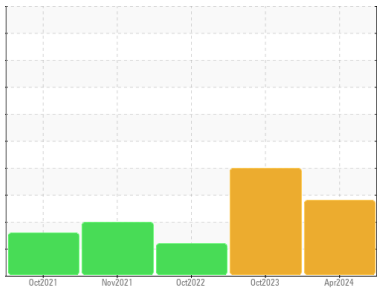
OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Area
BAGLINE
Machine Id
KETTLE 4-BAG - 11531820
Component
Refrigeration Compressor
Fluid
PETRO CANADA PURITY FG EP GEAR OIL 220 (1 GAL)

DIAGNOSIS

Recommendation
We recommend you service the filters on this component. Resample at the next service interval to monitor.

Wear
The iron level is abnormal.

Contamination
Insufficient sample was received to conduct all the routine laboratory tests. There is a high amount of particulates present in the oil.

Fluid Condition
The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**USP0006688**	USP0001373	USP241372
Sample Date		Client Info		**25 Apr 2024**	10 Oct 2023	27 Oct 2022
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				**ABNORMAL**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>8	▲ **34**	▲ 27	1
Chromium	ppm	ASTM D5185m	>2	**0**	<1	0
Nickel	ppm	ASTM D5185m		**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	0	<1
Silver	ppm	ASTM D5185m	>2	**0**	0	<1
Aluminum	ppm	ASTM D5185m	>3	**0**	0	<1
Lead	ppm	ASTM D5185m	>2	**0**	0	0
Copper	ppm	ASTM D5185m	>8	**0**	<1	5
Tin	ppm	ASTM D5185m	>4	**0**	0	<1
Antimony	ppm	ASTM D5185m		**---**	---	---
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		**0**	0	0
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**<1**	<1	1
Magnesium	ppm	ASTM D5185m		**0**	1	0
Calcium	ppm	ASTM D5185m		**0**	2	0
Phosphorus	ppm	ASTM D5185m		**500**	416	497
Zinc	ppm	ASTM D5185m		**0**	0	0
Sulfur	ppm	ASTM D5185m		**407**	425	491

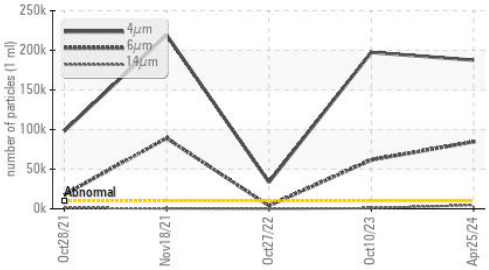
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**8**	▲ 227	8
Sodium	ppm	ASTM D5185m		**2**	4	<1
Potassium	ppm	ASTM D5185m	>20	**0**	0	0
Water	%	ASTM D6304	>0.01	**0.002**	0.009	0.006
ppm Water	ppm	ASTM D6304	>100	**22**	90.9	60.1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	▲ **187540**	▲ 197364	▲ 33537
Particles >6µm		ASTM D7647	>2500	▲ **84673**	▲ 61730	● 3856
Particles >14µm		ASTM D7647	>640	▲ **4582**	▲ 808	107
Particles >21µm		ASTM D7647	>160	▲ **925**	116	17
Particles >38µm		ASTM D7647	>40	**9**	4	1
Particles >71µm		ASTM D7647	>10	**0**	1	0
Oil Cleanliness		ISO 4406 (c)	>20/18/16	▲ **25/24/19**	▲ 25/23/17	▲ 22/19/14

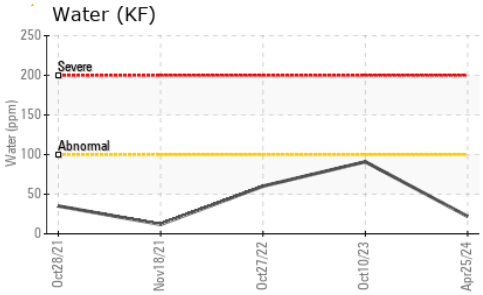
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974	0.51	**---**	0.28	0.90

OIL ANALYSIS REPORT

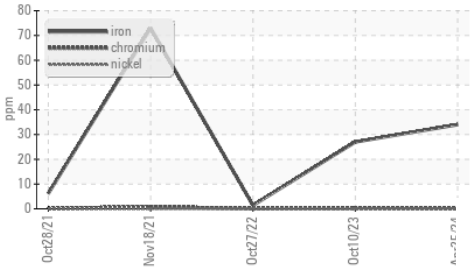
Particle Trend



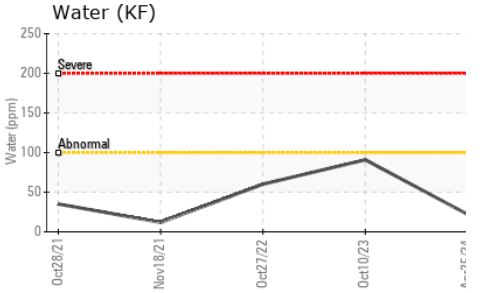
Water (KF)



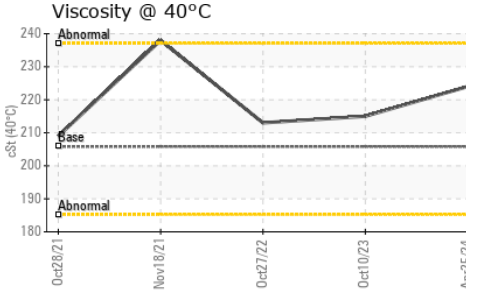
Ferrous Alloys



Water (KF)



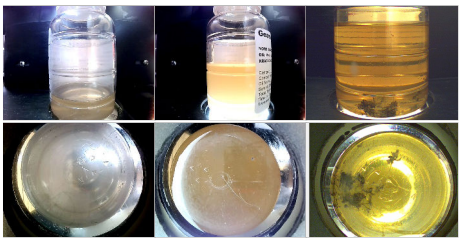
Viscosity @ 40°C



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	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.01	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

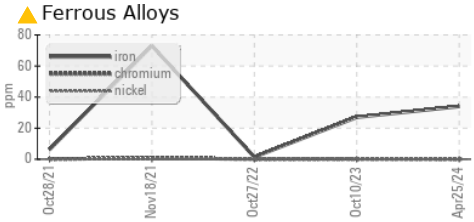
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	205.8	**224**	215	213

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

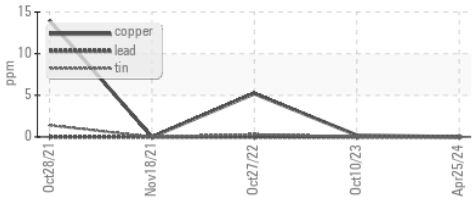


GRAPHS

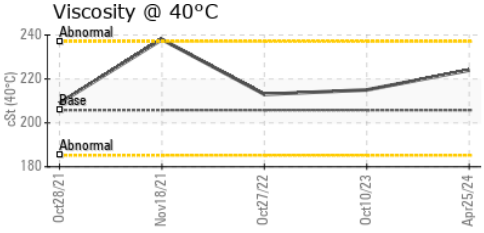
Ferrous Alloys



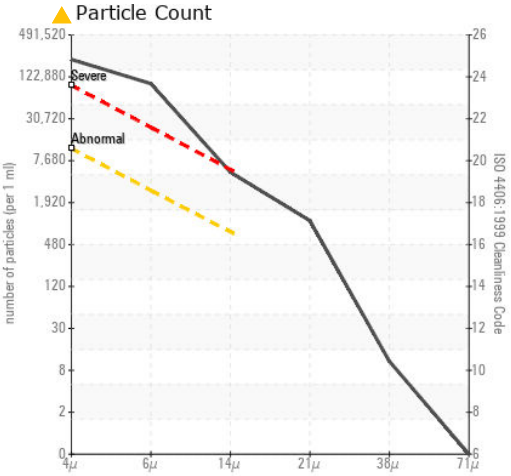
Non-ferrous Metals



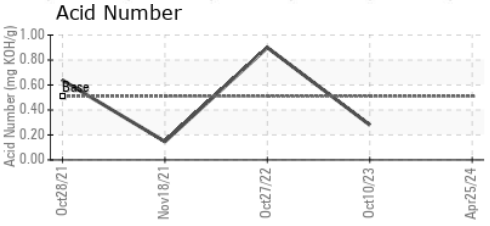
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USP0006688
Lab Number : 06161486
Unique Number : 10996909
Test Package : IND 2

Received : 26 Apr 2024
Tested : 30 Apr 2024
Diagnosed : 30 Apr 2024 - Jonathan Hester

KraftHeinz - Cedar Rapids - Plant 8370
4601 C ST SW
CEDAR RAPIDS, IA
US 52404
Contact: Service Manager

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)

T:
F: