



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
KENWORTH T800 3917 (S/N KCB23270)
 Component
Diesel Engine
 Fluid
SHELL ROTELLA T 15W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0917306	WC0878906	WC0822264
Sample Date		Client Info		24 Jun 2024	18 Mar 2024	10 Oct 2023
Machine Age	mls	Client Info		516934	507619	492441
Oil Age	mls	Client Info		0	0	0
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	89	▲ 143	71
Chromium	ppm	ASTM D5185m	>20	5	10	4
Nickel	ppm	ASTM D5185m	>4	1	1	<1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	5	8	5
Lead	ppm	ASTM D5185m	>40	3	6	3
Copper	ppm	ASTM D5185m	>330	8	14	10
Tin	ppm	ASTM D5185m	>15	<1	3	1
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

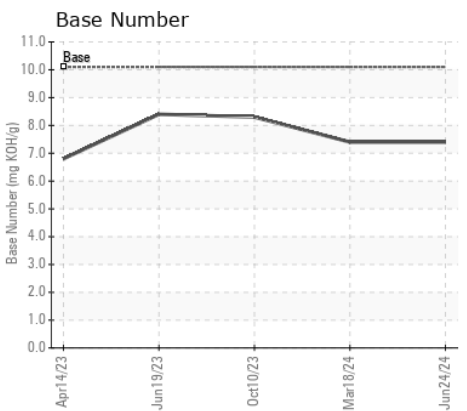
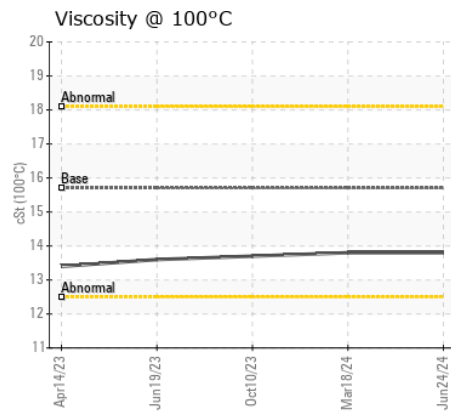
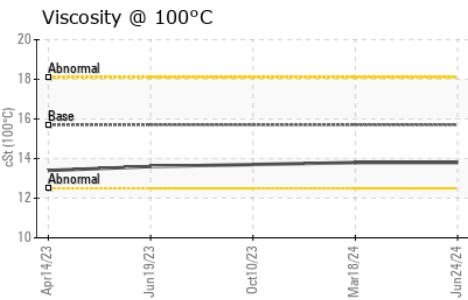
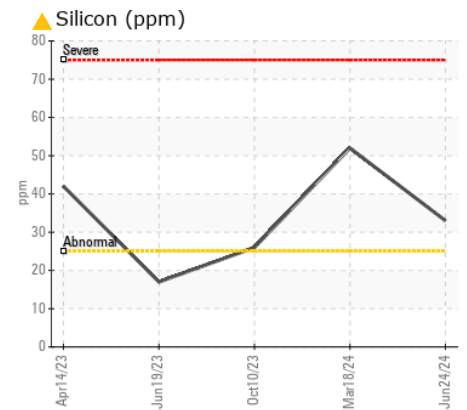
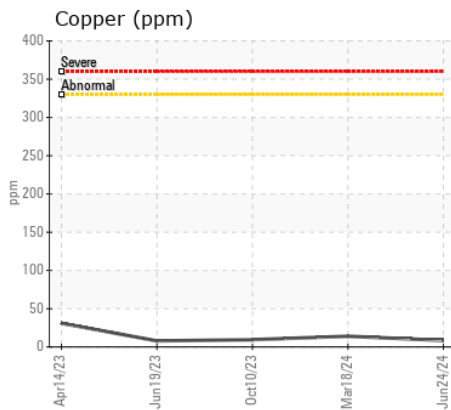
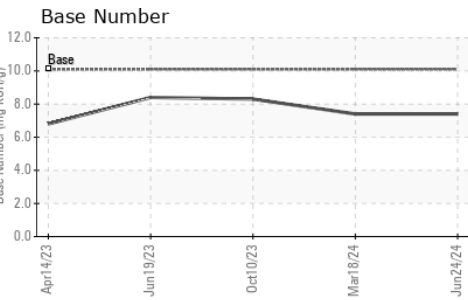
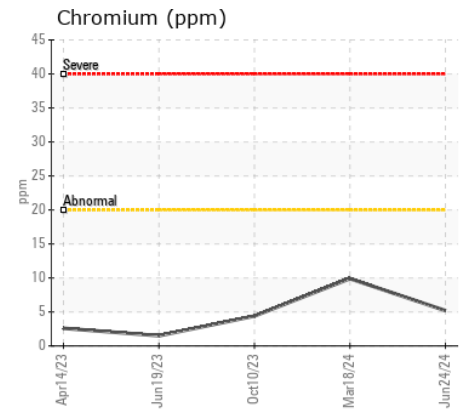
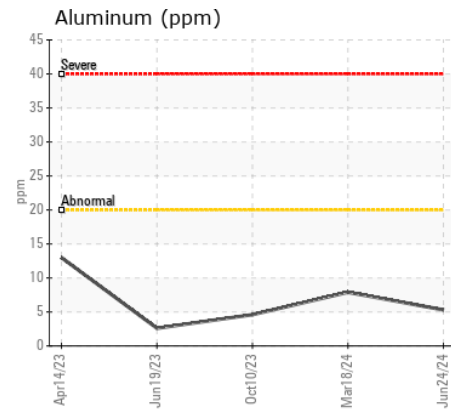
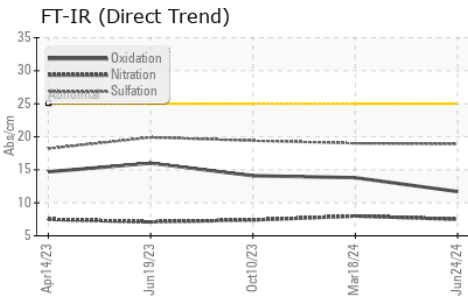
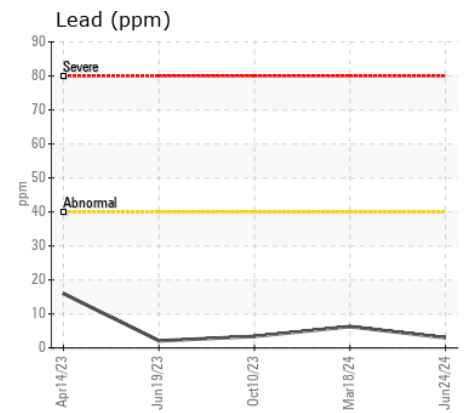
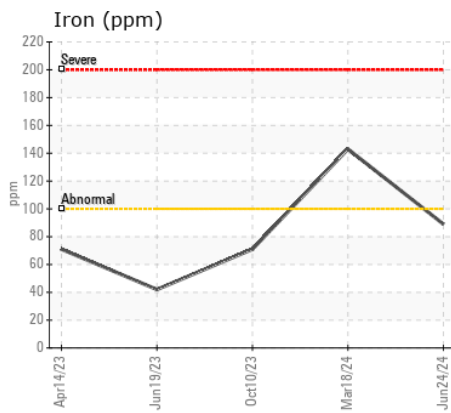
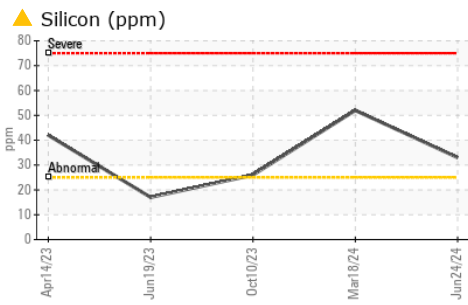
Elemental level of silicon (Si) above normal.

Silicon	ppm	ASTM D5185m	>25	▲ 33	▲ 52	▲ 26
Potassium	ppm	ASTM D5185m	>20	9	9	12
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	0.9	0.7	0.8
Nitration	Abs/cm	*ASTM D7624	>20	7.5	8.0	7.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.9	19.0	19.4
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		8	8	5
Boron	ppm	ASTM D5185m	316	8	11	13
Barium	ppm	ASTM D5185m	0.0	0	<1	3
Molybdenum	ppm	ASTM D5185m	1.2	31	64	57
Manganese	ppm	ASTM D5185m		2	2	<1
Magnesium	ppm	ASTM D5185m	24	450	855	659
Calcium	ppm	ASTM D5185m	2292	1934	2106	1389
Phosphorus	ppm	ASTM D5185m	1064	1015	1382	1043
Zinc	ppm	ASTM D5185m	1160	1254	1660	1207
Sulfur	ppm	ASTM D5185m	4996	4154	4565	3584
Oxidation	Abs/.1mm	*ASTM D7414	>25	11.7	13.8	14.1
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	7.4	7.4	8.3
Visc @ 100°C	cSt	ASTM D445	15.7	13.8	13.8	13.7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0917306 **Received** : 27 Jun 2024
Lab Number : 06223001 **Tested** : 28 Jun 2024
Unique Number : 11101198 **Diagnosed** : 30 Jun 2024 - Don Baldrige
Test Package : MOB 1 (Additional Tests: TBN)

JOHNSON BREEDERS
 3425 HWY 117N
 ROSE HILL, NC
 US 28458
 Contact: GREG JONES
 gregory.jones@houseofraeford.com
 T: (910)289-6884
 F:

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)