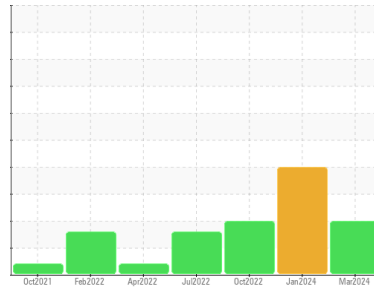




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**631 (S/N S350925)**  
 Component  
**Air Compressor**  
 Fluid  
**USPI AIR 46 (--- 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.

### 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>USPM36654</b>	USPM30615	USPM17950
Sample Date	Client Info		<b>28 Mar 2024</b>	10 Jan 2024	12 Oct 2022
Machine Age	hrs	Client Info	<b>89379</b>	0	79508
Oil Age	hrs	Client Info	<b>0</b>	6	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 >50	<b>0</b>	0	0
Chromium	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m >4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m >10	<b>2</b>	2	0
Lead	ppm	ASTM D5185m >20	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >40	<b>&lt;1</b>	0	0
Tin	ppm	ASTM D5185m >5	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>&lt;1</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>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m 0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m 0	<b>&lt;1</b>	0	0
Calcium	ppm	ASTM D5185m 0	<b>3</b>	0	0
Phosphorus	ppm	ASTM D5185m 1	<b>0</b>	33	6
Zinc	ppm	ASTM D5185m 0	<b>0</b>	0	0
Sulfur	ppm	ASTM D5185m 0	<b>0</b>	0	22

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>0</b>	<1	1
Sodium	ppm	ASTM D5185m	<b>0</b>	3	0
Potassium	ppm	ASTM D5185m >20	<b>1</b>	0	0
Water	%	ASTM D6304 >0.2	<b>0.047</b>	▲ 0.214	0.065
ppm Water	ppm	ASTM D6304 >2000	<b>473</b>	▲ 2140	651.6

## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	▲ <b>25206</b>	---	▲ 11522
Particles >6µm	ASTM D7647	>2500	▲ <b>9803</b>	---	▲ 5668
Particles >14µm	ASTM D7647	>320	▲ <b>1350</b>	---	▲ 1116
Particles >21µm	ASTM D7647	>80	▲ <b>266</b>	---	▲ 188
Particles >38µm	ASTM D7647	>20	<b>2</b>	---	3
Particles >71µm	ASTM D7647	>4	<b>0</b>	---	0
Oil Cleanliness	ISO 4406 (c)	>20/18/15	▲ <b>22/20/18</b>	---	▲ 21/20/17

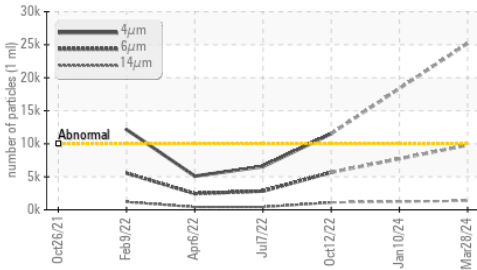
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.05	<b>0.073</b>	0.091	0.093

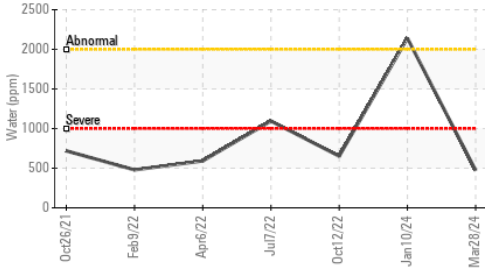


# OIL ANALYSIS REPORT

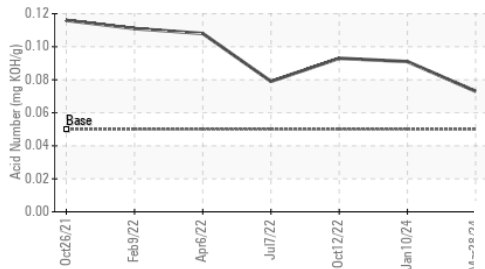
## Particle Trend



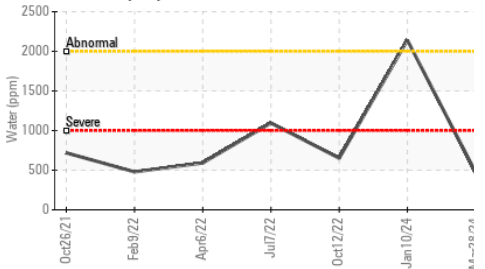
## Water (KF)



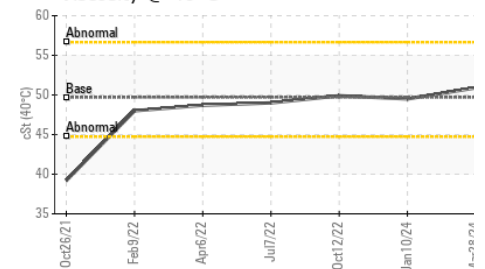
## Acid Number



## Water (KF)



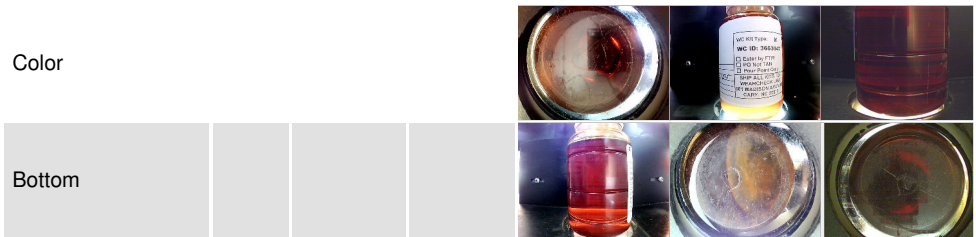
## Viscosity @ 40°C



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	▲ MODER	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	>0.2	NEG	0.2%
Free Water	scalar	*Visual		▲ 10.0%	NEG

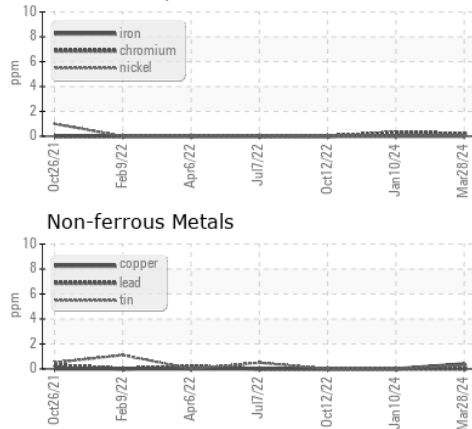
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	49.7	50.9	49.5

SAMPLE IMAGES	method	limit/base	current	history1	history2
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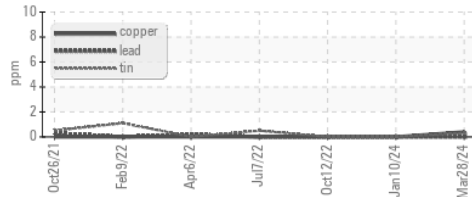


## GRAPHS

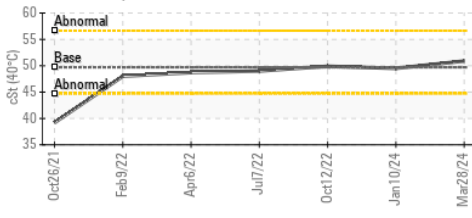
### Ferrous Alloys



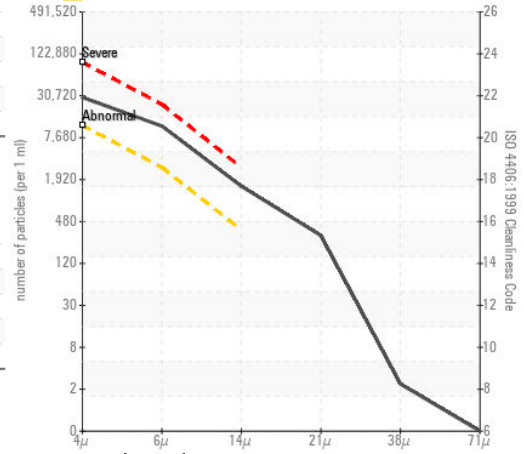
### Non-ferrous Metals



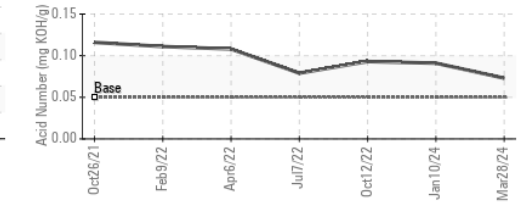
### Viscosity @ 40°C



### Particle Count



### Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : USPM36654  
**Lab Number** : 06142316  
**Unique Number** : 10967124  
**Test Package** : IND 2

**Received** : 08 Apr 2024  
**Tested** : 09 Apr 2024  
**Diagnosed** : 10 Apr 2024 - Doug Bogart

**CARGILL ANIMAL NUTRITION - LIVERPOOL**  
 7700 MALTLAGE DR  
 LIVERPOOL, NY  
 US 13090  
 Contact: SEAN BERTRAND  
 sean\_bertrand@cargill.com

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)