. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion.

CONTAMINATION

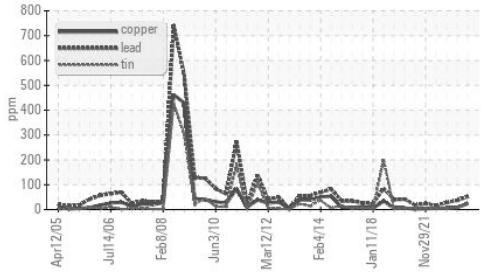
Moderate concentration of visible dirt/debris present in the oil. There is a moderate concentration of dirt present in the oil. The water content is negligible. High amount of ingressed dirt has caused abrasive wear to the component.

FLUID CONDITION

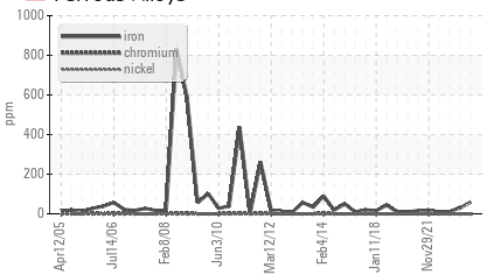
The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0927095	WC0805105	WC0677239
Sample Date		Client Info		15 May 2024	12 Dec 2023	28 Nov 2022
Machine Age	mths	Client Info		0	0	0
Oil Age	mths	Client Info		2820	0	0
Filter Age	mths	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				SEVERE	ABNORMAL	NORMAL
PQ		ASTM D8184*		42	0	0
Iron	ppm	ASTM D5185(m)	>20	▲ 59	▲ 30	11
Chromium	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>20	<1	<1	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	2	1	<1
Lead	ppm	ASTM D5185(m)	>20	▲ 52	▲ 37	28
Copper	ppm	ASTM D5185(m)	>20	▲ 24	9	6
Tin	ppm	ASTM D5185(m)	>20	▲ 23	6	3
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185(m)	>15	▲ 15	11	7
Potassium	ppm	ASTM D5185(m)	>20	<1	2	0
Water	%	ASTM D6304*	>2	0.043	▲ 0.595	---
ppm Water	ppm	ASTM D6304*		434	▲ 5956	---
Silt	scalar	Visual*	NONE	VLITE	NONE	NONE
Debris	scalar	Visual*	NONE	▲ LIGHT	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	VLITE	NONE
Appearance	scalar	Visual*	NORML	▲ HAZY	▲ WGOIL	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>2	.5%	▲ .5%	NEG
Sodium	ppm	ASTM D5185(m)		<1	<1	<1
Boron	ppm	ASTM D5185(m)	0	<1	0	<1
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	0	0	0	0
Manganese	ppm	ASTM D5185(m)	0	<1	0	<1
Magnesium	ppm	ASTM D5185(m)	0	<1	<1	<1
Calcium	ppm	ASTM D5185(m)	50	38	34	34
Phosphorus	ppm	ASTM D5185(m)	330	325	331	255
Zinc	ppm	ASTM D5185(m)	430	380	390	275
Sulfur	ppm	ASTM D5185(m)	760	755	837	3730
Acid Number (AN)	mg KOH/g	ASTM D974*	0.60	0.37	0.47	0.30
Visc @ 40°C	cSt	ASTM D7279(m)	67.4	67.0	66.8	67.5

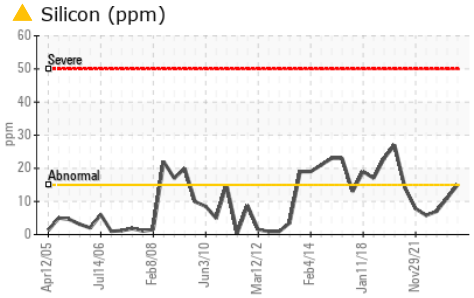
Non-ferrous Metals



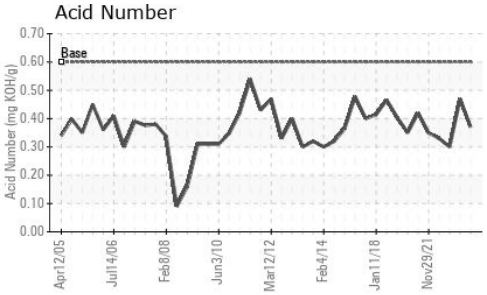
Ferrous Alloys



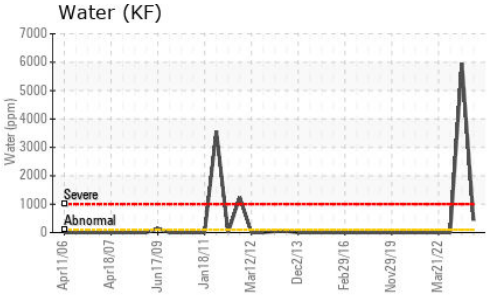
Silicon (ppm)



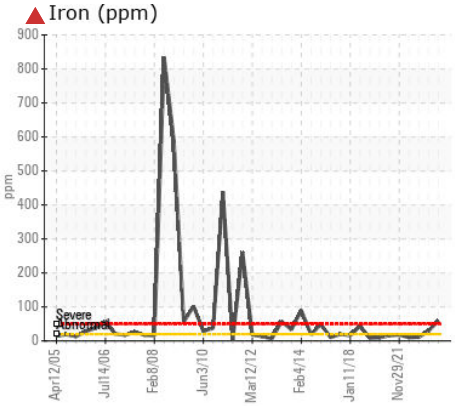
Acid Number



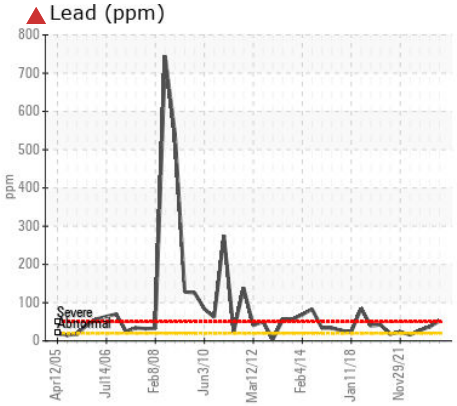
Water (KF)



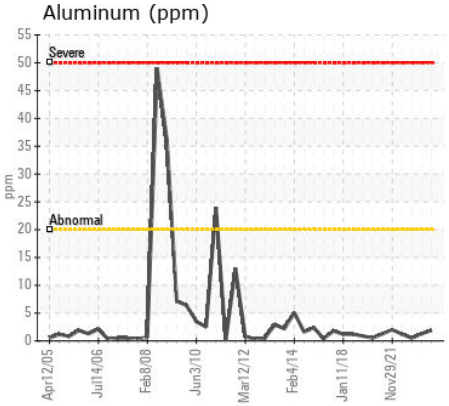
Iron (ppm)



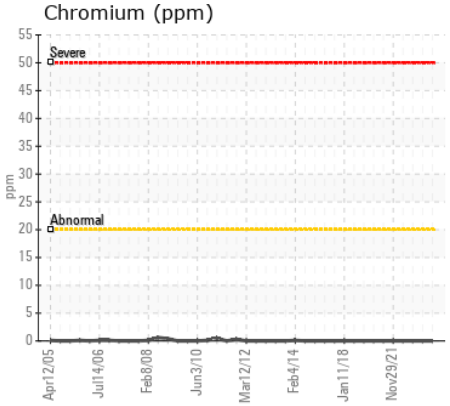
Lead (ppm)



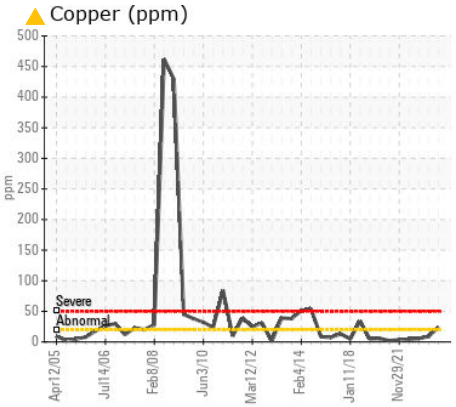
Aluminum (ppm)



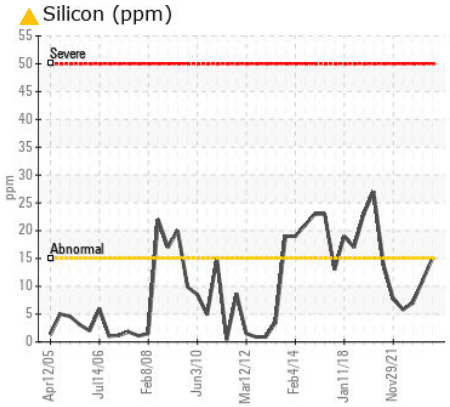
Chromium (ppm)



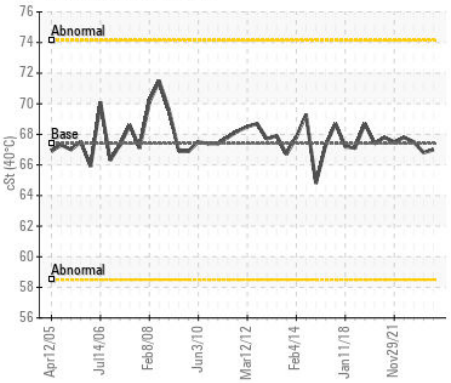
Copper (ppm)



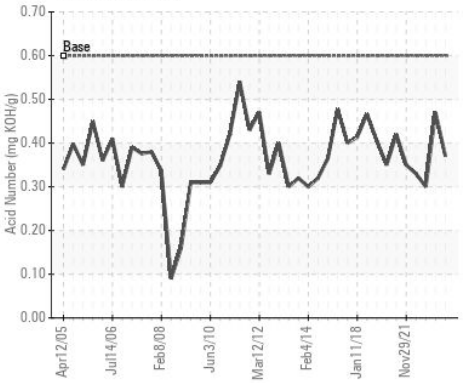
Silicon (ppm)



Viscosity @ 40°C



Acid Number



ISO 17025:2017 Accredited Laboratory

Laboratory	: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9		
Sample No.	: WC0927095	**Received**	: 28 May 2024
Lab Number	: 02638129	**Tested**	: 31 May 2024
Unique Number	: 5787291	**Diagnosed**	: 31 May 2024 - Kevin Marson
Test Package	: MOB 2 (Additional Tests: BottomAnalysis, FILTERPATCH, KF, PQ)		

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.

NEWFOUNDLAND & LABRADOR HYDRO
HOLYROOD THERMAL GEN. STN.,, PO BOX 29, DUFFS RD
CONCEPTION BAY, NL
CA A0A 2R0
Contact: Rory Tweedie
rorytweedie@nlh.nl.ca
T: (709)229-2764
F: (709)229-7894