



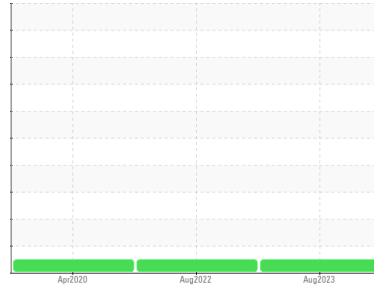
OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
KEMP QUARRIES / PRYOR STONE
 Machine Id
LFT013
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)



DIAGNOSIS

Recommendation
 Resample at the next service interval to monitor. (Customer Sample Comment: Changed fluid and filters)

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		PCA0086453	PCA0062422	PCA0010896
Sample Date	Client Info		21 Aug 2023	04 Aug 2022	06 Apr 2020
Machine Age	hrs	Client Info	3832	2970	2970
Oil Age	hrs	Client Info	3832	3520	435
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

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

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >250	16	21	20
Chromium	ppm	ASTM D5185m >10	<1	<1	1
Nickel	ppm	ASTM D5185m >5	<1	<1	2
Titanium	ppm	ASTM D5185m	0	<1	<1
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >35	6	4	8
Lead	ppm	ASTM D5185m >100	0	<1	<1
Copper	ppm	ASTM D5185m >60	3	4	5
Tin	ppm	ASTM D5185m >5	<1	<1	<1
Antimony	ppm	ASTM D5185m	---	---	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	2	9	72
Barium	ppm	ASTM D5185m 0	0	0	<1
Molybdenum	ppm	ASTM D5185m 60	68	63	49
Manganese	ppm	ASTM D5185m 0	<1	<1	<1
Magnesium	ppm	ASTM D5185m 1010	1062	983	521
Calcium	ppm	ASTM D5185m 1070	1184	1109	1837
Phosphorus	ppm	ASTM D5185m 1150	1154	1102	796
Zinc	ppm	ASTM D5185m 1270	1411	1289	959
Sulfur	ppm	ASTM D5185m 2060	4099	3457	2353

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >35	6	9	14
Sodium	ppm	ASTM D5185m	1	4	5
Potassium	ppm	ASTM D5185m >20	0	<1	1

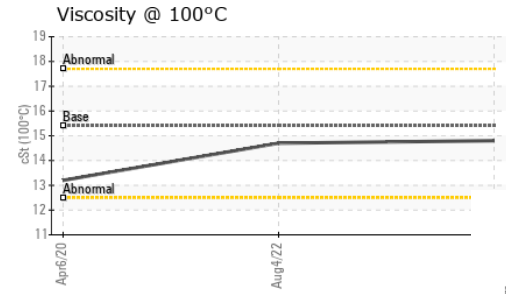
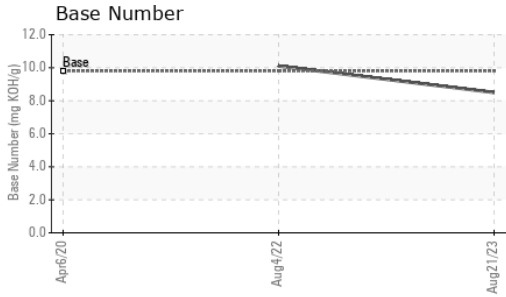
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.2	0.2	0.3
Nitration	Abs/cm	*ASTM D7624 >20	7.4	7.7	8.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	17.7	19.1	21.1

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	14.0	15.2	20.9
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	8.5	10.1	---

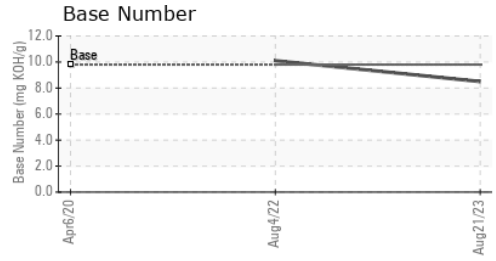
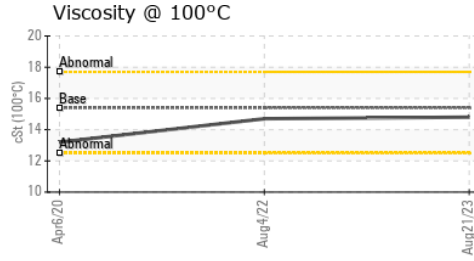
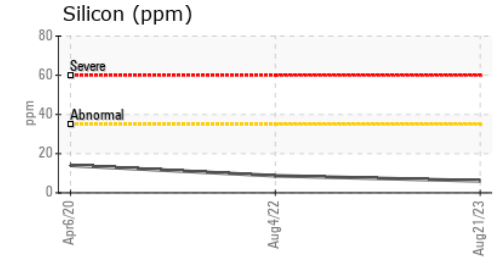
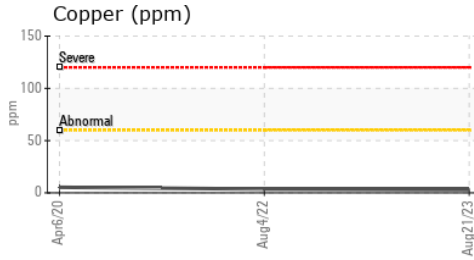
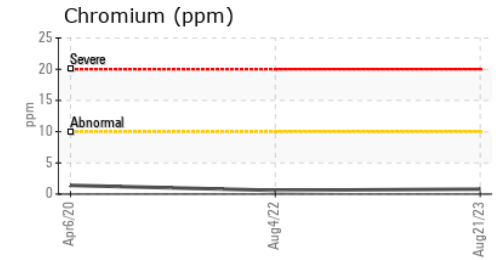
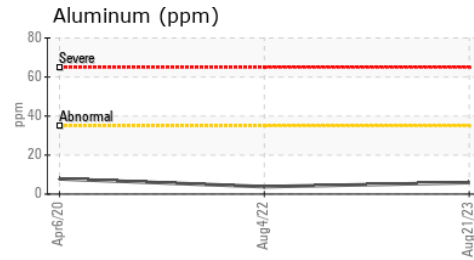
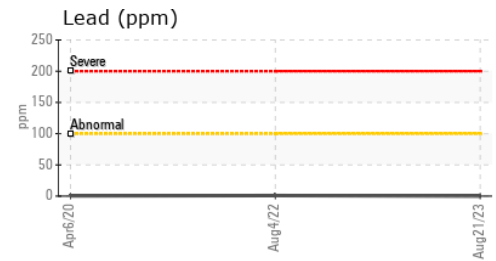
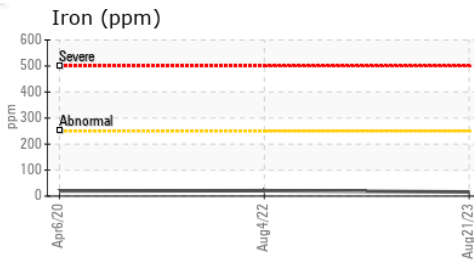
OIL ANALYSIS REPORT



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	14.8	14.7	13.2

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0086453 **Received** : 25 Aug 2023
Lab Number : 05935205 **Diagnosed** : 28 Aug 2023
Unique Number : 10620476 **Diagnostician** : Don Baldrige
Test Package : MOB 1 (Additional Tests: TBN)

Kemp Quarries - Pryor Stone - Pryor
 1050 E 520 Rd
 Pryor, OK
 US 74361
 Contact:
 pryor@pryorstone.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)