



CONSTRUCTION EQUIPMENT

A10858 VOLVO L220H 2992 - DIESEL ENGINE



Sample No: VCP416708
Oil Type: MOBIL 15W40
Job No: A10858



SAMPLE INFORMATION

Sample Number	VCP416708	VCP421959	VCP404462	VCP342650
Sample Date	10 Aug 2023	04 May 2023	11 Apr 2023	30 Jan 2023
Machine Hours	14860	13949	13730	13050
Oil Hours	500	0	500	500
Oil Changed	Changed	N/A	Changed	Changed
Sample Status	ABNORMAL	NORMAL	SEVERE	ABNORMAL

WHEELABRATOR
 1201 NEW FORD MILL RD
 MORRISVILLE, PA
 US 19067
 Contact: FRANK BOLTON
 fbolton@wtienergy.com
 T: (215)428-7915
 F:



OIL CONDITION

Visc @ 100°C	cSt	█ 12.7	█ 13.1	█ 12.5	█ 12.8
Base Number (BN)	mg KOH/g	█ 5.0	█ 7.1	█ 5.7	█ 6.6
Oxidation (PA)	%	47	38	45	60

Diagnosis

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Elemental level of silicon (Si) above normal indicating ingress of seal material. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.



CONTAMINATION

Soot %	%	█ 0.2	█ 0.1	█ 0.1	█ 0.2
Nitration (PA)	%	61	51	58	70
Sulfation (PA)	%	57	44	46	54
Glycol	%	NEG	NEG	█ 0.10	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	▲ 21	█ 11	█ 11	▲ 37
Sodium	ppm	█ 0	█ 0	▲ 568	█ 2
Potassium	ppm	█ 3	█ 3	▲ 268	█ <1



WEAR METALS

Iron	ppm	█ 6	█ 2	█ 13	█ 5
Copper	ppm	█ 1	█ 0	█ 2	█ <1
Lead	ppm	█ <1	█ <1	█ 0	█ 1
Tin	ppm	█ <1	█ <1	█ 0	█ <1
Aluminum	ppm	█ 6	█ 0	█ 6	█ 3
Chromium	ppm	█ <1	█ <1	█ <1	█ <1
Molybdenum	ppm	█ 14	█ 14	█ 99	█ 42
Nickel	ppm	█ 2	█ <1	█ 0	█ <1
Titanium	ppm	<1	<1	0	<1
Silver	ppm	█ 2	█ 0	█ <1	█ <1
Manganese	ppm	█ <1	█ <1	█ <1	█ <1
Vanadium	ppm	<1	<1	0	<1



ADDITIVES

Calcium	ppm	█ 2111	█ 2074	1128	█ 1473
Magnesium	ppm	█ 135	█ 143	█ 876	█ 570
Zinc	ppm	█ 1078	█ 1098	█ 1216	█ 1111
Phosphorus	ppm	█ 871	█ 913	█ 1022	█ 882
Barium	ppm	█ 0	█ 0	█ 0	█ 0
Boron	ppm	█ 2	█ 6	█ 53	█ 10

Depot: WHEMOR
Unique No: 10617820
Signed: Sean Felton
Report Date: 25 Aug 2023

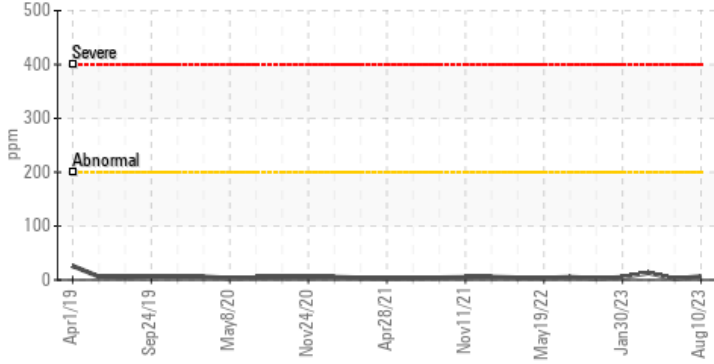


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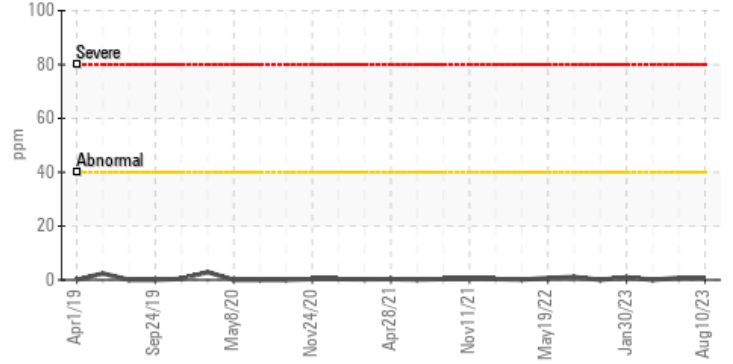


