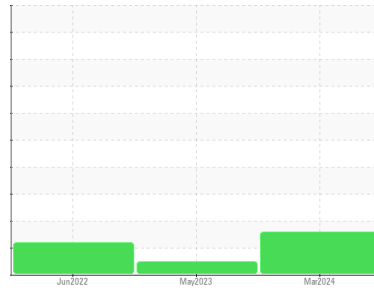




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area  
**VIAM/Shredding Room**  
Machine Id  
**[VIAM^Shredding Room] Baler - VIAM**  
Component  
**Hydraulic System**  
Fluid  
**PETRO CANADA HYDREX AW 68 (--- 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 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	<b>KFS0005076</b>	KFS0002209	KFS0000701
Sample Date	Client Info	<b>18 Mar 2024</b>	16 May 2023	28 Jun 2022
Machine Age	hrs	<b>0</b>	0	0
Oil Age	hrs	<b>0</b>	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>ABNORMAL</b>	NORMAL	ATTENTION

## CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.05	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	0	0
Nickel	ppm ASTM D5185m >20	<b>0</b>	<1	0
Titanium	ppm ASTM D5185m	<b>0</b>	0	0
Silver	ppm ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>0</b>	<1	0
Lead	ppm ASTM D5185m >20	<b>0</b>	0	0
Copper	ppm ASTM D5185m >20	<b>2</b>	1	1
Tin	ppm ASTM D5185m >20	<b>0</b>	<1	0
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 0	<b>0</b>	0	0
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 0	<b>&lt;1</b>	0	0
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	0
Magnesium	ppm ASTM D5185m 0	<b>0</b>	2	0
Calcium	ppm ASTM D5185m 50	<b>118</b>	124	135
Phosphorus	ppm ASTM D5185m 330	<b>249</b>	265	252
Zinc	ppm ASTM D5185m 430	<b>326</b>	348	340
Sulfur	ppm ASTM D5185m 760	<b>1198</b>	1349	1305

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >15	<b>&lt;1</b>	<1	<1
Sodium	ppm ASTM D5185m	<b>&lt;1</b>	<1	<1
Potassium	ppm ASTM D5185m >20	<b>0</b>	<1	0

## FLUID CLEANLINESS

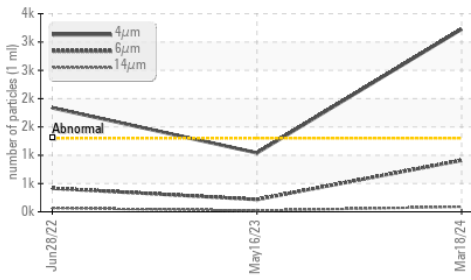
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >1300	<b>▲ 3227</b>	1040	● 1837
Particles >6µm	ASTM D7647 >320	<b>▲ 909</b>	217	● 416
Particles >14µm	ASTM D7647 >80	<b>● 90</b>	22	65
Particles >21µm	ASTM D7647 >20	<b>28</b>	7	22
Particles >38µm	ASTM D7647 >4	<b>4</b>	1	5
Particles >71µm	ASTM D7647 >3	<b>1</b>	0	1
Oil Cleanliness	ISO 4406 (c) >17/15/13	<b>▲ 19/17/14</b>	17/15/12	● 18/16/13

## FLUID DEGRADATION

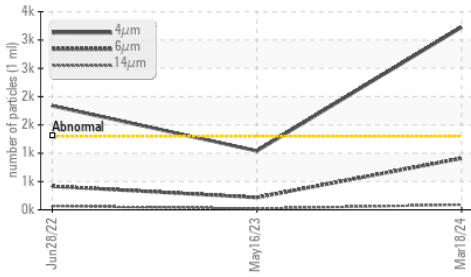
method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D8045 0.60	<b>0.30</b>	0.20	0.16

# OIL ANALYSIS REPORT

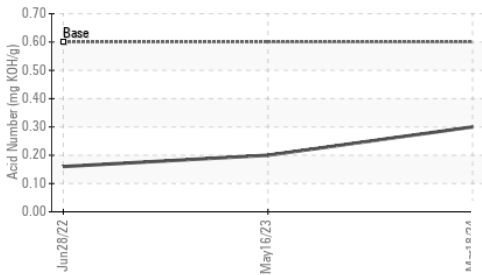
### ▲ Particle Trend



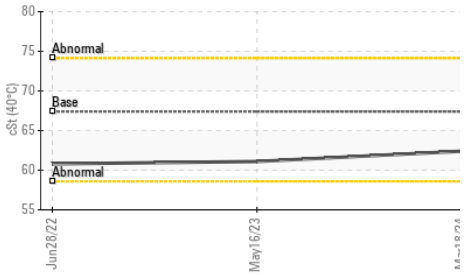
### ▲ Particle Trend



### Acid Number



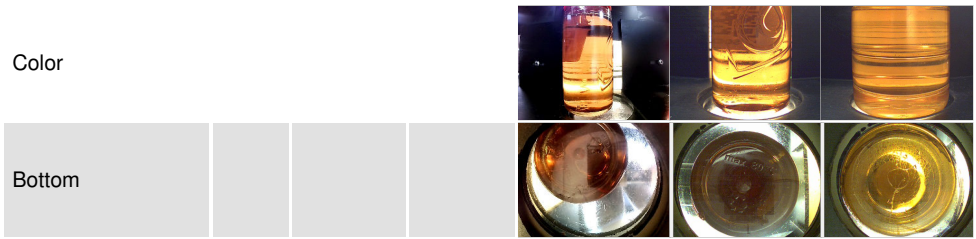
### Viscosity @ 40°C



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	NONE	NONE
Debris	scalar	*Visual	NONE	<b>LIGHT</b>	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML
Emulsified Water	scalar	*Visual	>0.05	<b>NEG</b>	NEG
Free Water	scalar	*Visual		<b>NEG</b>	NEG

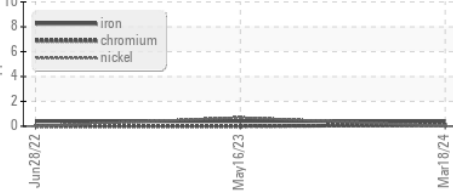
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	67.4	<b>62.4</b>	61.1

SAMPLE IMAGES	method	limit/base	current	history1	history2
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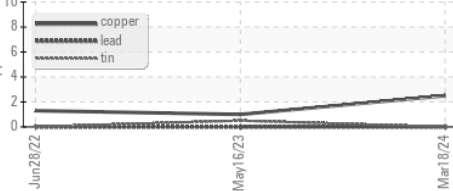


## GRAPHS

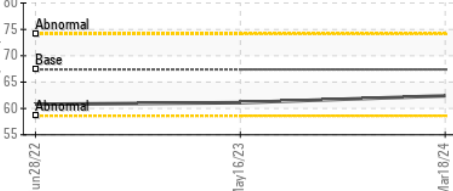
### Ferrous Alloys



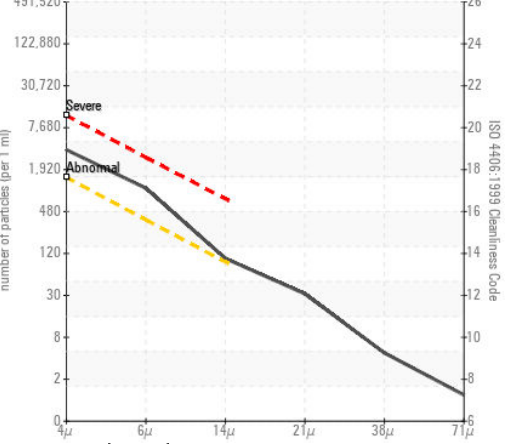
### Non-ferrous Metals



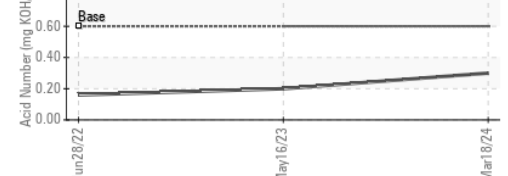
### Viscosity @ 40°C



### ▲ Particle Count



### Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KFS0005076  
**Lab Number** : 06124866  
**Unique Number** : 10939017  
**Test Package** : IND 2

**Received** : 21 Mar 2024  
**Tested** : 22 Mar 2024  
**Diagnosed** : 22 Mar 2024 - Wes Davis

**VIAM/VICAM Manufacturing - Tennessee**  
 87 Parktower Road  
 Manchester, TN  
 US 37355

Contact: Eric Thompson  
 ethompson@viammfg.com

T: (931)461-2300

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)