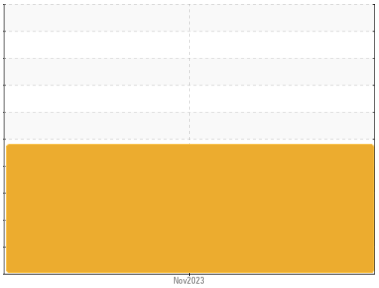
PROBLEM SUMMARY

Sample Rating Trend



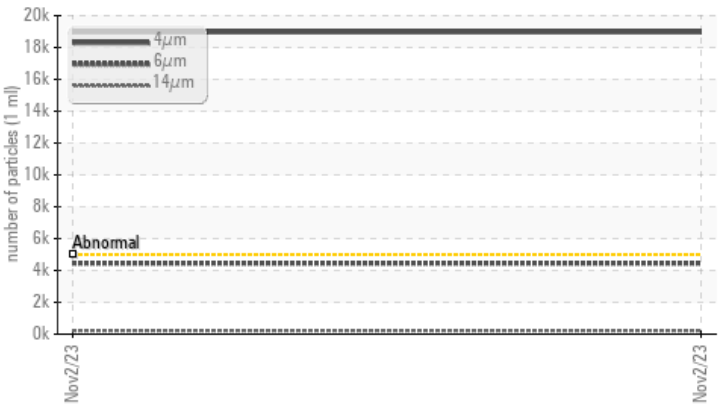
WATER

Machine Id
SHELL GRS COMP S4 PGS V 150
Component
New (Unused) Oil
Fluid
{not provided} (--- GAL)

COMPONENT CONDITION SUMMARY

Water (KF)

Particle Trend



RECOMMENDATION

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

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	---	---
Water	%	ASTM D6304		**1.351**	---	---
ppm Water	ppm	ASTM D6304		**13513.7**	---	---
Particles >4µm		ASTM D7647	>5000	**18967**	---	---
Particles >6µm		ASTM D7647	>1300	**4451**	---	---
Particles >14µm		ASTM D7647	>160	**214**	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	**21/19/15**	---	---

Customer Id: TULTUL07
Sample No.: TO70000028
Lab Number: 06000849
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

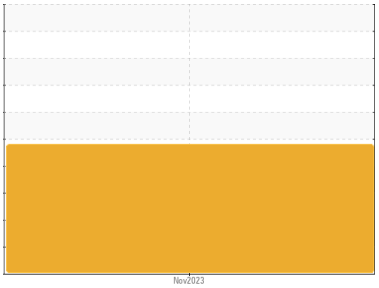
RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Machine Id
SHELL GRS COMP S4 PGS V 150
Component
New (Unused) Oil
Fluid
{not provided} (--- GAL)

DIAGNOSIS

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

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**TO70000028**	---	---
Sample Date		Client Info		**02 Nov 2023**	---	---
Machine Age	hrs	Client Info		**0**	---	---
Oil Age	hrs	Client Info		**0**	---	---
Oil Changed		Client Info		**N/A**	---	---
Sample Status				**SEVERE**	---	---

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

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**2**	---	---
Barium	ppm	ASTM D5185m		**0**	---	---
Molybdenum	ppm	ASTM D5185m		**0**	---	---
Manganese	ppm	ASTM D5185m		**0**	---	---
Magnesium	ppm	ASTM D5185m		**<1**	---	---
Calcium	ppm	ASTM D5185m		**0**	---	---
Phosphorus	ppm	ASTM D5185m		**497**	---	---
Zinc	ppm	ASTM D5185m		**0**	---	---
Sulfur	ppm	ASTM D5185m		**19**	---	---

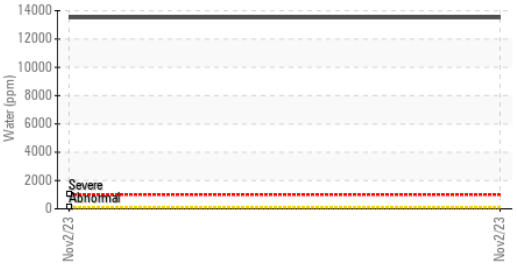
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**5**	---	---
Sodium	ppm	ASTM D5185m		**0**	---	---
Potassium	ppm	ASTM D5185m	>20	**4**	---	---
Water	%	ASTM D6304		**1.351**	---	---
ppm Water	ppm	ASTM D6304		**13513.7**	---	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	**18967**	---	---
Particles >6µm		ASTM D7647	>1300	**4451**	---	---
Particles >14µm		ASTM D7647	>160	**214**	---	---
Particles >21µm		ASTM D7647	>40	**35**	---	---
Particles >38µm		ASTM D7647	>10	**2**	---	---
Particles >71µm		ASTM D7647	>3	**1**	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	**21/19/15**	---	---

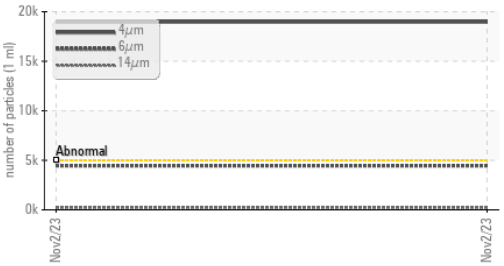
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.18**	---	---

OIL ANALYSIS REPORT

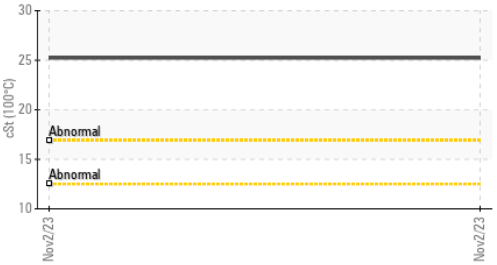
Water (KF)



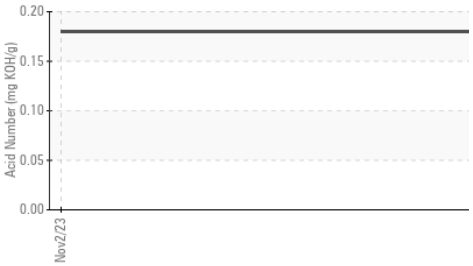
Particle Trend



Viscosity @ 100°C



Acid Number



Viscosity @ 100°C

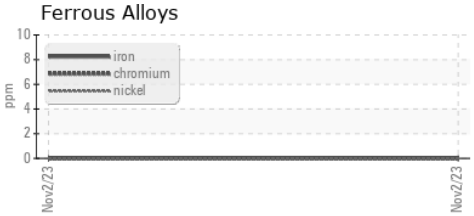
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	---	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	---	---
Precipitate	scalar	*Visual	NONE	**NONE**	---	---
Silt	scalar	*Visual	NONE	**NONE**	---	---
Debris	scalar	*Visual	NONE	**NONE**	---	---
Sand/Dirt	scalar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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		**149.2**	---	---
Visc @ 100°C	cSt	ASTM D445		**25.23**	---	---
Viscosity Index (VI)	Scale	ASTM D2270		**204**	---	---

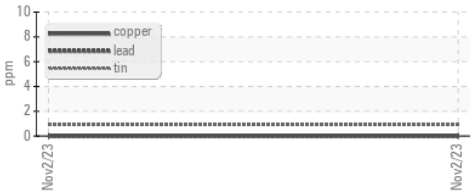
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				*no image*	*no image*
Bottom				*no image*	*no image*

GRAPHS

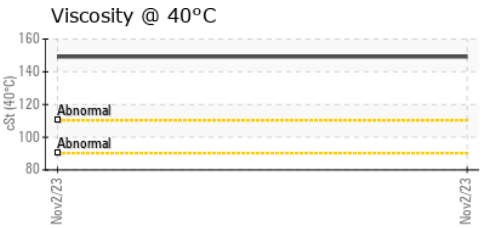
Ferrous Alloys



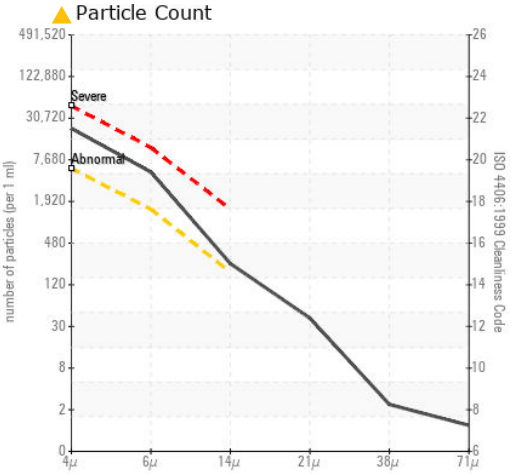
Non-ferrous Metals



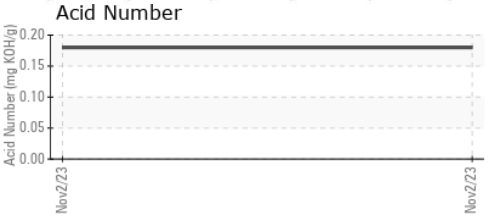
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO70000028 **Received** : 07 Nov 2023
Lab Number : 06000849 **Diagnosed** : 09 Nov 2023
Unique Number : 10729209 **Diagnostician** : Jonathan Hester
Test Package : IND 2 (Additional Tests: FT-IR, ICP-NewOil, KF, 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)

TULCO OILS INC (007-INTERNATIONAL DIVISION)
5240 EAST PINE
TULSA, OK
US 74115
Contact: JIM WESTOVER
jimwestover@tulco.com
T: (918)526-3035
F: (918)834-1263