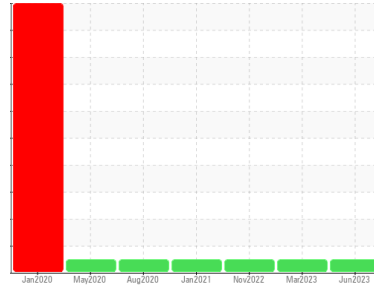


OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
KEMP QUARRIES / KEMP STONE - FAIRLAND
Machine Id
OHT108
Component
Diesel Engine
Fluid
MOBIL DELVAC 1300 SUPER15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. (Customer Sample Comment: PM-2 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	history 1	history 2
Sample Number	Client Info		PCA0086376	PCA0086031	PCA0062079
Sample Date	Client Info		27 Jun 2023	22 Mar 2023	23 Nov 2022
Machine Age	hrs	Client Info	22548	22088	21621
Oil Age	hrs	Client Info	22548	22088	0
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history 1	history 2
Fuel	WC Method	>5	<1.0	<1.0	<1.0
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m >100	54	42	55
Chromium	ppm	ASTM D5185m >6	2	2	3
Nickel	ppm	ASTM D5185m >4	0	<1	0
Titanium	ppm	ASTM D5185m >2	<1	<1	<1
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >30	<1	4	2
Lead	ppm	ASTM D5185m >10	8	3	11
Copper	ppm	ASTM D5185m >150	11	9	15
Tin	ppm	ASTM D5185m >4	<1	<1	<1
Antimony	ppm	ASTM D5185m	---	---	---
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m 0	2	33	3
Barium	ppm	ASTM D5185m 0	0	<1	0
Molybdenum	ppm	ASTM D5185m 0	60	57	65
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m 0	1010	823	991
Calcium	ppm	ASTM D5185m	1251	1266	1273
Phosphorus	ppm	ASTM D5185m	1072	1025	1117
Zinc	ppm	ASTM D5185m	1366	1233	1395
Sulfur	ppm	ASTM D5185m	3828	3083	3684

CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m >20	9	11	11
Sodium	ppm	ASTM D5185m	3	0	2
Potassium	ppm	ASTM D5185m >20	1	3	2

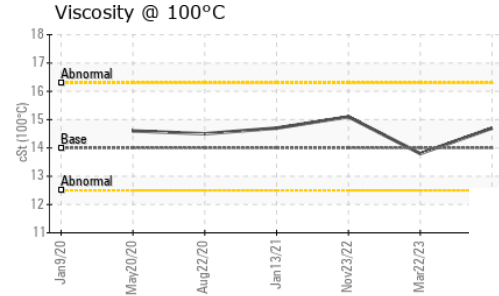
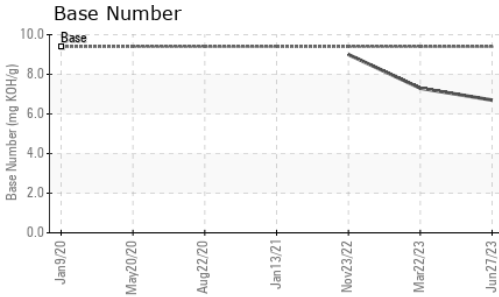
INFRA-RED

	method	limit/base	current	history 1	history 2
Soot %	%	*ASTM D7844 >3	1.3	1.3	1.2
Nitration	Abs/cm	*ASTM D7624 >20	10.0	11.7	12.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	24.0	24.2	27.0

FLUID DEGRADATION

	method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	*ASTM D7414 >25	19.7	19.0	22.2
Base Number (BN)	mg KOH/g	ASTM D2896 9.4	6.7	7.3	9.0

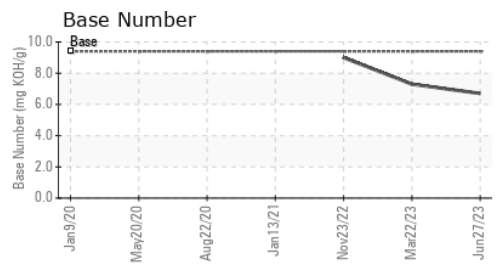
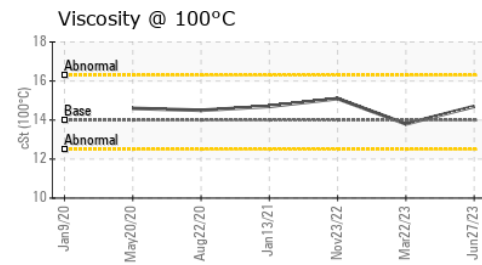
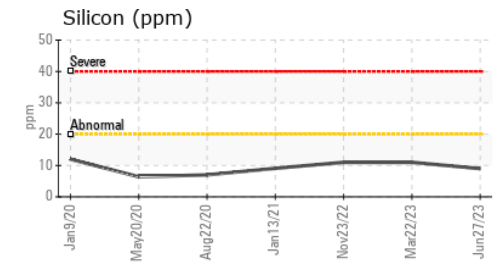
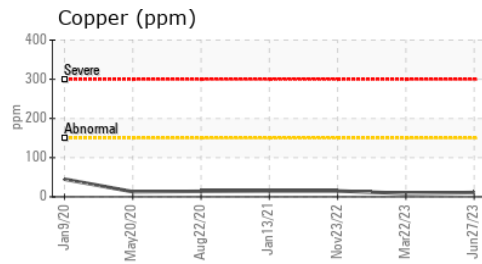
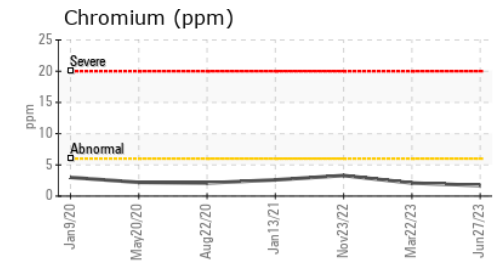
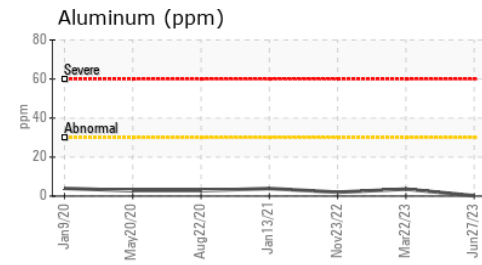
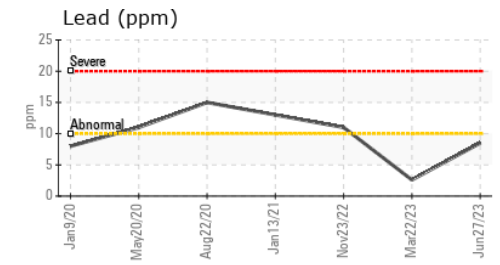
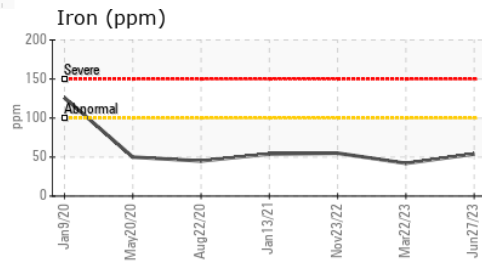
OIL ANALYSIS REPORT



PARAMETER	method	limit/base	current	history 1	history 2
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	history 1	history 2
Visc @ 100°C	cSt	ASTM D445 14	14.7	13.8	15.1

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0086376 **Received** : 03 Jul 2023
Lab Number : 05889643 **Diagnosed** : 06 Jul 2023
Unique Number : 10540126 **Diagnostician** : Don Baldrige
Test Package : MOB 1 (Additional Tests: TBN)

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

Certificate L2367
 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)