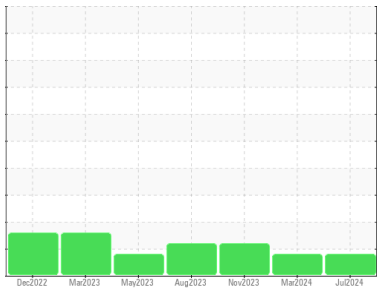
OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Area
CDW
Machine Id
[CDW] TOTE 20 - TURBINE 150
Component
New (Unused) Oil
Fluid
BELRAY Turbine Oil 150 (500 GAL)

DIAGNOSIS

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

Contamination
There is a moderate amount of silt (particulates < 6 microns in size) present in the oil.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**RP0042847**	RP0042880	RP0038976
Sample Date		Client Info		**12 Jul 2024**	08 Mar 2024	28 Nov 2023
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**Not Changd**	Not Changd	Not Changd
Sample Status				**ATTENTION**	ATTENTION	ABNORMAL

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

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	0	0
Barium	ppm	ASTM D5185m		**<1**	0	2
Molybdenum	ppm	ASTM D5185m		**0**	0	<1
Manganese	ppm	ASTM D5185m		**0**	0	0
Magnesium	ppm	ASTM D5185m		**3**	0	1
Calcium	ppm	ASTM D5185m		**5**	0	3
Phosphorus	ppm	ASTM D5185m		**26**	10	29
Zinc	ppm	ASTM D5185m		**6**	0	0

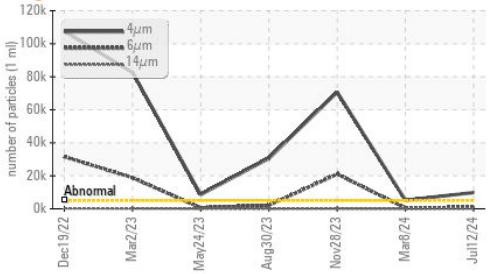
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**<1**	5	0
Sodium	ppm	ASTM D5185m		**2**	0	0
Potassium	ppm	ASTM D5185m	>20	**0**	0	<1
Water	%	ASTM D6304		**0.002**	0.001	0.007
ppm Water	ppm	ASTM D6304		**17**	3	73

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	**9845**	5238	70686
Particles >6µm		ASTM D7647	>1300	**840**	498	21063
Particles >14µm		ASTM D7647	>160	**19**	14	92
Particles >21µm		ASTM D7647	>40	**4**	2	11
Particles >38µm		ASTM D7647	>10	**0**	1	1
Particles >71µm		ASTM D7647	>3	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	**20/17/11**	20/16/11	23/22/14

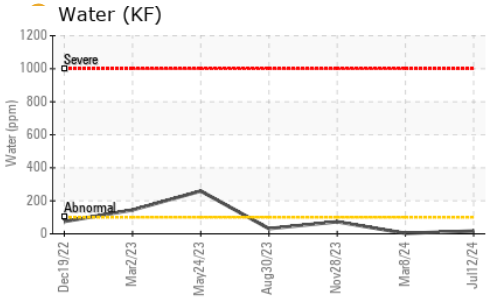
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.14**	0.088	0.082

OIL ANALYSIS REPORT

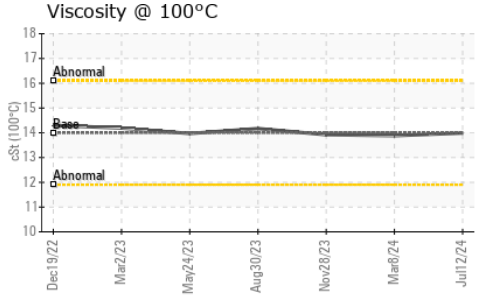
Particle Trend



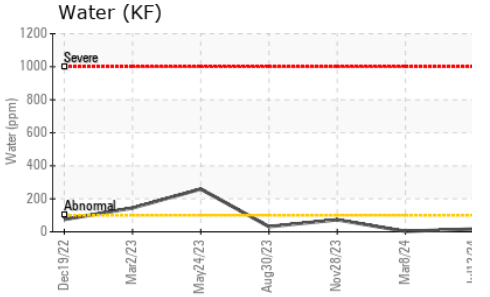
Water (KF)



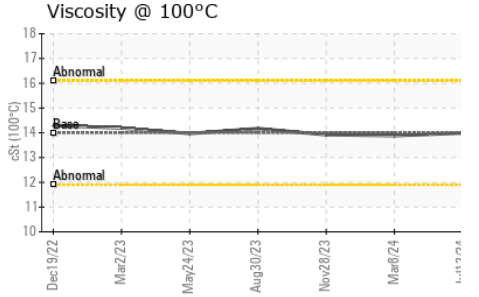
Viscosity @ 100°C



Water (KF)



Viscosity @ 100°C



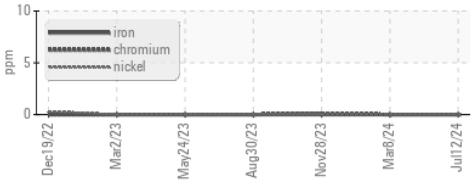
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	142.2	**139.8**	138.5	142.6
Visc @ 100°C	cSt	ASTM D445	14.0	**13.99**	13.88	13.92
Viscosity Index (VI)	Scale	ASTM D2270	99	**96**	96	93

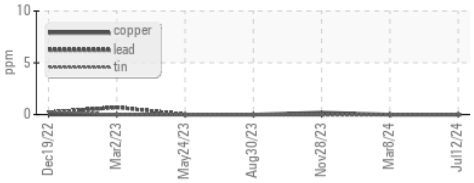
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

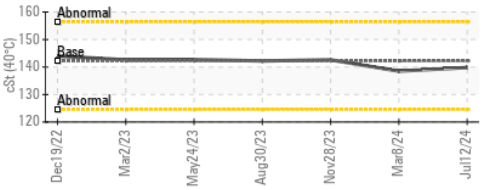
Ferrous Alloys



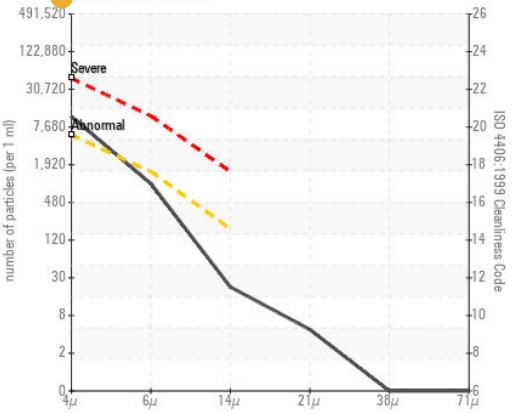
Non-ferrous Metals



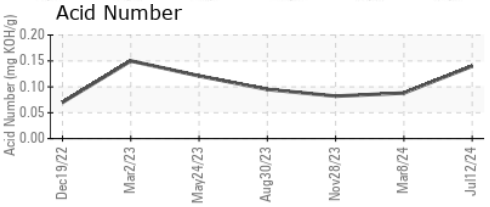
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0042847
Lab Number : 06238302
Unique Number : 11127136
Test Package : IND 2 (Additional Tests: FT-IR, KV100, PrtCount, VI)

Received : 16 Jul 2024
Tested : 19 Jul 2024
Diagnosed : 19 Jul 2024 - Jonathan Hester

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)

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Report Id: CALSHR [WUSCAR] 06238302 (Generated: 07/21/2024 12:51:54) Rev: 1

Submitted By: CODY COMPTON