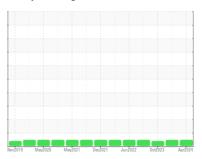


# **OIL ANALYSIS REPORT**

Sample Rating Trend







Machine Id

# **LIGHTNIN A-808.1**

Component Gearbox

**MOBIL SHC 630 (--- LTR)** 

	O.			$\overline{}$	
Δ	G١	VИ	-	_	15
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### Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### **Fluid Condition**

Confirm oil type. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORM	MOITA	method	limit/base	current	history1	history2
Sample Number		Client Info		HPL0003859	HPL0004101	HPL0003025
Sample Date		Client Info		21 Apr 2024	17 Jan 2024	10 Oct 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	ABNORMAL
CONTAMINATION	١	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	3	9	21
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		<1	<1	2
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>25	0	0	0
Lead	ppm	ASTM D5185m	>50	0	0	0
Copper	ppm	ASTM D5185m	>200	2	<1	2
Tin	ppm	ASTM D5185m	>10	0	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	1	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		0	<1	0
Calcium	ppm	ASTM D5185m		0	9	20
Phosphorus	ppm	ASTM D5185m		412	410	215
Zinc	ppm	ASTM D5185m		0	<1	15
Sulfur	ppm	ASTM D5185m		5874	4916	19708
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	19	19	2
Sodium	ppm	ASTM D5185m		<1	0	<1
Potassium	ppm	ASTM D5185m	>20	0	<1	0
FLUID DEGRADA	TION	method	limit/base	current	history1	history2

Acid Number (AN)

mg KOH/g ASTM D8045

0.63

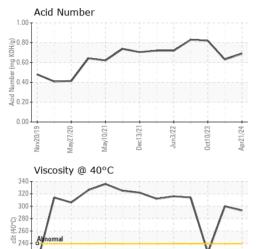
0.69

0.82



220 200 180

## **OIL ANALYSIS REPORT**



VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	LIGHT	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
<b>Emulsified Water</b>	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERTIES		method	limit/base	current	history1	history2

\ /	Visc @ 40°C	cSt	ASTM D445	217.7	293	300	225	
V	SAMPLE IMAG	GES	method	limit/base	current	history1	history2	
Oct10/23 Apr21/24	Color				no image	no image	no image	
	Bottom				no image	no image	no image	

GRAPHS						
Iron (ppm	)					Lead (ppm)
600 T 2	7					Severe
400 Severe 200 Abnormal						E 100 Abnormal
0	21	21	22	23	24	
Nov20/19 May27/20	May10/21	Dec13/21	Jun3/22	Oct10/23	Apr21/24	Nov20/19   May27/20   May10/21   May10/21   Dec13/21   Jun3/22   Oct10/23
Aluminum	(ppm)					Chromium (ppm)
Severe						30 Severe
Abnormal						Abnormal Abnormal
07/19	0/21-	3/21-	Jun3/22	Oct10/23 -	Apr21/24	May27/20 - May10/21 - Jun3/22 - Jun3/22 - Apr21/24 - Ap
Nov20/19 May27/20	May10/21	Dec13/21	Jul	Oct1	Apr2	Nov20/19 May27/20 May10/21 Dec13/21 Jun3/22 Apr21/24
Copper (p	pm)					Silicon (ppm)
Course						E 100
200 Abnormal						50 4
Nov20/19 +	May10/21	Dec13/21-	Jun3/22 -	Oct10/23 -	Apr21/24	May(2)/20 - May(0)/21 - Jun3/22 - Oct10/23 - Apr21/24 + Apr21/24 -
_		Dec	Jun	Octl	Apr2	Nov2 May? Jun Oct1
Viscosity (	@ 40°C					Acid Number
300 Abatormal			-	\/	_	E 0.50
200 - <b>Biotromal</b>						Acid Number (mg NOH/g) (N18
Nov20/19	May10/21-	Dec13/21-	Jun3/22	Oct10/23 -	Apr21/24	Acid  Nov20/19  May27/20  May10/21  Jun3/22  Oct10/23  Apr21/24
Nov.	May	Dec	- I	Oct	Apri	Nov. May; May Jun April





Certificate 12367

Test Package : MOB 2

Sample No. : HPL0003859 Lab Number : 06183024

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Unique Number : 11034350

Received Tested Diagnosed

: 17 May 2024 : 21 May 2024

: 21 May 2024 - Don Baldridge

Elwood, IL US 60421 Contact: David Frush dfrush@stepan.com

22500W. Millsdale Rd.

**STEPAN - MILLSDALE PLANT** 

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)

T: F: (815)774-5427 Contact/Location: David Frush - STEELW