



**LEAHY-WOLF**  
Lubricating specialists since 1946

OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Area

**Cozzi MH1**

Machine Id

**SANY 405K Sany SW405K SW4054CB00668**

Component

**Diesel Engine**

Fluid

**CITGO 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LW0008267</b>	LW0007627	LW0007324
Sample Date		Client Info		<b>09 Jan 2024</b>	03 Nov 2023	31 Aug 2023
Machine Age	hrs	Client Info		<b>3549</b>	3057	2534
Oil Age	hrs	Client Info		<b>3549</b>	3057	2534
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>12</b>	16	15
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>11</b>	11	9
Lead	ppm	ASTM D5185m	>40	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m	>330	<b>3</b>	3	3
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

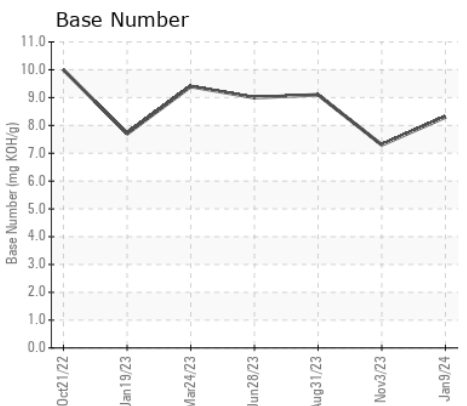
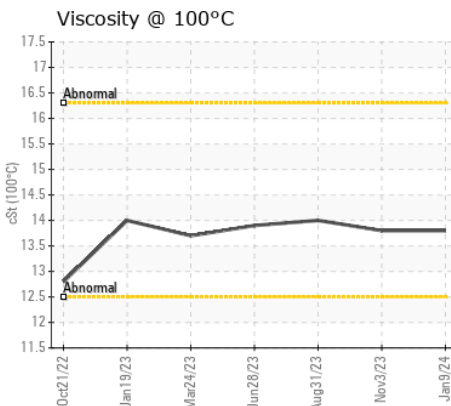
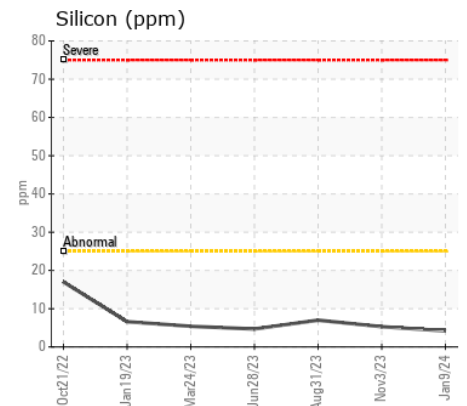
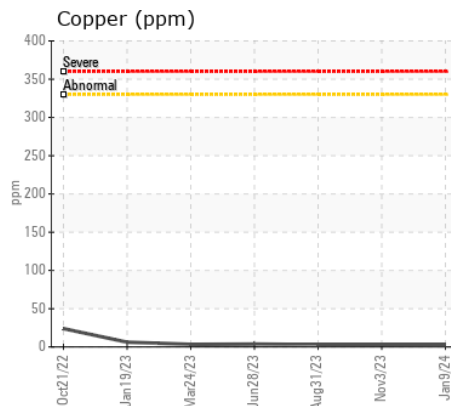
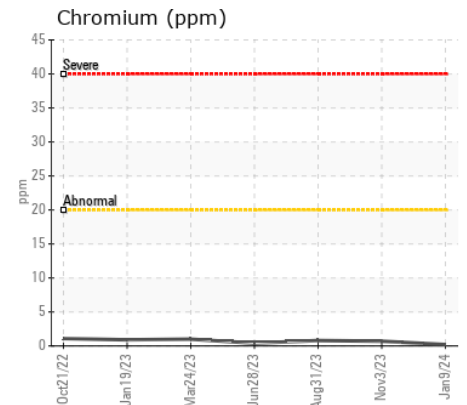
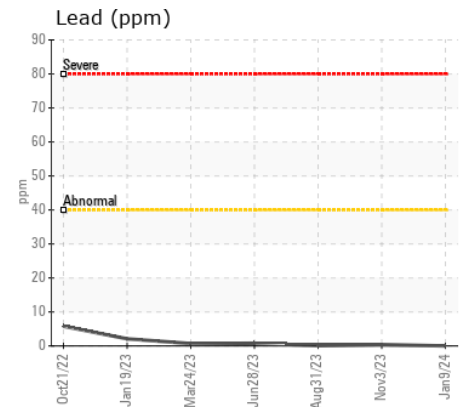
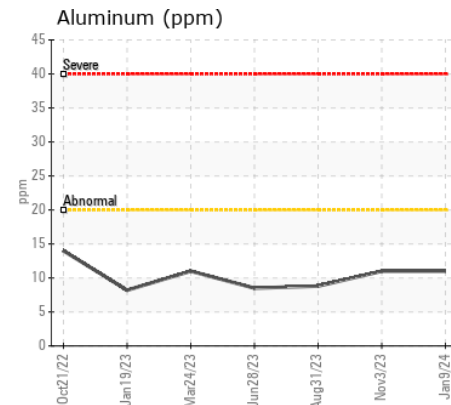
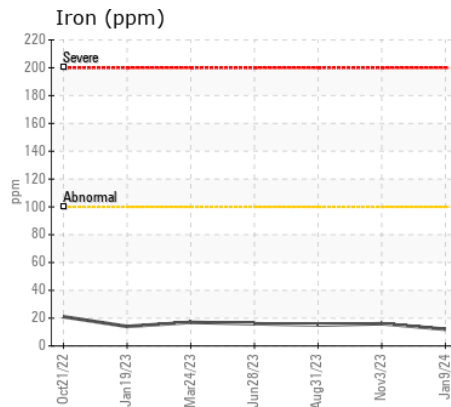
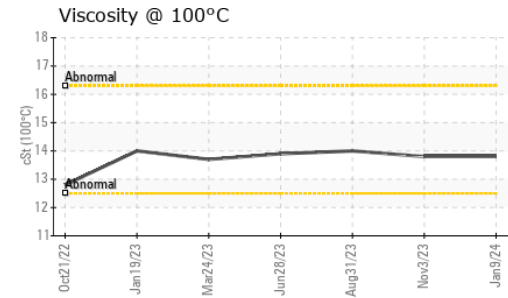
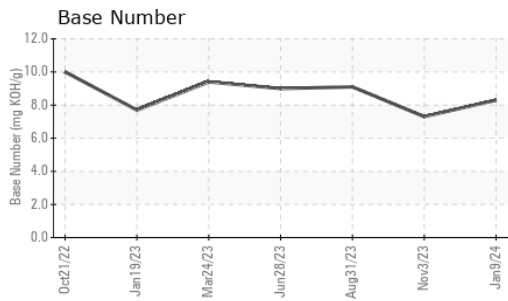
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	5	7
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	1	2
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.4</b>	0.4	0.8
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.7</b>	7.7	8.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.2</b>	19.4	20.3
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	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		<b>2</b>	2	3
Boron	ppm	ASTM D5185m		<b>33</b>	28	28
Barium	ppm	ASTM D5185m		<b>0</b>	0	2
Molybdenum	ppm	ASTM D5185m		<b>19</b>	25	28
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>761</b>	849	859
Calcium	ppm	ASTM D5185m		<b>1220</b>	1266	1282
Phosphorus	ppm	ASTM D5185m		<b>1054</b>	1041	1059
Zinc	ppm	ASTM D5185m		<b>1231</b>	1304	1227
Sulfur	ppm	ASTM D5185m		<b>3587</b>	3507	3945
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.3</b>	14.4	14.3
Base Number (BN)	mg KOH/g	ASTM D2896		<b>8.3</b>	7.3	9.1
Visc @ 100°C	cSt	ASTM D445		<b>13.8</b>	13.8	14.0



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LW0008267 **Received** : 12 Jan 2024  
**Lab Number** : 06058986 **Diagnosed** : 12 Jan 2024  
**Unique Number** : 10830368 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

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Certificate L2367  
 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)