



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Area  
**KEMP QUARRIES / RIVER VALLEY BACKBONE**  
Machine Id  
**WL088**  
Component  
**Diesel Engine**  
Fluid  
**MOBIL DELVAC 1300 SUPER15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PCA0108606</b>	PCA0069716	PCA0084831
Sample Date		Client Info		<b>23 May 2024</b>	30 Jan 2024	10 Nov 2023
Machine Age	hrs	Client Info		<b>43799</b>	43499	6716
Oil Age	hrs	Client Info		<b>300</b>	300	300
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>17</b>	24	7
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	1	0
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Aluminum	ppm	ASTM D5185m	>25	<b>1</b>	5	<1
Lead	ppm	ASTM D5185m	>40	<b>2</b>	2	1
Copper	ppm	ASTM D5185m	>330	<b>8</b>	2	2
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

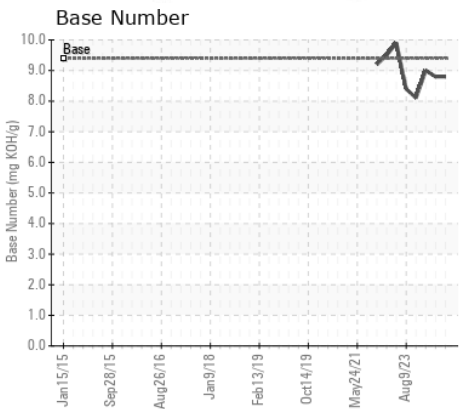
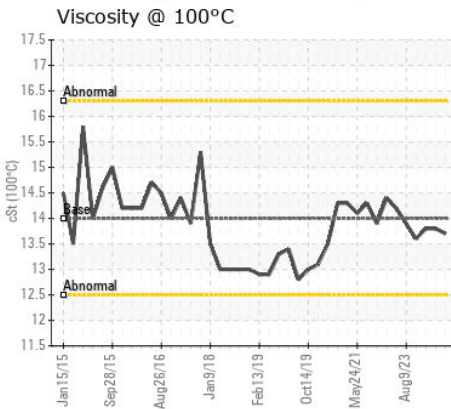
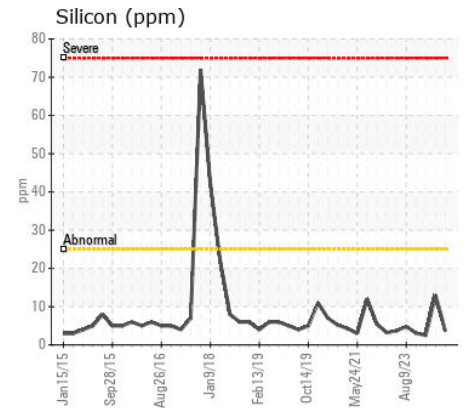
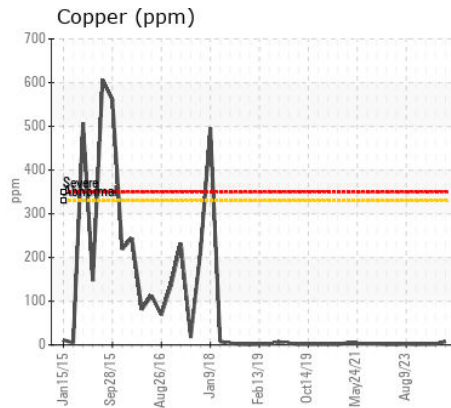
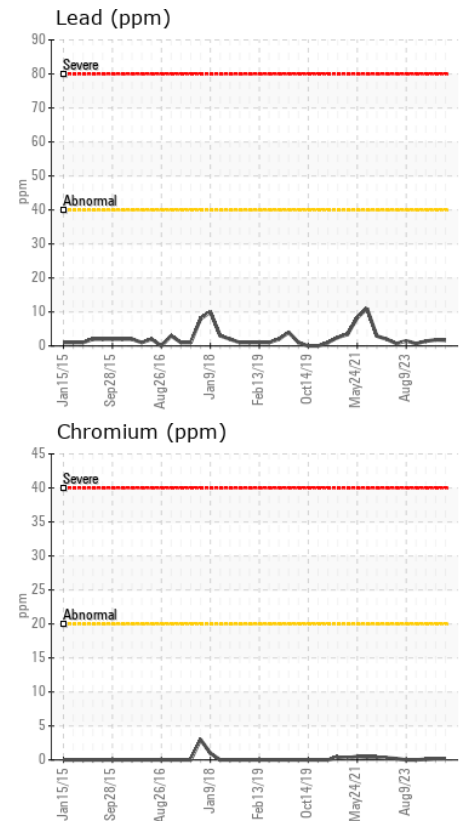
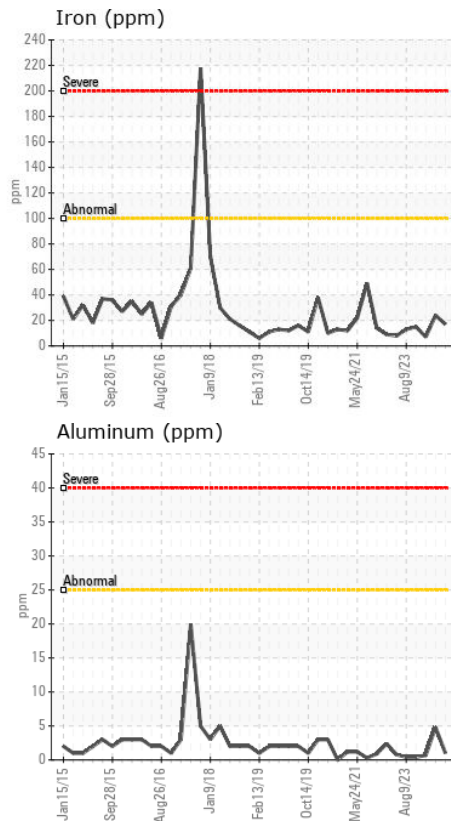
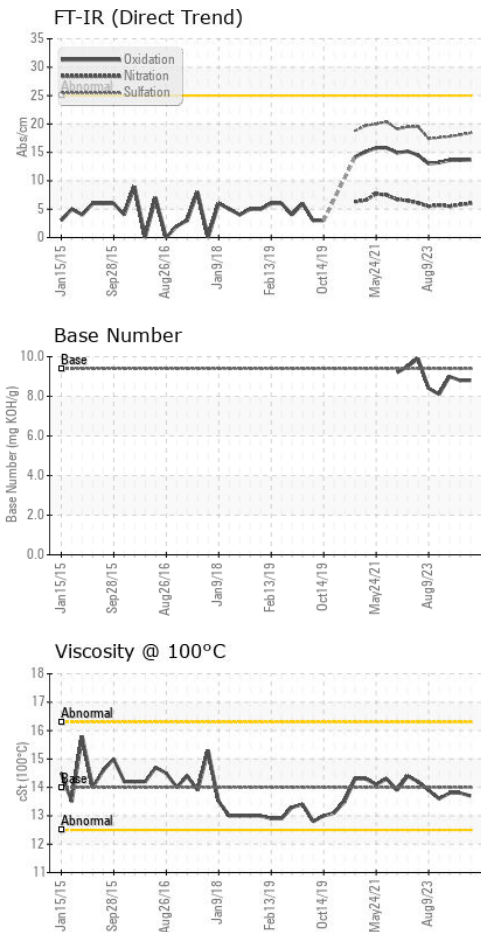
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	13	2
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	4	<1
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.3</b>	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.0</b>	5.8	5.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.4</b>	18.1	17.8
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

**FLUID CONDITION**

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	2	2
Boron	ppm	ASTM D5185m	0	<b>0</b>	0	0
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0	<b>61</b>	56	56
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m	0	<b>1068</b>	877	946
Calcium	ppm	ASTM D5185m		<b>1235</b>	1001	1037
Phosphorus	ppm	ASTM D5185m		<b>1149</b>	990	940
Zinc	ppm	ASTM D5185m		<b>1438</b>	1191	1213
Sulfur	ppm	ASTM D5185m		<b>3998</b>	3004	3018
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.7</b>	13.6	13.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.4	<b>8.8</b>	8.8	9.0
Visc @ 100°C	cSt	ASTM D445	14	<b>13.7</b>	13.8	13.8



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0108606  
**Lab Number** : 06193216  
**Unique Number** : 11049968  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**Kemp Quarries - River Valley - Backbone**  
 5600 S Hwy 253  
 Huntington, AR  
 US 72940  
 Contact:  
 backbone@rivervalleyquarries.com

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)