



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



Area  
**KEMP QUARRIES / RIVER VALLEY OZARK**  
Machine Id  
**OHT113**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PCA0084432</b>	PCA0084658	PCA0034791
Sample Date		Client Info		<b>20 Feb 2024</b>	01 May 2023	22 Dec 2022
Machine Age	hrs	Client Info		<b>26095</b>	25814	24551
Oil Age	hrs	Client Info		<b>24551</b>	24551	24551
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	Changed
Filter Changed		Client Info		<b>N/A</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>29</b>	30	26
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>2</b>	0	<1
Lead	ppm	ASTM D5185m	>40	<b>2</b>	2	2
Copper	ppm	ASTM D5185m	>330	<b>8</b>	4	2
Tin	ppm	ASTM D5185m	>15	<b>1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

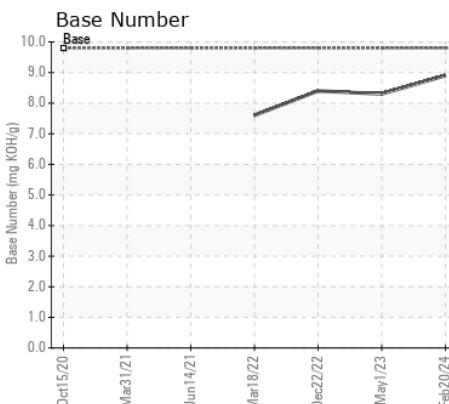
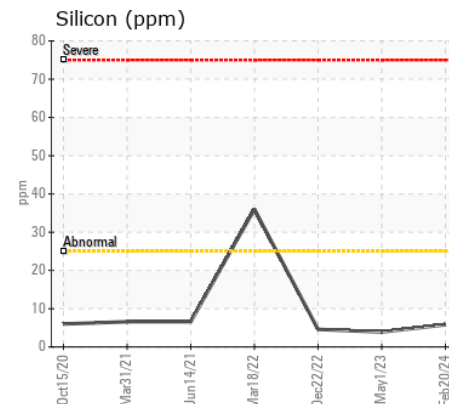
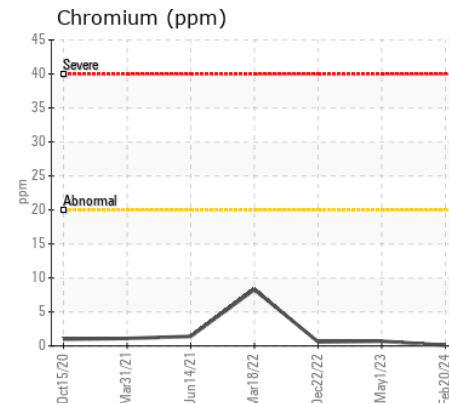
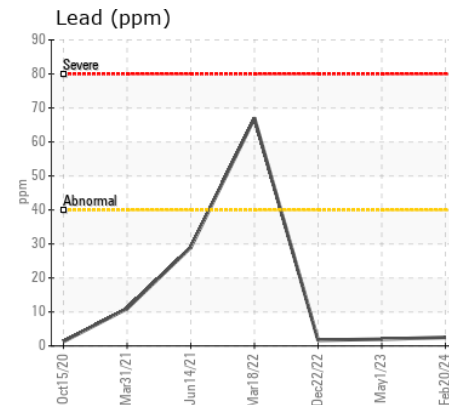
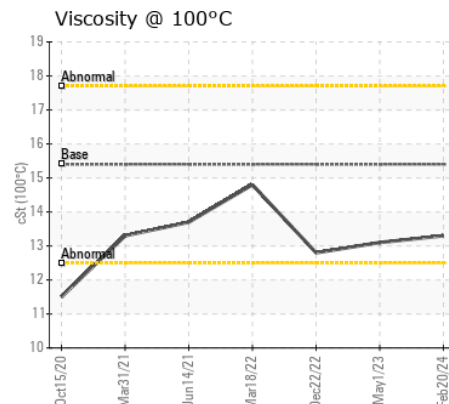
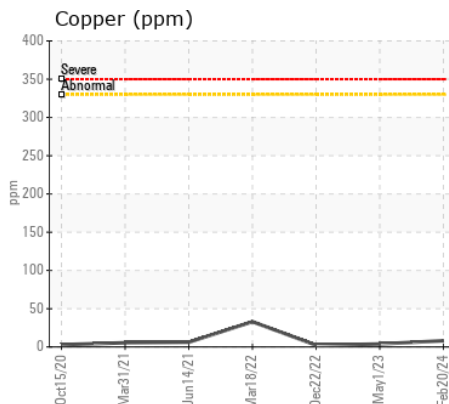
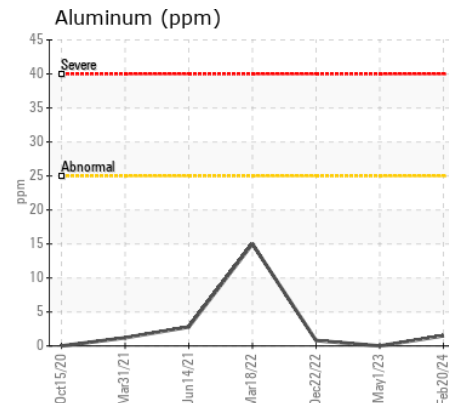
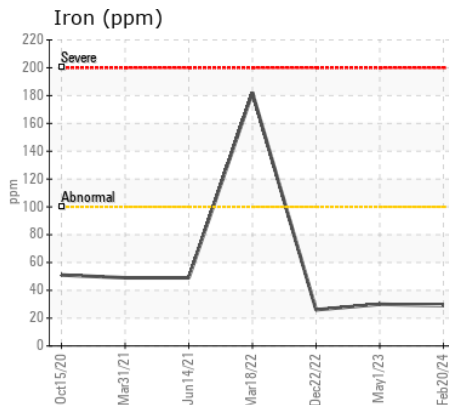
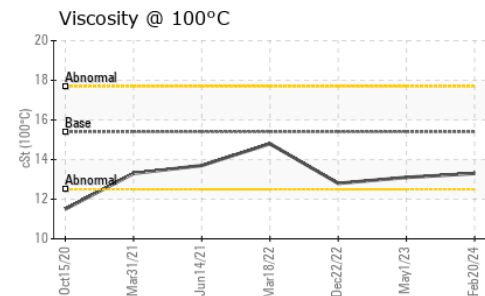
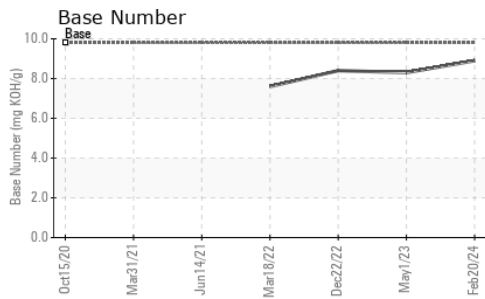
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	4	5
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	2	0
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>0.1</b>	0.5	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>5.4</b>	10.3	8.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>17.9</b>	23.8	20.8
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>6</b>	<1	2
Boron	ppm	ASTM D5185m	0	<b>3</b>	2	2
Barium	ppm	ASTM D5185m	0	<b>9</b>	2	0
Molybdenum	ppm	ASTM D5185m	60	<b>62</b>	68	58
Manganese	ppm	ASTM D5185m	0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>868</b>	1005	923
Calcium	ppm	ASTM D5185m	1070	<b>976</b>	1178	1105
Phosphorus	ppm	ASTM D5185m	1150	<b>993</b>	1106	1023
Zinc	ppm	ASTM D5185m	1270	<b>1129</b>	1380	1310
Sulfur	ppm	ASTM D5185m	2060	<b>3150</b>	3551	3541
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.6</b>	21.1	17.3
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.9</b>	8.3	8.4
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.3</b>	13.1	12.8



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : PCA0084432  
 Lab Number : 06100001  
 Unique Number : 10898231  
 Test Package : MOB 1 ( Additional Tests: TBN )

Received : 26 Feb 2024  
 Tested : 27 Feb 2024  
 Diagnosed : 27 Feb 2024 - Wes Davis

Kemp Quarries - River Valley - Ozark  
 9446 N Hwy 309  
 Ozark, AR  
 US 72949  
 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)

ozark@rivervalleyquarries.com

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