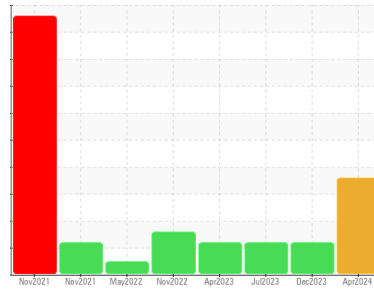




OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Area
BAGLINE
Machine Id
KETTLE 9 TUBLINE

Component
Refrigeration Compressor
Fluid
PETRO CANADA PURITY FG SYNTH EP GEAR 220 (1 GAL)

DIAGNOSIS

Recommendation

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

Wear

All component wear rates are normal.

Contamination

There is a high amount of particulates present in the oil. Elemental level of silicon (Si) above normal indicating ingress of seal material.

Fluid Condition

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

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		USP0006692	USP0004473	USP250221
Sample Date	Client Info		25 Apr 2024	17 Dec 2023	05 Jul 2023
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	6	5	10
Chromium	ppm	ASTM D5185m >2	0	0	0
Nickel	ppm	ASTM D5185m	0	0	0
Titanium	ppm	ASTM D5185m	0	<1	<1
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >3	0	2	<1
Lead	ppm	ASTM D5185m >2	0	0	0
Copper	ppm	ASTM D5185m >8	0	0	<1
Tin	ppm	ASTM D5185m >4	0	0	<1
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	<1
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	0	0	0
Magnesium	ppm	ASTM D5185m	0	0	2
Calcium	ppm	ASTM D5185m	0	0	5
Phosphorus	ppm	ASTM D5185m	517	512	585
Zinc	ppm	ASTM D5185m	0	0	0
Sulfur	ppm	ASTM D5185m	409	347	653

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	▲ 15	8	5
Sodium	ppm	ASTM D5185m	0	2	1
Potassium	ppm	ASTM D5185m >20	0	0	1
Water	%	ASTM D6304 >0.01	0.002	0.009	0.001
ppm Water	ppm	ASTM D6304 >100	21	90	14.9

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	▲ 98875	▲ 37020	▲ 100424
Particles >6µm	ASTM D7647	>2500	▲ 22794	▲ 6919	▲ 21696
Particles >14µm	ASTM D7647	>640	▲ 1066	293	370
Particles >21µm	ASTM D7647	>160	▲ 228	56	36
Particles >38µm	ASTM D7647	>40	9	2	0
Particles >71µm	ASTM D7647	>10	0	0	0
Oil Cleanliness	ISO 4406 (c)	>20/18/16	▲ 24/22/17	▲ 22/20/15	▲ 24/22/16

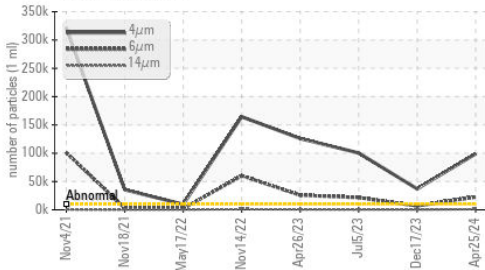
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974 0.59	0.66	0.60	0.72

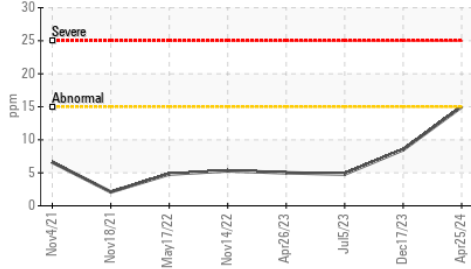


OIL ANALYSIS REPORT

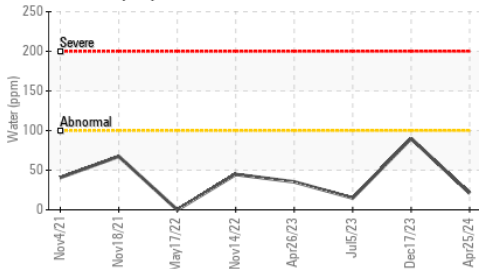
▲ Particle Trend



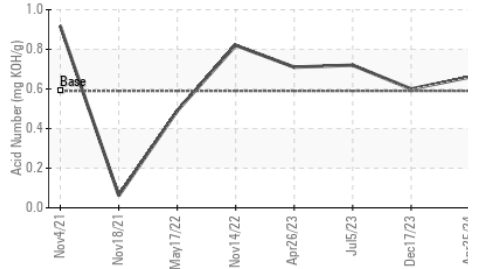
▲ Silicon (ppm)



