

Area
KEMP QUARRIES / BCS - GRAVETTE [65250]

Machine Id
OHT111

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample Comment: Pm3)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PCA0069801	PCA0062014	PCA0037609
Sample Date		Client Info		05 Feb 2024	19 Jan 2023	16 May 2022
Machine Age	hrs	Client Info		24208	20812	20379
Oil Age	hrs	Client Info		3396	20812	20379
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	ATTENTION	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	35	39	33
Chromium	ppm	ASTM D5185m	>20	1	<1	<1
Nickel	ppm	ASTM D5185m	>4	1	<1	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	4	0	2
Lead	ppm	ASTM D5185m	>40	4	<1	1
Copper	ppm	ASTM D5185m	>330	5	4	3
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

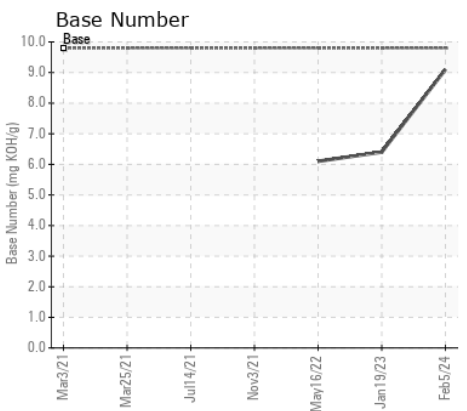
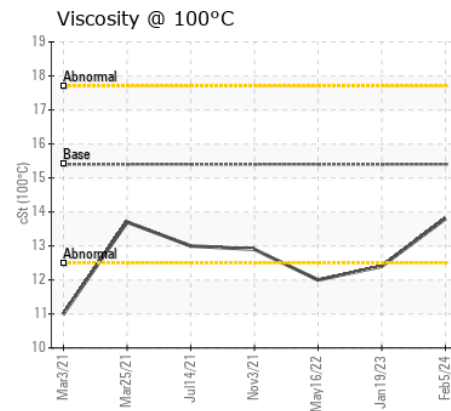
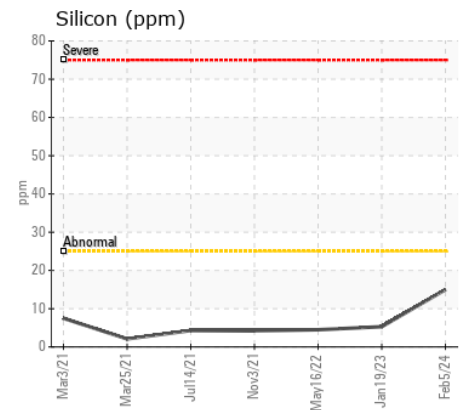
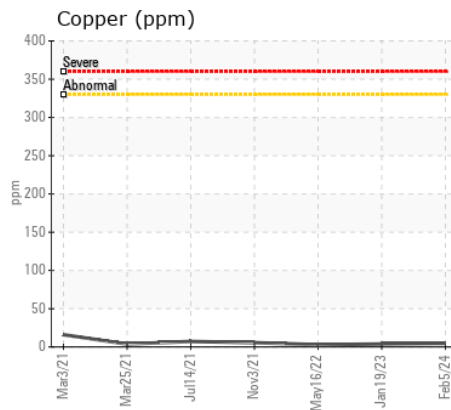
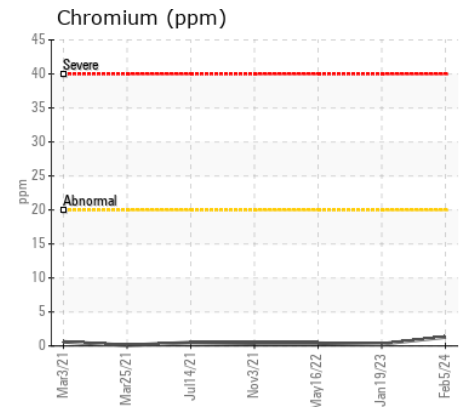
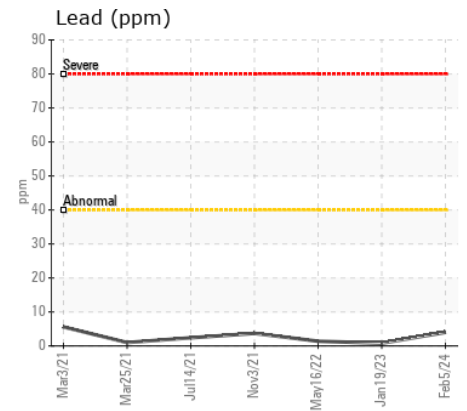
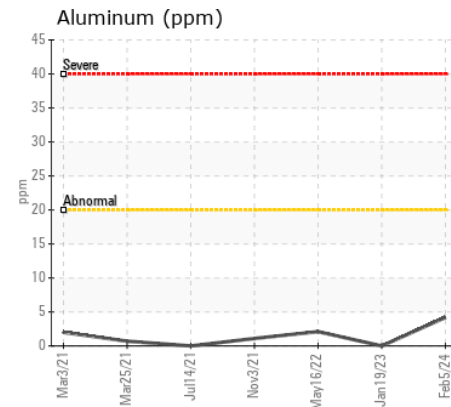
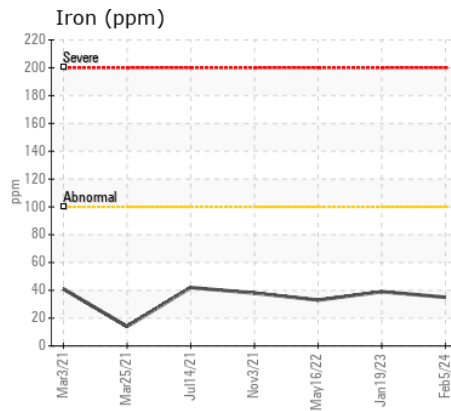
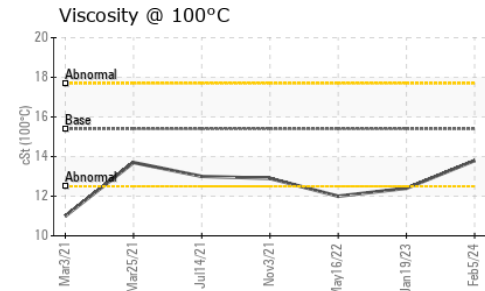
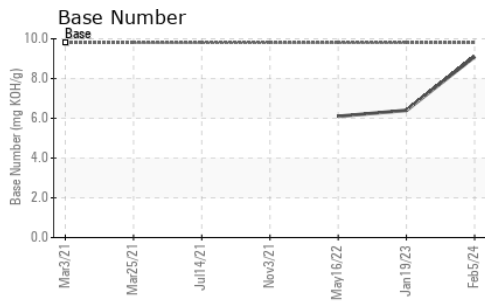
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	15	5	4
