



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



Area  
**KEMP QUARRIES / BCS - GRAVETTE [69469]**  
Machine Id  
**WL134**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor. ( Customer Sample Comment: Pm2 )

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PCA0108564</b>	PCA0069812	PCA0084531
Sample Date		Client Info		<b>16 Apr 2024</b>	09 Jan 2024	27 Jul 2023
Machine Age	hrs	Client Info		<b>27092</b>	26117	26117
Oil Age	hrs	Client Info		<b>975</b>	26117	26117
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>30</b>	26	38
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>1</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>	1	2
Lead	ppm	ASTM D5185m	>40	<b>3</b>	3	3
Copper	ppm	ASTM D5185m	>330	<b>6</b>	3	8
Tin	ppm	ASTM D5185m	>15	<b>1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</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.

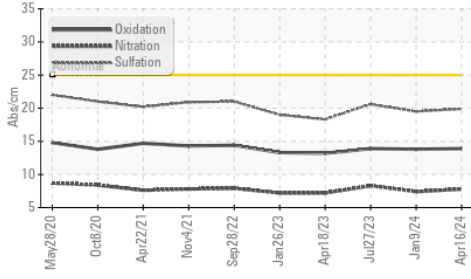
Silicon	ppm	ASTM D5185m	>25	<b>4</b>	3	5
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	<1	1
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>1.5</b>	1.3	1.9
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.8</b>	7.4	8.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.9</b>	19.5	20.6
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**

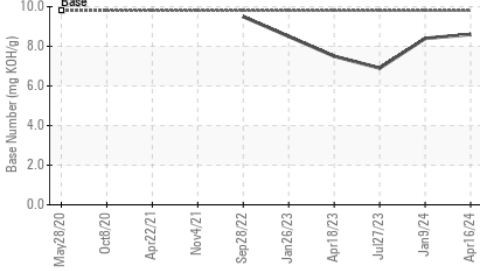
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>0</b>	<1	1
Boron	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	7
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>60</b>	50	54
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>878</b>	980	918
Calcium	ppm	ASTM D5185m	1070	<b>1052</b>	995	1147
Phosphorus	ppm	ASTM D5185m	1150	<b>989</b>	969	1024
Zinc	ppm	ASTM D5185m	1270	<b>1178</b>	1154	1274
Sulfur	ppm	ASTM D5185m	2060	<b>3327</b>	2816	3563
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.9</b>	13.8	13.9
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.6</b>	8.4	6.9
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.4</b>	13.6	13.8

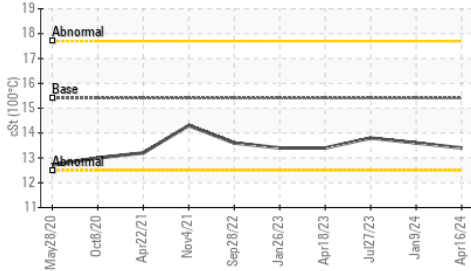
**FT-IR (Direct Trend)**



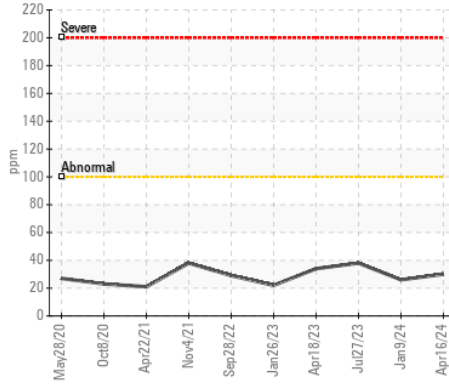
**Base Number**



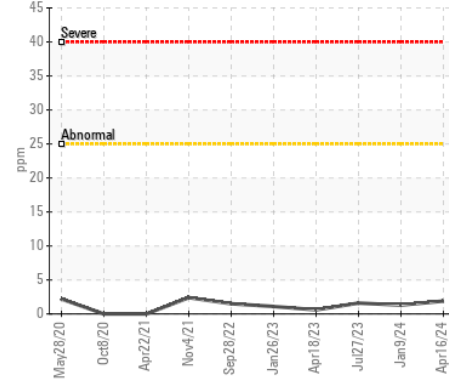
**Viscosity @ 100°C**



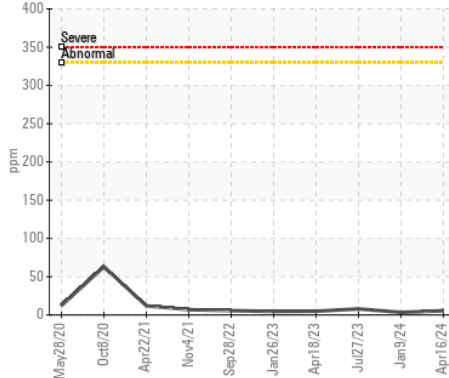
**Iron (ppm)**



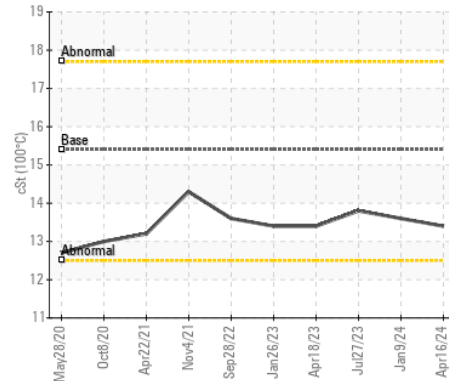
**Aluminum (ppm)**



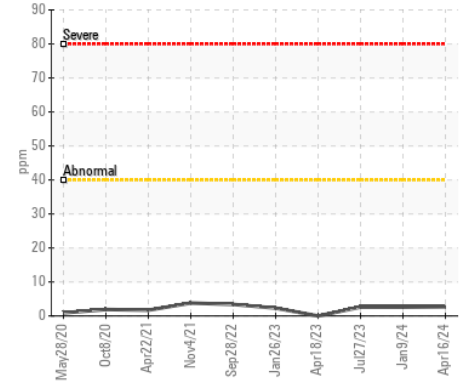
**Copper (ppm)**



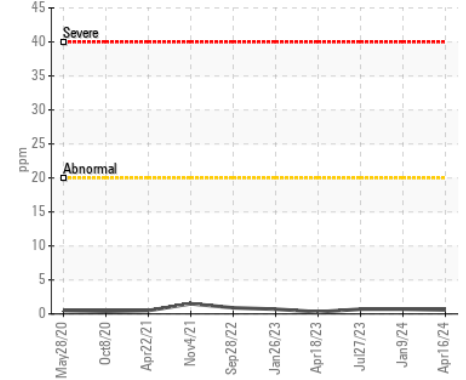
**Viscosity @ 100°C**



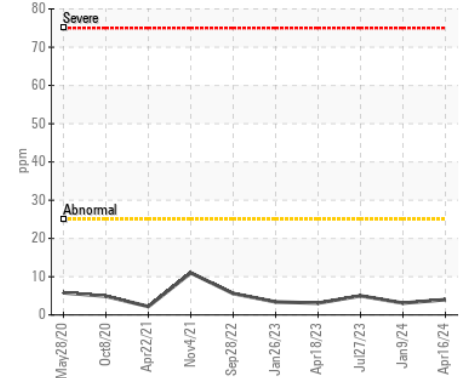
**Lead (ppm)**



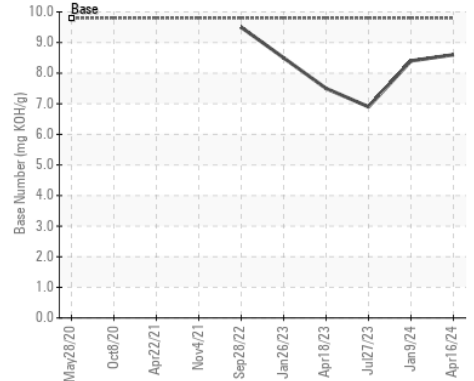
**Chromium (ppm)**



**Silicon (ppm)**



**Base Number**



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0108564 **Received** : 13 May 2024  
**Lab Number** : 06178046 **Tested** : 14 May 2024  
**Unique Number** : 11029372 **Diagnosed** : 15 May 2024 - Sean Felton  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**Kemp Quarries - Benton County Stone - Gravette**  
 15100 N Hwy 59  
 Sulphur Springs, AR  
 US 72768  
 Contact:  
 gravette@bentoncountystone.com  
 T:  
 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)