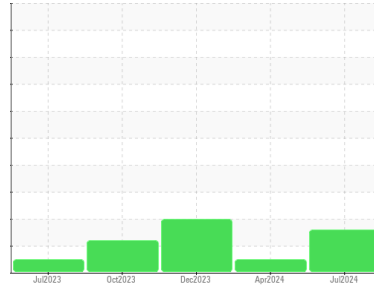




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area

SERVO VALVES

Machine Id

AF12-510-2260-1100 AF12-510-2260-1100 GRY WEMHONER 1 SHORT CYCLE

Component

Hydraulic System

Fluid

MOBIL DTE 10 EXCEL 46 (370 GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a high amount of particulates present in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0936665	WC0902609	WC0859322
Sample Date	Client Info		09 Jul 2024	15 Apr 2024	01 Dec 2023
Machine Age	yrs	Client Info	0	6	5
Oil Age	yrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	NORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184		18	18	11
Iron	ppm	ASTM D5185m >20	3	3	<1
Chromium	ppm	ASTM D5185m >20	<1	0	0
Nickel	ppm	ASTM D5185m >20	0	0	0
Titanium	ppm	ASTM D5185m	<1	0	0
Silver	ppm	ASTM D5185m	<1	0	0
Aluminum	ppm	ASTM D5185m >20	4	0	0
Lead	ppm	ASTM D5185m >20	0	0	0
Copper	ppm	ASTM D5185m >20	2	1	0
Tin	ppm	ASTM D5185m >20	<1	0	0
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	<1	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	<1	0	0
Manganese	ppm	ASTM D5185m	0	0	0
Magnesium	ppm	ASTM D5185m	2	0	<1
Calcium	ppm	ASTM D5185m	141	121	123
Phosphorus	ppm	ASTM D5185m	483	396	419
Zinc	ppm	ASTM D5185m	635	492	557
Sulfur	ppm	ASTM D5185m	5588	5280	5027

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	2	2	2
Sodium	ppm	ASTM D5185m	0	2	<1
Potassium	ppm	ASTM D5185m >20	1	0	0
Water	%	ASTM D6304 >0.05	0.017	0.005	0.017
ppm Water	ppm	ASTM D6304 >500	171	51	172

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>640	▲ 2583	903	▲ 5420
Particles >6µm	ASTM D7647	>160	▲ 302	187	▲ 814
Particles >14µm	ASTM D7647	>10	▲ 11	13	▲ 46
Particles >21µm	ASTM D7647	>3	2	3	▲ 15
Particles >38µm	ASTM D7647	>3	0	0	1
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>16/14/10	▲ 19/15/11	17/15/11	▲ 20/17/13

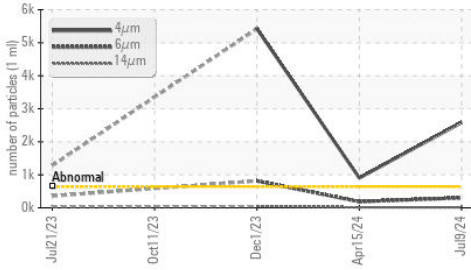
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.62	0.72	0.78

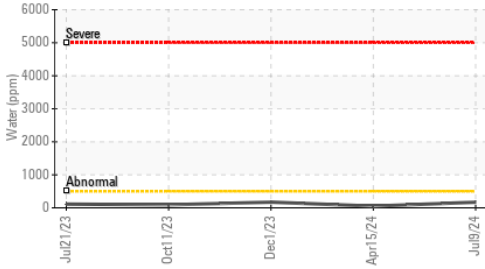


OIL ANALYSIS REPORT

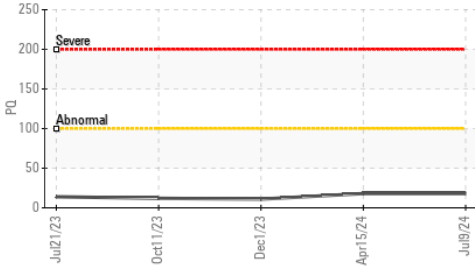
Particle Trend



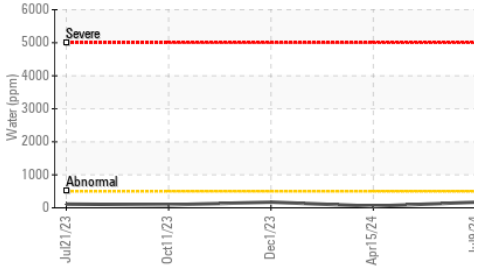
Water (KF)



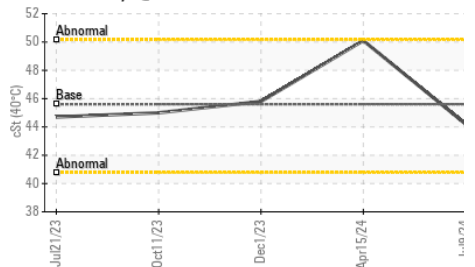
PQ



Water (KF)



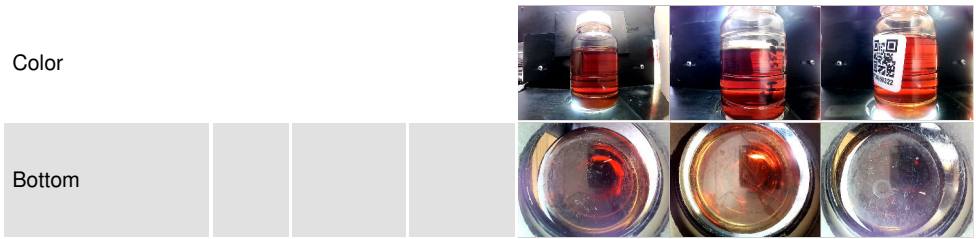
Viscosity @ 40°C



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	LIGHT
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	>0.05	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

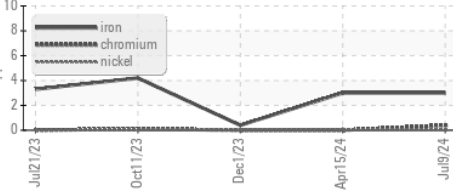
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45.6	44.2	50.1

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------

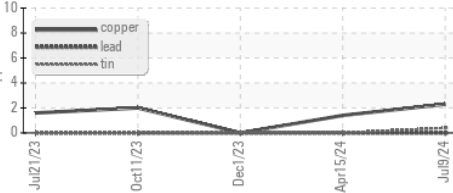


GRAPHS

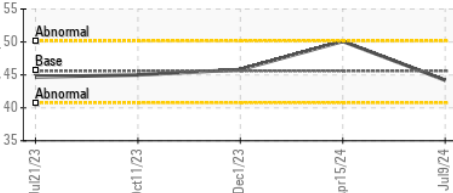
Ferrous Alloys



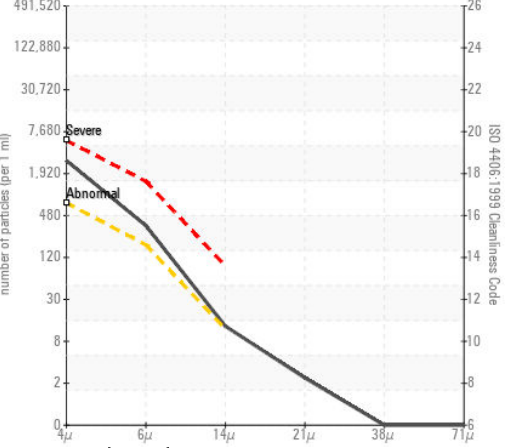
Non-ferrous Metals



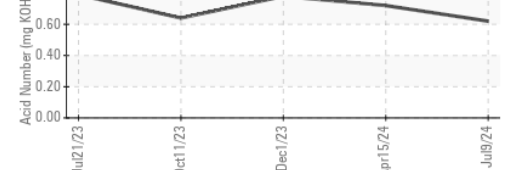
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0936665
Lab Number : 06240317
Unique Number : 11129151
Test Package : PLANT
Received : 18 Jul 2024
Tested : 19 Jul 2024
Diagnosed : 20 Jul 2024 - Don Baldrige

ARAUCO - GRAYLING
 5851 ARAUCO ROAD
 GRAYLING, MI
 US 49738
 Contact: JUSTIN FOX
 justin.fox@arauco.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)