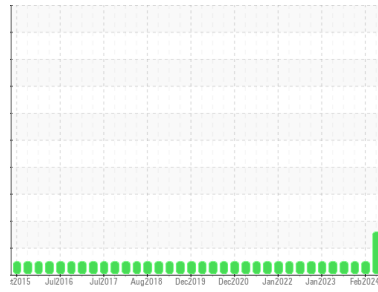


OIL ANALYSIS REPORT



Area
KEMP QUARRIES / PRYOR STONE [70214]
 Machine Id
OHT085
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

Sample Rating Trend



ADDITIVES



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. (Customer Sample Comment: Pm2 performed. All oil samples taken. Engine oil, transmission oil, and all filters changed.)

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

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.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PCA0108877	PCA0086331	PCA0084308
Sample Date	Client Info		24 Jun 2024	19 Feb 2024	03 Nov 2023
Machine Age	hrs	Client Info	15404	14934	14433
Oil Age	hrs	Client Info	470	501	538
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			ATTENTION	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	<1.0	<1.0
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	42	22	17
Chromium	ppm	ASTM D5185m >20	1	<1	<1
Nickel	ppm	ASTM D5185m >2	<1	<1	0
Titanium	ppm	ASTM D5185m >2	1	0	<1
Silver	ppm	ASTM D5185m >2	<1	0	0
Aluminum	ppm	ASTM D5185m >25	3	2	1
Lead	ppm	ASTM D5185m >40	2	1	1
Copper	ppm	ASTM D5185m >330	2	<1	<1
Tin	ppm	ASTM D5185m >15	<1	<1	<1
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	<1	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	4	1	0
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 60	80	66	62
Manganese	ppm	ASTM D5185m 0	1	<1	<1
Magnesium	ppm	ASTM D5185m 1010	1350	1047	982
Calcium	ppm	ASTM D5185m 1070	1443	1180	1074
Phosphorus	ppm	ASTM D5185m 1150	1463	1173	1066
Zinc	ppm	ASTM D5185m 1270	1747	1332	1303
Sulfur	ppm	ASTM D5185m 2060	4526	3641	3150

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	6	5	5
Sodium	ppm	ASTM D5185m	3	2	2
Potassium	ppm	ASTM D5185m >20	3	<1	1

INFRA-RED

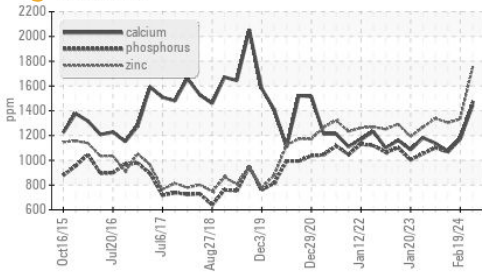
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.9	0.6	0.6
Nitration	Abs/cm	*ASTM D7624 >20	7.2	7.2	7.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	19.6	19.2	19.7

FLUID DEGRADATION

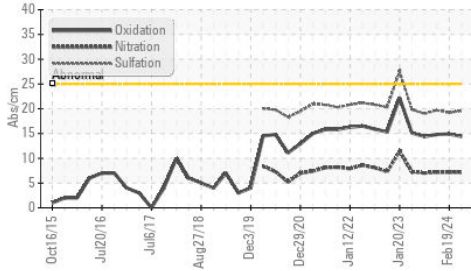
	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	14.4	14.9	14.8
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	8.7	8.6	8.6

OIL ANALYSIS REPORT

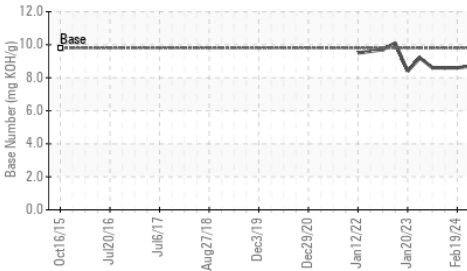
Additives



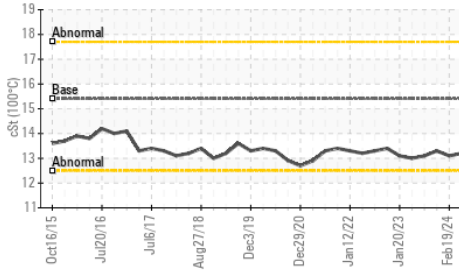
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C



VISUAL

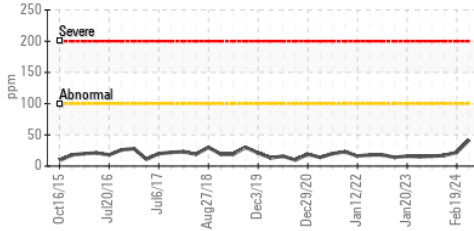
	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES

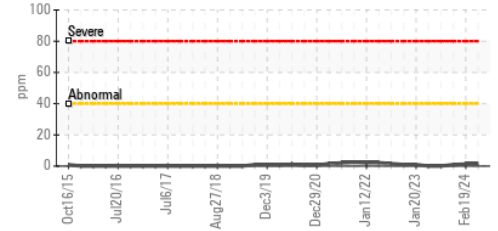
	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.2	13.1

GRAPHS

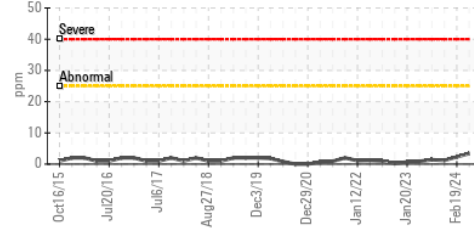
Iron (ppm)



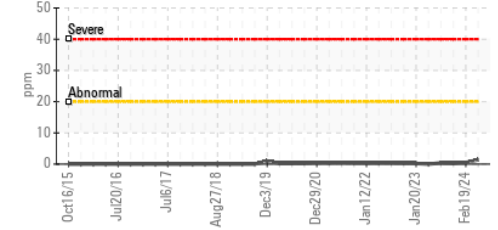
Lead (ppm)



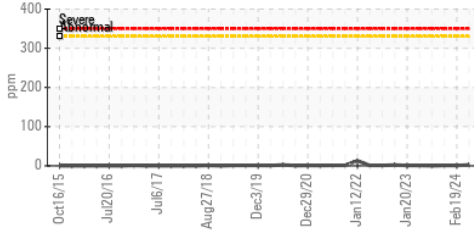
Aluminum (ppm)



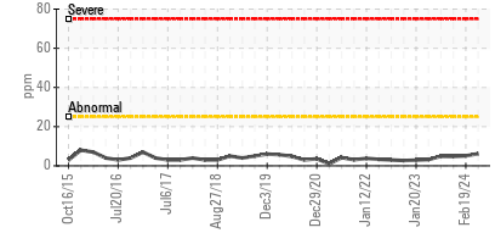
Chromium (ppm)



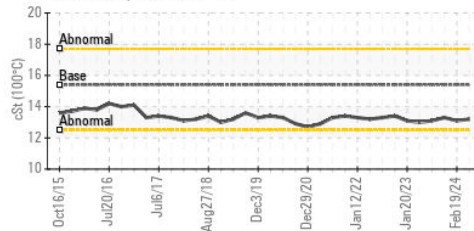
Copper (ppm)



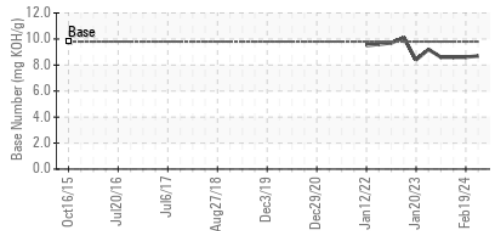
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : PCA0108877

Lab Number : 06229713

Unique Number : 11113206

Test Package : MOB 1 (Additional Tests: TBN)

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)

Received : 08 Jul 2024

Tested : 09 Jul 2024

Diagnosed : 09 Jul 2024 - Sean Felton

Kemp Quarries - Pryor Stone - Pryor

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Pryor, OK

US 74361

Contact:

pryor@pryorstone.com

T:

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