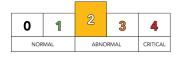


Lubricant Analysis Report

North America: +1-877-808-3750

Latin America: +1-317-808-3750 / +502-3093-6466 (WhatsApp)

Europe: +1-317-808-3750



Overall report severity based on comments.

Additional Testing

Account Information	Component Information	Sample Information
Account Number: 153995-0002-0000	Component ID: 2006CATXQ300 E	Tracking Number: 22222W10895
Company Name: BOOM & BUCKET	Secondary ID: X3R00217	Lab Number: S-902493
Contact: KRIS HUFF	Component Type: DIESEL ENGINE	Lab Location: Salt Lake City
Address: 600 CONGRESS AVE	Manufacturer: CATERPILLAR	Data Analyst: QWS
AUSTIN, TX US	Model: C9	Sampled: 17-Nov-2022
Phone Number: 1888-313-1597/909-846-6495	Application: UNKNOWN	Received: <mark>30-Nov-2022</mark>
	Sump Capacity:	Completed: 05-Dec-2022
Filter Information	Miscellaneous Information	Product Information
Filter Type: Information Requested		Product Manufacturer: Information Requested
Micron Rating: 0		Product Name: Information Requested
		Viscosity Grade: Information Requested

Flagged data does not indicate an immediate need for maintenance action. Continue to observe the trend and monitor equipment and fluid conditions. Iron is at a MODERATE LEVEL; IRON SOURCES in engines can be cylinder liners, iron pistons, hardened steel camshafts, crankshafts, gears, hardened rocker arms, valve bridges,alloyed steel cam follower rollers, etc. Abrasives (silicon/dirt) are at a MINOR LEVEL; OXIDATION is at a MINOR level, which may be due to extended drain interval or high operating temperature. Please provide missing lubricant information. Manufacturer, product name, and viscosity grade are needed to properly evaluate lubricant properties. Unit and/or lubricant TIME missing. Please provide missing application and sump information.

	Wear Metals (ppm)										ntamin tals (p _l		Multi-Source Metals (ppm)					Additive Metals (ppm)						
Sample #	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
1	59	1	0	3	25	3	1	0	0	0	20	1	0	0	50	0	2	0	43	609	1866	0	1000	1240

		Sample	e Inforr	mation					Fluid Properties							
ple #	e Sampled	e Received	Lube Time	Unit Time	e Change	Lube Added	r Change	Fuel Dilution	Soot	Water	Viscosity 40°C	Viscosity 100°C	Acid Number	Base No. D4739	Oxidation	Nitration
San	Dat	Dat	h	h	Lub	gal	Filte	%	%	%	cSt	cSt	mg KOH / g	mg KOH / g	abs / cm	abs / 0.1mm
1	17-Nov-2022	30-Nov-2022	0	0	Unk	0	Unk	<2 - Estimate	1.8 - E2412	<.1 - FTIR		14.9		6.21	21	13

	Particle Count (particles/mL)												
Sar	epo OSI Based On 4/6/14	4 A particles / mL	o ^ particles / mL	OL A particles / mL	nL \ particles /	72 A particles / mL	& &	OZ ^ particles / mL	00 A particles / mL	Test Method			
1	//												

Comments are advisory only and are based on the assumption that the sample and data submitted are valid. Results relate only to the items tested. Missing fluid or component information limits the evaluation. No warranty is expressed or implied. Measurement uncertainty available upon request.