Potassium	ppm	ASTM D5185m	>20	3	2	2
Fuel		WC Method	>5	<1.0	<1.0	▲ 3.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.6	0.5	0.6
Nitration	Abs/cm	*ASTM D7624	>20	9.5	9.0	9.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.5	18.8	18.5
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		4	2	3
Boron	ppm	ASTM D5185m	0	6	5	9
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	67	48	44
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	1014	713	664
Calcium	ppm	ASTM D5185m	1070	1187	923	1019
Phosphorus	ppm	ASTM D5185m	1150	1135	884	893
Zinc	ppm	ASTM D5185m	1270	1329	1060	1107
Sulfur	ppm	ASTM D5185m	2060	3155	2415	2744
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.2	16.1	15.3
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	9.1	6.4	6.1
Visc @ 100°C	cSt	ASTM D445	15.4	13.8	● 12.4	● 12.0



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0069801
Lab Number : 06100659
Unique Number : 10898889
Test Package : MOB 1 (Additional Tests: TBN)

Received : 26 Feb 2024
Tested : 27 Feb 2024
Diagnosed : 28 Feb 2024 - Sean Felton

Kemp Quarries - Benton County Stone - Gravette
 15100 N Hwy 59
 Sulphur Springs, AR
 US 72768
 Contact: GRAVETTE NOTIFICATIONS
 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: