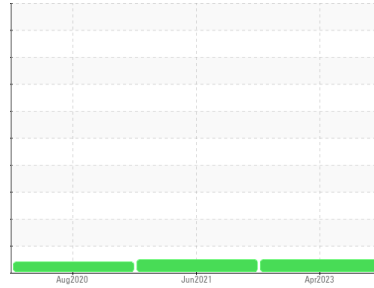




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
LONGAUXGENSPIL
 Component
Diesel Engine
 Fluid
SHELL ROTELLA T4 15W40 (30 LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

Contamination

There is no indication of any contamination in the oil.

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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0681466	WC0574214	WC0447247
Sample Date	Client Info			11 Apr 2023	14 Jun 2021	26 Aug 2020
Machine Age	hrs	Client Info		53	30	20
Oil Age	hrs	Client Info		23	10	20
Oil Changed	Client Info			Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method		>4.0	<1.0	<1.0	0.5
Water	WC Method		>0.1	NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>120	6	9	19
Chromium	ppm	ASTM D5185(m)	>10	0	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		<1	0	<1
Silver	ppm	ASTM D5185(m)	>5	<1	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	1	2	2
Lead	ppm	ASTM D5185(m)	>40	0	<1	2
Copper	ppm	ASTM D5185(m)	>300	1	2	8
Tin	ppm	ASTM D5185(m)	>10	0	<1	<1
Antimony	ppm	ASTM D5185(m)		0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	<1	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

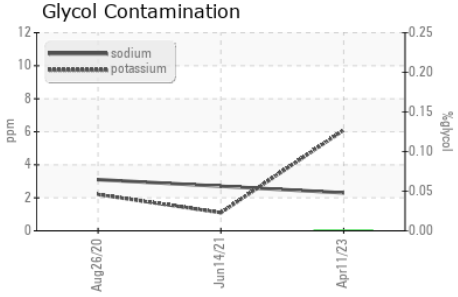
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		174	116	331
Barium	ppm	ASTM D5185(m)		0	0	<1
Molybdenum	ppm	ASTM D5185(m)		12	80	34
Manganese	ppm	ASTM D5185(m)		<1	<1	2
Magnesium	ppm	ASTM D5185(m)		18	59	273
Calcium	ppm	ASTM D5185(m)		2249	2268	2869
Phosphorus	ppm	ASTM D5185(m)		1075	1073	999
Zinc	ppm	ASTM D5185(m)		1123	1165	1174
Sulfur	ppm	ASTM D5185(m)		3207	3436	4086
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	6	9	19
Sodium	ppm	ASTM D5185(m)		2	3	3
Potassium	ppm	ASTM D5185(m)	>20	6	1	2
Glycol	%	ASTM D7922*		0.0	NEG	NEG

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	5.5	6.4	3.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.1	17.3	16.6



OIL ANALYSIS REPORT

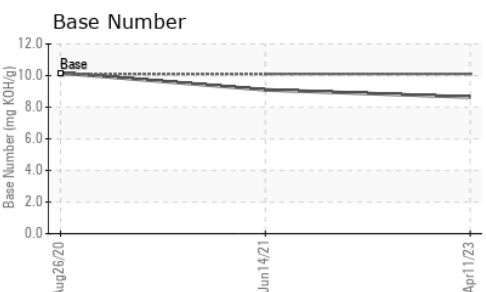
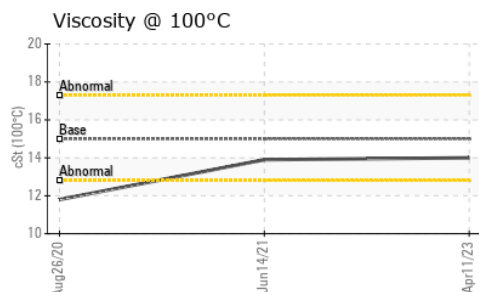
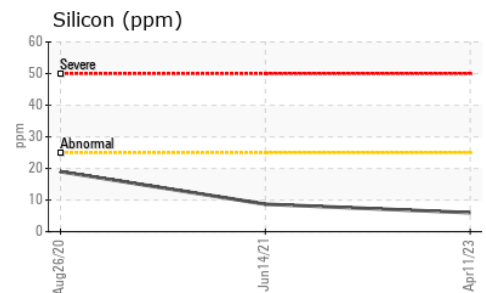
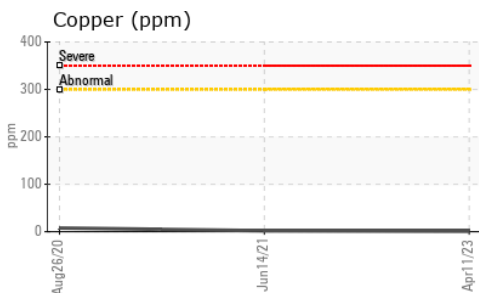
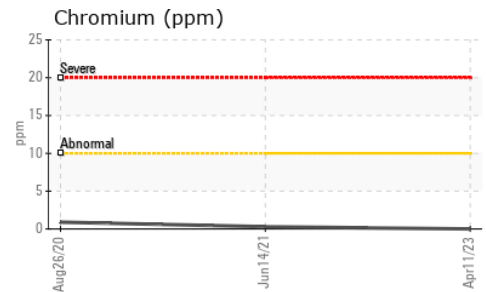
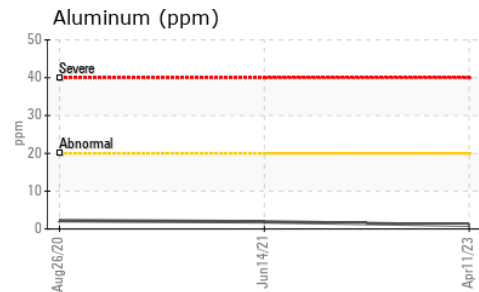
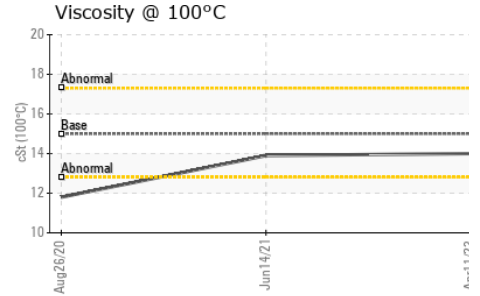
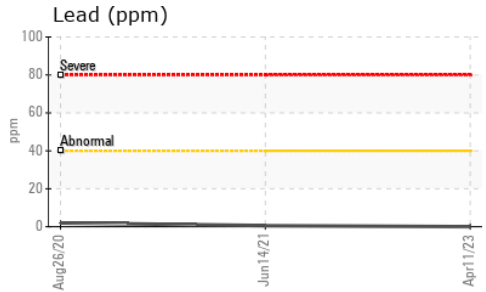
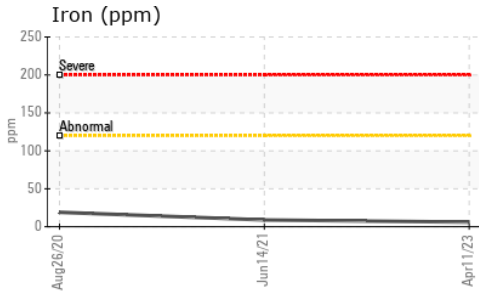
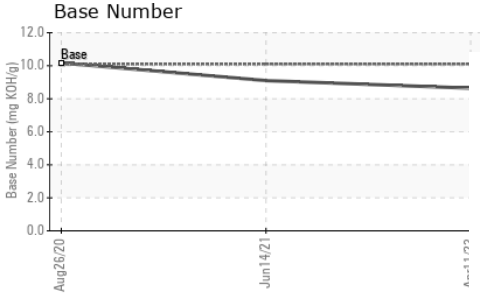


FLUID DEGRADATION	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	ASTM D7414*	>25	17.7	12.2	8.6
Base Number (BN)	mg KOH/g	ASTM D2896*	10.1	8.64	9.10	10.17

VISUAL	method	limit/base	current	history1	history2	
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D7279(m)	15	14.0	13.9	▲ 11.8

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **ALGONQUIN POWER SYSTEMS INC.**
Sample No. : WC0681466 **Received** : 24 Apr 2023 354 DAVIS ROAD
Lab Number : **02553063** **Diagnosed** : 26 Apr 2023 OAKVILLE, ON
Unique Number : 5566078 **Diagnostician** : Kevin Marson CA L6J 2X1
Test Package : MOB 2 (Additional Tests: Glycol) Contact: Antonino Champ Fernando
antoninoChamp.fernando@algonquinpower.com

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

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