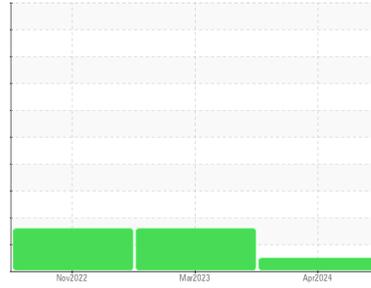




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
EAST CRANE
 Machine Id
170831 LUFFING BRAKE
 Component
Luffing Brake
 Fluid
 {not provided} (--- GAL)

DIAGNOSIS

Recommendation

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

The water content is negligible. There is no indication of any contamination in the fluid.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the fluid is suitable for further service.

SAMPLE INFORMATION

Sample Number	Client Info	PP	PP	PP
Sample Date	Client Info	18 Apr 2024	07 Mar 2023	21 Nov 2022
Machine Age	Client Info	0	0	0
Oil Age	Client Info	0	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		NORMAL	ABNORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*		70	106	46
Iron	ppm ASTM D5185(m)	>350	68	108	67
Chromium	ppm ASTM D5185(m)	>5	0	<1	0
Nickel	ppm ASTM D5185(m)	>5	<1	<1	<1
Titanium	ppm ASTM D5185(m)		0	0	0
Silver	ppm ASTM D5185(m)		0	0	0
Aluminum	ppm ASTM D5185(m)	>8	0	<1	<1
Lead	ppm ASTM D5185(m)	>10	<1	2	2
Copper	ppm ASTM D5185(m)	>150	37	63	67
Tin	ppm ASTM D5185(m)	>5	<1	1	2
Antimony	ppm ASTM D5185(m)	>5	0	<1	0
Vanadium	ppm ASTM D5185(m)		0	0	0
Beryllium	ppm ASTM D5185(m)		0	0	0
Cadmium	ppm ASTM D5185(m)		0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m)		4	4	6
Barium	ppm ASTM D5185(m)		0	0	0
Molybdenum	ppm ASTM D5185(m)		0	0	0
Manganese	ppm ASTM D5185(m)		<1	1	<1
Magnesium	ppm ASTM D5185(m)		2	3	4
Calcium	ppm ASTM D5185(m)		7	6	8
Phosphorus	ppm ASTM D5185(m)		257	284	297
Zinc	ppm ASTM D5185(m)		20	18	14
Sulfur	ppm ASTM D5185(m)		18468	18734	19831
Lithium	ppm ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

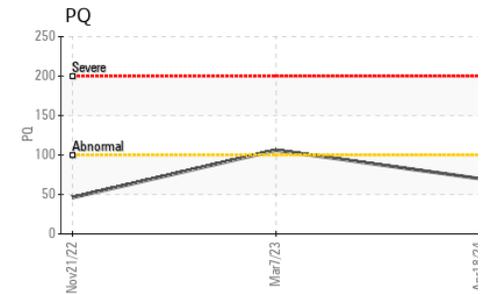
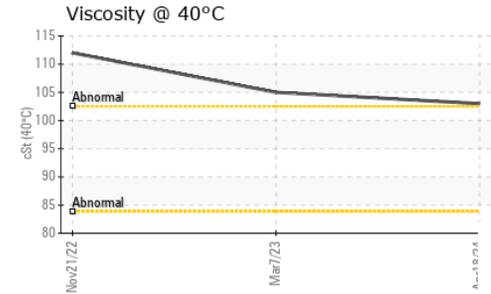
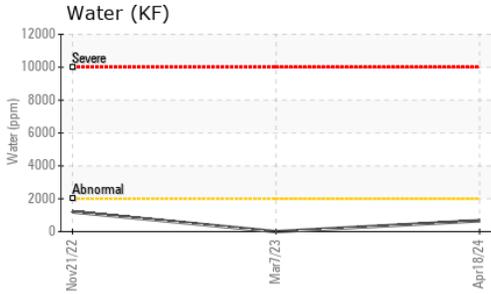
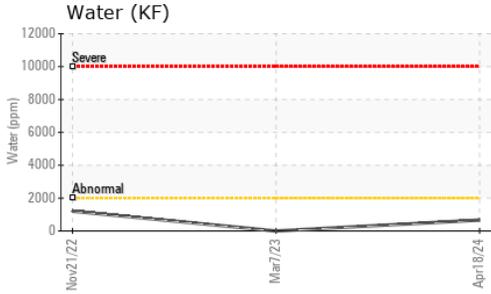
	method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m)	>400	0	1	1
Sodium	ppm ASTM D5185(m)		<1	2	2
Potassium	ppm ASTM D5185(m)	>20	<1	0	0
Water	% ASTM D6304*	>0.2	0.066	---	0.120
ppm Water	ppm ASTM D6304*	>2000	664	---	1201.9