GRAPHS

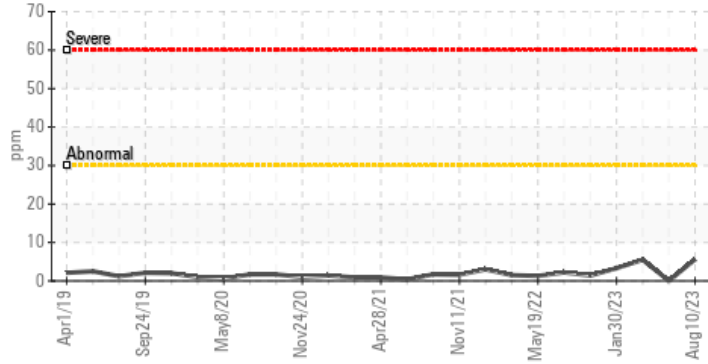
Iron (ppm)



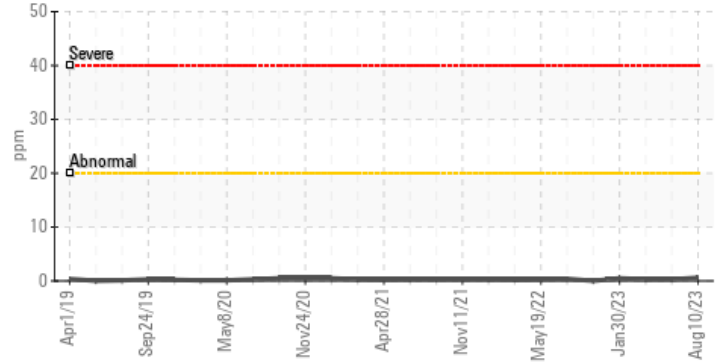
Lead (ppm)



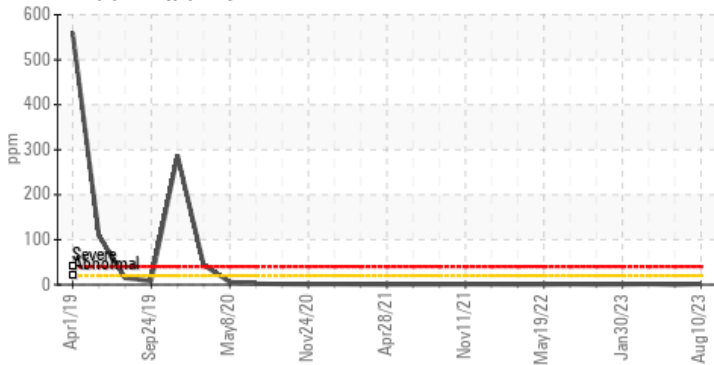
Aluminum (ppm)



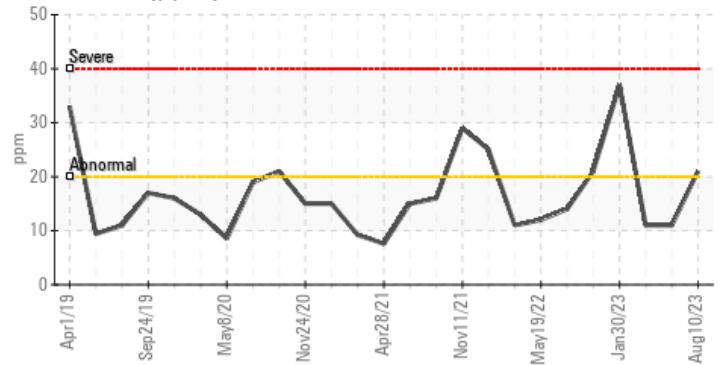
Chromium (ppm)



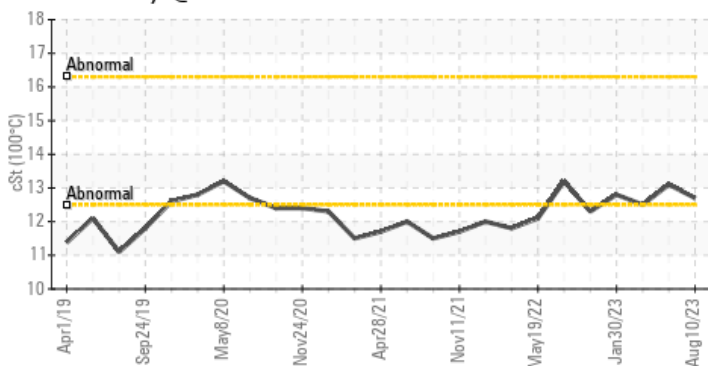
Copper (ppm)



▲ Silicon (ppm)



Viscosity @ 100°C



Base Number

