

# LABORATORY ANALYSIS



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Department **TRANSFER ATIZAPAN**  
Equipment No. **92 HYD KAUFMAN 167 (00072)**  
System **Hydraulic System**  
Oil Type **ENGINEERED LUBRICANTS ENLUBE 15-AW (--- GAL)**

## DIAGNOSIS

We recommend you service the filters on this component. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code. Zinc (Zn) ppm levels are severely low. cSt Vis. @ 40C is severely high. The viscosity is very high and is no longer within acceptable limits. Viscosity of sample indicates oil is within ISO 68 range, advise investigate.

## SAMPLE INFORMATION

Lab Number	New	2312-00043	2310-00468	2306-00781
Date of Sample	(Typical)	<b>13 Nov 2023</b>	20 Sep 2023	16 Jun 2023
Oil Added		<b>UNK</b>	UNK	UNK
Last Drain Date		--	--	--
Last Filter Service		--	--	--
Sample Point		---	---	---
Sample Status		<b>SEVERE</b>	ATTENTION	ABNORMAL

## VISCOSITY @ 100F OR 40C (ASTM D-445)

SSU Vis. @ 100F	SSU	357.9	177.5	260.8
cSt Vis. @ 40C	cSt	32.0	34.34	50.47

## COLOR (BASED ON ASTM D1500 STANDARDS)

Color	Scale 0-8	RED	0.5	0.5

## PARTICLE COUNT (PER 1ML)

ISO CODE	ISO 4406(c)	>19/18/14	22/18/12	20/17/11	21/18/13
4 Micron & Larger	particles/ml	>5000	<b>21,822</b>	5,985	15,794
6 Micron & Larger	particles/ml	>2500	<b>1,309</b>	731	2,178
14 Micron & Larger	particles/ml	>160	<b>33</b>	17	50
21 Micron & Larger	particles/ml	>40	<b>7</b>	5	10
38 Micron & Larger	particles/ml	>10	<b>2</b>	0	1
70 Micron & Larger	particles/ml	>3	<b>2</b>	0	0

## ICP - OILS (REPORTED IN PARTS PER MILLION)

Aluminum (Al)	ppm	<5	<5	<5
Antimony (Sb)	ppm	<5	<5	<5
Cadmium (Cd)	ppm	<5	<5	<5
Chromium (Cr)	ppm	<5	<5	<5
Cobalt (Co)	ppm	<5	<5	<5
Copper (Cu)	ppm	<5	<5	<5
Iron (Fe)	ppm	<5	<5	<5
Lead (Pb)	ppm	<5	<5	<5
Manganese (Mn)	ppm	<5	<5	<5
Molybdenum(Mo)	ppm	<5	<5	<5
Nickel (Ni)	ppm	<5	<5	<5
Silver (Ag)	ppm	<5	<5	<5
Tin (Sn)	ppm	<5	<5	<5
Titanium (Ti)	ppm	<5	<5	<5
Vanadium (V)	ppm	<5	<5	<5
Barium (Ba)	ppm	<5	<5	<5
Boron (B)	ppm	<5	<5	<5
Calcium (Ca)	ppm	<b>17</b>	64	62
Magnesium (Mg)	ppm	<5	<5	<5
Phosphorus(P)	ppm	<b>332</b>	505	490
Silicon (Si)	ppm	<5	<5	<5
Zinc (Zn)	ppm	668	<b>197</b>	608
Sulfur (S)	ppm	<b>551</b>	1,350	1,560

Customer Id: ENC0005J03  
Sample No.: EN23120043  
Lab Number: 23120043  
Test Package: TEST



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To discuss the diagnosis or test data:

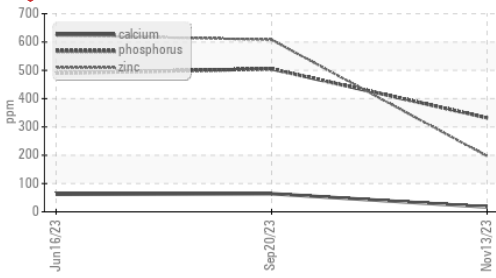
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To change component or sample information:

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# OIL ANALYSIS REPORT

### Additives



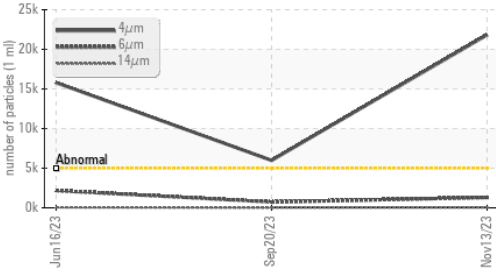
### DR FERROGRAPHY READINGS

L		17.6	5.5	7.2
S		6.5	2.6	3.3
WPC	DL + DS	24.1	8.1	10.5

### CONTAMINATION

Water	>0.05	<b>NEG</b>	NEG	NEG
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### Particle Trend



### Viscosity @ 40°C