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D974*		0.67	0.65	0.65



OIL ANALYSIS REPORT



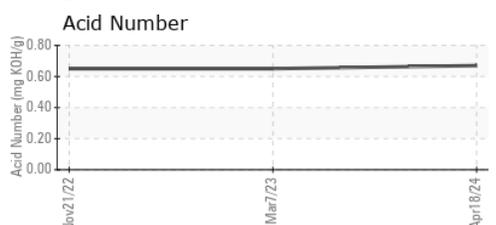
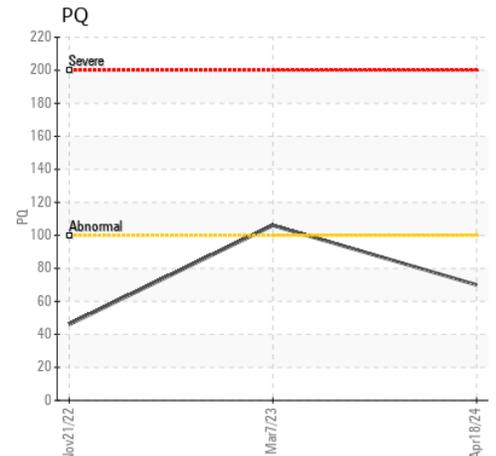
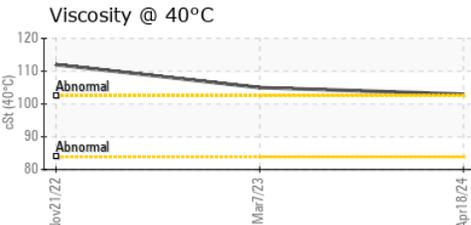
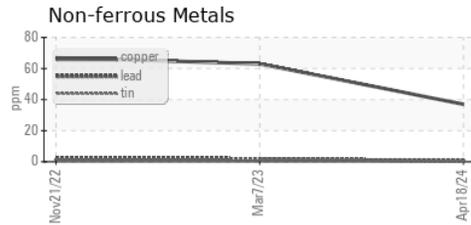
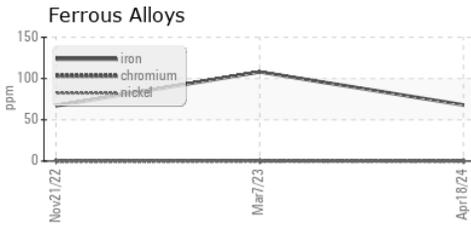
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	VLITE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	VLITE	NONE
Silt	scalar	Visual*	NONE	VLITE	NONE
Debris	scalar	Visual*	NONE	VLITE	NONE
Sand/Dirt	scalar	Visual*	NONE	VLITE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	.5%	.2%
Free Water	scalar	Visual*		NEG	▲ 1%

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	103	105	112

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PP
Lab Number : 02630377
Unique Number : 5763509
Test Package : IND 2 (Additional Tests: KF, TAN Man)
Received : 19 Apr 2024
Tested : 24 Apr 2024
Diagnosed : 24 Apr 2024 - Kevin Marson

HIBERNIA MGMT & DEVELOPMENT CO. LTD
 SUITE 1000,, 100 NEW GOWER STREET
 ST.JOHN'S, NL
 CA A1C 6K3
 Contact: Sam Nash
 samantha.m.nash@exxonmobil.com

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.

T:
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