

Area
KEMP QUARRIES / KEMP STONE - FAIRLAND [70959]

Machine Id
WP023

Component
Diesel Engine

Fluid
PETRO CANADA DURON HP 15W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. (Customer Sample Comment: Changed fluid and filters)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PCA0108703	PCA0109315	PCA0086492
Sample Date		Client Info		09 May 2024	20 Mar 2024	07 Feb 2024
Machine Age	hrs	Client Info		2361	2029	1722
Oil Age	hrs	Client Info		2361	6384	1723
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	24	24	18
Chromium	ppm	ASTM D5185m	>11	1	<1	<1
Nickel	ppm	ASTM D5185m	>5	<1	<1	<1
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>31	3	3	2
Lead	ppm	ASTM D5185m	>26	2	3	<1
Copper	ppm	ASTM D5185m	>26	2	2	0
Tin	ppm	ASTM D5185m	>4	1	1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

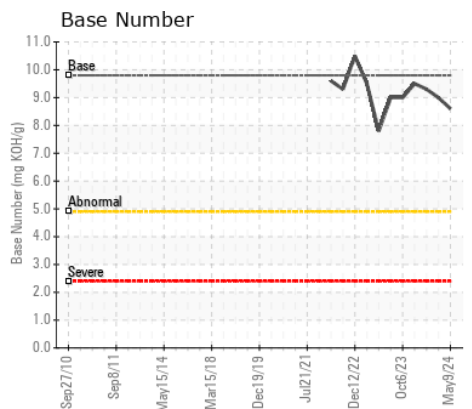
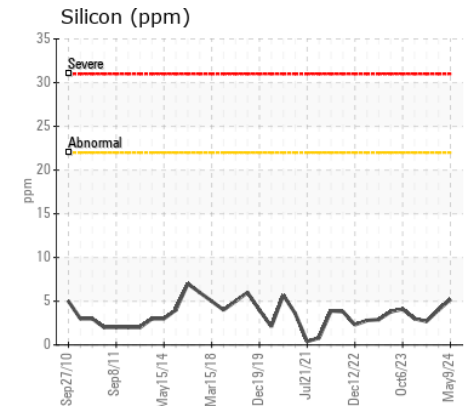
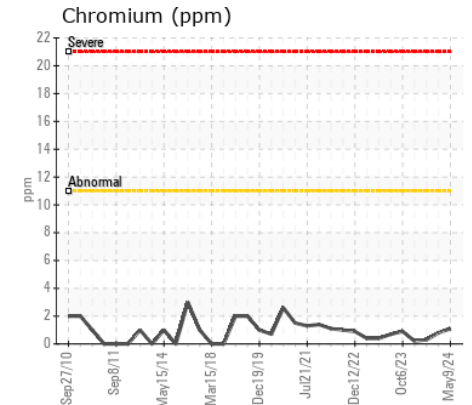
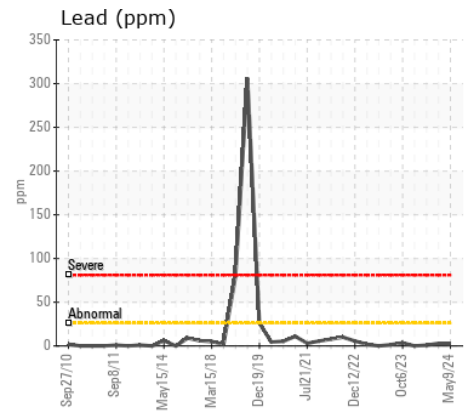
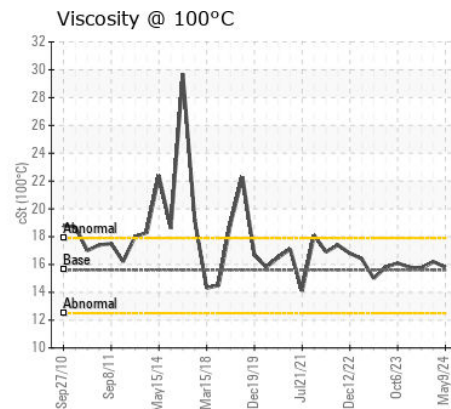
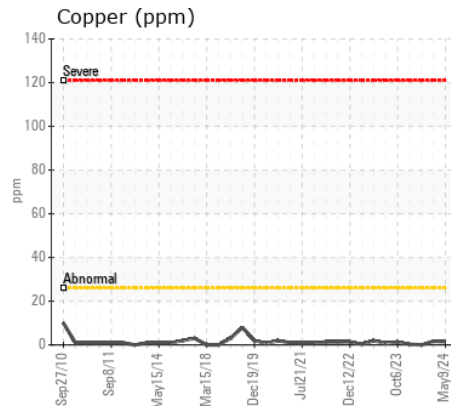
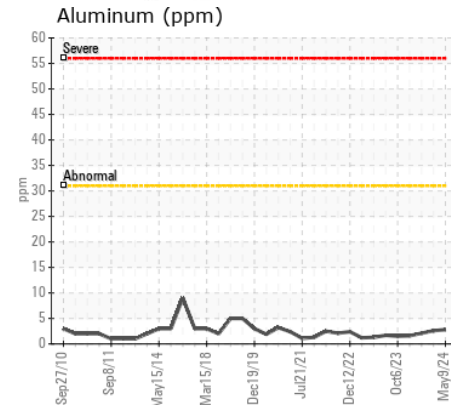
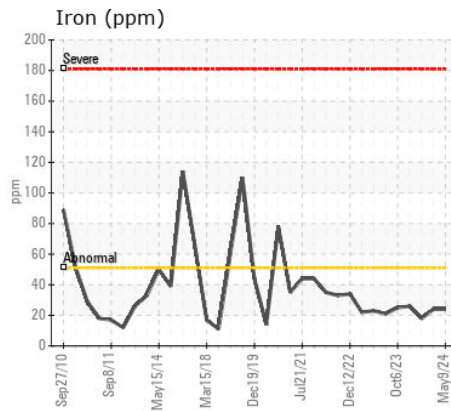
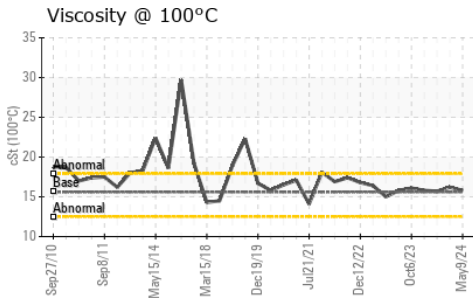
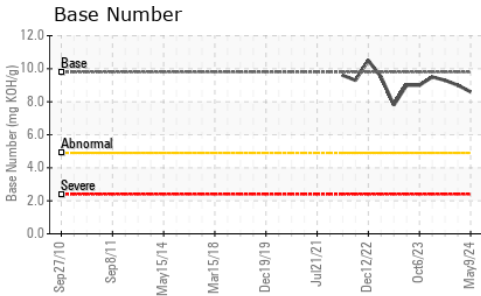
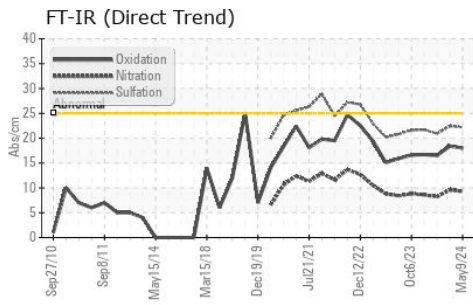
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	5	4	3
Potassium	ppm	ASTM D5185m	>20	2	2	<1
Fuel		WC Method	>2.1	<1.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1.1	1.4	0.8
Nitration	Abs/cm	*ASTM D7624	>20	9.3	9.6	8.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.2	22.4	20.9
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.21	NEG	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	>31	2	0	2
Boron	ppm	ASTM D5185m		1	0	3
Barium	ppm	ASTM D5185m		0	1	0
Molybdenum	ppm	ASTM D5185m		75	73	68
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		1150	1089	1108
Calcium	ppm	ASTM D5185m		1273	1298	1169
Phosphorus	ppm	ASTM D5185m		1160	1147	1176
Zinc	ppm	ASTM D5185m		1442	1422	1457
Sulfur	ppm	ASTM D5185m		3415	3468	3345
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.0	18.4	16.5
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.6	9.0	9.3
Visc @ 100°C	cSt	ASTM D445	15.6	15.8	16.2	15.7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0108703
Lab Number : 06189905
Unique Number : 11046657
Test Package : MOB 1 (Additional Tests: TBN)

Received : 23 May 2024
Tested : 25 May 2024
Diagnosed : 29 May 2024 - Sean Felton

Kemp Quarries - Kemp Stone - Fairland
 18350 S 590 Rd
 Fairland, OK
 US 74343
 Contact: FAIRLAND NOTIFICATIONS
 fairland@kempstone.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)

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