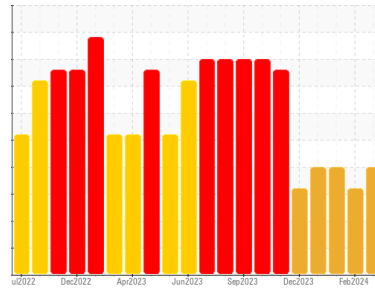




# OIL ANALYSIS REPORT

Sample Rating Trend



**DIRT**



Area  
**RNG**  
 Machine Id  
**C251A Vacuum Compressor**  
 Component  
**Screw Compressor**  
 Fluid  
**COMPRESSOR OIL ISO 68 (--- GAL)**

## DIAGNOSIS

**Recommendation**  
 We recommend you service the filters on this component if applicable. 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 oil viscosity is higher than normal. Confirm oil type. The AN level is acceptable for this fluid.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0886372</b>	WC0886376	WC0886387
Sample Date	Client Info		<b>26 Mar 2024</b>	27 Feb 2024	31 Jan 2024
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 >60	<b>8</b>	13	6
Chromium	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m >5	<b>3</b>	0	0
Lead	ppm	ASTM D5185m >10	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m >30	<b>2</b>	<1	<1
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 5	<b>0</b>	0	0
Barium	ppm	ASTM D5185m 5	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m 5	<b>&lt;1</b>	0	0
Manganese	ppm	ASTM D5185m	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m 5	<b>1</b>	<1	<1
Calcium	ppm	ASTM D5185m 5	<b>11</b>	8	5
Phosphorus	ppm	ASTM D5185m 150	<b>74</b>	61	62
Zinc	ppm	ASTM D5185m 5	<b>2</b>	0	0
Sulfur	ppm	ASTM D5185m 5000	<b>1234</b>	1277	876

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	<b>▲ 130</b>	▲ 120	▲ 119
Sodium	ppm	ASTM D5185m	<b>6</b>	7	4
Potassium	ppm	ASTM D5185m >20	<b>2</b>	0	0
Water	%	ASTM D6304 >0.1	<b>NEG</b>	NEG	NEG

## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	<b>▲ 66489</b>	▲ 135294	▲ 107726
Particles >6µm	ASTM D7647	>2500	<b>▲ 6685</b>	▲ 5983	▲ 25782
Particles >14µm	ASTM D7647	>320	<b>▲ 450</b>	129	▲ 1100
Particles >21µm	ASTM D7647	>80	<b>▲ 115</b>	20	▲ 287
Particles >38µm	ASTM D7647	>20	<b>6</b>	0	14
Particles >71µm	ASTM D7647	>4	<b>1</b>	0	1
Oil Cleanliness	ISO 4406 (c)	>20/18/15	<b>▲ 23/20/16</b>	▲ 24/20/14	▲ 24/22/17

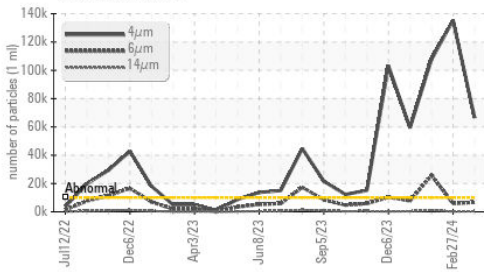
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.51	<b>0.78</b>	0.99	0.83

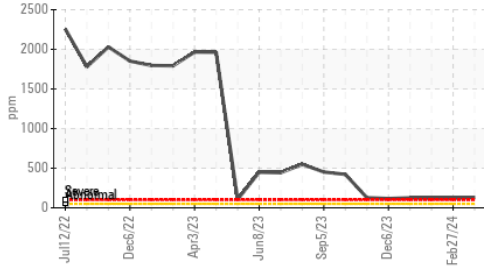


# OIL ANALYSIS REPORT

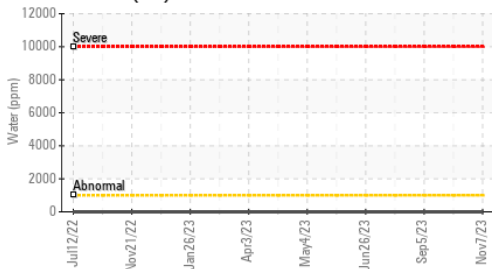
## Particle Trend



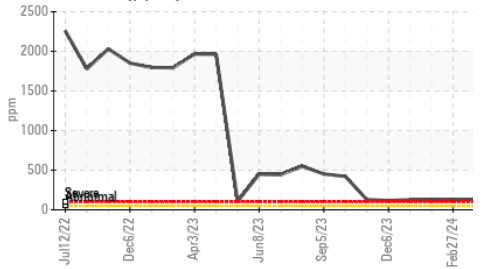
## Silicon (ppm)



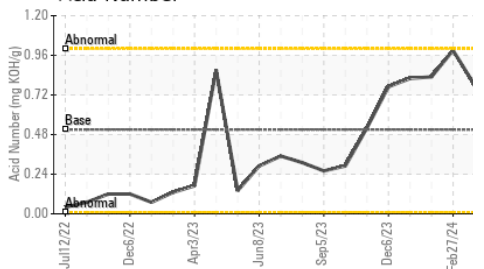
## Water (KF)



## Silicon (ppm)



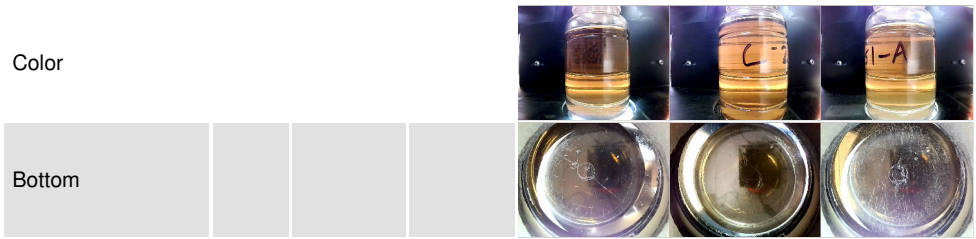
## Acid Number



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	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

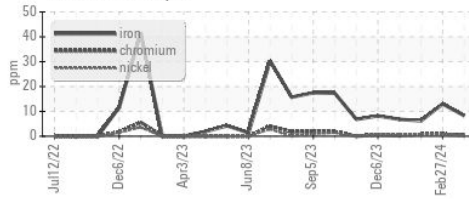
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	68	77.2	76.7

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------

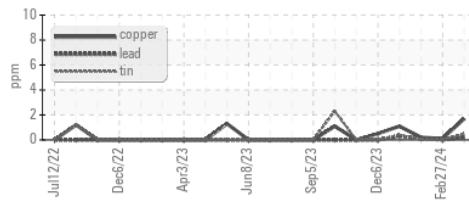


## GRAPHS

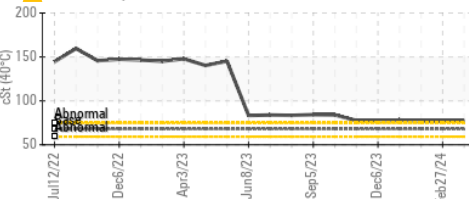
### Ferrous Alloys



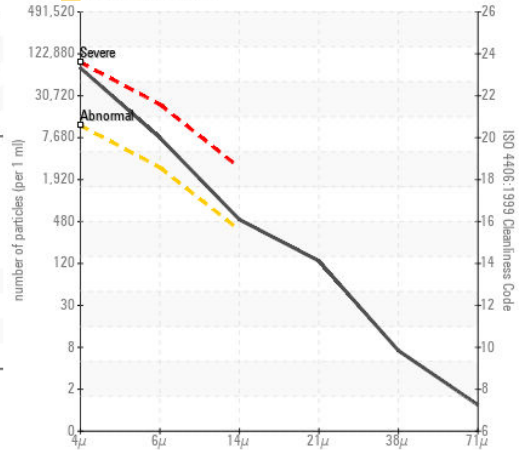
### Non-ferrous Metals



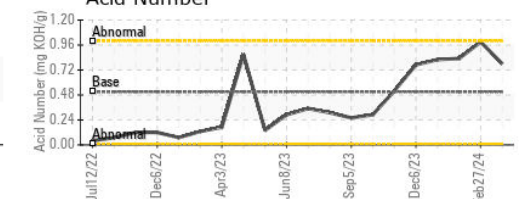
### Viscosity @ 40°C



### Particle Count



### Acid Number



Certificate L2367

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

Sample No. : WC0886372

Lab Number : 06133289

Unique Number : 10952754

Test Package : PLANT

Received : 29 Mar 2024

Tested : 03 Apr 2024

Diagnosed : 03 Apr 2024 - Jonathan Hester

GEVO Inc.

2498 250th Street

Doon, IA

US 51235

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: