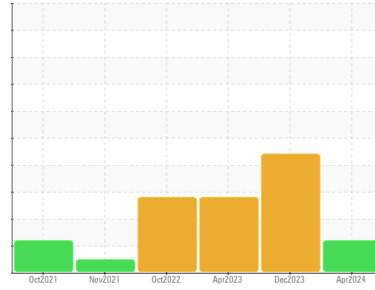




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area  
**BAGLINE**  
 Machine Id  
**KETTLE 6 - 11531804**  
 Component  
**Refrigeration Compressor**  
 Fluid  
**PETRO CANADA PURITY FG EP GEAR OIL 220 (1 GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

Insufficient sample was received to conduct all the routine laboratory tests. There is a high amount of silt (particulates < 14 microns in size) 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		<b>USP0006691</b>	USP0004470	USP248069
Sample Date	Client Info		<b>25 Apr 2024</b>	17 Dec 2023	26 Apr 2023
Machine Age	hrs	Client Info	<b>0</b>	0	0
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >8	<b>2</b>	▲ 32	7
Chromium	ppm	ASTM D5185m >2	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >3	<b>0</b>	<1	0
Lead	ppm	ASTM D5185m >2	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >8	<b>35</b>	▲ 68	50
Tin	ppm	ASTM D5185m >4	<b>&lt;1</b>	1	2
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>7</b>	9	8
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>0</b>	0	<1
Manganese	ppm	ASTM D5185m	<b>0</b>	<1	0
Magnesium	ppm	ASTM D5185m	<b>0</b>	0	<1
Calcium	ppm	ASTM D5185m	<b>0</b>	4	8
Phosphorus	ppm	ASTM D5185m	<b>525</b>	609	607
Zinc	ppm	ASTM D5185m	<b>0</b>	0	6
Sulfur	ppm	ASTM D5185m	<b>506</b>	625	677

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<b>79</b>	▲ 248	▲ 282
Sodium	ppm	ASTM D5185m	<b>0</b>	<1	0
Potassium	ppm	ASTM D5185m >20	<b>0</b>	0	<1
Water	%	ASTM D6304 >0.01	<b>0.002</b>	0.005	0.004
ppm Water	ppm	ASTM D6304 >100	<b>16</b>	55	41.9

## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	▲ <b>96750</b>	▲ 148158	---
Particles >6µm	ASTM D7647	>2500	▲ <b>12985</b>	▲ 31183	---
Particles >14µm	ASTM D7647	>640	<b>128</b>	163	---
Particles >21µm	ASTM D7647	>160	<b>21</b>	12	---
Particles >38µm	ASTM D7647	>40	<b>1</b>	0	---
Particles >71µm	ASTM D7647	>10	<b>0</b>	0	---
Oil Cleanliness	ISO 4406 (c)	>20/18/16	▲ <b>24/21/14</b>	▲ 24/22/15	---

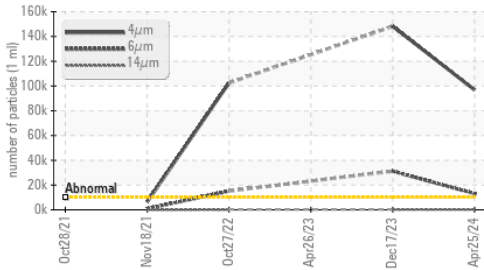
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974 0.51	---	0.54	0.57

