



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION



Area
KEMP QUARRIES / KEMP STONE - FAIRLAND [62593]

Machine Id
OHT100

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-1 changed filters and fluid)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PCA0086500	PCA0070177	PCA0061942
Sample Date		Client Info		07 Feb 2024	01 Nov 2022	25 May 2022
Machine Age	hrs	Client Info		6938	6511	6073
Oil Age	hrs	Client Info		6938	6511	6073
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ATTENTION	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	20	19	38
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	0	<1
Titanium	ppm	ASTM D5185m	>2	<1	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	3	<1	2
Lead	ppm	ASTM D5185m	>40	4	2	13
Copper	ppm	ASTM D5185m	>330	4	2	6
Tin	ppm	ASTM D5185m	>15	<1	0	1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

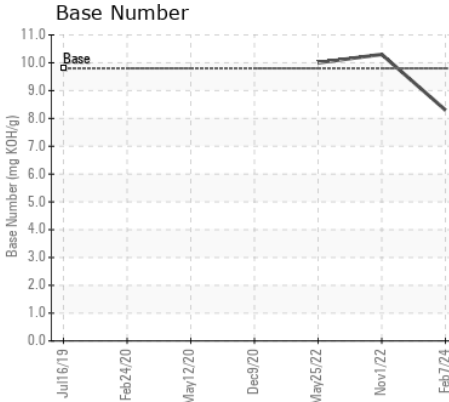
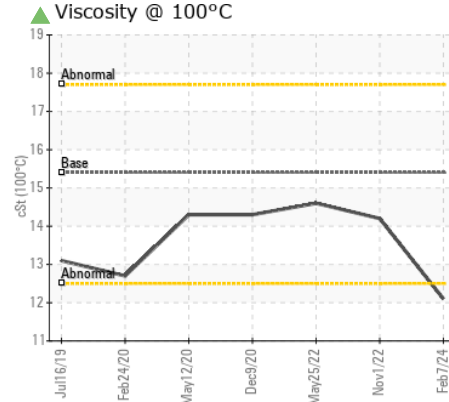
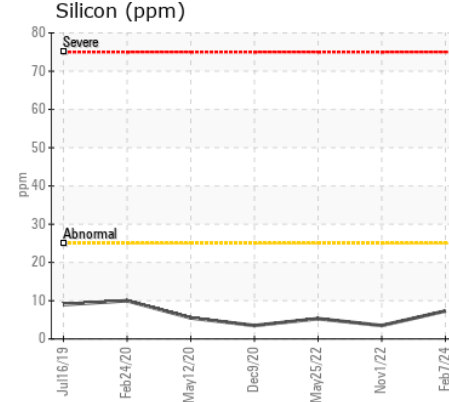
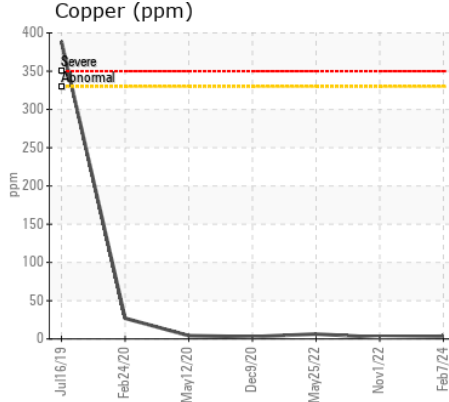
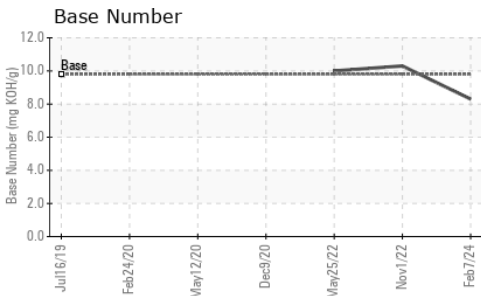
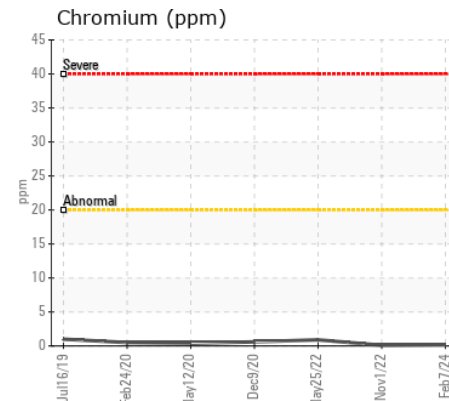
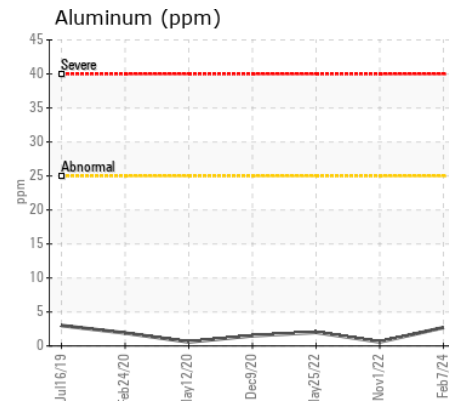
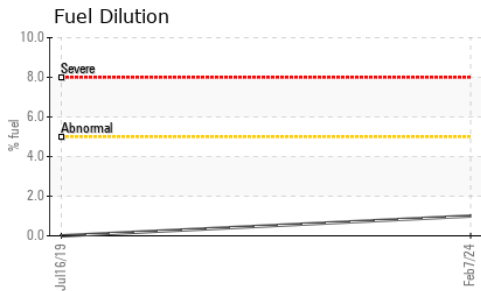
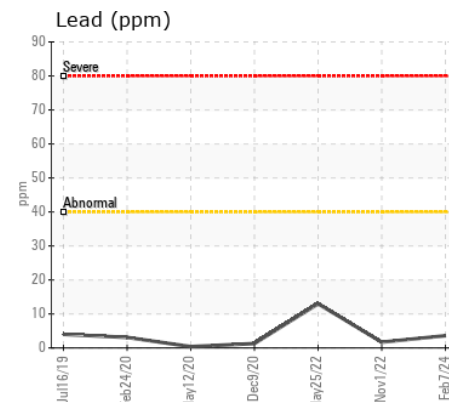
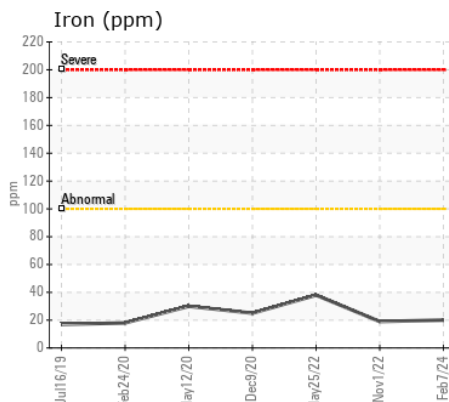
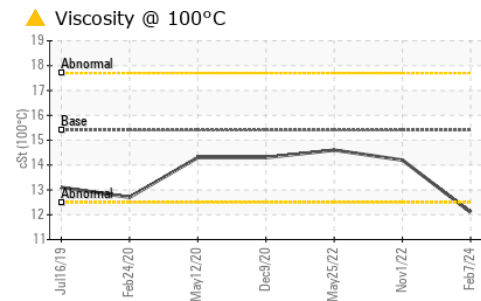
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	7	4	5
Potassium	ppm	ASTM D5185m	>20	<1	<1	1
Fuel	%	ASTM D3524	>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	0.8	1.1	2
Nitration	Abs/cm	*ASTM D7624	>20	7.1	8.1	10.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.7	21.2	22.7
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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		3	4	3
Boron	ppm	ASTM D5185m	0	2	3	4
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	26	57	60
Manganese	ppm	ASTM D5185m	0	<1	0	<1
Magnesium	ppm	ASTM D5185m	1010	422	872	952
Calcium	ppm	ASTM D5185m	1070	2177	1289	1088
Phosphorus	ppm	ASTM D5185m	1150	1092	1049	1012
Zinc	ppm	ASTM D5185m	1270	1319	1252	1313
Sulfur	ppm	ASTM D5185m	2060	3798	4057	3064
Oxidation	Abs/.1mm	*ASTM D7414	>25	10.1	15.2	17.1
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.3	10.3	10.0
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 12.1	14.2	14.6



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0086500 **Received** : 13 Feb 2024
Lab Number : 06088084 **Tested** : 15 Feb 2024
Unique Number : 10875529 **Diagnosed** : 15 Feb 2024 - Don Baldrige
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel, TBN)

Kemp Quarries - Kemp Stone - Fairland
 18350 S 590 Rd
 Fairland, OK
 US 74343
 Contact: 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)

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F: