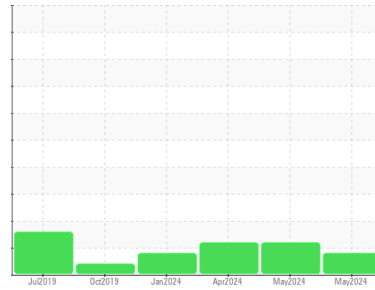


# OIL ANALYSIS REPORT

## Sample Rating Trend



ISO



Machine Id

**L-55**  
Component

**Hydraulic System**

Fluid

**AMERICAN CHEMICAL TECH. ECOSAFE FR-46 (--- GAL)**

## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

### 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	<b>PCA0123763</b>	PCA0123776	PCA0123786
Sample Date	Client Info	<b>29 May 2024</b>	01 May 2024	15 Apr 2024
Machine Age	hrs	<b>16969</b>	16673	16336
Oil Age	hrs	<b>500</b>	0	19
Oil Changed	Client Info	<b>Not Chngd</b>	Not Chngd	Not Chngd
Sample Status		<b>ATTENTION</b>	ATTENTION	ABNORMAL

## CONTAMINATION

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

## WEAR METALS

method	limit/base	current	history1	history2		
Iron	ppm	ASTM D5185m	>20	<b>6</b>	4	3
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>10	<b>2</b>	1	<1
Lead	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m	>75	<b>43</b>	38	22
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2		
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	1	1
Magnesium	ppm	ASTM D5185m		<b>5</b>	5	6
Calcium	ppm	ASTM D5185m		<b>15</b>	16	15
Phosphorus	ppm	ASTM D5185m		<b>594</b>	671	663
Zinc	ppm	ASTM D5185m		<b>91</b>	72	46
Sulfur	ppm	ASTM D5185m		<b>1735</b>	2315	2277

## CONTAMINANTS

method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185m	>20	<b>2</b>	1	<1
Sodium	ppm	ASTM D5185m		<b>2</b>	2	2
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	3	4

## FLUID CLEANLINESS

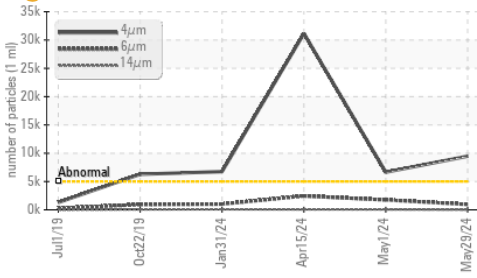
method	limit/base	current	history1	history2	
Particles >4µm	ASTM D7647	>5000	<b>9474</b>	6648	31152
Particles >6µm	ASTM D7647	>1300	<b>940</b>	1749	2451
Particles >14µm	ASTM D7647	>160	<b>29</b>	70	72
Particles >21µm	ASTM D7647	>40	<b>8</b>	9	21
Particles >38µm	ASTM D7647	>10	<b>0</b>	0	2
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	1
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>20/17/12</b>	20/18/13	22/18/13

## FLUID DEGRADATION

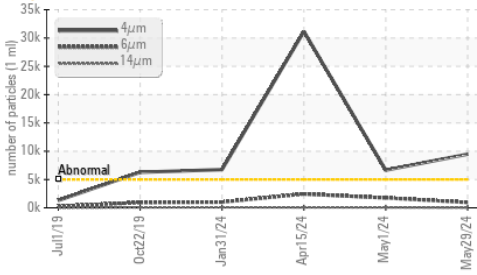
method	limit/base	current	history1	history2		
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.46</b>	0.45	0.57

# OIL ANALYSIS REPORT

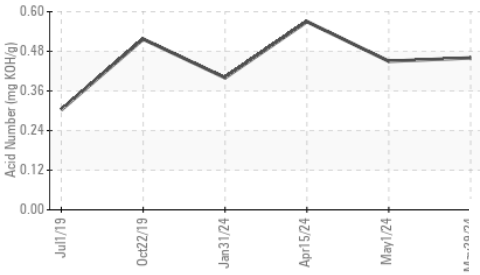
## Particle Trend



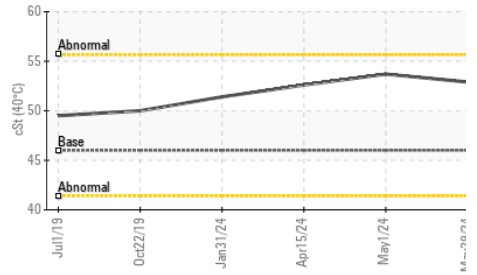
## Particle Trend



## Acid Number



## Viscosity @ 40°C



PARAMETER	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	LIGHT	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

PARAMETER	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	52.9	53.7

PARAMETER	method	limit/base	current	history1	history2
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Color

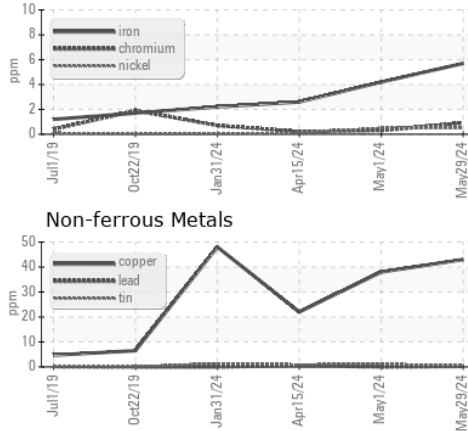


Bottom

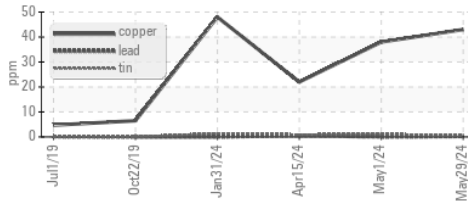


## GRAPHS

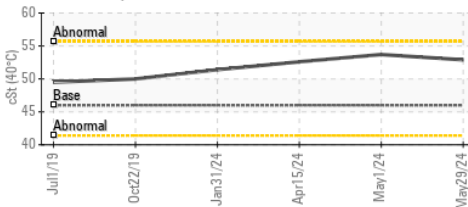
### Ferrous Alloys



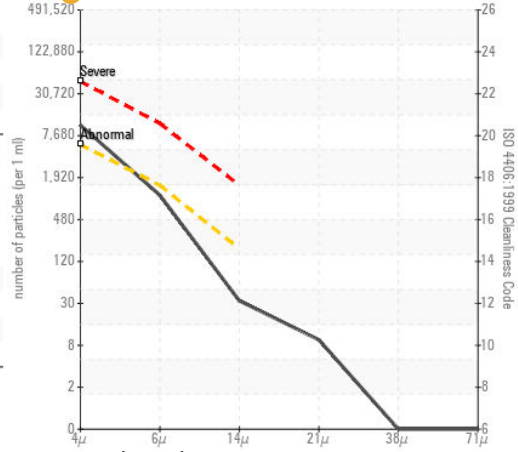
### Non-ferrous Metals



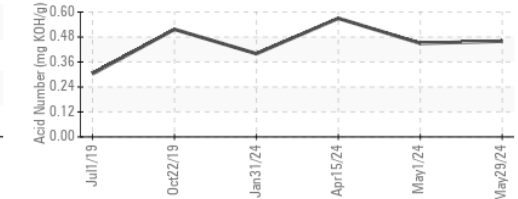
### Viscosity @ 40°C



### Particle Count



### Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : PCA0123763

**Lab Number** : 06201470

**Unique Number** : 11063593

**Test Package** : MOB 2

**Received** : 06 Jun 2024

**Tested** : 07 Jun 2024

**Diagnosed** : 09 Jun 2024 - Don Baldrige

**SCRAP METAL SERVICES (SMS Mill Services LLC)**

1500 COMMERCIAL AVE

MINGO JUNCTION, OH

US 43938

Contact: FRANK NALLY

fnally@scrapmetalservices.com

T:

F:

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)