



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Area
Milliken
 Machine Id
INGERSOLL RAND 10462488 - MILLIKEN (S/N EE3749U14162)
 Component
Compressor
 Fluid
INGERSOLL-RAND SSR ULTRA COOLANT (36 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		APC0000502	APC0000505	APC0000507
Sample Date		Client Info		21 Mar 2024	05 Dec 2023	29 Aug 2023
Machine Age	hrs	Client Info		35258	33073	30719
Oil Age	hrs	Client Info		2000	2000	2000
Filter Age	hrs	Client Info		2000	2000	0
Oil Changed		Client Info		N/A	Not Changd	N/A
Filter Changed		Client Info		N/A	Changed	N/A
Sample Status				ATTENTION	ATTENTION	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	0	1	<1
Chromium	ppm	ASTM D5185m	>10	0	<1	<1
Nickel	ppm	ASTM D5185m		0	<1	<1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>25	0	2	3
Lead	ppm	ASTM D5185m	>25	0	<1	0
Copper	ppm	ASTM D5185m	>50	<1	1	1
Tin	ppm	ASTM D5185m	>15	14	13	7
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

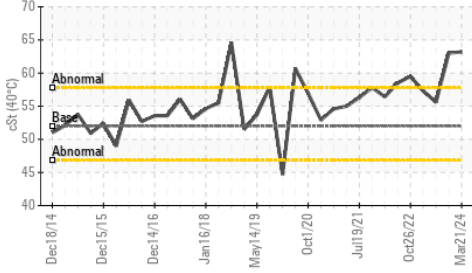
Silicon	ppm	ASTM D5185m	>25	<1	2	6
Potassium	ppm	ASTM D5185m	>20	11	12	11
Water	%	ASTM D6304	>0.1	0.351	0.262	▲ 0.601
ppm Water	ppm	ASTM D6304	>1000	3514	2625	▲ 6010
Particles >4µm		ASTM D7647	>10000	8592	8373	---
Particles >6µm		ASTM D7647	>2500	2381	1729	---
Particles >14µm		ASTM D7647	>320	144	96	---
Particles >21µm		ASTM D7647	>80	28	21	---
Particles >38µm		ASTM D7647	>20	1	1	---
Particles >71µm		ASTM D7647	>4	0	0	---
Oil Cleanliness		ISO 4406 (c)	>20/18/15	20/18/14	20/18/14	---
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	▲ 0.2%

FLUID CONDITION

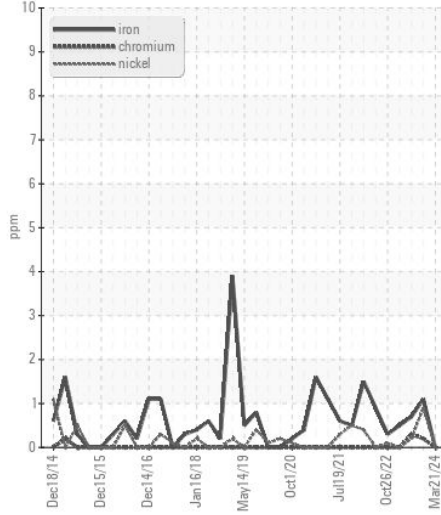
The oil viscosity is higher than normal. An additive depletion is indicated. The AN level is acceptable for this fluid.

Sodium	ppm	ASTM D5185m		89	101	58
Boron	ppm	ASTM D5185m		0	2	6
Barium	ppm	ASTM D5185m	556	72	83	398
Molybdenum	ppm	ASTM D5185m		0	<1	0
Manganese	ppm	ASTM D5185m		0	<1	0
Magnesium	ppm	ASTM D5185m		1	<1	5
Calcium	ppm	ASTM D5185m	242	6	2	50
Phosphorus	ppm	ASTM D5185m	0	3	27	4
Zinc	ppm	ASTM D5185m	0	<1	0	5
Sulfur	ppm	ASTM D5185m	306	400	276	320
Acid Number (AN)	mg KOH/g	ASTM D8045	0.2	1.297	1.04	1.09
Visc @ 40°C	cSt	ASTM D445	52	63.2	63.0	55.6

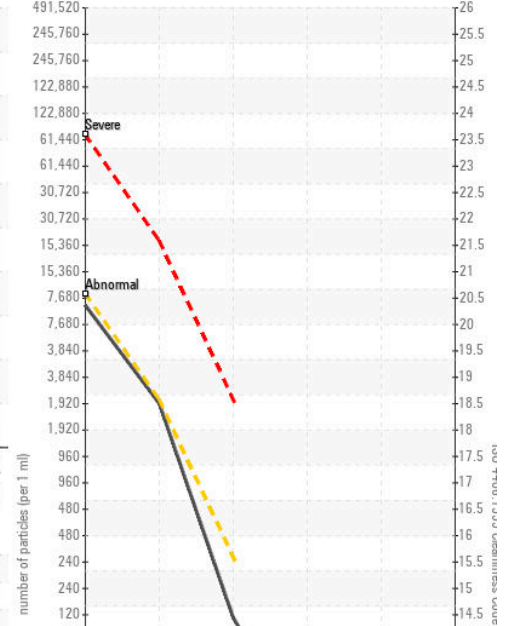
▲ Viscosity @ 40°C



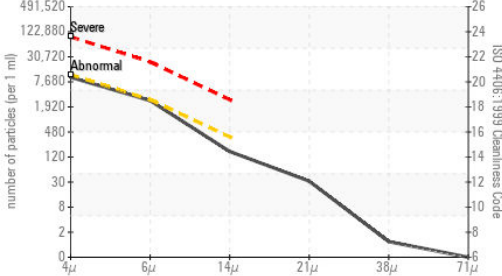
Ferrous Alloys



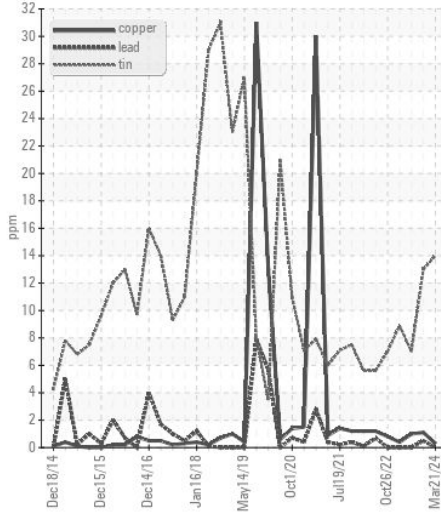
Particle Count



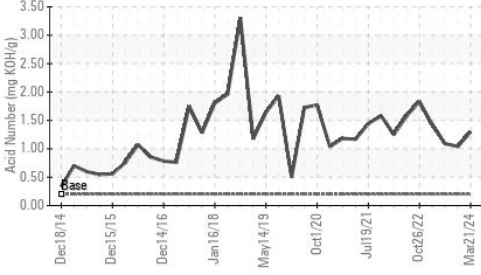
Particle Count



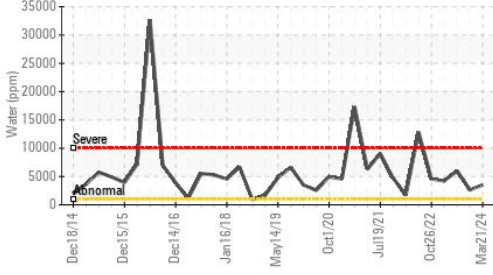
Non-ferrous Metals



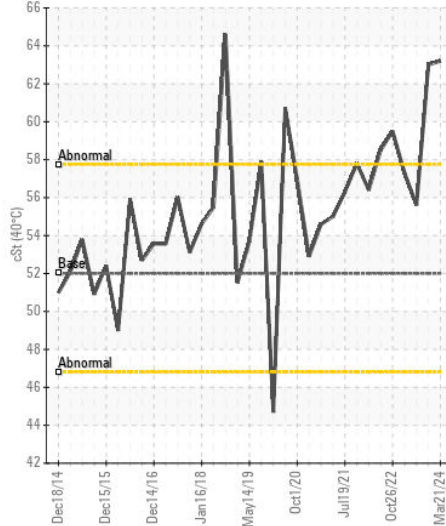
Acid Number



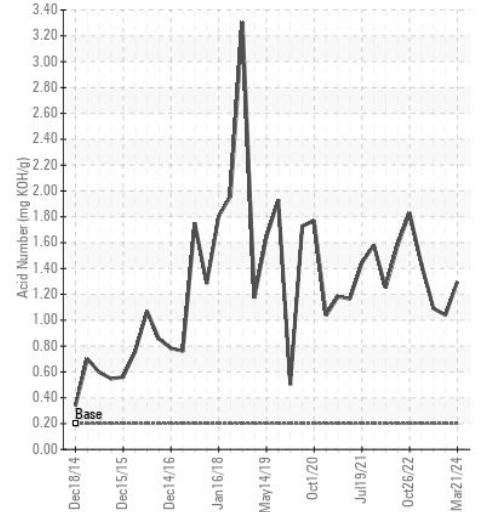
Water (KF)



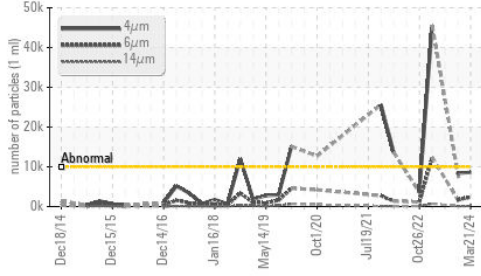
▲ Viscosity @ 40°C



Acid Number



Particle Trend



Certificate L2367

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

Sample No. : APC0000502

Lab Number : 06125660

Unique Number : 10939811

Test Package : IND 2 (Additional Tests: KF, PrtCount)

Received : 21 Mar 2024

Tested : 25 Mar 2024

Diagnosed : 25 Mar 2024 - Don Baldrige

AIR PRODUCTS AND CHEMICALS INC - ALLENTOWN

7201 HAMILTON BLVD

ALLENTOWN, PA

US 18195

Contact: MICHAEL PROTZEK

protzema@airproducts.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)