

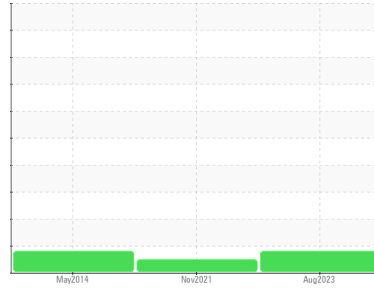


# PROBLEM SUMMARY



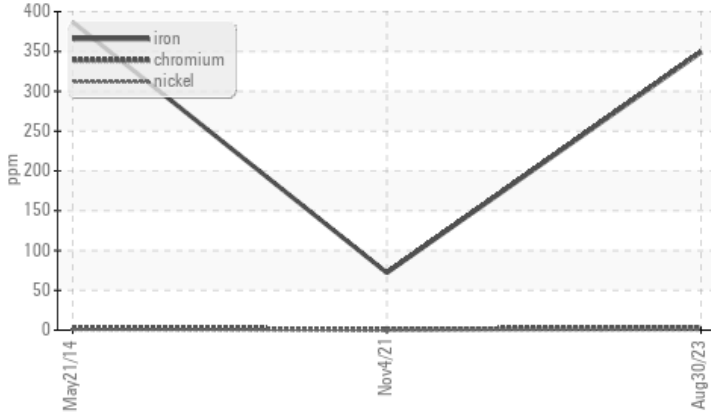
Area  
**TPR-Houston Port**  
 Machine Id  
**LIEBHERR A944CHD 058903-194**  
 Component  
**Gearbox**  
 Fluid  
**GEAR OIL SAE 80W90 (--- GAL)**

Sample Rating Trend



## COMPONENT CONDITION SUMMARY

### ▲ Ferrous Alloys



## RECOMMENDATION

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

## PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	NORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>200	▲ 349	72	▲ 387

Customer Id: RIVSOM  
 Sample No.: DJJ0017786  
 Lab Number: 05969261  
 Test Package: MOBCE



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Sean Felton +1 919-379-4092  
[sfelton@wearcheckusa.com](mailto:sfelton@wearcheckusa.com)

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

## RECOMMENDED ACTIONS

*There are no recommended actions for this sample.*

## HISTORICAL DIAGNOSIS

### 04 Nov 2021 Diag: Jonathan Hester

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

view report



### 21 May 2014 Diag: Jonathan Hester

WEAR



The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. Gear wear is indicated. There is no indication of any contamination in the component. The condition of the oil is acceptable for the time in service.

view report



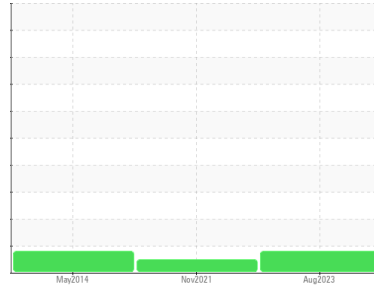


# OIL ANALYSIS REPORT



Area  
**TPR-Houston Port**  
 Machine Id  
**LIEBHERR A944CHD 058903-194**  
 Component  
**Gearbox**  
 Fluid  
**GEAR OIL SAE 80W90 (--- GAL)**

Sample Rating Trend



**WEAR**



## DIAGNOSIS

### ▲ Recommendation

The oil change at the time of sampling has been noted. 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		<b>DJJ0017786</b>	DJJ0011488	DJJ004623
Sample Date	Client Info		<b>30 Aug 2023</b>	04 Nov 2021	21 May 2014
Machine Age	hrs	Client Info	<b>17179</b>	14624	8469
Oil Age	hrs	Client Info	<b>0</b>	0	500
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>ABNORMAL</b>	NORMAL	ABNORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >200	<b>▲ 349</b>	72	<b>▲ 387</b>
Chromium	ppm	ASTM D5185m >10	<b>4</b>	1	3
Nickel	ppm	ASTM D5185m >10	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m >25	<b>15</b>	3	1
Lead	ppm	ASTM D5185m >50	<b>0</b>	<1	6
Copper	ppm	ASTM D5185m >200	<b>27</b>	25	21
Tin	ppm	ASTM D5185m >10	<b>1</b>	<1	0
Antimony	ppm	ASTM D5185m >5	<b>---</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	<1
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	<1

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 400	<b>22</b>	238	30
Barium	ppm	ASTM D5185m 200	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 12	<b>4</b>	6	2
Manganese	ppm	ASTM D5185m	<b>4</b>	<1	2
Magnesium	ppm	ASTM D5185m 12	<b>14</b>	35	13
Calcium	ppm	ASTM D5185m 150	<b>87</b>	85	34
Phosphorus	ppm	ASTM D5185m 1650	<b>427</b>	1311	2641
Zinc	ppm	ASTM D5185m 125	<b>88</b>	108	60
Sulfur	ppm	ASTM D5185m 22500	<b>14082</b>	12717	22463

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	<b>10</b>	9	6
Sodium	ppm	ASTM D5185m >170	<b>1</b>	<1	1
Potassium	ppm	ASTM D5185m >20	<b>11</b>	42	<1

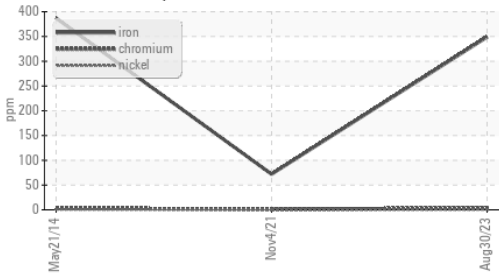
## VISUAL

	method	limit/base	current	history1	history2
White Metal	scalar	*Visual NONE	<b>NONE</b>	NONE	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 >0.2	<b>NEG</b>	NEG	NEG
Free Water	scalar	*Visual	<b>NEG</b>	NEG	NEG

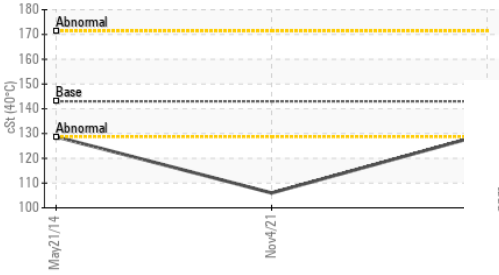


# OIL ANALYSIS REPORT

### ▲ Ferrous Alloys



### Viscosity @ 40°C



### FLUID PROPERTIES

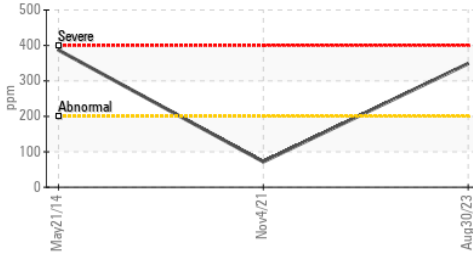
method	limit/base	current	history1	history2
Visc @ 40°C	cSt ASTM D445	143	106	128.7

### SAMPLE IMAGES

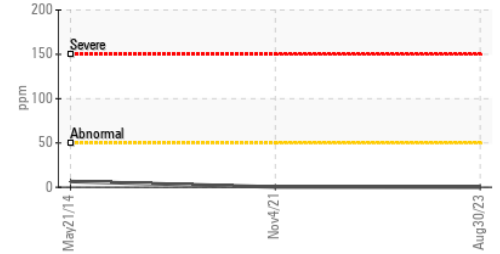
method	limit/base	current	history1	history2
Color			no image	no image
Bottom			no image	no image

### GRAPHS

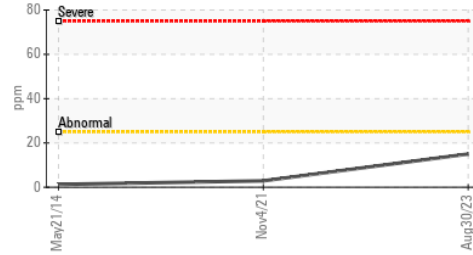
#### ▲ Iron (ppm)



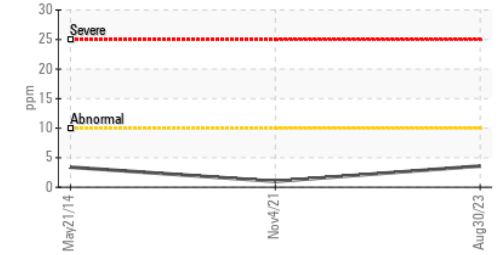
#### Lead (ppm)



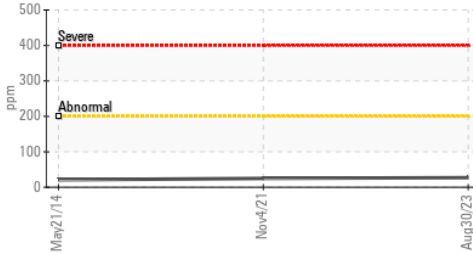
#### Aluminum (ppm)



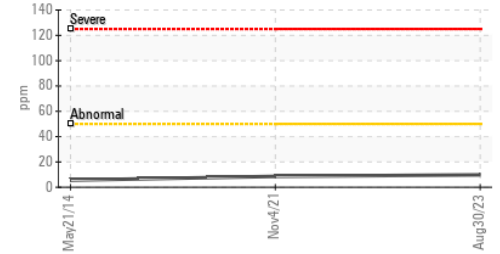
#### Chromium (ppm)



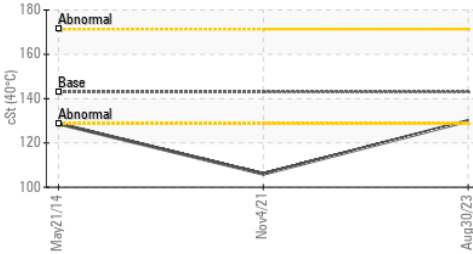
#### Copper (ppm)



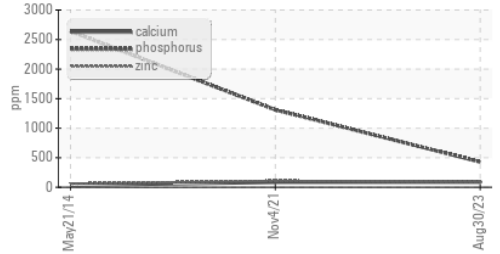
#### Silicon (ppm)



#### Viscosity @ 40°C



#### Additives



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : DJJ0017786 **Received** : 04 Oct 2023  
**Lab Number** : 05969261 **Diagnosed** : 06 Oct 2023  
**Unique Number** : 10675812 **Diagnostician** : Sean Felton  
**Test Package** : MOBCE

**RIVER METALS RECYCLING - SOMERSET**  
 905 CRANE ROAD  
 SOMERSET, KY  
 US 42501  
 Contact: RYAN BOWDEN

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: (606)679-7523