



Area
KEMP QUARRIES / SELIGMAN [65165]
Machine Id
CATERPILLAR 769C Off Road Haul Truck OHT114
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. (Customer Sample Comment: PM-3 changed filters and fluid)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PCA0109074	PCA0086070	PCA0037565
Sample Date		Client Info		11 Mar 2024	05 Apr 2023	15 Apr 2022
Machine Age	hrs	Client Info		37902	37377	36878
Oil Age	hrs	Client Info		37902	37377	36878
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				SEVERE	NORMAL	NORMAL

WEAR

The lead level is abnormal.

Iron	ppm	ASTM D5185m	>100	61	50	55
Chromium	ppm	ASTM D5185m	>20	1	1	<1
Nickel	ppm	ASTM D5185m	>2	1	<1	<1
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>25	3	0	3
Lead	ppm	ASTM D5185m	>40	▲ 44	20	12
Copper	ppm	ASTM D5185m	>330	28	21	54
Tin	ppm	ASTM D5185m	>15	3	2	2
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

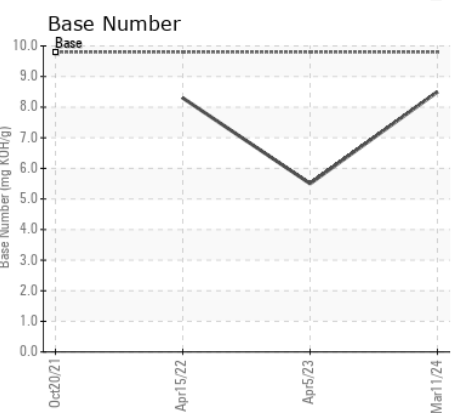
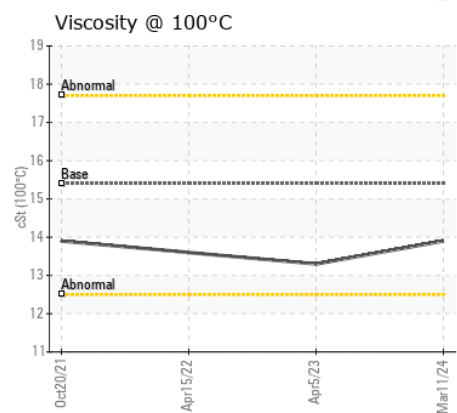
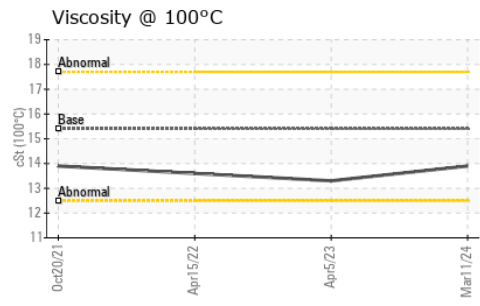
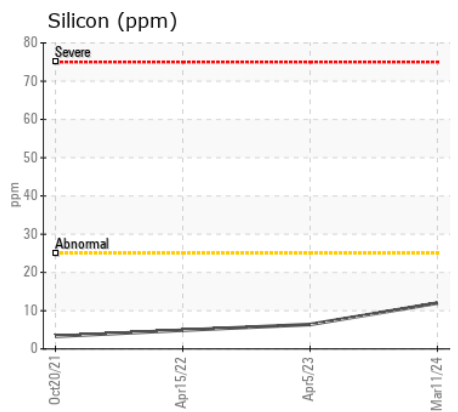
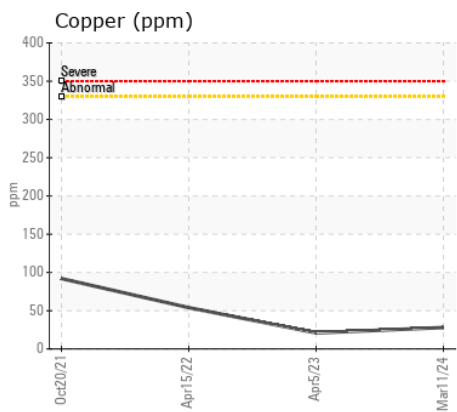
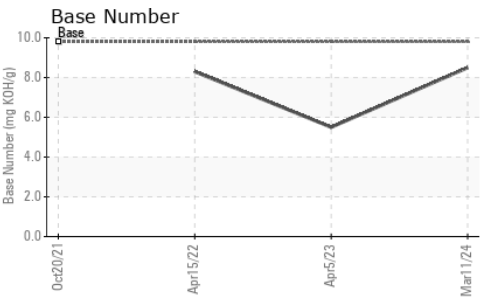
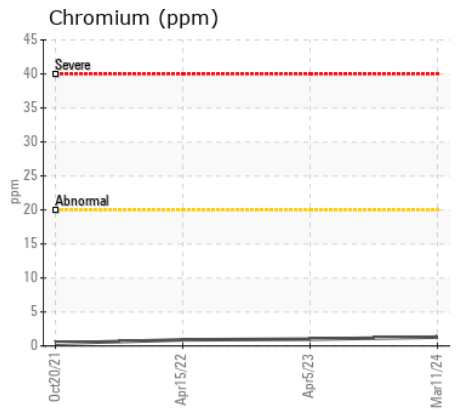
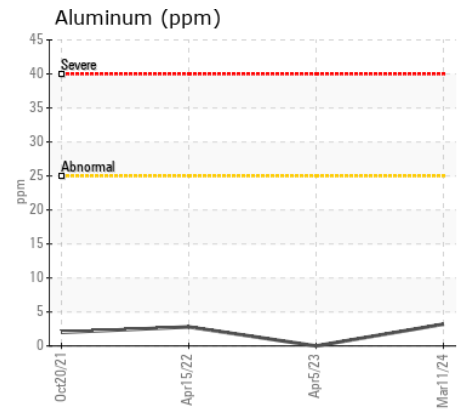
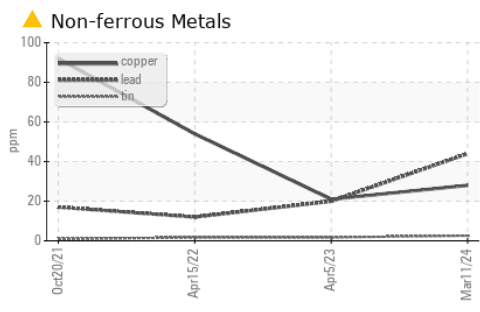
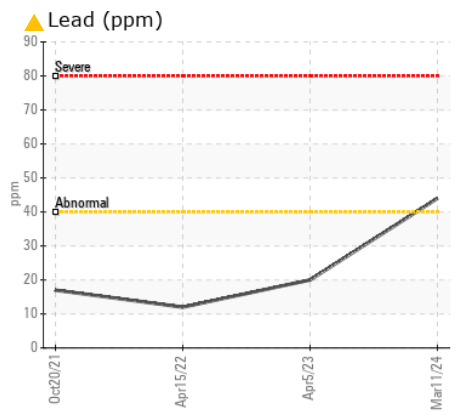
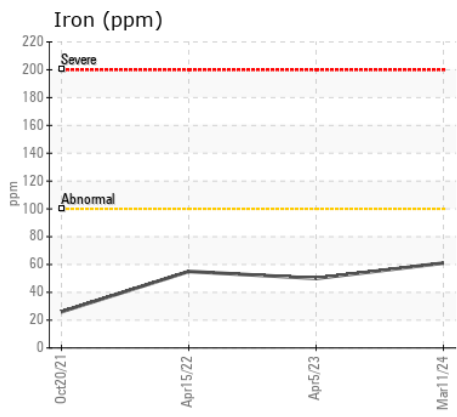
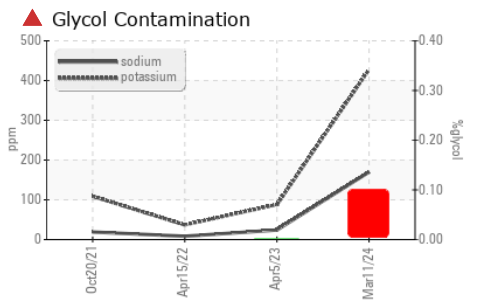
Sodium and/or potassium levels are high. Test for glycol is positive. There is a high concentration of glycol present in the oil.

Silicon	ppm	ASTM D5185m	>25	12	6	5
Potassium	ppm	ASTM D5185m	>20	▲ 428	88	37
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		▲ 0.10	0.0	NEG
Soot %	%	*ASTM D7844	>3	1.1	0.9	1
Nitration	Abs/cm	*ASTM D7624	>20	12.8	10.8	11.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.7	20.3	24.3
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 oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m		▲ 170	24	8
Boron	ppm	ASTM D5185m	0	12	2	2
Barium	ppm	ASTM D5185m	0	0	2	0
Molybdenum	ppm	ASTM D5185m	60	114	68	65
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	956	788	950
Calcium	ppm	ASTM D5185m	1070	1103	1198	1322
Phosphorus	ppm	ASTM D5185m	1150	1093	1001	1160
Zinc	ppm	ASTM D5185m	1270	1285	1227	1437
Sulfur	ppm	ASTM D5185m	2060	3262	2905	2886
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.1	17.9	20.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.5	5.5	8.3
Visc @ 100°C	cSt	ASTM D445	15.4	13.9	13.3	13.6



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0109074 **Received** : 18 Mar 2024
Lab Number : 06121415 **Tested** : 20 Mar 2024
Unique Number : 10930248 **Diagnosed** : 20 Mar 2024 - Don Baldrige
Test Package : MOB 1 (Additional Tests: Glycol, TBN)

Kemp Quarries - BCS - Seligman
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 Seligman, MO
 US 65745
 Contact: TECHNICIAN ACCOUNT
 catherine.anastasio@wearcheck.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)