



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
KEMP QUARRIES / KEMP STONE - FAIRLAND [68773]
Machine Id
OHT042
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. (Customer Sample Comment: PM-4 changed fluid and filters)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PCA0108702	PCA0037559	PCA0025433
Sample Date		Client Info		15 May 2024	21 Apr 2022	24 Jan 2022
Machine Age	hrs	Client Info		26970	26463	26022
Oil Age	hrs	Client Info		26970	26463	26022
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	86	69	65
Chromium	ppm	ASTM D5185m	>20	2	1	1
Nickel	ppm	ASTM D5185m	>2	2	1	<1
Titanium	ppm	ASTM D5185m	>2	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	<1	<1	<1
Aluminum	ppm	ASTM D5185m	>25	4	2	2
Lead	ppm	ASTM D5185m	>40	6	5	12
Copper	ppm	ASTM D5185m	>330	38	171	▲ 647
Tin	ppm	ASTM D5185m	>15	4	3	3
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

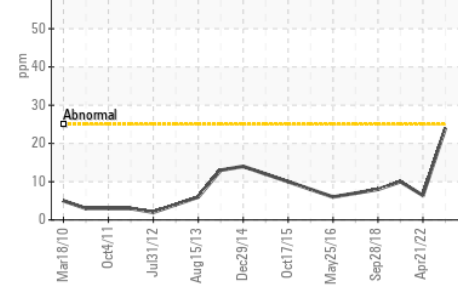
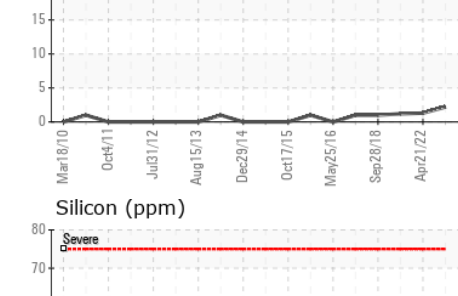
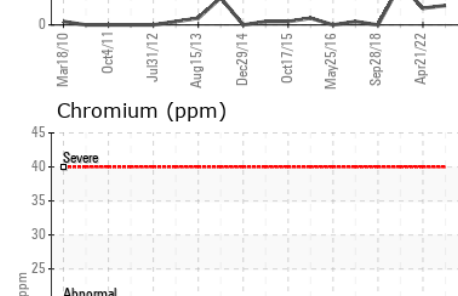
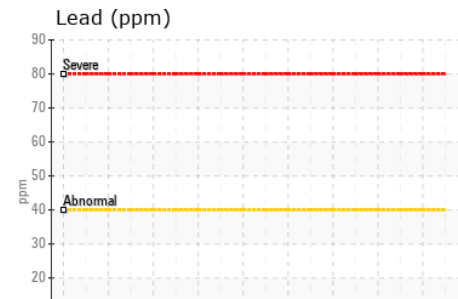
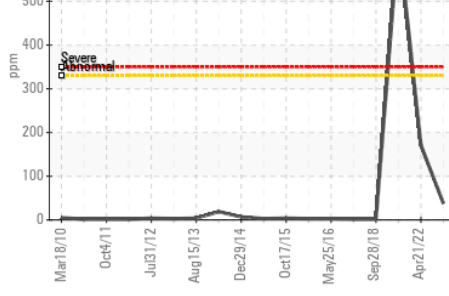
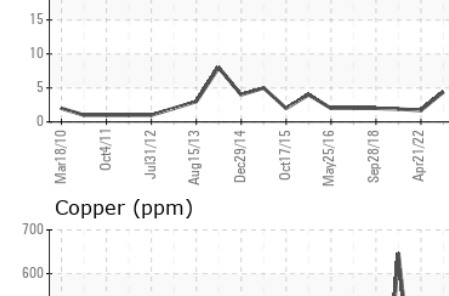
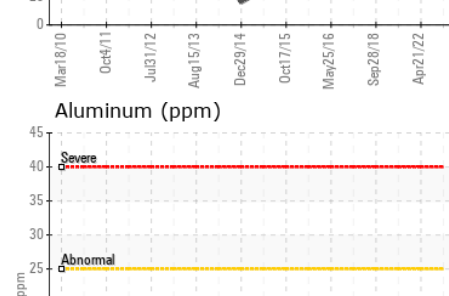
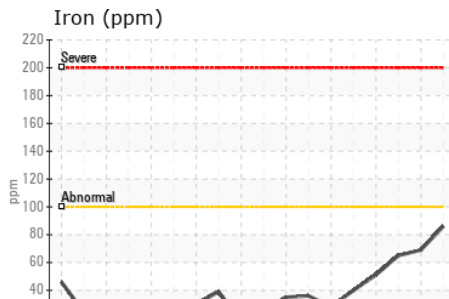
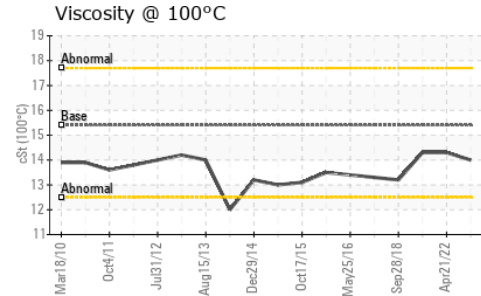
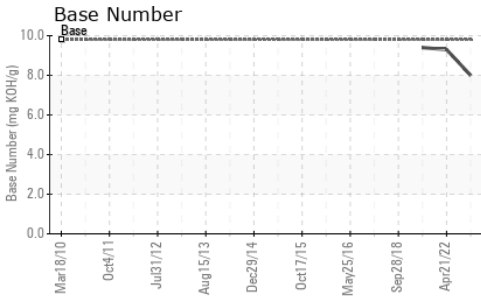
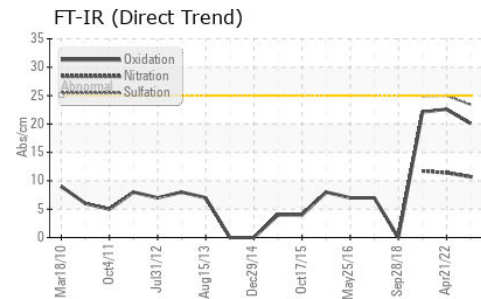
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	24	6	10
Potassium	ppm	ASTM D5185m	>20	2	1	<1
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1.2	1.1	1.3
Nitration	Abs/cm	*ASTM D7624	>20	10.7	11.4	11.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.4	25	24.9
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

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.

Sodium	ppm	ASTM D5185m		14	26	● 87
Boron	ppm	ASTM D5185m	0	0	3	5
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	69	70	73
Manganese	ppm	ASTM D5185m	0	1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	1005	1078	1021
Calcium	ppm	ASTM D5185m	1070	1400	1193	1157
Phosphorus	ppm	ASTM D5185m	1150	1149	1161	1070
Zinc	ppm	ASTM D5185m	1270	1429	1488	1332
Sulfur	ppm	ASTM D5185m	2060	3352	2530	2529
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.1	22.6	22.1
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.0	9.3	9.4
Visc @ 100°C	cSt	ASTM D445	15.4	14.0	14.3	14.3



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0108702 **Received** : 23 May 2024
Lab Number : 06189906 **Tested** : 25 May 2024
Unique Number : 11046658 **Diagnosed** : 29 May 2024 - Sean Felton
Test Package : MOB 1 (Additional Tests: TBN)

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

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)