



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
MELROE 7753
 Component
Rear Diesel Engine
 Fluid
TRC MOLY XL PRO-SPEC IV XP 15W40 (8 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR05441598	TR05132496	TR04825625
Sample Date		Client Info		04 Jan 2022	07 Dec 2020	07 Oct 2019
Machine Age	hrs	Client Info		4722	4581	4435
Oil Age	hrs	Client Info		141	146	439
Filter Age	hrs	Client Info		141	146	439
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	16	19	49
Chromium	ppm	ASTM D5185m	>20	4	5	11
Nickel	ppm	ASTM D5185m	>4	0	<1	<1
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	1	<1	0
Aluminum	ppm	ASTM D5185m	>20	4	2	8
Lead	ppm	ASTM D5185m	>40	<1	<1	1
Copper	ppm	ASTM D5185m	>330	4	5	9
Tin	ppm	ASTM D5185m	>15	<1	<1	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

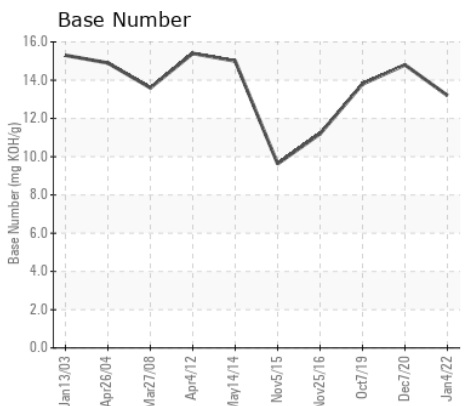
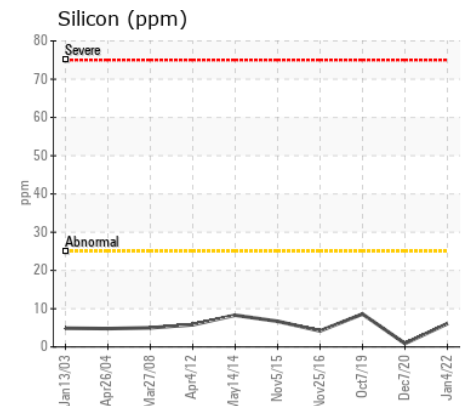
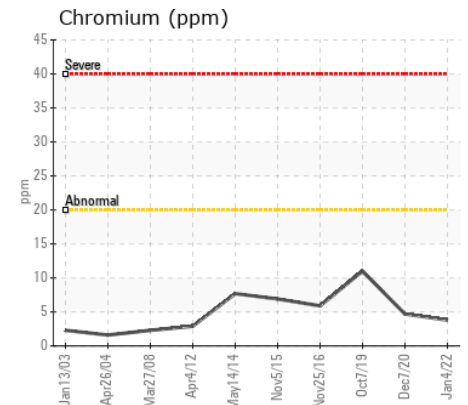
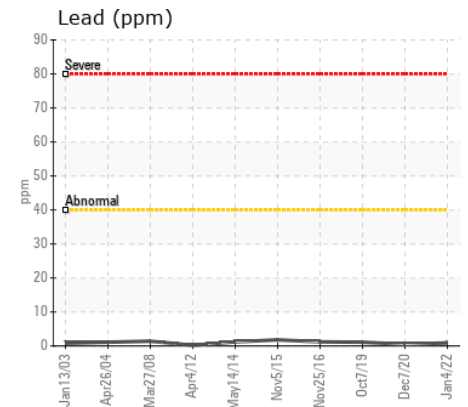
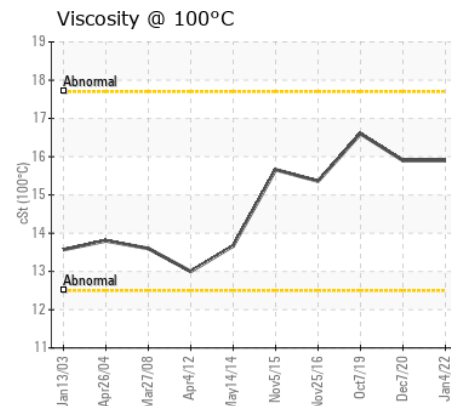
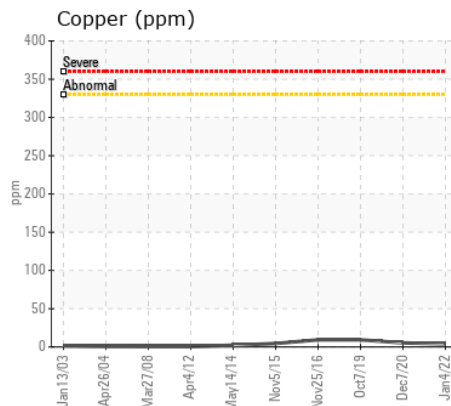
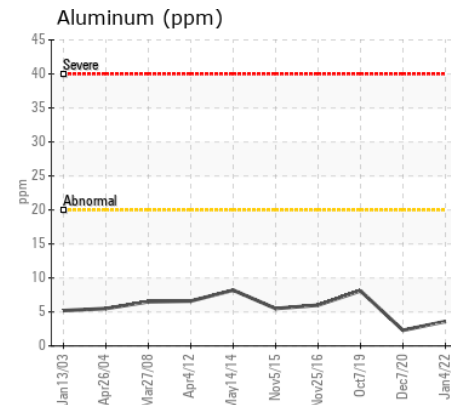
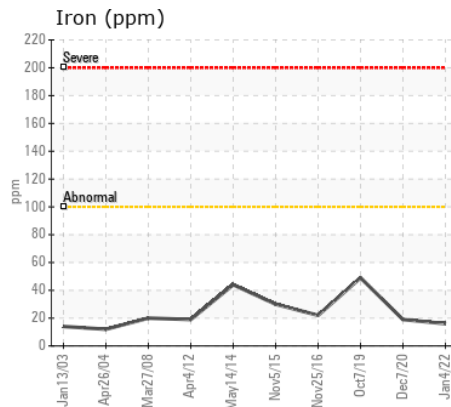
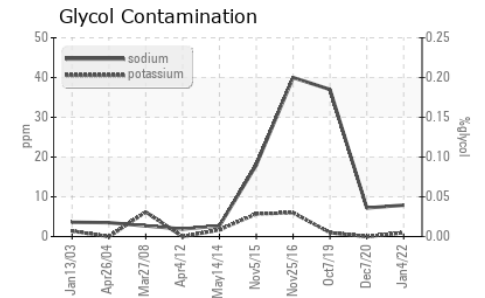
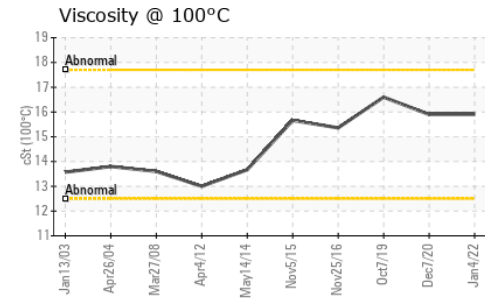
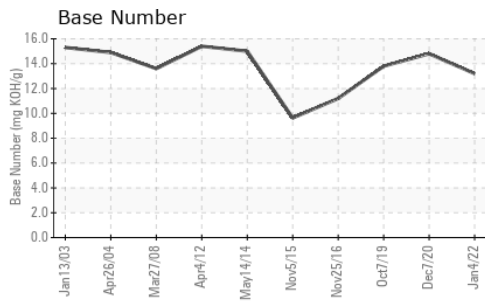
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	6	<1	9
Potassium	ppm	ASTM D5185m	>20	1	0	1
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.3	0.6
Nitration	Abs/cm	*ASTM D7624	>20	9.3	11.2	13.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.9	19.8	22.3
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 condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		8	7	37
Boron	ppm	ASTM D5185m		2	5	8
Barium	ppm	ASTM D5185m		0	0	<1
Molybdenum	ppm	ASTM D5185m		144	174	206
Manganese	ppm	ASTM D5185m		<1	<1	1
Magnesium	ppm	ASTM D5185m		120	705	1159
Calcium	ppm	ASTM D5185m		4189	2353	2245
Phosphorus	ppm	ASTM D5185m		833	1128	1288
Zinc	ppm	ASTM D5185m		1034	1354	1550
Sulfur	ppm	ASTM D5185m		4043	3712	2353
Oxidation	Abs/.1mm	*ASTM D7414	>25	11.5	15.2	17.3
Base Number (BN)	mg KOH/g	ASTM D2896		13.2	14.8	13.8
Visc @ 100°C	cSt	ASTM D445		15.9	15.9	16.6



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR05441598
Lab Number : 05441598
Unique Number : 9805791
Test Package : MOB 2 (Additional Tests: Glycol)

Received : 11 Jan 2022
Tested : 13 Jan 2022
Diagnosed : 13 Jan 2022 - Jonathan Hester

PHIL HARDER
 57803 350TH STREET
 MOUNTAIN LAKE, MN
 US 56159
 Contact: PHILIP HARDER
 philbren@frontiernet.net

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)

T: 5(07) 227-6074

F: