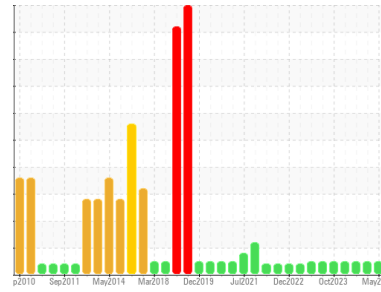


OIL ANALYSIS REPORT

Area
KEMP QUARRIES / KEMP STONE - FAIRLAND [70959]
 Machine Id
WP023
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON HP 15W40 (--- GAL)

Sample Rating Trend



DIAGNOSIS

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)

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		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
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
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

WEAR METALS

	method	limit/base	current	history1	history2
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
Cadmium	ppm	ASTM D5185m	<1	<1	0

ADDITIVES

	method	limit/base	current	history1	history2
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

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >22	5	4	3
Sodium	ppm	ASTM D5185m >31	2	0	2
Potassium	ppm	ASTM D5185m >20	2	2	<1

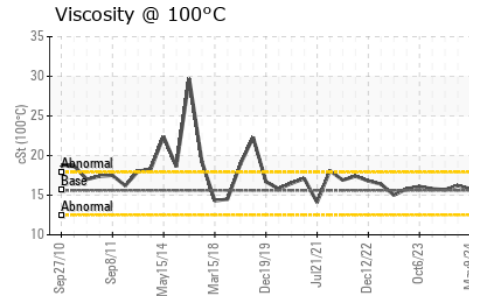
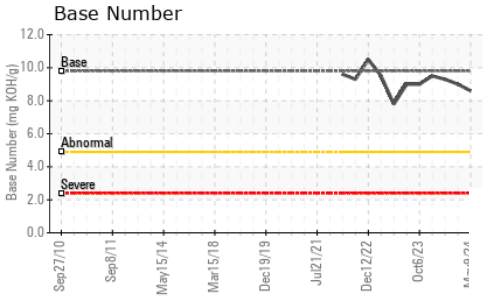
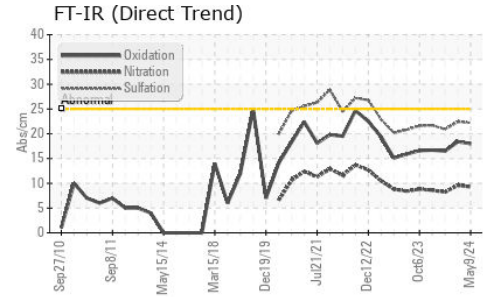
INFRA-RED

	method	limit/base	current	history1	history2
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

FLUID DEGRADATION

	method	limit/base	current	history1	history2
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

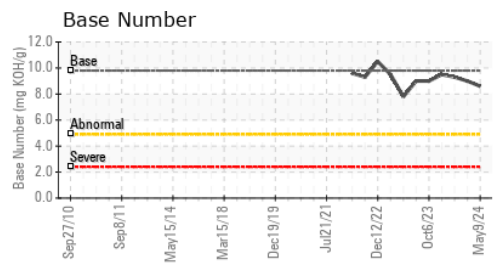
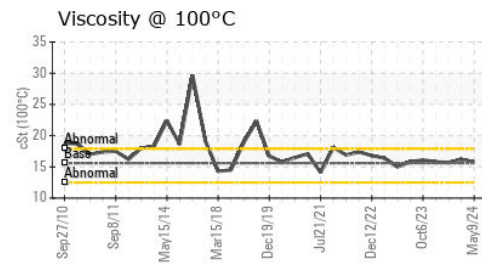
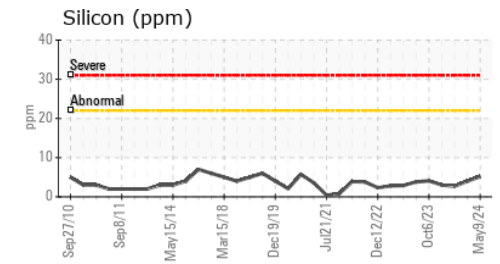
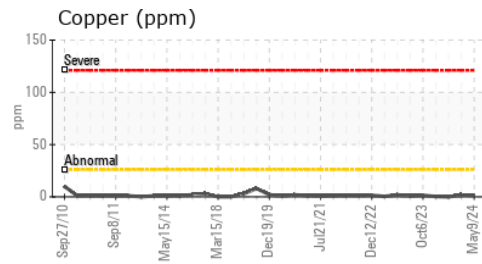
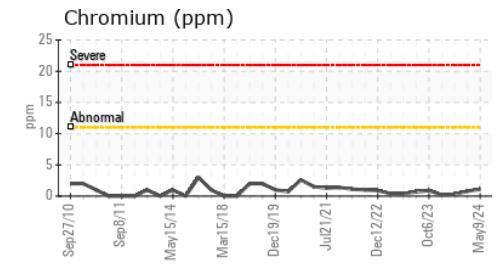
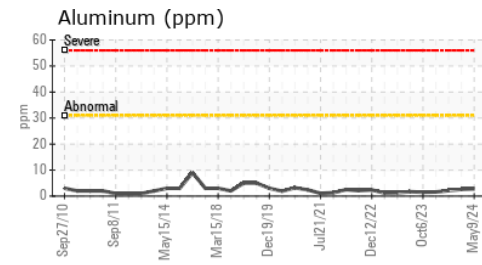
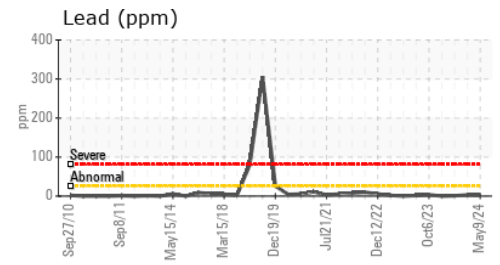
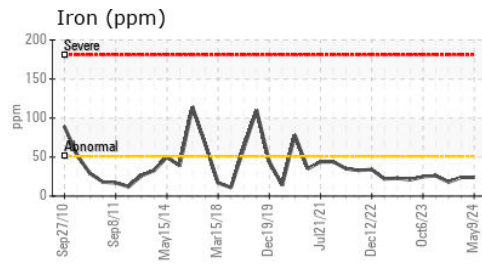
OIL ANALYSIS REPORT



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	>0.21	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.6	15.8	16.2	15.7

GRAPHS



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)