



# CONSTRUCTION EQUIPMENT

SPM620785 GFL VOLVO L120F 25722 - DIESEL ENGINE



**Sample No:** VCP428721  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** SPM620785 GFL



## SAMPLE INFORMATION

Sample Number	<b>VCP428721</b>	VCP303588	VCP293757	VCP274610
Sample Date	<b>21 Oct 2023</b>	18 Mar 2021	22 Dec 2020	01 Jun 2020
Machine Hours	<b>18044</b>	15917	15527	14388
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>ABNORMAL</b>	NORMAL	NORMAL	NORMAL

**ALTA CONSTRUCTION EQUIPMENT LLC**  
 G-3283 S. DORT HIGHWAY  
 BURTON, MI  
 US 48529  
 Contact: BURTON SERVICE  
 BURTON.SERVICE@ALTAEQUIPMENT.COM  
 T:  
 F:

## OIL CONDITION

Visc @ 100°C	cSt	█ <b>14.0</b>	█ 13.1	█ 14.4	█ 14.9
Base Number (BN)	mg KOH/g	█ <b>6.7</b>	---	---	---
Oxidation (PA)	%	<b>86</b>	81	81	59

## CONTAMINATION

Soot %	%	█ <b>0.3</b>	█ 0.1	█ 0.4	█ 0.1
Nitration (PA)	%	<b>120</b>	58	73	44
Sulfation (PA)	%	<b>68</b>	65	63	55
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	█ <b>8</b>	█ 7	█ 5	█ 4
Sodium	ppm	▲ <b>139</b>	█ 3	█ 5	█ 3
Potassium	ppm	█ <b>5</b>	█ <1	█ 27	█ 5

## Diagnosis

We advise that you check for the source of the coolant leak. Check for low coolant level. 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. Sodium and/or potassium levels are high. The BN result indicates that there is suitable alkalinity remaining in the oil.

## WEAR METALS

Iron	ppm	█ <b>29</b>	█ 10	█ 22	█ 2
Copper	ppm	█ <b>18</b>	█ 4	█ 17	█ <1
Lead	ppm	█ <b>&lt;1</b>	█ <1	█ 1	█ 0
Tin	ppm	█ <b>1</b>	█ <1	█ 0	█ 0
Aluminum	ppm	█ <b>6</b>	█ 1	█ 3	█ <1
Chromium	ppm	█ <b>2</b>	█ 2	█ 3	█ <1
Molybdenum	ppm	█ <b>56</b>	█ 44	█ 57	█ 56
Nickel	ppm	█ <b>0</b>	█ 0	█ <1	█ <1
Titanium	ppm	<b>&lt;1</b>	0	<1	<1
Silver	ppm	█ <b>0</b>	0	0	0
Manganese	ppm	█ <b>2</b>	█ <1	█ <1	█ <1
Vanadium	ppm	<b>0</b>	0	0	0

## ADDITIVES

Calcium	ppm	█ <b>1449</b>	█ 1607	█ 1472	█ 1035
Magnesium	ppm	<b>756</b>	█ 572	779	█ 1062
Zinc	ppm	█ <b>1212</b>	█ 1146	█ 1214	█ 1146
Phosphorus	ppm	█ <b>946</b>	█ 979	█ 1050	█ 978
Barium	ppm	█ <b>0</b>	█ 0	█ 0	█ 0
Boron	ppm	█ <b>19</b>	█ 56	█ 21	█ 51

**Depot:** VOLVO5023  
**Unique No:** 10714115  
**Signed:** Jonathan Hester  
**Report Date:** 01 Nov 2023



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## GRAPHS

