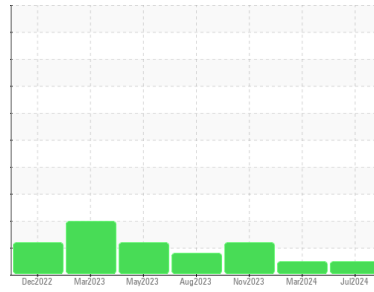




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
MEK
 Machine Id
[MEK] TOTE 9 - TURBINE 150
 Component
New (Unused) Oil
 Fluid
BELRAY Turbine Oil 150 (275 GAL)

DIAGNOSIS

Recommendation

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			RP0042802	RP0042819	RP0038950
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 Changed	Not Changed	Not Changed
Sample Status				NORMAL	NORMAL	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

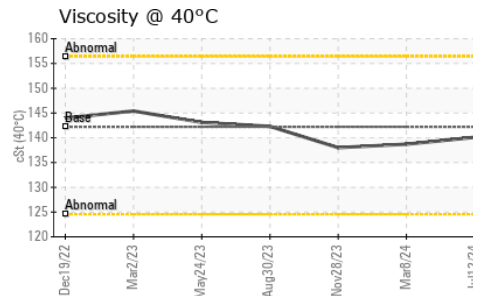
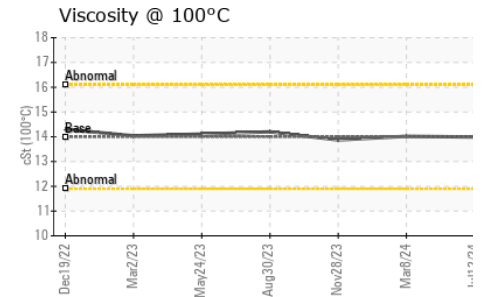
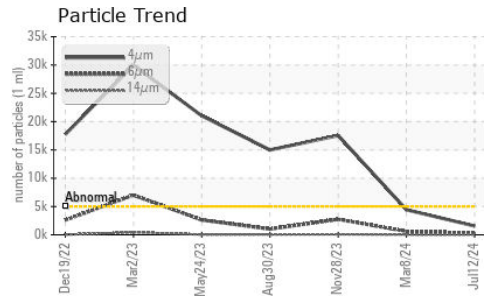
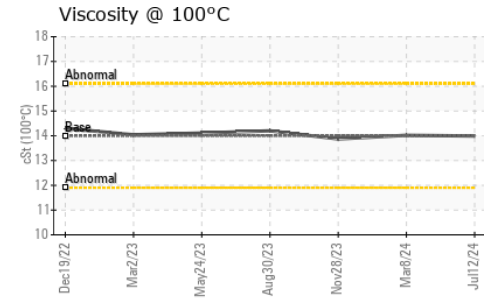
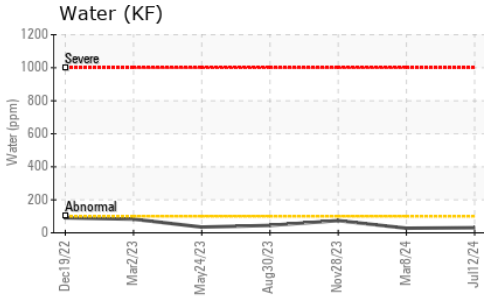
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		<1	0	2
Molybdenum	ppm	ASTM D5185m		2	<1	1
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m		5	0	5
Calcium	ppm	ASTM D5185m		17	0	14
Phosphorus	ppm	ASTM D5185m		32	7	40
Zinc	ppm	ASTM D5185m		13	0	2

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	2	1	1
Sodium	ppm	ASTM D5185m		1	<1	0
Potassium	ppm	ASTM D5185m	>20	0	0	<1
Water	%	ASTM D6304		0.003	0.003	0.007
ppm Water	ppm	ASTM D6304		31	28	74

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	1554	4428	▲ 17549
Particles >6µm		ASTM D7647	>1300	284	595	▲ 2740
Particles >14µm		ASTM D7647	>160	13	7	80
Particles >21µm		ASTM D7647	>40	4	1	16
Particles >38µm		ASTM D7647	>10	1	1	1
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	18/15/11	19/16/10	▲ 21/19/13

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.06	0.12	0.06

OIL ANALYSIS REPORT

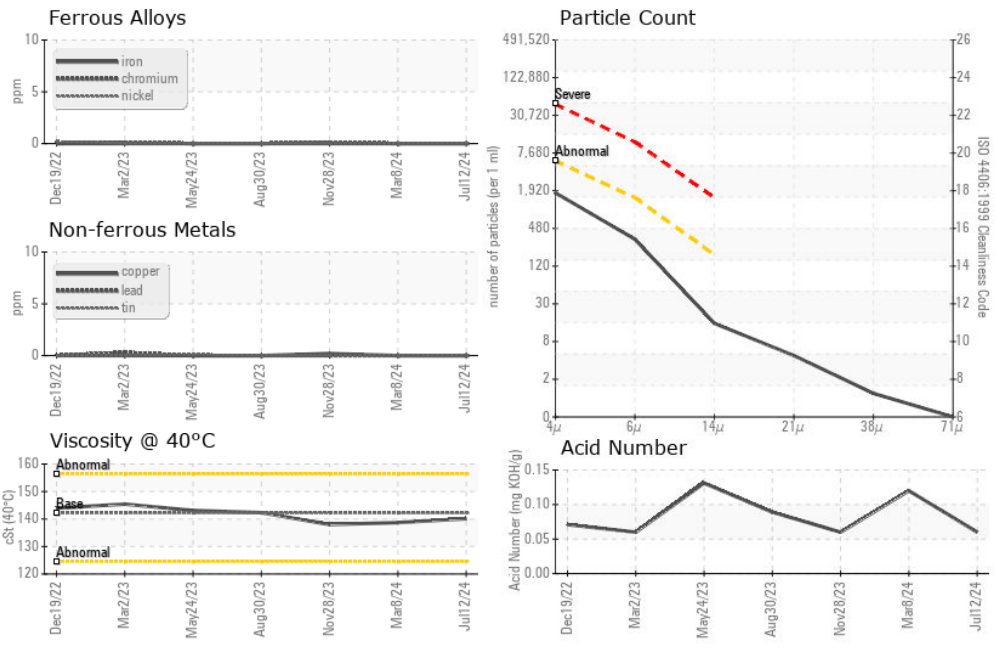


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	142.2	140.1	138.7
Visc @ 100°C	cSt	ASTM D445	14.0	13.99	14.02
Viscosity Index (VI)	Scale	ASTM D2270	99	96	97

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0042802 **Received** : 16 Jul 2024
Lab Number : 06238306 **Tested** : 19 Jul 2024
Unique Number : 11127140 **Diagnosed** : 19 Jul 2024 - Jonathan Hester
Test Package : IND 2 (Additional Tests: FT-IR, KV100, PrtCount, VI)

CALUMET
 3333 MIDWAY AVENUE
 SHREVEPORT, LA
 US 71109
 Contact: NICHOLAS LESAGE
 nicholas.lesage@clmt.com

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)