## CONSTRUCTION EQUIPMENT

## 092696 - Diesel Engine

Sample No:

**b:** LH0274561

Oil Type:

TOTAL FINA RUBIA TIR 7900 FE 10W30

## J SAMPLE INFORMATION

Sample Number	LH0274561	LH0247226	LH0247479	LH0239172
Sample Date	05 Sep 2023	05 Apr 2023	22 Dec 2022	08 Sep 2022
Machine Hours	13109	12387	11804	11186
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL
OIL CONDIT	ION			
Visc @ 100°C cSt	14.0	0 12.6	14.8	14.8
Oxidation (PA) %	73	85	76	65

Soot %	%	0 1.8	0 1.8	2.7	2	
Nitration (PA)	%	98	107	109	93	
Sulfation (PA)	%	69	76	75	70	
Glycol	%	NEG	NEG	NEG	NEG	
Fuel	%	<1.0	<1.0	<1.0	<1.0	
Silicon	ppm	04	○ 5	5	○ 5	
Sodium	ppm	0 2	6	0 4	5	
Potassium	ppm	<mark></mark> <1	○ <1	0	0	

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WEA	R METAL				
Iron	ppm	0 20	28	28	21
Copper	ppm	02	01	0 1	01
Lead	ppm	<b>○</b> <1	○ <1	◯ <1	○ <1
Tin	ppm	0 🔘	○ <1	0	○ <1
Aluminum	ppm	01	2	3	2
Chromium	ppm	<mark></mark> <1	○ <1	◯ <1	○ <1
Molybdenum	ppm	58	61	58	63
Nickel	ppm	0 🔘	○ <1	◯ <1	○ <1
Titanium	ppm	0	<1	<1	<1
Silver	ppm	0 🔘	0	0	0
Manganese	ppm	<b>○</b> <1	○ <1	◯ <1	○ <1
Vanadium	nom	0	0	0	0

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Calcium	ppm	1018	911	1125	1256	
Magnesium	ppm	967	1107	939	900	
Zinc	ppm	0 1168	0 1222	0 1167	0 1192	
Phosphorus	ppm	0 1026	0 1100	0 1049	0 1088	
Barium	ppm	0 🔘	0	0	0	
Boron	ppm	03	0 16	2	02	





American Iron and Metal

75 Steel City Court Hamilton, ON CA L8H 3Y2 Contact: Heavy Equipment hamiltonmobileassetmaintenance@aim-recycling.com T: (905)547-5533 F: (905)544-5671

## Diagnosis

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. The fluid was specified as TOTAL FINA RUBIA TIR 7900 FE 10W30, however, a fluid match indicates that this fluid is SAE 40 Diesel Engine Oil. Please confirm the oil type and grade on your next sample.All component wear rates are normal. There is no indication of any contamination in the oil. Viscosity of sample indicates oil is within SAE 40 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The condition of the oil is acceptable for the time in service.

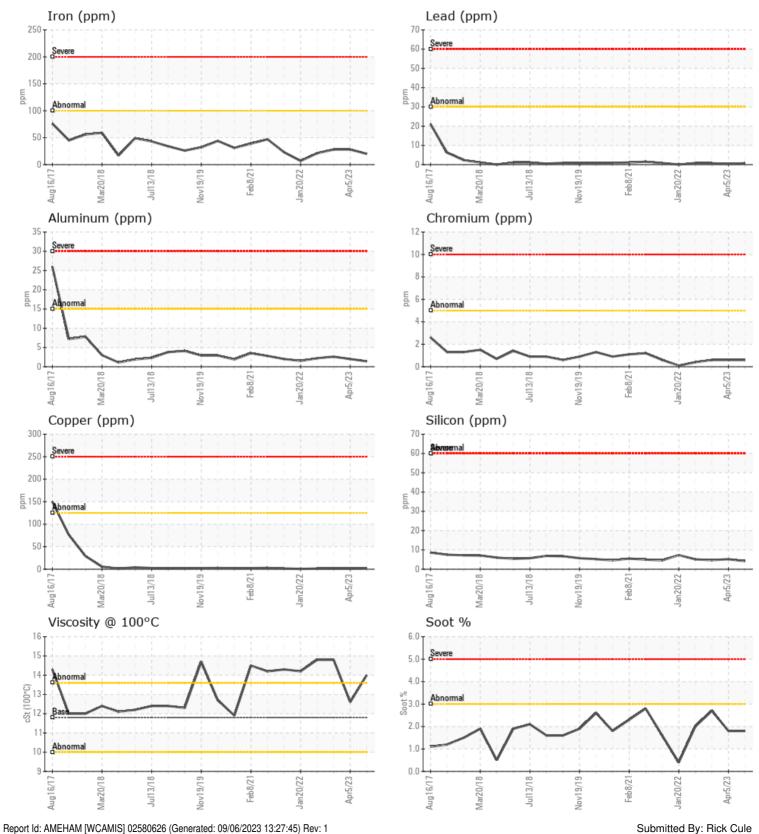
Depot: Unique No: Signed: Report Date: AMEHAM 5633686 Kevin Marson 06 Sep 2023





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Submitted By: Rick Cule