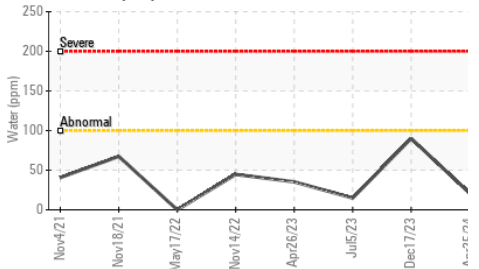
Water (KF)



Acid Number



Water (KF)



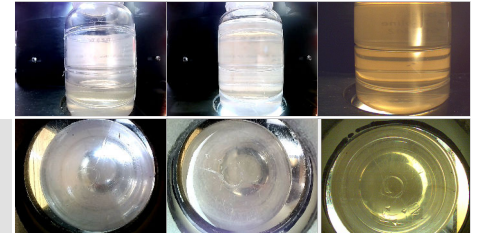
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.01	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	221	224	200

SAMPLE IMAGES	method	limit/base	current	history1	history2
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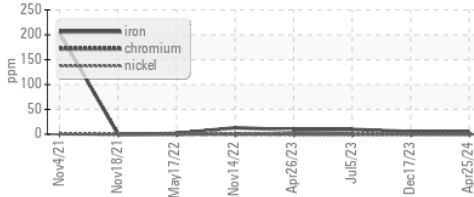
Color

Bottom

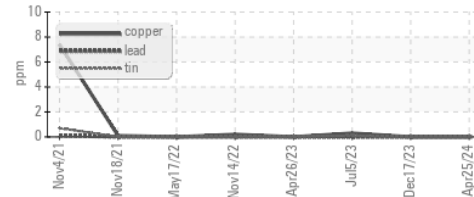


GRAPHS

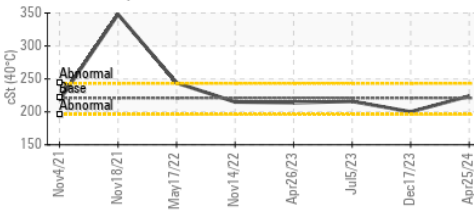
Ferrous Alloys



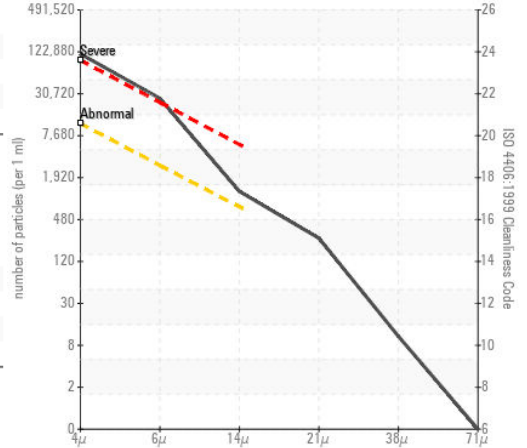
Non-ferrous Metals



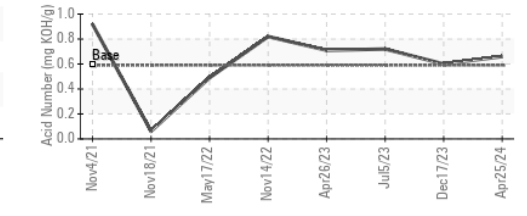
Viscosity @ 40°C



▲ Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : USP0006692
 Lab Number : 06161490
 Unique Number : 10996913
 Test Package : IND 2

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: