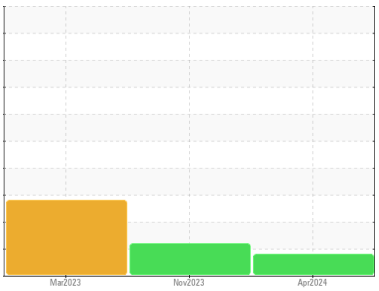
OIL ANALYSIS REPORT

Sample Rating Trend



SEDIMENT

Area
Wax Cups
Machine Id
POS 37
Component
Unknown Component
Fluid
TULCO LUBSOIL INDUSTRIAL GEAR OIL 150 (--- GAL)

DIAGNOSIS

Recommendation
We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Wear
All component wear rates are normal.

Contamination
There is a moderate amount of visible silt present in the sample.

Fluid Condition
The AN level is acceptable for this fluid. The condition of the sample is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**TO50002188**	TO50001964	TO50001598
Sample Date		Client Info		**03 Apr 2024**	06 Nov 2023	30 Mar 2023
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**Not Changd**	N/A	N/A
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m		**84**	55	▲ 103
Chromium	ppm	ASTM D5185m		**<1**	<1	0
Nickel	ppm	ASTM D5185m		**5**	1	0
Titanium	ppm	ASTM D5185m		**<1**	<1	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m		**2**	3	<1
Lead	ppm	ASTM D5185m		**<1**	<1	0
Copper	ppm	ASTM D5185m		**13**	9	16
Tin	ppm	ASTM D5185m		**<1**	1	0
Vanadium	ppm	ASTM D5185m		**<1**	<1	0
Cadmium	ppm	ASTM D5185m		**0**	<1	<1

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	13	**1**	0	0
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**<1**	<1	0
Manganese	ppm	ASTM D5185m		**1**	<1	2
Magnesium	ppm	ASTM D5185m		**1**	2	10
Calcium	ppm	ASTM D5185m		**8**	2	0
Phosphorus	ppm	ASTM D5185m	170	**292**	200	226
Zinc	ppm	ASTM D5185m		**26**	12	29
Sulfur	ppm	ASTM D5185m	6300	**4664**	3023	5865

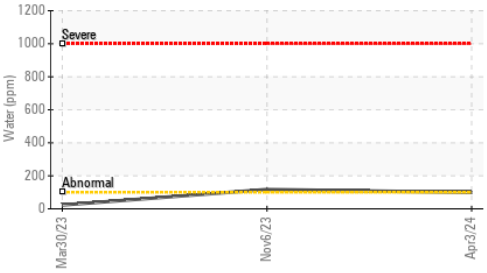
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m		**3435**	848	▲ 1869
Sodium	ppm	ASTM D5185m		**6**	0	4
Potassium	ppm	ASTM D5185m	>20	**2**	3	1
Water	%	ASTM D6304		**0.009**	0.011	0.002
ppm Water	ppm	ASTM D6304		**99**	117.3	23.0

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	**---**	▲ 24608	---
Particles >6µm		ASTM D7647	>1300	**---**	▲ 1417	---
Particles >14µm		ASTM D7647	>160	**---**	38	---
Particles >21µm		ASTM D7647	>40	**---**	12	---
Particles >38µm		ASTM D7647	>10	**---**	1	---
Particles >71µm		ASTM D7647	>3	**---**	1	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	**---**	▲ 22/18/12	---

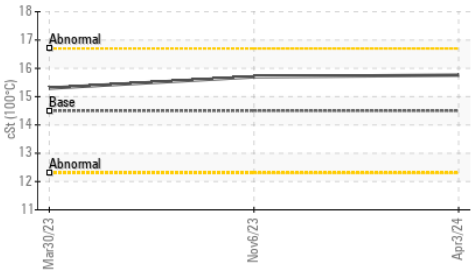
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.38**	0.45	0.59

OIL ANALYSIS REPORT

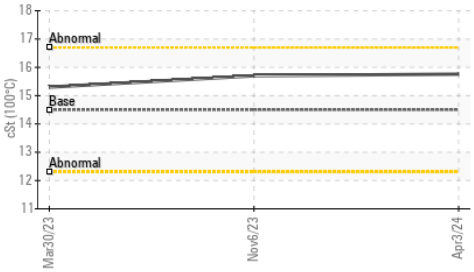
Water (KF)



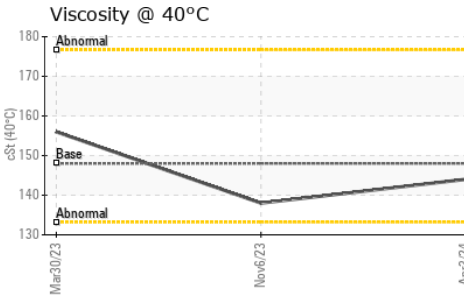
Viscosity @ 100°C



Viscosity @ 100°C

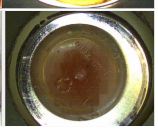


Viscosity @ 40°C



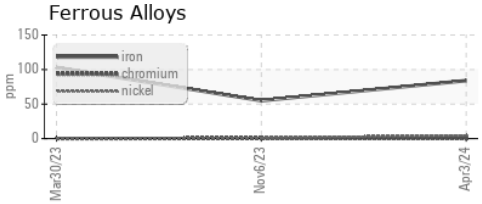
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	▲ **MODER**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	▲ MODER
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	148	**144**	138	156
Visc @ 100°C	cSt	ASTM D445	14.5	**15.76**	15.7	15.3
Viscosity Index (VI)	Scale	ASTM D2270	96	**113**	118	98

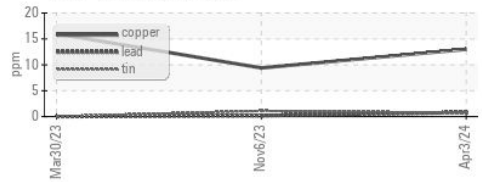
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

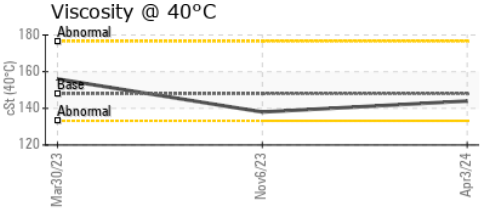
Ferrous Alloys



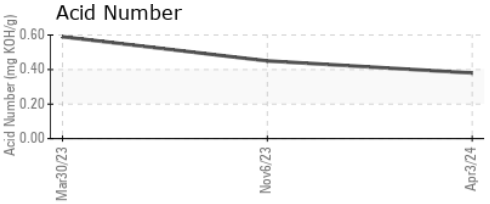
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO50002188
Lab Number : 06141325
Unique Number : 10966133
Test Package : IND 2 (Additional Tests: KF, KV100, PrtCount, VI)

Received : 08 Apr 2024
Tested : 15 Apr 2024
Diagnosed : 15 Apr 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)

DART CONTAINER CORPORATION
4444 W LEADBETTER DR
DALLAS, TX
US 75236
Contact: YON PALOMINO
yon.palomino@dart.biz
T: (214)775-5673
F:

Report Id: DARDALTX [WUSCAR] 06141325 (Generated: 04/15/2024 16:05:02) Rev: 1

Submitted By: YON PALOMINO