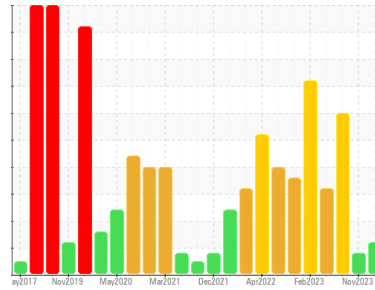




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area
WH-100
 Machine Id
B25970 - STORK COOKER GEARBOX #1 (INFEED)
 Component
Gearbox
 Fluid
PETRO CANADA ENDURATEX WG 680 (--- GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. 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

All component wear rates are normal.

Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code.

Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	WC0880589	WC0856025	WC0826077
Sample Date	Client Info	10 Jan 2024	29 Nov 2023	25 Jul 2023
Machine Age	hrs	0	0	0
Oil Age	hrs	0	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		ABNORMAL	ABNORMAL	SEVERE

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >200	7	<1	19
Chromium	ppm	ASTM D5185m >15	<1	0	0
Nickel	ppm	ASTM D5185m >15	<1	<1	2
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >25	2	0	0
Lead	ppm	ASTM D5185m >100	0	0	0
Copper	ppm	ASTM D5185m >200	9	24	58
Tin	ppm	ASTM D5185m >25	<1	2	8
Vanadium	ppm	ASTM D5185m	0	0	<1
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 1	0	0	0
Barium	ppm	ASTM D5185m 1	3	0	0
Molybdenum	ppm	ASTM D5185m 1	0	0	0
Manganese	ppm	ASTM D5185m 1	0	<1	0
Magnesium	ppm	ASTM D5185m 1	0	0	0
Calcium	ppm	ASTM D5185m 1	<1	0	0
Phosphorus	ppm	ASTM D5185m 1	45	<1	23
Zinc	ppm	ASTM D5185m 1	0	0	0
Sulfur	ppm	ASTM D5185m 3114	3065	2427	3052

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >50	2	3	1
Sodium	ppm	ASTM D5185m	0	1	<1
Potassium	ppm	ASTM D5185m >20	<1	0	0
Water	%	ASTM D6304 >0.2	0.087	---	---
ppm Water	ppm	ASTM D6304 >2000	870	---	---

FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >10000	▲ 70108	---	● 239958
Particles >6µm	ASTM D7647 >2500	▲ 14498	---	● 164596
Particles >14µm	ASTM D7647 >320	312	---	● 7292
Particles >21µm	ASTM D7647 >80	42	---	▲ 212
Particles >38µm	ASTM D7647 >20	1	---	7
Particles >71µm	ASTM D7647 >4	0	---	0
Oil Cleanliness	ISO 4406 (c) >20/18/15	▲ 23/21/15	---	● 25/25/20

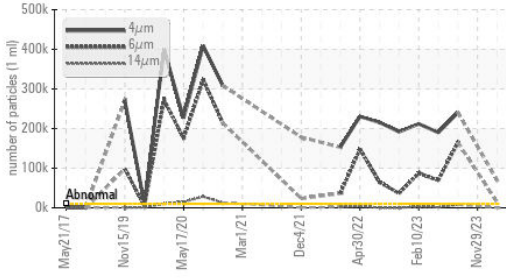
FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045 0.43	0.73	0.60	1.32

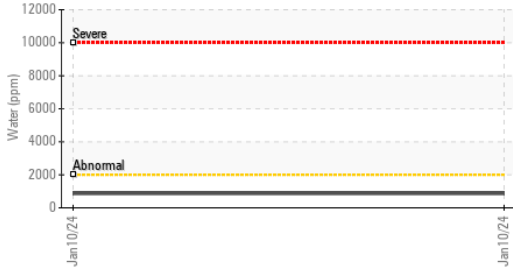


OIL ANALYSIS REPORT

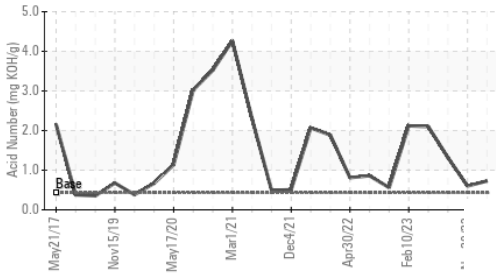
Particle Trend



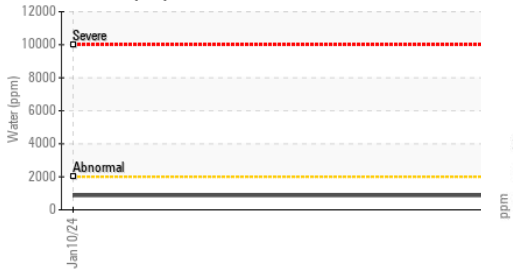
Water (KF)



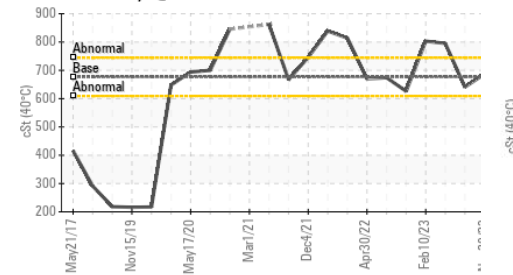
Acid Number



Water (KF)



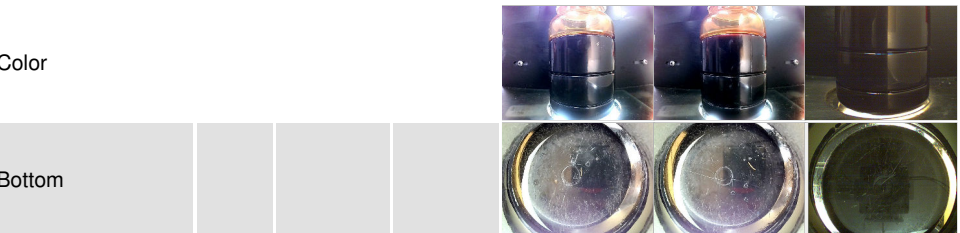
Viscosity @ 40°C



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	▲ MODER	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	>0.2	0.2%	NEG
Free Water	scalar	*Visual		NEG	NEG

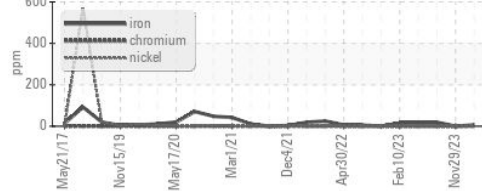
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	676.7	647	687

SAMPLE IMAGES

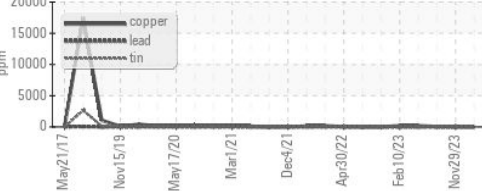


GRAPHS

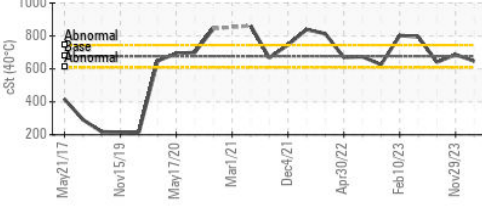
Ferrous Alloys



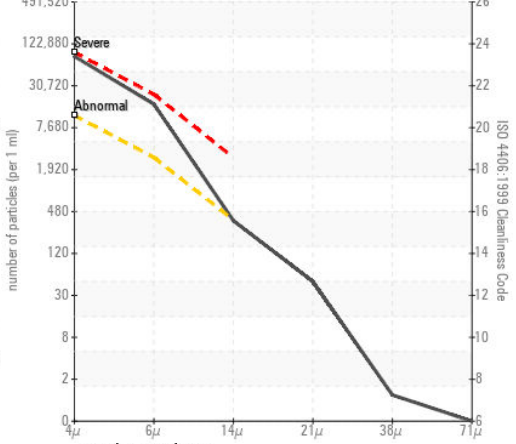
Non-ferrous Metals



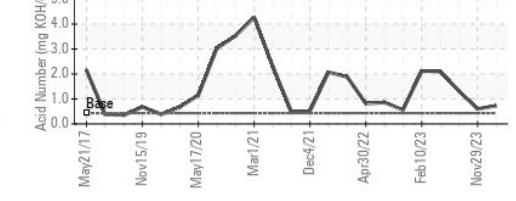
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0880589 **Received** : 17 Jan 2024
Lab Number : 06063561 **Diagnosed** : 25 Jan 2024
Unique Number : 10834943 **Diagnostician** : Wes Davis
Test Package : IND 2 (Additional Tests: KF, PrtCount)

HORMEL FOODS - AUSTIN
 1101 NORTH MAIN ST
 AUSTIN, MN
 US 55912
 Contact: RYAN LOWE
 rslowe@hormel.com
 T: (507)437-5674
 F: (507)437-9805

Certificate L2367
 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)