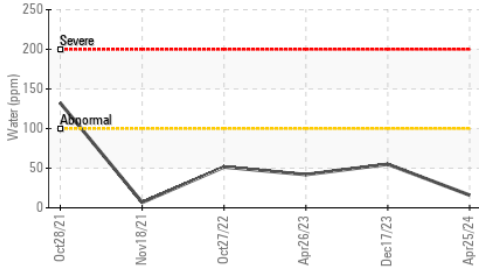


# OIL ANALYSIS REPORT

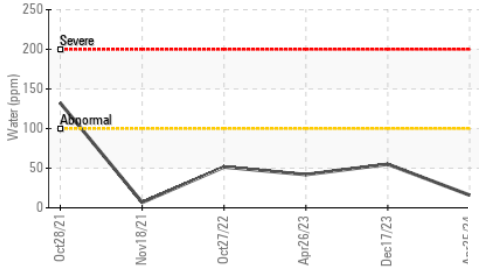
## Particle Trend



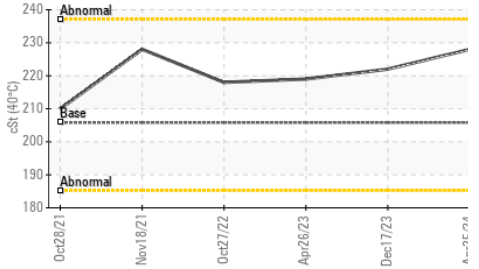
## Water (KF)



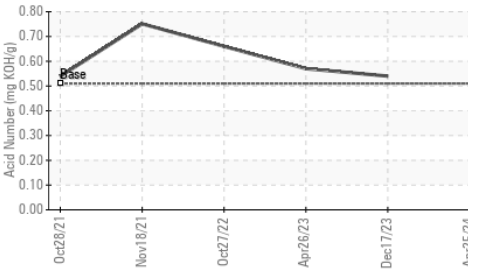
## Water (KF)



## Viscosity @ 40°C



## Acid Number



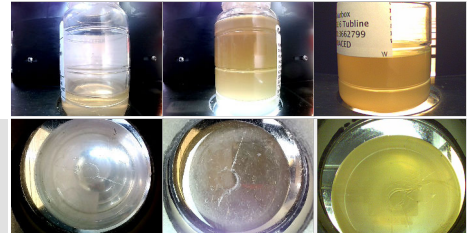
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	▲ MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	205.8	228	222

SAMPLE IMAGES	method	limit/base	current	history1	history2
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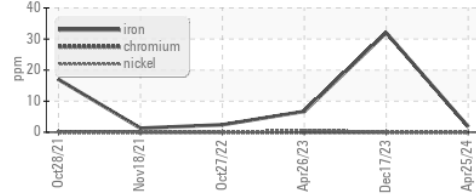
Color

Bottom

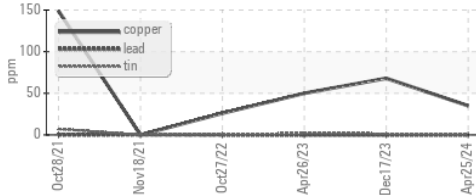


## GRAPHS

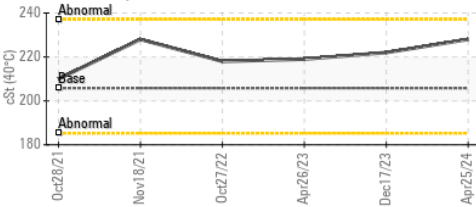
### Ferrous Alloys



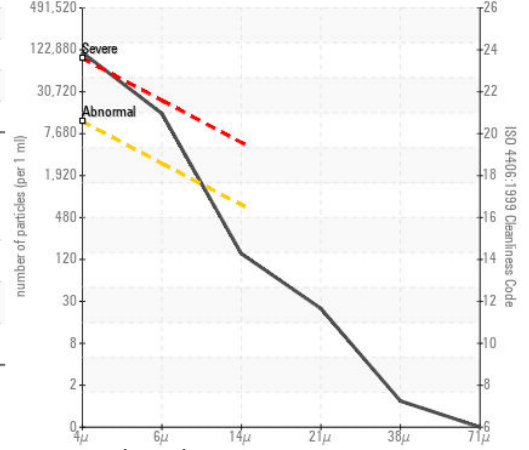
### Non-ferrous Metals



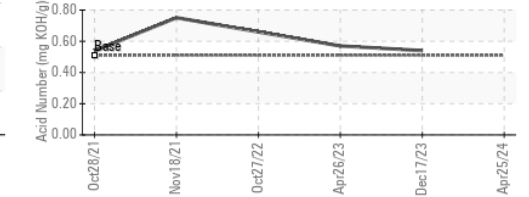
### Viscosity @ 40°C



### Particle Count



### Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : USP0006691  
 Lab Number : 06161489  
 Unique Number : 10996912  
 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: