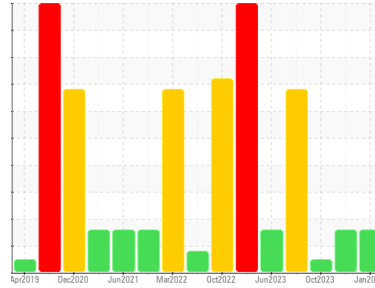




OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
CATERPILLAR 299D SKIDSTEER 040-0019 (S/N CAT0299DAFD204356)
 Component
Right Final Drive
 Fluid
SCHAEFFER SCHAEFFER 293 MOLY 75W90 (1 QTS)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

Gear wear is indicated.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0868417	WC0868390	WC0815228
Sample Date	Client Info		24 Jan 2024	21 Dec 2023	03 Oct 2023
Machine Age	hrs	Client Info	11409	11252	10384
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		Not Chngd	Changed	Not Chngd
Sample Status			ABNORMAL	ABNORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>800	▲ 802	▲ 1309	596
Chromium	ppm	ASTM D5185m	>10	▲ 11	▲ 18	9
Nickel	ppm	ASTM D5185m	>5	2	4	2
Titanium	ppm	ASTM D5185m	>15	<1	1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>75	16	20	7
Lead	ppm	ASTM D5185m	>10	0	1	1
Copper	ppm	ASTM D5185m	>75	24	70	52
Tin	ppm	ASTM D5185m	>8	0	<1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	0
Cadmium	ppm	ASTM D5185m		0	<1	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		53	158	159
Barium	ppm	ASTM D5185m		5	16	4
Molybdenum	ppm	ASTM D5185m		181	<1	11
Manganese	ppm	ASTM D5185m		10	16	10
Magnesium	ppm	ASTM D5185m		14	11	0
Calcium	ppm	ASTM D5185m		129	124	7
Phosphorus	ppm	ASTM D5185m		715	1260	1213
Zinc	ppm	ASTM D5185m		45	62	55
Sulfur	ppm	ASTM D5185m		14314	22040	21957

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>400	71	78	9
Sodium	ppm	ASTM D5185m		4	10	10
Potassium	ppm	ASTM D5185m	>20	8	21	18

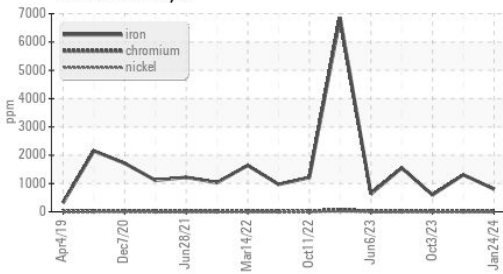
VISUAL

	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	MODER
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	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

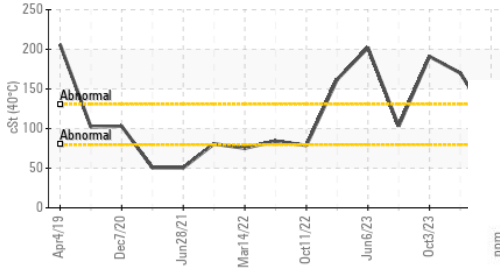


OIL ANALYSIS REPORT

▲ Ferrous Alloys



Viscosity @ 40°C



FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	109	170	191

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color

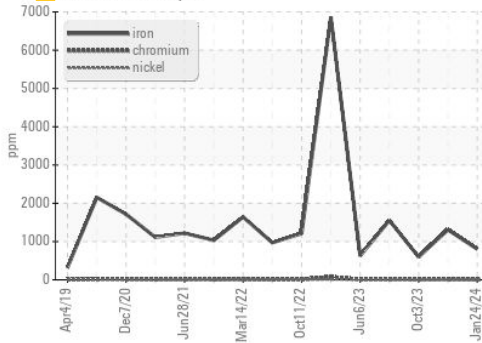


Bottom

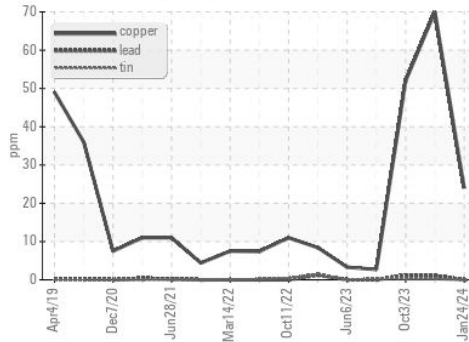


GRAPHS

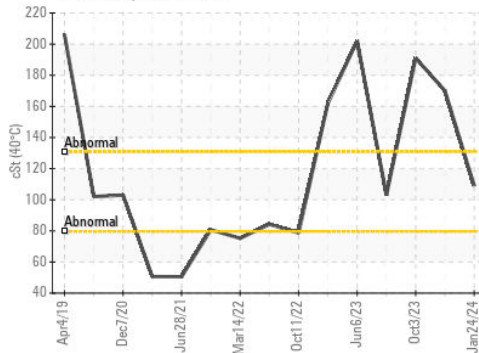
▲ Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0868417 **Received** : 30 Jan 2024
Lab Number : **06074225** **Diagnosed** : 31 Jan 2024
Unique Number : 10856316 **Diagnostician** : Jonathan Hester
Test Package : CONST

SHIMMICK CONSTRUCTION
 5535 TRAILHEAD DRIVE
 CHATTANOOGA, TN
 US 37415
 Contact: DANIEL LISELLA
 daniel.lisella@shimmick.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)

T:
F: