



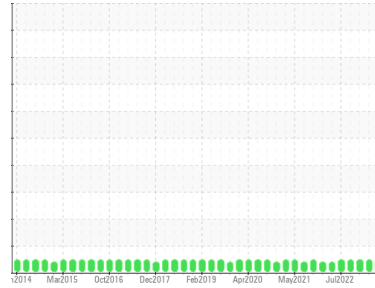
# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**[603921114 SR]**  
 Machine Id  
**PETZ 4 MD (S/N 20061628)**  
 Component  
**Gearbox**  
 Fluid  
**GEAR OIL ISO 220 (--- GAL)**



## 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 AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>WC0605548</b>	WC0605750	WC0605192
Sample Date	Client Info			<b>23 Jun 2023</b>	30 Mar 2023	13 Jan 2023
Machine Age	mls	Client Info		<b>0</b>	0	0
Oil Age	mls	Client Info		<b>0</b>	0	0
Oil Changed	Client Info			<b>Not Changed</b>	Not Changed	Not Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	<b>7</b>	8	8
Chromium	ppm	ASTM D5185m	>15	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>15	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>8</b>	8	7
Lead	ppm	ASTM D5185m	>100	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>200	<b>1</b>	1	1
Tin	ppm	ASTM D5185m	>25	<b>0</b>	0	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	50	<b>0</b>	0	0
Barium	ppm	ASTM D5185m	15	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	15	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	50	<b>1</b>	3	1
Calcium	ppm	ASTM D5185m	50	<b>122</b>	155	120
Phosphorus	ppm	ASTM D5185m	350	<b>452</b>	496	485
Zinc	ppm	ASTM D5185m	100	<b>151</b>	171	162
Sulfur	ppm	ASTM D5185m	12500	<b>1837</b>	1995	1545

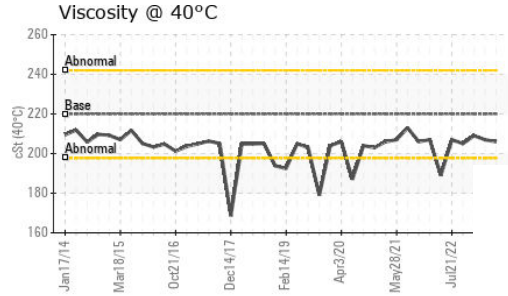
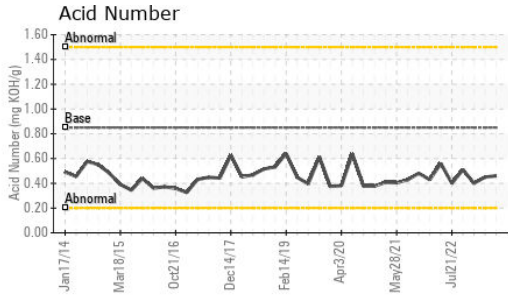
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	<b>6</b>	6	6
Sodium	ppm	ASTM D5185m		<b>2</b>	4	4
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	<1	<1

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.85	<b>0.46</b>	0.45	0.40

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	<b>MODER</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>	LIGHT	LIGHT
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



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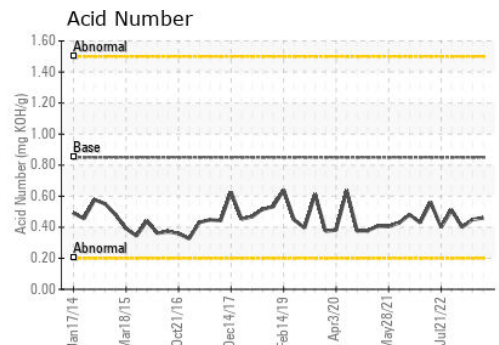
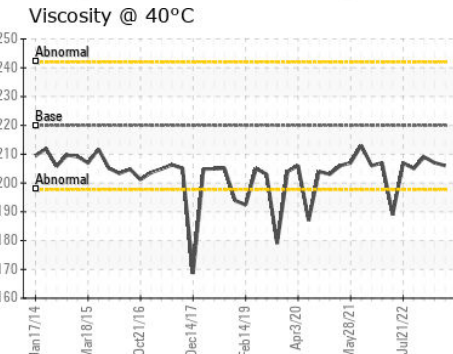
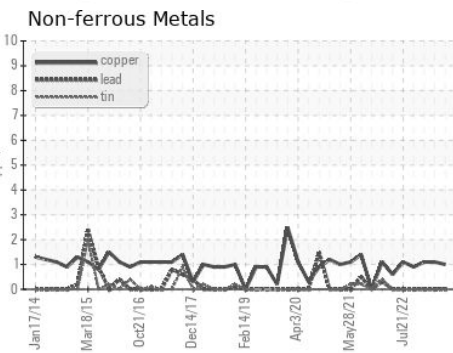
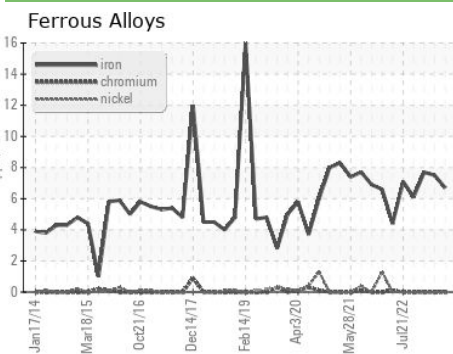


FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	220	<b>206</b>	207	209

SAMPLE IMAGES		method	limit/base	current	history1	history2
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## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0605548 **Received** : 18 Jul 2023  
**Lab Number** : **05901383** **Diagnosed** : 20 Jul 2023  
**Unique Number** : 10562739 **Diagnostician** : Don Baldrige  
**Test Package** : IND 2

**MARS CHOCOLATE**  
 2019 NORTH OAK PARK  
 CHICAGO, IL  
 US 60707  
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 tony.fiore@effem.com  
 T: (773)745-2279  
 F:

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)