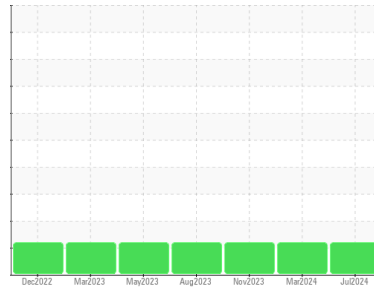




# OIL ANALYSIS REPORT

## Sample Rating Trend



ISO



Area

**MEK**  
Machine Id

**[MEK] TOTE 15 - TURBINE 100**

Component

New (Unused) Oil

Fluid

**TURBINE OIL ISO 100 (330 GAL)**

### DIAGNOSIS

#### ▲ Recommendation

This is a baseline read-out on the submitted sample.

#### ▲ Contamination

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

### SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>RP0042845</b>	RP0042872	RP0038951
Sample Date	Client Info	<b>12 Jul 2024</b>	08 Mar 2024	28 Nov 2023
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	<b>Not Changed</b>	Not Changed	Not Changed
Sample Status		<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

### WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >5	0	0
Chromium	ppm	ASTM D5185m >5	0	<1
Nickel	ppm	ASTM D5185m >5	0	0
Titanium	ppm	ASTM D5185m	0	0
Silver	ppm	ASTM D5185m >5	0	0
Aluminum	ppm	ASTM D5185m >5	0	2
Lead	ppm	ASTM D5185m >5	0	0
Copper	ppm	ASTM D5185m >5	0	<1
Tin	ppm	ASTM D5185m >5	0	0
Vanadium	ppm	ASTM D5185m	0	0
Cadmium	ppm	ASTM D5185m	0	0

### ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 5	0	0
Barium	ppm	ASTM D5185m 5	<1	2
Molybdenum	ppm	ASTM D5185m 5	0	<1
Manganese	ppm	ASTM D5185m	0	0
Magnesium	ppm	ASTM D5185m 5	2	1
Calcium	ppm	ASTM D5185m 10	12	<1
Phosphorus	ppm	ASTM D5185m 275	24	9
Zinc	ppm	ASTM D5185m 7	7	0

### CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<1	0
Sodium	ppm	ASTM D5185m	2	0
Potassium	ppm	ASTM D5185m >20	<1	0
Water	%	ASTM D6304	0.002	0.003
ppm Water	ppm	ASTM D6304	23	27

### FLUID CLEANLINESS

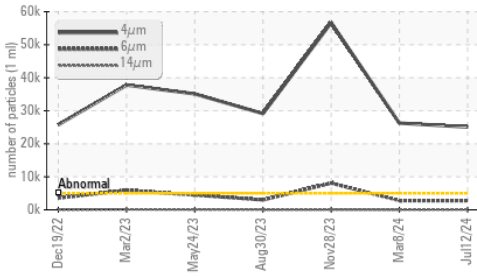
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	▲ 25074	▲ 26272	▲ 56659
Particles >6µm	ASTM D7647 >1300	▲ 2773	▲ 2789	▲ 8101
Particles >14µm	ASTM D7647 >160	50	15	62
Particles >21µm	ASTM D7647 >40	14	1	6
Particles >38µm	ASTM D7647 >10	2	0	1
Particles >71µm	ASTM D7647 >3	0	0	0
Oil Cleanliness	ISO 4406 (c) >19/17/14	▲ 22/19/13	▲ 22/19/11	▲ 23/20/13

### FLUID DEGRADATION

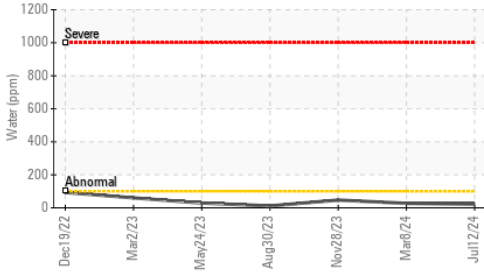
method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.13	0.18	0.18

# OIL ANALYSIS REPORT

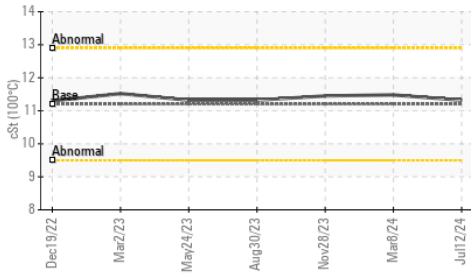
## ▲ Particle Trend



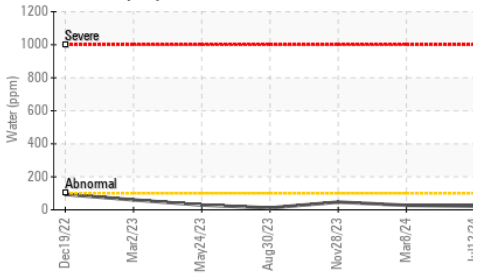
## Water (KF)



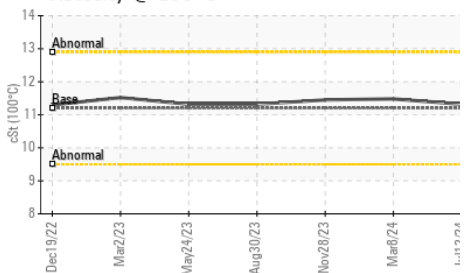
## Viscosity @ 100°C



## Water (KF)



## Viscosity @ 100°C

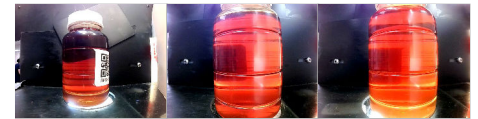


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	NEG	NEG	NEG
Free Water	scalar	*Visual	NEG	NEG	NEG

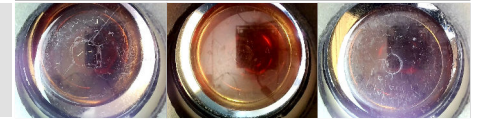
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	100	100.5	99.9
Visc @ 100°C	cSt	ASTM D445	11.2	11.32	11.48
Viscosity Index (VI)	Scale	ASTM D2270	97	98	101

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color

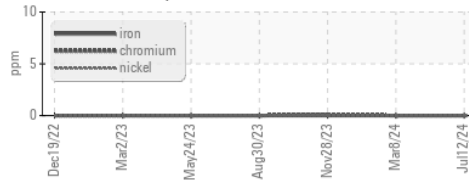


Bottom

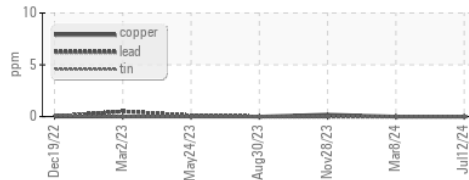


## GRAPHS

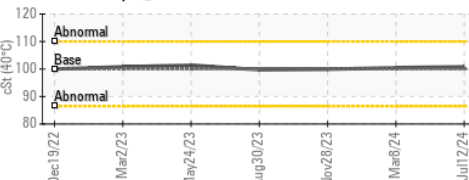
### Ferrous Alloys



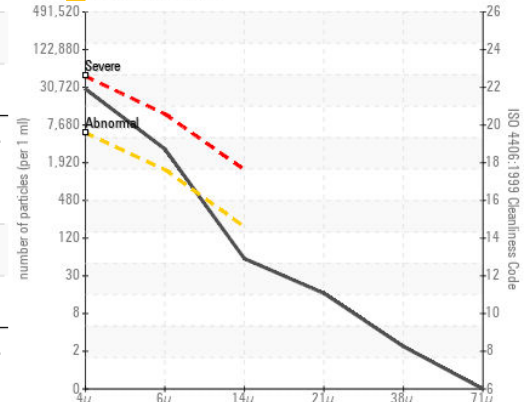
### Non-ferrous Metals



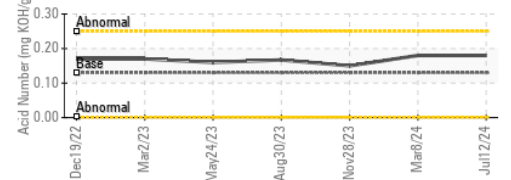
### Viscosity @ 40°C



### ▲ Particle Count



### Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : RP0042845 **Received** : 16 Jul 2024  
**Lab Number** : 06238317 **Tested** : 19 Jul 2024  
**Unique Number** : 11127151 **Diagnosed** : 19 Jul 2024 - Jonathan Hester  
**Test Package** : IND 2 ( Additional Tests: FT-IR, KV100, PrtCount, VI )

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)

**CALUMET**  
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 US 71109  
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