



UIN: 02784BD

Diesel Engine

Unit No. Valmet Forklift

Unit:  
Make  
Model  
Serial No.  
Site

Compartment:

Name Diesel Engine

Make Cummins

Model

Serial No.

Capacity

Customer:

CES APPRAISAL AND INSPECTION LLC  
15555 W Prairie Dunes  
Surprise AZ 85374  
USA

DIAGNOSIS

All wear levels appear within acceptable limits for first sample. Silicon level (dirt/sealant material) satisfactory. Water content acceptable. Please check recorded viscosity against requirements.

Action: Resample next service interval to monitor and establish wear trend.

ANALYST: Troy.Evey



LEGEND

SEVERE ABNORMAL CAUTION NORMAL

DATE SAMPLED 29-Mar-11  
DATE RECEIVED 01-Apr-11  
DATE REPORTED 04-Apr-11

LAB NO. 44020260915  
SIF NO. 10405906  
TIME ON UNIT 4634  
TIME ON OIL  
OIL BRAND Unidentified  
OIL TYPE Unidentified  
OIL GRADE Unknown  
OIL ADDED  
FILTER  
OIL CHANGED  
WO NUMBER

Metals (ppm)  
Iron (Fe) 35  
Chromium (Cr) 2  
Lead (Pb) 6  
Copper (Cu) 16  
Tin (Sn) <1  
Aluminium (Al) 1  
Nickel (Ni) <1  
Silver (Ag) <1  
Titanium (Ti) <1  
Vanadium (V) <1

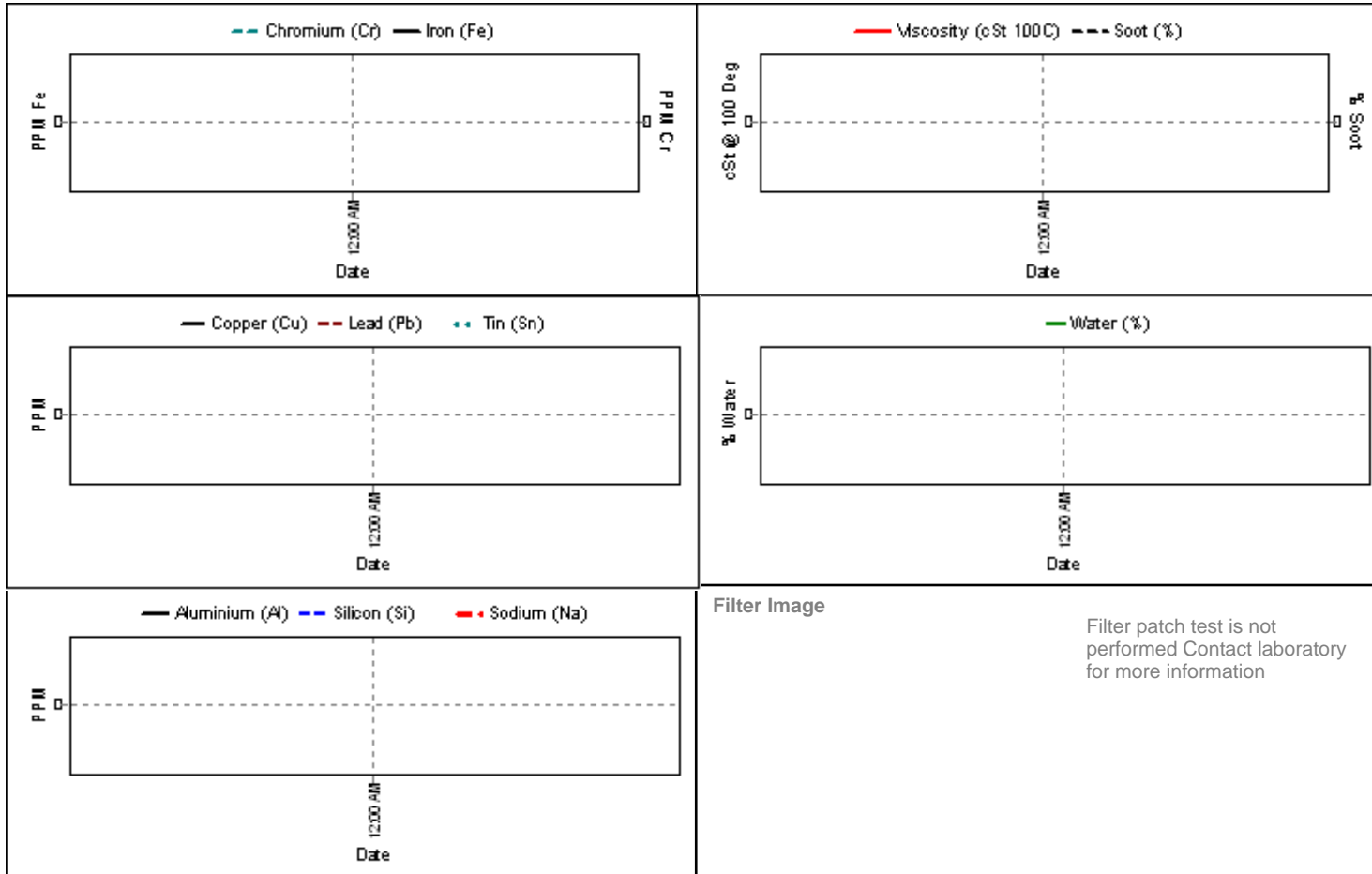
Contaminants (ppm)  
Silicon (Si) 4  
Sodium (Na) 10  
Potassium (K) 22  
Water (%) <0.05  
Coolant No

Additives (ppm)  
Magnesium (Mg) 148  
Calcium (Ca) 2550  
Barium (Ba) <1  
Phosphorus (P) 1149  
Zinc (Zn) 1424  
Molybdenum (Mo) 9  
Boron (B) 9

Physical Tests  
Viscosity (cSt 100C) 13.9  
Fuel (%) <1  
Soot (%) 0.4



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**TEST METHODS:**

Acid Number:	ASTM D974/D664
Base Number:	ASTM D4739
Base Number (Perchloric):	ASTM D2896
Fuel Dilution by GC:	ASTM D3524
Fuel Dilution Visc/Setaflash	ASTM D445/D7279/D3828
Fuel Soot ATR/IR:	In-House
Glycol:	ASTM D2982
Metals by Rotrode AES:	ASTM D6595
Metals by ICP AES:	ASTM D5185
Ox, NOx, SOx, FTIR:	ASTM D7418/D7414/D7415 D7624
Particle Count:	ASTM D7647
Viscosity:	ASTM D445 / D7279
Water KF/Crackle:	ASTM E203 Mod / In House

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