



CONSTRUCTION EQUIPMENT

TMR-RIVIERA BEACH SPM700373 14260 VOLVO L90E 66423 - DIESEL ENGINE



Sample No: VCP453867
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: SPM700373



SAMPLE INFORMATION

Sample Number	VCP453867	VCP341568	DJJ0002792	DJJ037142
Sample Date	09 Apr 2024	04 Feb 2022	14 Apr 2020	05 Sep 2019
Machine Hours	18977	15994	14590	13354
Oil Hours	0	0	24	250
Oil Changed	Changed	Changed	Not Changd	Changed
Sample Status	ABNORMAL	ABNORMAL	NORMAL	ABNORMAL

TRADEMARK METALS RECYCLING - RIVIERA BEACH
 4661 DYER BLVD
 WEST PALM BEACH, FL
 US 33407
 Contact: RYAN BOWDEN



OIL CONDITION

Visc @ 100°C	cSt	13.0	11.3	12.9	11.5
Base Number (BN)	mg KOH/g	7.5	9.8	---	---
Oxidation (PA)	%	64	83	71	77

T:
 F: (561)842-9526

Diagnosis

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	1.8	1.4	0.1	0.4
Nitration (PA)	%	83	84	44	60
Sulfation (PA)	%	62	68	58	59
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	6.8	8.7	1.7	5.5
Silicon	ppm	12	6	9	6
Sodium	ppm	3	2	3	3
Potassium	ppm	2	<1	5	0



WEAR METALS

Iron	ppm	55	24	3	6
Copper	ppm	4	1	0	<1
Lead	ppm	12	3	<1	0
Tin	ppm	2	<1	0	0
Aluminum	ppm	5	2	1	1
Chromium	ppm	1	<1	0	<1
Molybdenum	ppm	96	45	34	36
Nickel	ppm	<1	<1	<1	<1
Titanium	ppm	<1	0	<1	<1
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	<1	0	0	0



ADDITIVES

Calcium	ppm	1715	1708	1699	1591
Magnesium	ppm	1556	517	575	492
Zinc	ppm	1994	1056	996	785
Phosphorus	ppm	1695	900	871	662
Barium	ppm	0	0	0	0
Boron	ppm	2	28	65	32

Depot: TRAWES4661
Unique No: 10978430
Signed: Wes Davis
Report Date: 18 Apr 2024

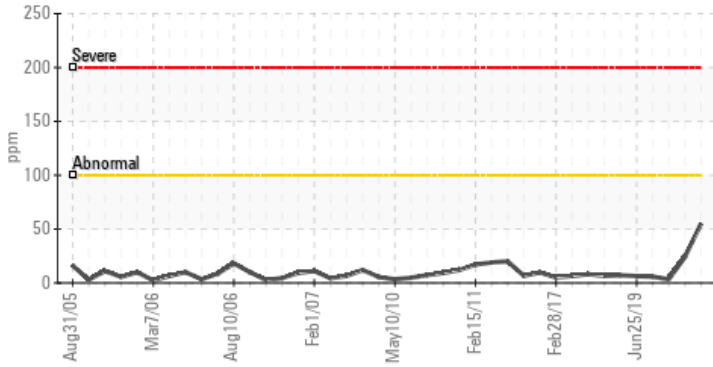


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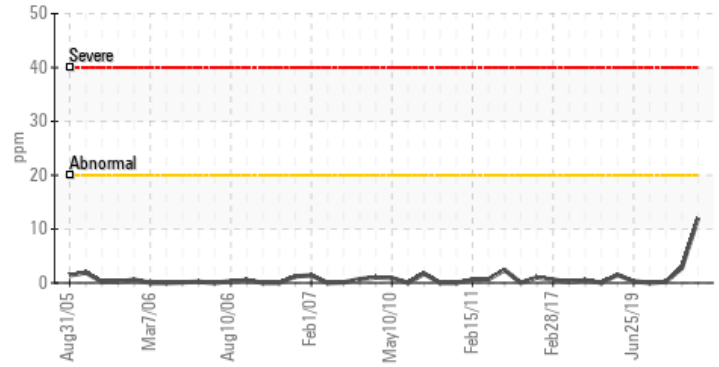


GRAPHS

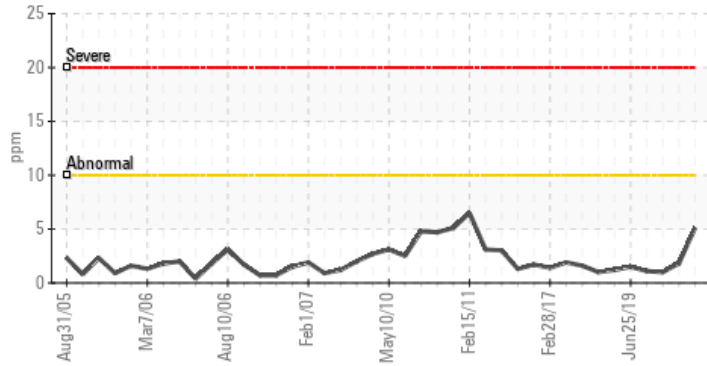
Iron (ppm)



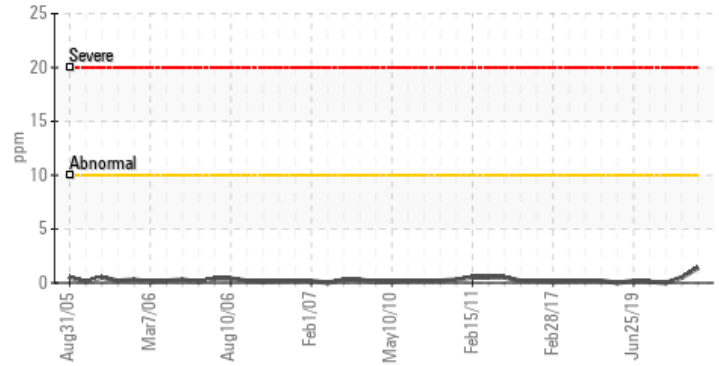
Lead (ppm)



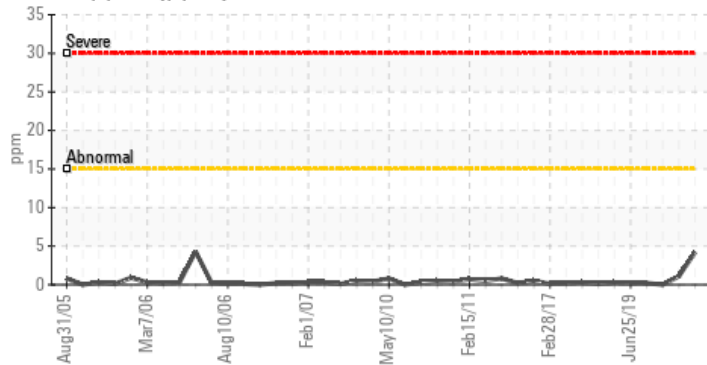
Aluminum (ppm)



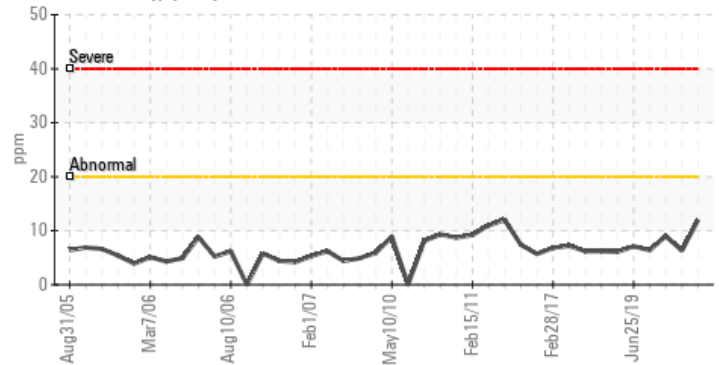
Chromium (ppm)



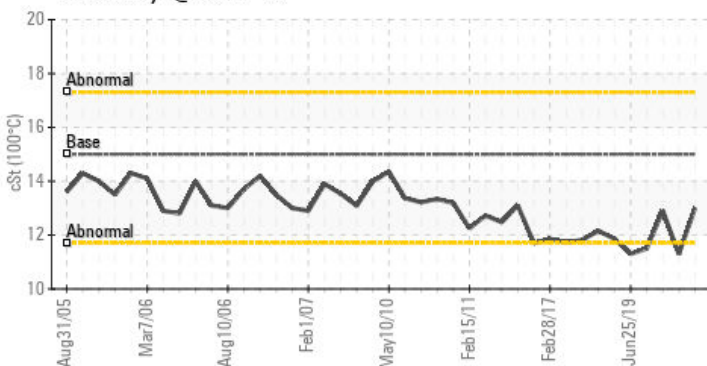
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Base Number

