

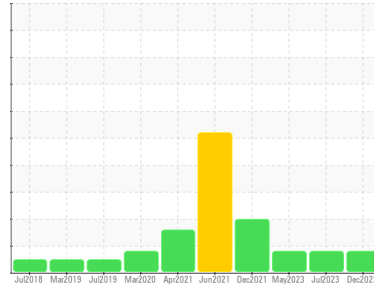


PROBLEM SUMMARY



Machine Id
DT34
Component
Transmission (Auto)
Fluid
COGNIS EMGARD 2805 ATF (15 mls)

Sample Rating Trend

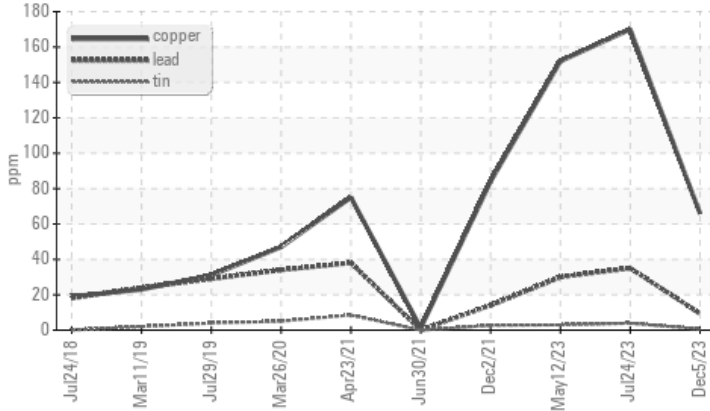


WEAR



COMPONENT CONDITION SUMMARY

▲ Non-ferrous Metals



RECOMMENDATION

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Copper	ppm	ASTM D5185m	>60	▲ 66	▲ 170	▲ 152

Customer Id: HKSWE
Sample No.: PCA0110916
Lab Number: 06028233
Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldrige +1
don.b505@comcast.net

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

HISTORICAL DIAGNOSIS

24 Jul 2023 Diag: Jonathan Hester

WEAR



No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. The copper level is abnormal. All other component wear rates are normal. There is no indication of any contamination in the fluid. The condition of the fluid is acceptable for the time in service.

[view report](#)



12 May 2023 Diag: Jonathan Hester

WEAR



No corrective action is recommended at this time. Resample at the next service interval to monitor. The copper level is abnormal. All other component wear rates are normal. There is no indication of any contamination in the fluid. The condition of the fluid is acceptable for the time in service.

[view report](#)



02 Dec 2021 Diag: Don Baldrige

VISUAL METAL



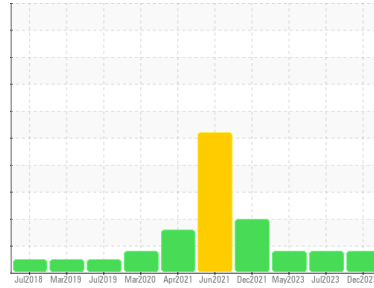
We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. Moderate concentration of visible metal present. Clutch and/or bushing/bearing wear is indicated. There is no indication of any contamination in the fluid. The condition of the fluid is acceptable for the time in service.

[view report](#)



OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id
DT34
Component
Transmission (Auto)
Fluid
COGNIS EMGARD 2805 ATF (15 mls)

DIAGNOSIS

Recommendation
No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear
The copper level has decreased, but is still abnormal. All other component wear rates are normal.

Contamination
There is no indication of any contamination in the fluid.

Fluid Condition
The condition of the fluid is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PCA0110916	PCA0100051	PCA0084964
Sample Date	Client Info		05 Dec 2023	24 Jul 2023	12 May 2023
Machine Age	mls	Client Info	226157	226157	215942
Oil Age	mls	Client Info	226157	215942	75000
Oil Changed	Client Info		Changed	Changed	Not Changed
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>220	54	163	133
Chromium	ppm	ASTM D5185m	>2	0	<1	<1
Nickel	ppm	ASTM D5185m	>5	<1	0	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>5	0	0	<1
Aluminum	ppm	ASTM D5185m	>75	14	47	44
Lead	ppm	ASTM D5185m	>95	9	35	30
Copper	ppm	ASTM D5185m	>60	66	170	152
Tin	ppm	ASTM D5185m	>10	<1	4	3
Antimony	ppm	ASTM D5185m	>2	---	---	---
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		103	238	170
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	1
Manganese	ppm	ASTM D5185m		<1	2	2
Magnesium	ppm	ASTM D5185m		<1	0	10
Calcium	ppm	ASTM D5185m		125	129	152
Phosphorus	ppm	ASTM D5185m		268	447	437
Zinc	ppm	ASTM D5185m		0	8	24
Sulfur	ppm	ASTM D5185m		2047	2798	2858

CONTAMINANTS

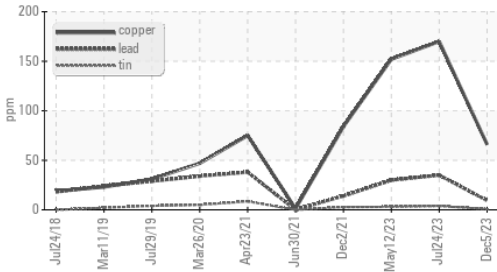
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>25	5	8	8
Sodium	ppm	ASTM D5185m		5	10	8
Potassium	ppm	ASTM D5185m	>20	1	2	3

VISUAL

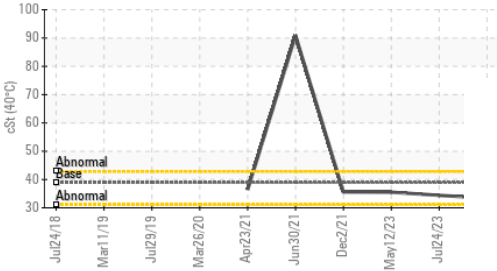
	method	limit/base	current	history1	history2	
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

OIL ANALYSIS REPORT

▲ Non-ferrous Metals



Viscosity @ 40°C



FLUID PROPERTIES method limit/base current history1 history2

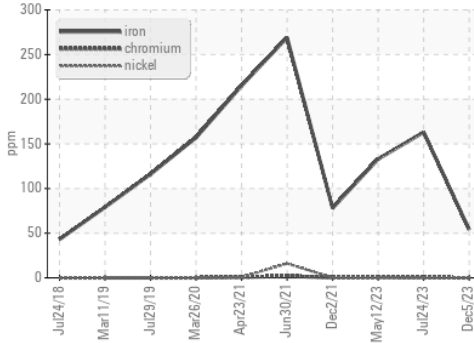
Visc @ 40°C cSt ASTM D445 38.9 **33.4** 34.4 35.52

SAMPLE IMAGES method limit/base current history1 history2

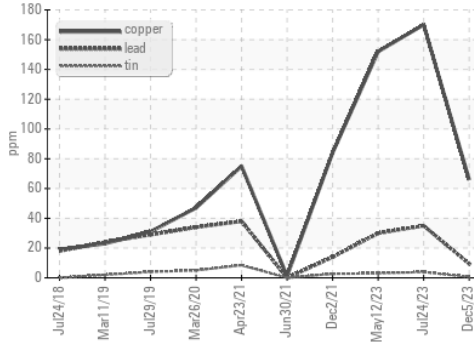
Color	no image	no image	no image
Bottom	no image	no image	no image

GRAPHS

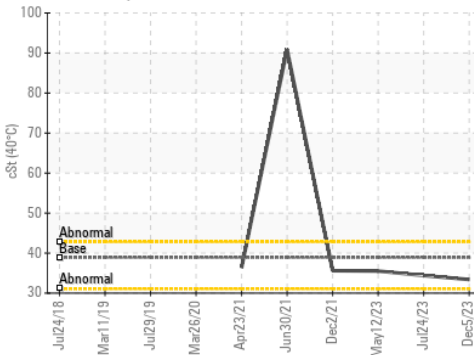
Ferrous Alloys



▲ Non-ferrous Metals



Viscosity @ 40°C



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0110916 **Received** : 07 Dec 2023
Lab Number : 06028233 **Diagnosed** : 10 Dec 2023
Unique Number : 10778024 **Diagnostician** : Don Baldrige
Test Package : FLEET

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)

HK STEEL INC
 400 N PARSON ST
 WEST COLUMBIA, SC
 US 29169

Contact: GEORGE EDWARDS
 gedwards@nwwhite.com

T:
 F: