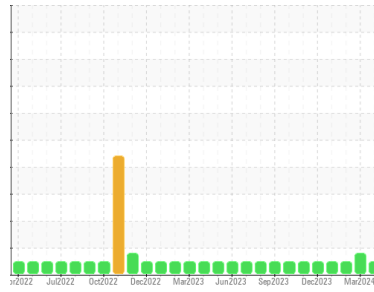




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**OKLAHOMA**

Machine Id  
**5568**

Component  
**Diesel Engine**

Fluid  
**MYSTIK JT-8 SYN SUPER HD 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

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

### Wear

All component wear rates are normal.

### Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. Test for glycol is negative. No other contaminants were detected in the oil.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. 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>WC0929932</b>	WC0899611	WC0810715
Sample Date	Client Info		<b>09 Apr 2024</b>	06 Mar 2024	05 Feb 2024
Machine Age	hrs	Client Info	<b>4511</b>	4350	4197
Oil Age	hrs	Client Info	<b>3004</b>	3843	2690
Oil Changed	Client Info		<b>Not Changed</b>	Not Changd	Not Changed
Sample Status			<b>NORMAL</b>	ABNORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>100	<b>62</b>	65	62
Chromium	ppm	ASTM D5185m	>20	<b>3</b>	4	4
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>29</b>	29	31
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>2</b>	2	1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		<b>&lt;1</b>	0	1
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>52</b>	58	58
Manganese	ppm	ASTM D5185m		<b>1</b>	<1	1
Magnesium	ppm	ASTM D5185m		<b>951</b>	1028	1006
Calcium	ppm	ASTM D5185m		<b>1086</b>	1164	1102
Phosphorus	ppm	ASTM D5185m		<b>1045</b>	1062	1073
Zinc	ppm	ASTM D5185m		<b>1295</b>	1336	1366
Sulfur	ppm	ASTM D5185m		<b>3180</b>	3423	3003

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>25	<b>5</b>	5	6
Sodium	ppm	ASTM D5185m		<b>16</b>	16	15
Potassium	ppm	ASTM D5185m	>20	<b>79</b>	76	84
Glycol	%	*ASTM D2982		<b>0.0</b>	NEG	NEG

## INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	<b>1.2</b>	1.1	1.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>12.2</b>	11.8	11.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>26.5</b>	25.7	25.9

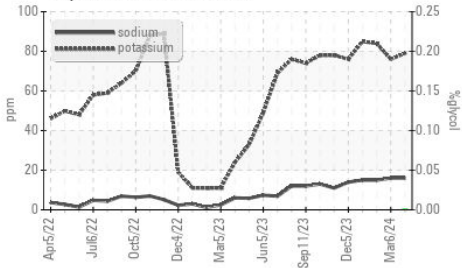
## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>23.1</b>	22.3	22.0
Base Number (BN)	mg KOH/g	ASTM D2896		<b>6.3</b>	6.3	5.8

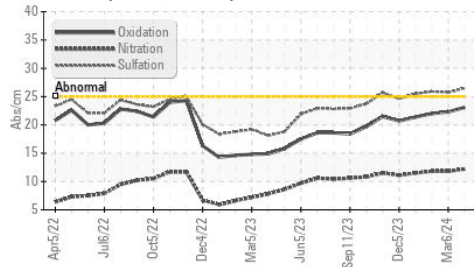


# OIL ANALYSIS REPORT

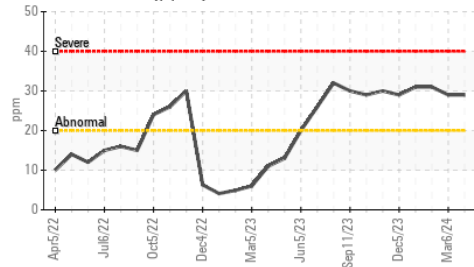
Glycol Contamination



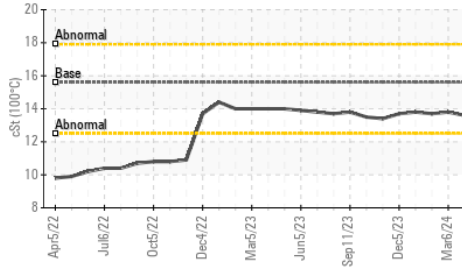
FT-IR (Direct Trend)



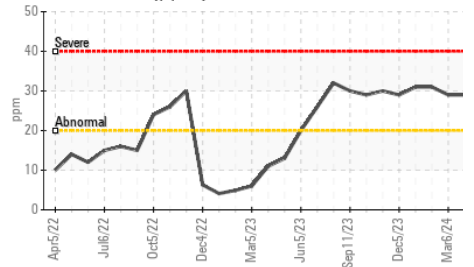
Aluminum (ppm)



Viscosity @ 100°C



Aluminum (ppm)

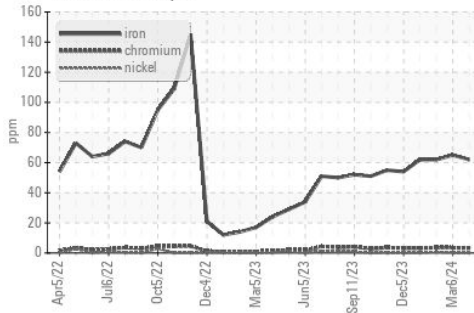


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

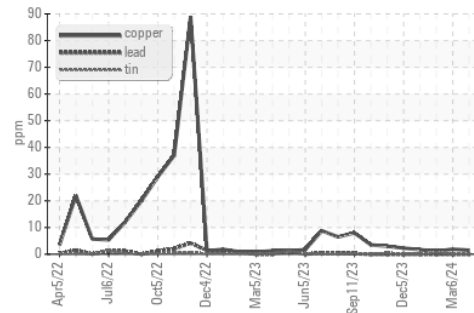
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.6	13.6	13.8

## GRAPHS

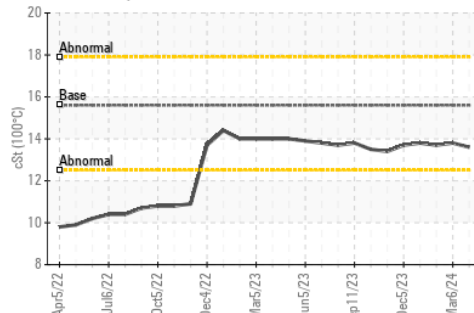
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0929932 **Received** : 15 Apr 2024  
**Lab Number** : 06149384 **Tested** : 17 Apr 2024  
**Unique Number** : 10979462 **Diagnosed** : 17 Apr 2024 - Don Baldrige  
**Test Package** : FLEET ( Additional Tests: Glycol )

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)

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