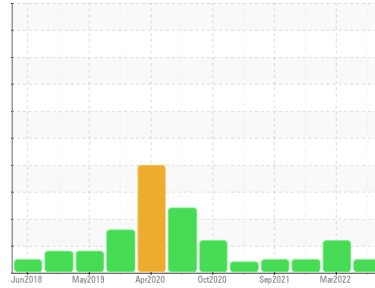


# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**DT33**  
 Component  
**Transmission (Auto)**  
 Fluid  
**COGNIS EMGARD 2805 ATF (15 mls)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### 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			<b>PCA0104125</b>	PCA0071349	PCA0063032
Sample Date	Client Info			<b>31 Aug 2023</b>	31 Mar 2022	26 Jan 2022
Machine Age	mls	Client Info		<b>287410</b>	231462	223205
Oil Age	mls	Client Info		<b>75000</b>	75000	75000
Oil Changed	Client Info			<b>Not Chngd</b>	Not Chngd	Changed
Sample Status				<b>NORMAL</b>	ABNORMAL	NORMAL

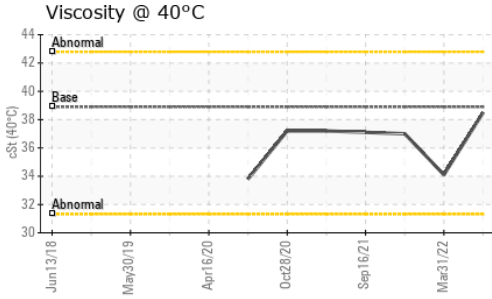
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>160	<b>59</b>	56	161
Chromium	ppm	ASTM D5185m	>5	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>5	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185m	>50	<b>25</b>	15	37
Lead	ppm	ASTM D5185m	>50	<b>5</b>	8	31
Copper	ppm	ASTM D5185m	>225	<b>19</b>	27	39
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	1	4
Antimony	ppm	ASTM D5185m		<b>---</b>	---	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>115</b>	83	122
Barium	ppm	ASTM D5185m		<b>7</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>3</b>	<1	<1
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	22
Magnesium	ppm	ASTM D5185m		<b>28</b>	0	0
Calcium	ppm	ASTM D5185m		<b>113</b>	101	31
Phosphorus	ppm	ASTM D5185m		<b>331</b>	241	280
Zinc	ppm	ASTM D5185m		<b>64</b>	6	4
Sulfur	ppm	ASTM D5185m		<b>1889</b>	1147	235

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	<b>6</b>	4	6
Sodium	ppm	ASTM D5185m		<b>2</b>	3	2
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	0	2

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

# OIL ANALYSIS REPORT



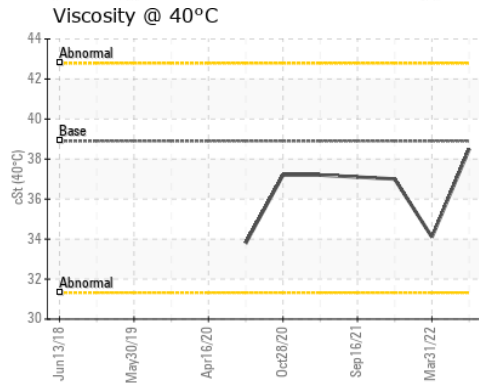
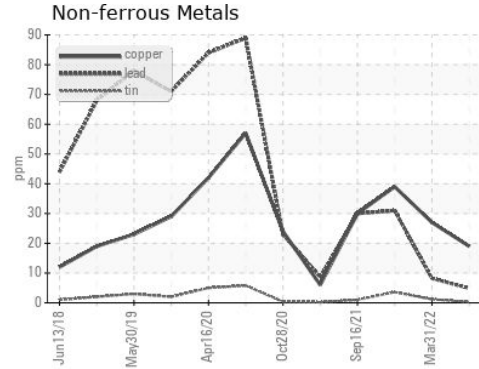
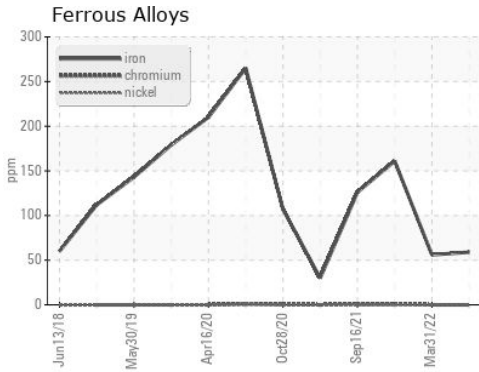
### FLUID PROPERTIES

method	limit/base	current	history1	history2	
Visc @ 40°C	cSt ASTM D445	38.9	<b>38.5</b>	34.1	37.0

### SAMPLE IMAGES

method	limit/base	current	history1	history2
Color		no image	no image	no image
Bottom		no image	no image	no image

### GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0104125 **Received** : 07 Sep 2023  
**Lab Number** : **05945343** **Diagnosed** : 10 Sep 2023  
**Unique Number** : 10635955 **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**  
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 US 29169

Contact: GEORGE EDWARDS  
gedwards@nwwhite.com

T:  
F: