



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area  
**RRJ**  
 Machine Id  
**B-01-402 Biogas Blower Drive End**  
 Component  
**Drive End Compressor**  
 Fluid  
**GARDNER DENVER AEON PD (--- GAL)**

## RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0886355</b>	TWC0000003	WC0886361
Sample Date		Client Info		<b>25 Jun 2024</b>	31 May 2024	02 May 2024
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>2</b>	<1	4
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185m		<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>&lt;1</b>	<1	2
Lead	ppm	ASTM D5185m	>25	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>50	<b>11</b>	11	2
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

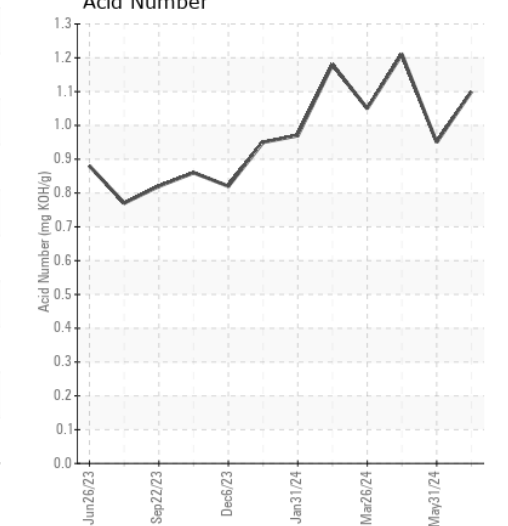
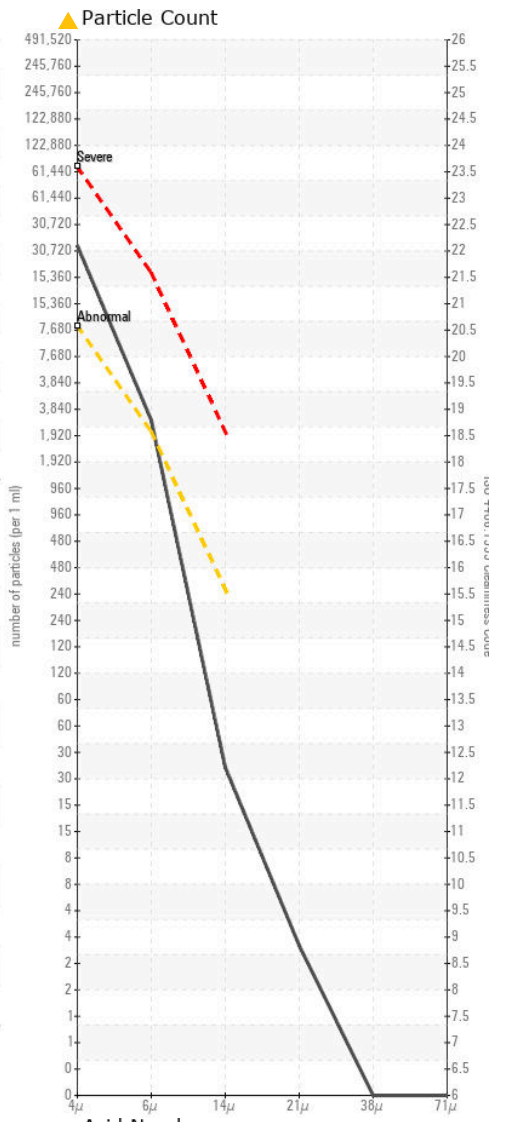
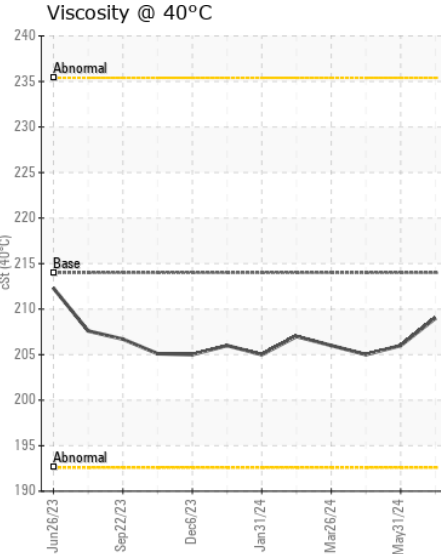
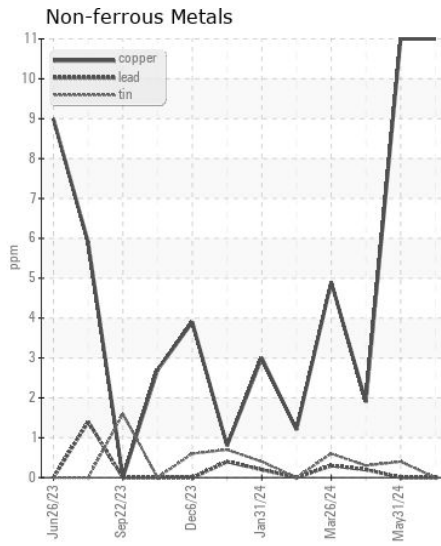
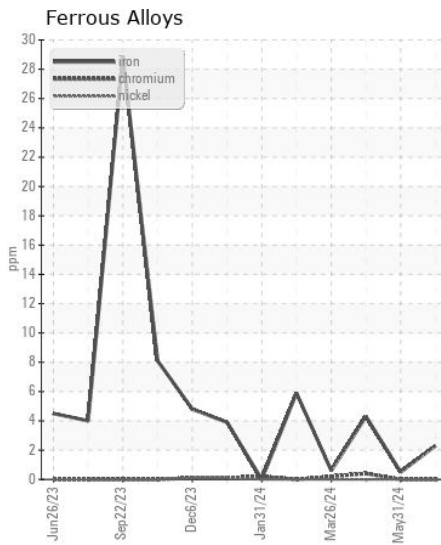
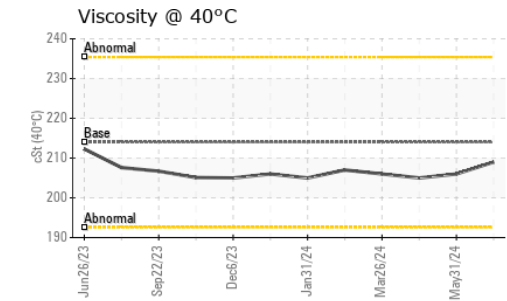
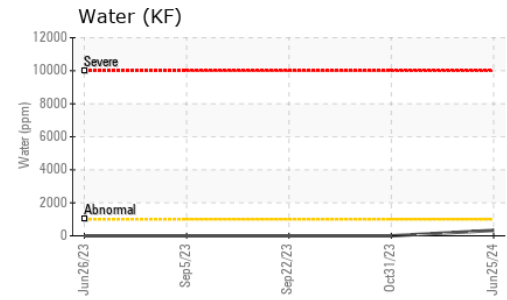
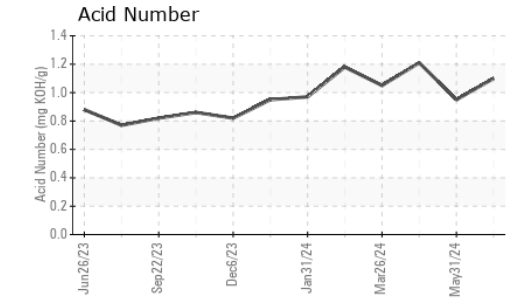
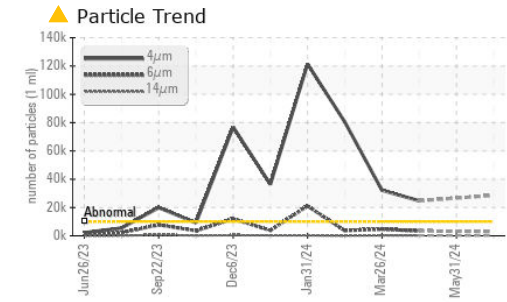
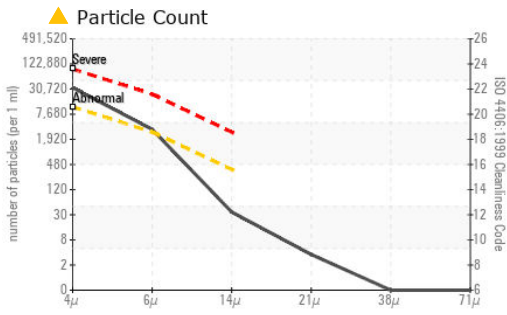
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	8	8
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	<1	<1
Water	%	ASTM D6304	>0.1	<b>0.033</b>	---	---
ppm Water	ppm	ASTM D6304	>1000	<b>330</b>	---	---
Particles >4µm		ASTM D7647	>10000	<b>▲ 28616</b>	---	<b>▲ 24728</b>
Particles >6µm		ASTM D7647	>2500	<b>● 2906</b>	---	<b>● 3397</b>
Particles >14µm		ASTM D7647	>320	<b>31</b>	---	185
Particles >21µm		ASTM D7647	>80	<b>3</b>	---	36
Particles >38µm		ASTM D7647	>20	<b>0</b>	---	1
Particles >71µm		ASTM D7647	>4	<b>0</b>	---	0
Oil Cleanliness		ISO 4406 (c)	>20/18/15	<b>▲ 22/19/12</b>	---	<b>▲ 22/19/15</b>
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	<b>▲ MODER</b>	<b>LIGHT</b>
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	<b>0.2%</b>	NEG	NEG

## FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>1</b>	<1	0
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	<1
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>0</b>	0	<1
Calcium	ppm	ASTM D5185m		<b>0</b>	2	3
Phosphorus	ppm	ASTM D5185m		<b>668</b>	701	715
Zinc	ppm	ASTM D5185m		<b>6</b>	3	3
Sulfur	ppm	ASTM D5185m		<b>714</b>	706	731
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>1.10</b>	0.95	1.21
Visc @ 40°C	cSt	ASTM D445	214	<b>209</b>	206	205



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0886355  
**Lab Number** : 06226196  
**Unique Number** : 11109689  
**Test Package** : PLANT  
**Received** : 02 Jul 2024  
**Tested** : 09 Jul 2024  
**Diagnosed** : 09 Jul 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: