



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
GENERAL PLANT
Machine Id
FIRE PUMP (S/N A40196138)
Component
Diesel Engine
Fluid
AGIP ALL-GUARD XHD-7 SAE 15W40 (5 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. (Customer Sample Comment: Use MOBII testing for this sample)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		IB0000291	IB0000221	IB0000194
Sample Date		Client Info		19 Jun 2023	17 May 2022	20 Oct 2021
Machine Age	hrs	Client Info		1442	1414	1400
Oil Age	hrs	Client Info		27	24	10
Filter Age	hrs	Client Info		27	24	10
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	3	5	2
Chromium	ppm	ASTM D5185m	>20	<1	0	0
Nickel	ppm	ASTM D5185m	>4	<1	0	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	<1	1
Aluminum	ppm	ASTM D5185m	>20	0	<1	0
Lead	ppm	ASTM D5185m	>40	2	2	1
Copper	ppm	ASTM D5185m	>330	5	5	3
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

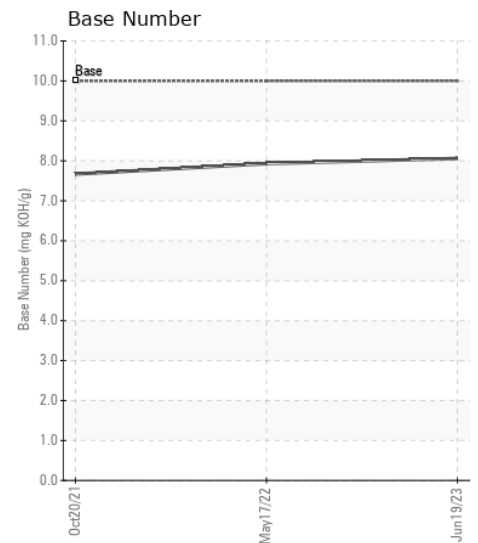
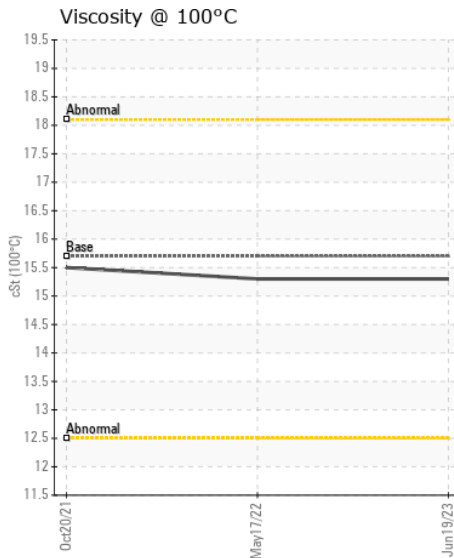
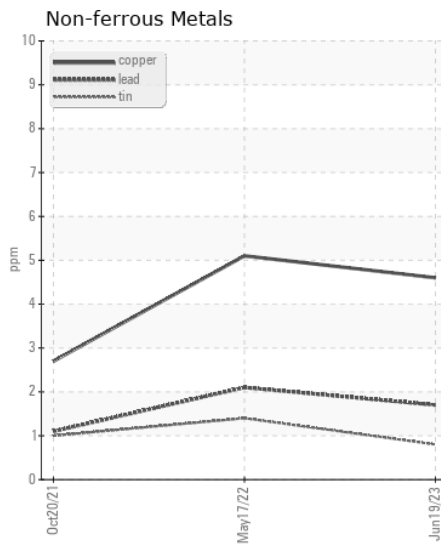
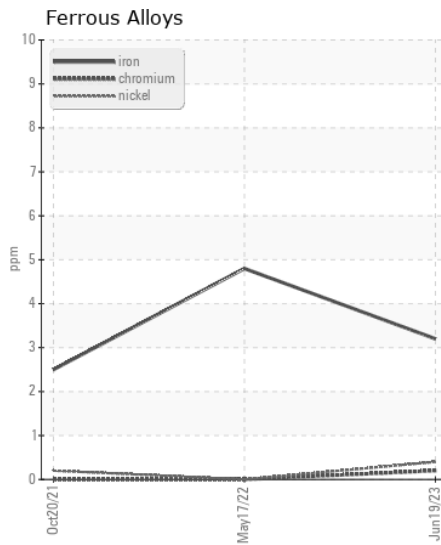
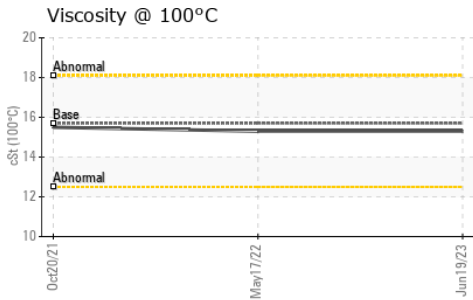
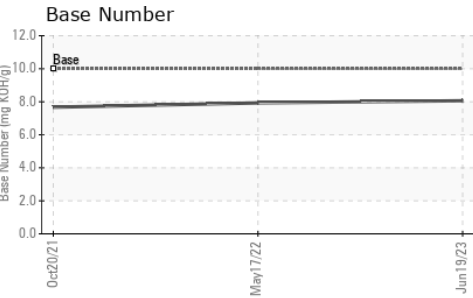
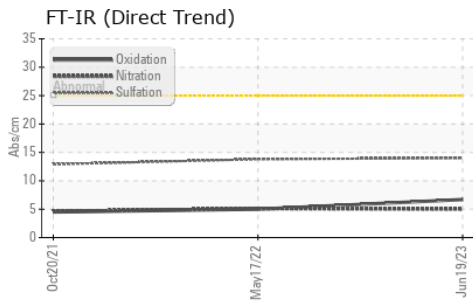
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	2	4	3
Potassium	ppm	ASTM D5185m	>20	2	2	<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	0.1	0.1	0
Nitration	Abs/cm	*ASTM D7624	>20	5.0	5.1	4.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	14.0	13.8	12.9
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	0	0
Boron	ppm	ASTM D5185m		0	0	1
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		<1	0	<1
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		1531	1521	1355
Calcium	ppm	ASTM D5185m		24	25	65
Phosphorus	ppm	ASTM D5185m		1269	1217	1112
Zinc	ppm	ASTM D5185m		1525	1438	1248
Sulfur	ppm	ASTM D5185m		14419	6028	5588
Oxidation	Abs/.1mm	*ASTM D7414	>25	6.7	5.0	4.5
Base Number (BN)	mg KOH/g	ASTM D2896	10	8.06	7.93	7.67
Visc @ 100°C	cSt	ASTM D445	15.7	15.3	15.3	15.5



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : IB0000291
Lab Number : 05881052
Unique Number : 10526155
Test Package : IND 2

Received : 22 Jun 2023
Tested : 23 Jun 2023
Diagnosed : 26 Jun 2023 - Don Baldrige

SUPERIOR TELECOMMUNICATIONS INC
 75 EAST STATE RD 4
 HOISINGTON, KS
 US 67544

Contact: BRIAN STEJSKAL
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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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