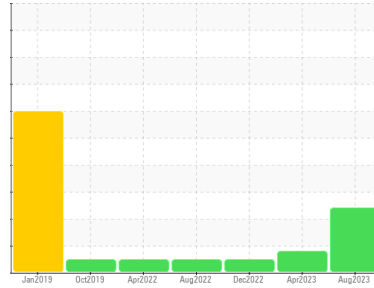


# OIL ANALYSIS REPORT



Area  
**KEMP QUARRIES / RIVER VALLEY ARKOMA**  
Machine Id  
**OHT102**  
Component  
**Front Left Final Drive**  
Fluid  
**MOBIL MOBILUBE HD 80W90 (--- GAL)**

Sample Rating Trend



**WEAR**



## DIAGNOSIS

### ▲ Recommendation

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

### ▲ Wear

Bearing and/or bushing wear is indicated.

### ▲ Contamination

Moderate concentration of visible dirt/debris present in the oil.

### ▲ Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. Confirm oil type. 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>PCA0083940</b>	PCA0070399	PCA0070470
Sample Date	Client Info	<b>22 Aug 2023</b>	20 Apr 2023	09 Dec 2022
Machine Age	hrs	<b>29115</b>	28531	27903
Oil Age	hrs	<b>29115</b>	28531	27510
Oil Changed	Client Info	<b>Changed</b>	Changed	Not Changed
Sample Status		<b>ABNORMAL</b>	ABNORMAL	NORMAL

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >800	<b>132</b>	260	241
Chromium	ppm	ASTM D5185m >10	<b>&lt;1</b>	2	2
Nickel	ppm	ASTM D5185m >5	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	1
Aluminum	ppm	ASTM D5185m >75	<b>&lt;1</b>	0	4
Lead	ppm	ASTM D5185m >10	<b>2</b>	0	0
Copper	ppm	ASTM D5185m >75	<b>▲ 160</b>	▲ 87	48
Tin	ppm	ASTM D5185m >8	<b>5</b>	3	2
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	<b>95</b>	208	216
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>2</b>	14	14
Manganese	ppm	ASTM D5185m	<b>1</b>	2	2
Magnesium	ppm	ASTM D5185m	<b>5</b>	3	2
Calcium	ppm	ASTM D5185m	<b>▲ 3523</b>	18	21
Phosphorus	ppm	ASTM D5185m	<b>953</b>	987	1006
Zinc	ppm	ASTM D5185m	<b>▲ 1091</b>	19	19
Sulfur	ppm	ASTM D5185m	<b>▲ 6758</b>	18684	22577

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >400	<b>18</b>	8	8
Sodium	ppm	ASTM D5185m	<b>1</b>	<1	0
Potassium	ppm	ASTM D5185m >20	<b>2</b>	<1	1

## VISUAL

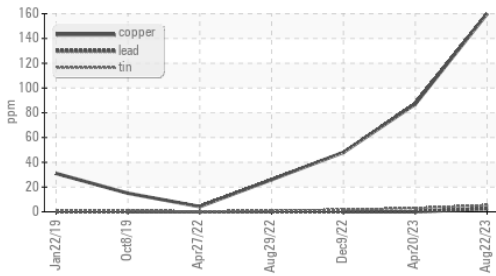
method	limit/base	current	history1	history2	
White Metal	scalar	*Visual NONE	<b>LIGHT</b>	NONE	NONE
Yellow Metal	scalar	*Visual NONE	<b>NONE</b>	MODER	MODER
Precipitate	scalar	*Visual NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	*Visual NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual NONE	<b>▲ MODER</b>	NONE	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

## FLUID PROPERTIES

method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D445 136	<b>190</b>	138	138

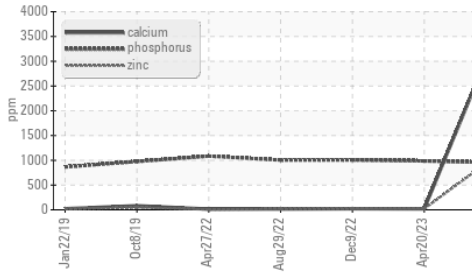
# OIL ANALYSIS REPORT

**▲ Non-ferrous Metals**



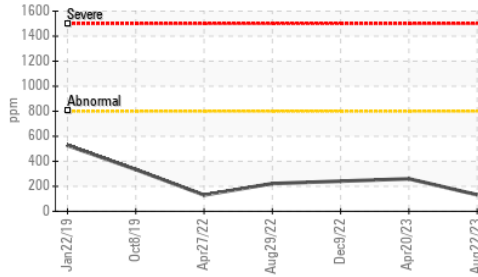
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color			no image	no image	no image
Bottom			no image	no image	no image

**▲ Additives**

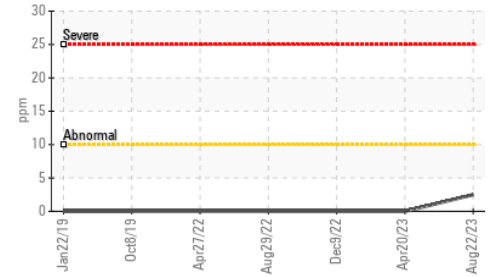


**GRAPHS**

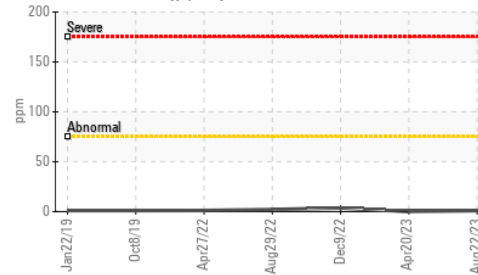
**Iron (ppm)**



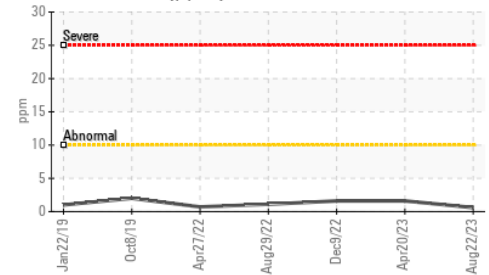
**Lead (ppm)**



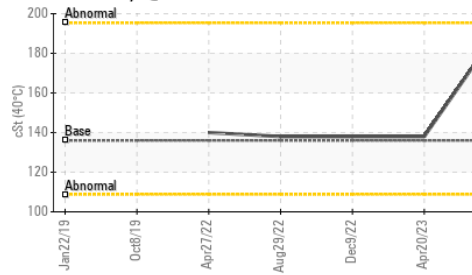
**Aluminum (ppm)**



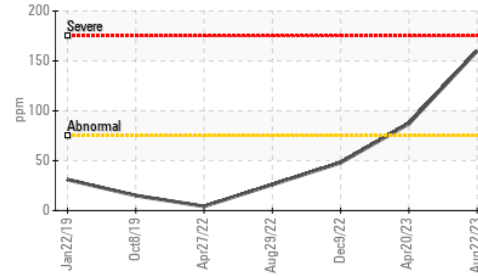
**Chromium (ppm)**



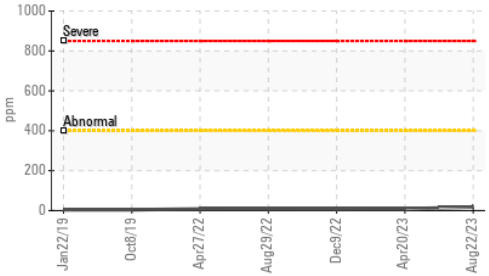
**Viscosity @ 40°C**



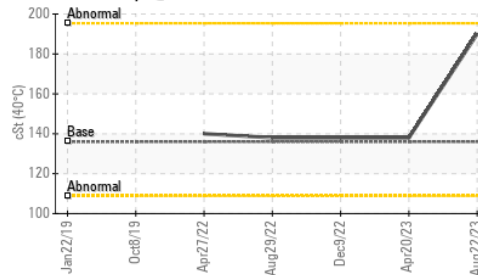
**▲ Copper (ppm)**



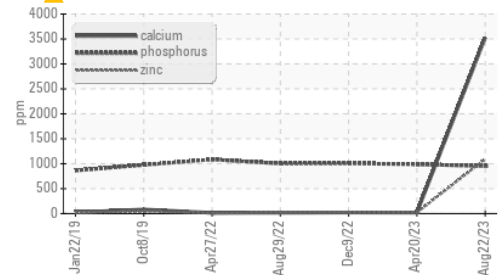
**Silicon (ppm)**



**Viscosity @ 40°C**



**▲ Additives**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0083940 **Received** : 28 Aug 2023  
**Lab Number** : 05936846 **Diagnosed** : 29 Aug 2023  
**Unique Number** : 10622117 **Diagnostician** : Sean Felton  
**Test Package** : MOB 1

**Kemp Quarries - River Valley - Arkoma**  
 12971 HWY 9a  
 Shawnee, OK  
 US 74804  
 Contact:

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)

arkomashop@kempquarries.net

T:

F: