

## Machine Id Machine Id HAMM H12I WGH0H235VHAA01569 Diesel Engine

## WIRTGEN GROUP LOW SAPS 10W30 (2 GAL)

WIRIGEN GROUP LOW SAPS 10W30 (2 GAL)							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		LEC0039289	LEC0024157	LEC0030279
	Sample Date		Client Info		08 Feb 2023	18 Apr 2022	08 Apr 2022
	Machine Age	hrs	Client Info		1155	475	466
	Oil Age	hrs	Client Info		680	475	466
	Filter Age	hrs	Client Info		680	475	466
	Oil Changed		Client Info		Changed	Changed	Not Changd
	Filter Changed		Client Info		Changed	Changed	Not Changd
	Sample Status				NORMAL	NORMAL	NORMAL
WEAR	Iron	ppm	ASTM D5185m	>100	28	34	30
	Chromium	ppm	ASTM D5185m	>20	2	4	3
All component wear rates are normal.	Nickel	ppm	ASTM D5185m	>4	0	0	<1
	Titanium	ppm	ASTM D5185m		0	<1	<1
	Silver	ppm	ASTM D5185m	>3	0	<1	0
	Aluminum	ppm	ASTM D5185m	>20	7	6	4
	Lead	ppm	ASTM D5185m	>40	1	1	2
	Copper	ppm	ASTM D5185m	>330	4	9	8
	Tin	ppm	ASTM D5185m	>15	<1	1	<1
	Vanadium	ppm	ASTM D5185m		<1	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	>!20	14	19	17
	Potassium	ppm	ASTM D5185m	>20	<1	18	15
	Fuel		WC Method		<1.0	<1.0	<1.0
	Water		WC Method	>0.2	NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	0.3	0.2	0.2
	Nitration	Abs/cm	*ASTM D7624	>20	9.0	8.0	7.9
	Sulfation	Abs/.1mm	*ASTM D7415	>30	21.8	20.5	20.4
	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	Sodium	ppm	ASTM D5185m		<1	4	5
	Boron	ppm	ASTM D5185m		228	88	85
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m		0	0	0
	Molybdenum	ppm	ASTM D5185m		221	68	60
	Manganese	ppm	ASTM D5185m		<1	2	2
	Magnesium	ppm	ASTM D5185m		747	577	548
	Calcium	ppm	ASTM D5185m		1458	1757	1646
	Phosphorus	ppm	ASTM D5185m		831	1157	996
	Zinc	ppm	ASTM D5185m		1037	1431	1208
	Sulfur	ppm	ASTM D5185m		3300	3741	3404
	Oxidation	Abs/.1mm	*ASTM D7414	>25	16.2	16.2	16.2
	Base Number (BN)	mg KOH/g	ASTM D2896		8.5	9.5	9.4
	Vice @ 100°C	~C+	ACTM D445		10.5	10.4	10.4

Visc @ 100°C cSt

ASTM D445

12.5

12.4

12.4



