



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
KOLBURG 710
 Component
Diesel Engine
 Fluid
TRC MOLY XL PROSPEC III 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06218914	TR05970942	TR05584318
Sample Date		Client Info		19 Jun 2024	29 Sep 2023	30 Jun 2022
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		821	640	250
Filter Age	hrs	Client Info		821	640	250
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Filter Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	37	66	40
Chromium	ppm	ASTM D5185m	>20	10	18	10
Nickel	ppm	ASTM D5185m	>4	<1	1	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	<1	0	<1
Aluminum	ppm	ASTM D5185m	>20	13	12	10
Lead	ppm	ASTM D5185m	>40	1	1	1
Copper	ppm	ASTM D5185m	>330	6	10	4
Tin	ppm	ASTM D5185m	>15	1	2	1
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

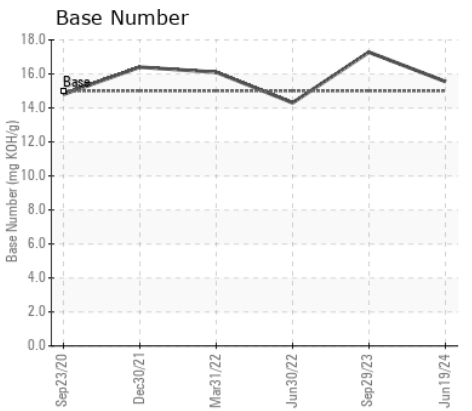
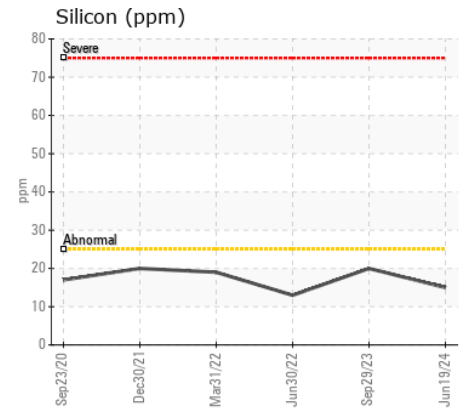
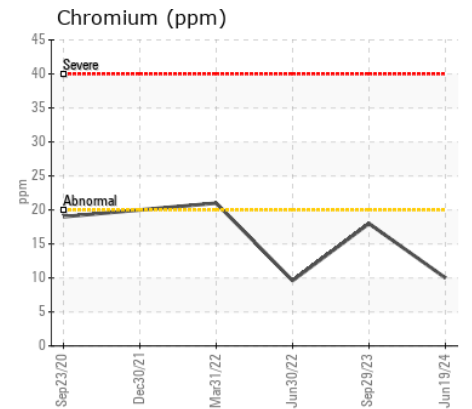
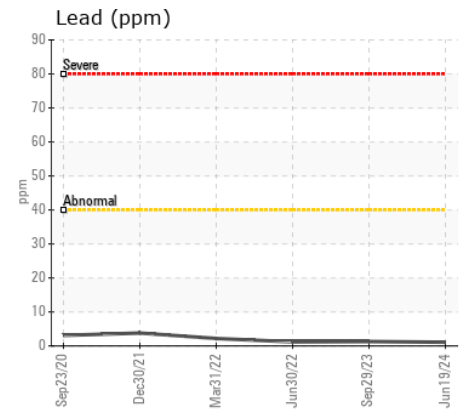
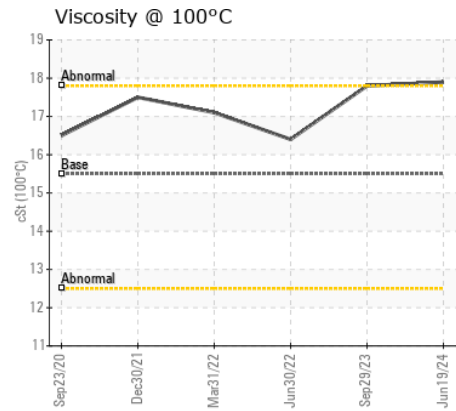
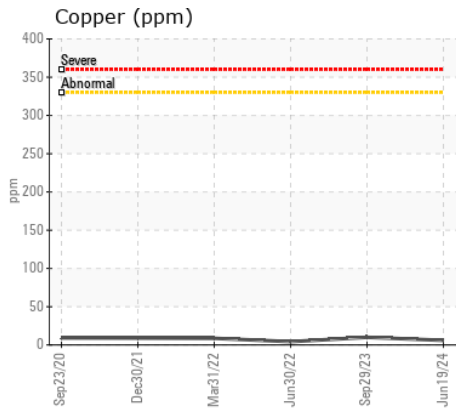
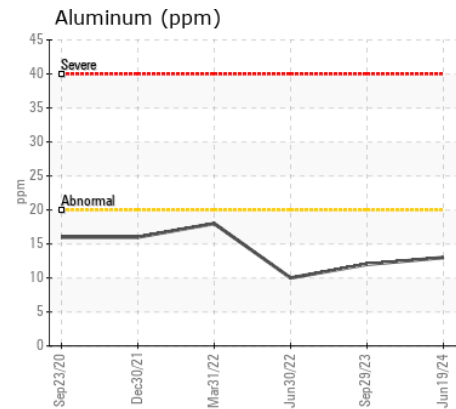
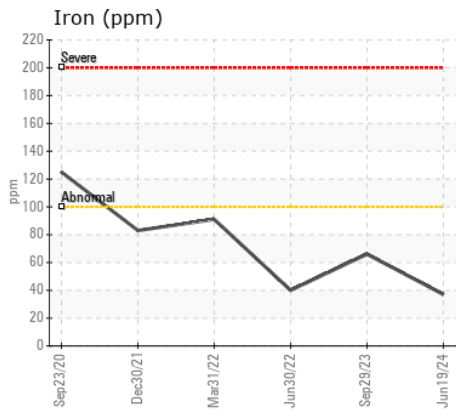
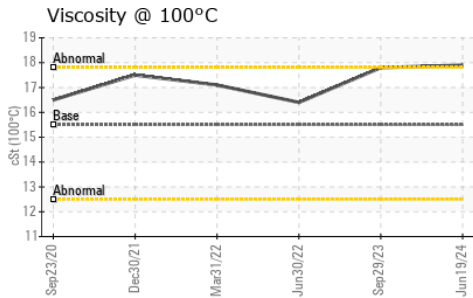
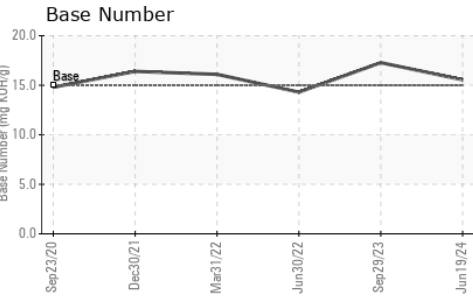
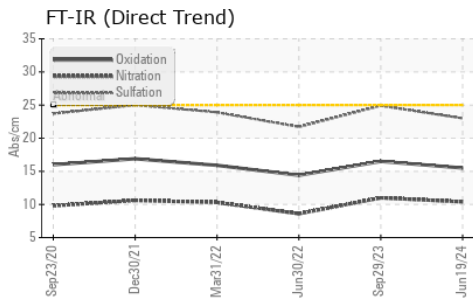
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	15	20	13
Potassium	ppm	ASTM D5185m	>20	3	4	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	0.6	0.8	0.4
Nitration	Abs/cm	*ASTM D7624	>20	10.4	11.0	8.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.0	24.9	21.7
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 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		2	<1	2
Boron	ppm	ASTM D5185m		202	231	217
Barium	ppm	ASTM D5185m		2	0	0
Molybdenum	ppm	ASTM D5185m		202	273	184
Manganese	ppm	ASTM D5185m		1	1	<1
Magnesium	ppm	ASTM D5185m		423	552	492
Calcium	ppm	ASTM D5185m	4500	4886	5418	4516
Phosphorus	ppm	ASTM D5185m		1176	1246	908
Zinc	ppm	ASTM D5185m	1400	1213	1688	1089
Sulfur	ppm	ASTM D5185m		5066	7861	4723
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.5	16.5	14.4
Base Number (BN)	mg KOH/g	ASTM D2896	15	15.55	17.28	14.3
Visc @ 100°C	cSt	ASTM D445	15.5	17.9	17.8	16.4



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06218914
Lab Number : 06218914
Unique Number : 11097111
Test Package : MOB 2
Received : 24 Jun 2024
Tested : 25 Jun 2024
Diagnosed : 25 Jun 2024 - Wes Davis

NUTTER ENTERPRISES INC
 28 STONE RD
 BELMONT, NH
 US 03220
 Contact: DON PERCY

To discuss this sample report, contact Customer Service at 1-800-827-0711.

* - 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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