

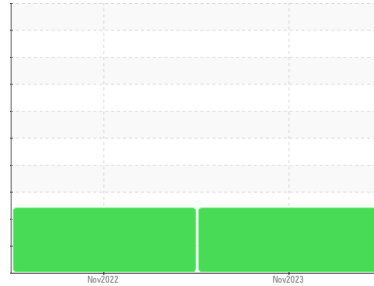
OIL ANALYSIS REPORT

Sample Rating Trend

FUEL



Area
KEMP QUARRIES / BCS - GRAVETTE [63733]
 Machine Id
CRN027
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)



DIAGNOSIS

Recommendation
 We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. (Customer Sample Comment: PM-1 changed fluids and filter)

Wear
 All component wear rates are normal.

Contamination
 There is a high amount of fuel present in the oil.

Fluid Condition
 Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PCA0084771	PCA0062070	---
Sample Date	Client Info		30 Nov 2023	16 Nov 2022	---
Machine Age	hrs	Client Info	243	104	---
Oil Age	hrs	Client Info	139	104	---
Oil Changed	Client Info		Changed	Changed	---
Sample Status			SEVERE	SEVERE	---

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG	---
Glycol	WC Method		NEG	NEG	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	23	32	---
Chromium	ppm	ASTM D5185m >20	<1	1	---
Nickel	ppm	ASTM D5185m >4	<1	0	---
Titanium	ppm	ASTM D5185m	<1	<1	---
Silver	ppm	ASTM D5185m >3	0	0	---
Aluminum	ppm	ASTM D5185m >20	2	2	---
Lead	ppm	ASTM D5185m >40	4	5	---
Copper	ppm	ASTM D5185m >330	6	5	---
Tin	ppm	ASTM D5185m >15	1	1	---
Vanadium	ppm	ASTM D5185m	0	0	---
Cadmium	ppm	ASTM D5185m	0	0	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<1	0	---
Barium	ppm	ASTM D5185m 0	0	0	---
Molybdenum	ppm	ASTM D5185m 60	52	56	---
Manganese	ppm	ASTM D5185m 0	0	<1	---
Magnesium	ppm	ASTM D5185m 1010	811	856	---
Calcium	ppm	ASTM D5185m 1070	934	1017	---
Phosphorus	ppm	ASTM D5185m 1150	888	943	---
Zinc	ppm	ASTM D5185m 1270	1059	1102	---
Sulfur	ppm	ASTM D5185m 2060	2815	3196	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	4	6	---
Sodium	ppm	ASTM D5185m	3	0	---
Potassium	ppm	ASTM D5185m >20	2	0	---
Fuel	%	ASTM D3524 >5	14.8	11.6	---

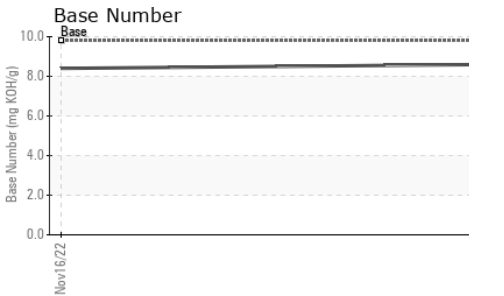
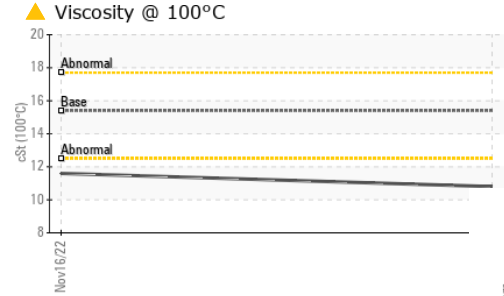
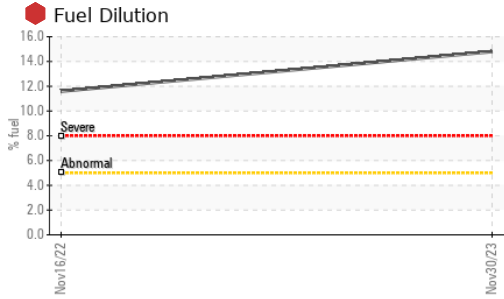
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.1	0.1	---
Nitration	Abs/cm	*ASTM D7624 >20	9.0	10.8	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	19.0	22.1	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	16.6	20.9	---
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	8.6	8.4	---

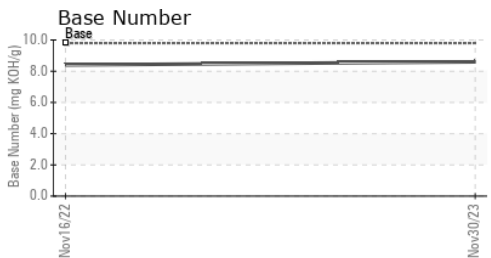
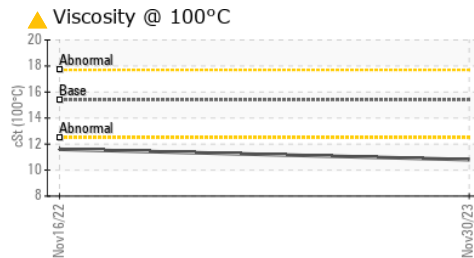
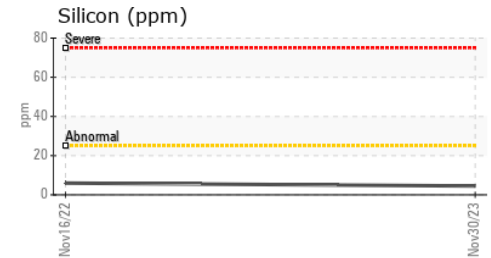
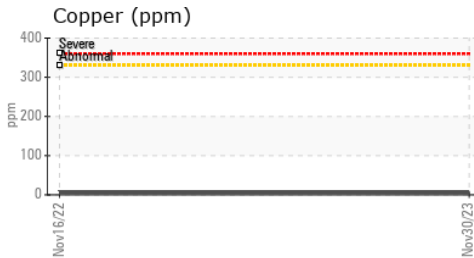
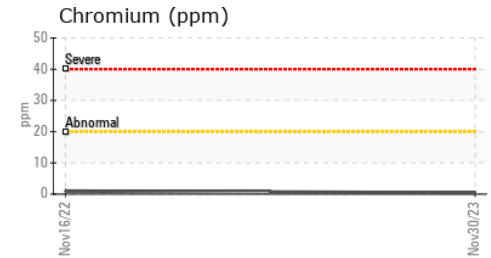
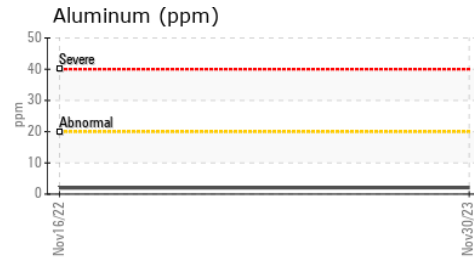
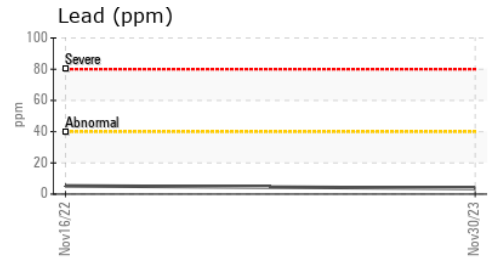
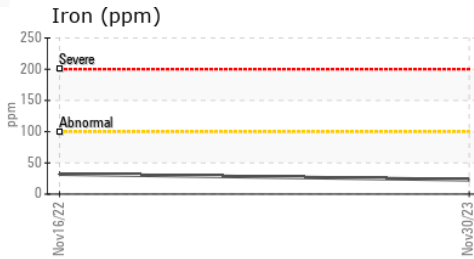
OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	▲ 10.8	▲ 11.6	---

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0084771 **Recieved** : 19 Dec 2023
Lab Number : 06039034 **Diagnosed** : 22 Dec 2023
Unique Number : 10794263 **Diagnostician** : Sean Felton
Test Package : MOB 1 (Additional Tests: PercentFuel, TBN)

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