

LABORATORY ANALYSIS



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Department **REYLAM - FACILITIES**
 Equipment No. **COMP07 AIR COMPRESSOR #7 (00140)**
 System **Hydraulic System**
 Oil Type **ENGINEERED LUBRICANTS ENLUBE S-CHEM PAO-ACO-48 (--- GAL)**

COPELAND (MHDS)
 6001 S. 35TH STREET, SUITE D"
 REYNOSA, ZZ
 US
 Contact: GERARDO GUERRERO
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 T:
 F:

Diagnosis

We recommend that you drain the oil from the component if this has not already been done. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. There is no indication of any contamination in the oil. The system and fluid cleanliness is acceptable. Phosphorus(P) ppm levels are severely low. cSt Vis. @ 40C is severely high. Sulfur (S) ppm levels are abnormally low. The viscosity of the oil is higher than normal, possibly indicating the addition of a heavier grade of oil.

Sample Information

Lab Number	New	2405-00181	2401-00451	2310-00875
Date of Sample	(Typical)	28 Apr 2024	10 Jan 2024	16 Oct 2023
Oil Added		UNK	UNK	UNK
Last Drain Date		--	--	--
Months on Sample		99.7	96.3	93.5
Last Filter Service		--	--	--
Sample Point		---	---	---
Sample Status		SEVERE	SEVERE	SEVERE

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

SSU Vis. @ 100F	SSU	221.5	256.5	247.4	252.5
cSt Vis. @ 40C	cSt	43.3	▲ 49.64	▲ 47.91	▲ 48.88

% WATER - KARL FISCHER (ASTM E203)

% Water (KF)	%	0.020	0.011	0.017
ppm Water (KF)	ppm	200	110	170

COLOR (BASED ON ASTM D1500 STANDARDS)

Color	Scale 0-8	0.5	3.5	3.5	3.5
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TOTAL ACID NUMBER (NEUT. NO.)(ASTM D974)

TAN, mg KOH/g	mg KOH/g	0.57	0.34	0.45	0.45
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PARTICLE COUNT (PER 1ML)

ISO CODE	ISO 4406(c)	>21/19/14	17/14/11	19/17/15	16/15/12
4 Micron & Larger	particles/ml	>20000	957	4,051	479
6 Micron & Larger	particles/ml	>5000	99	▲ 1,269	196
14 Micron & Larger	particles/ml	>160	16	246	29
21 Micron & Larger	particles/ml	>40	4	92	10
38 Micron & Larger	particles/ml	>10	0	6	1
70 Micron & Larger	particles/ml	>3	0	0	0

Customer Id: MOTMCA
 Sample No.: EN24050181
 Lab Number: 24050181
 Test Package: TEST



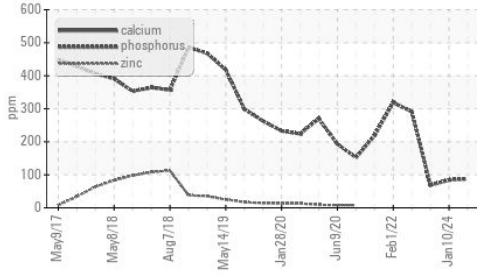
To manage this report scan the QR code

To discuss the diagnosis or test data:
 Brian Klutenkamper +1 (314)872-9540
bkluitenkamper@englube.com

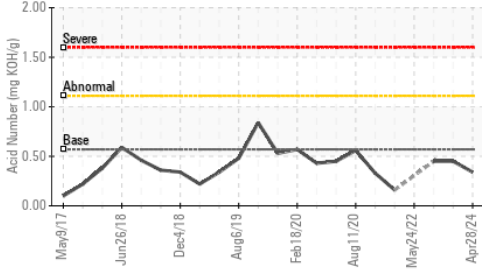
To change component or sample information:
 Tracy Weaks +1 (314)872-9540
tweaks@englube.com

OIL ANALYSIS REPORT

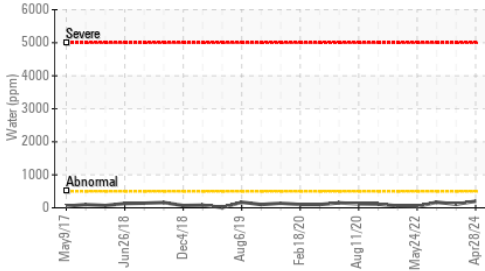
▲ Additives



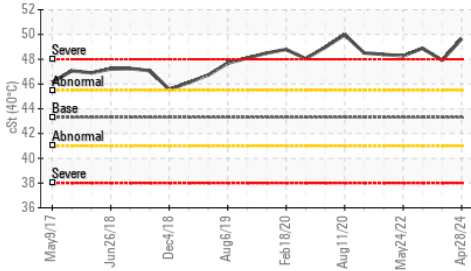
Acid Number



Water (KF)



Viscosity @ 40°C



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	5	■ <5	■ <5	
Magnesium (Mg)	ppm	5	■ <5	■ <5	
Phosphorus (P)	ppm	220	▲ 87	▲ 84	▲ 69
Silicon (Si)	ppm	5	<5	<5	<5
Zinc (Zn)	ppm	5	■ <5	■ <5	■ <5
Sulfur (S)	ppm	1745	▲ 1,150	▲ 1,150	▲ 1,160

DR FERROGRAPHY READINGS

L		■ 1.6	■ 4.1	■ 2.0
S		■ 1.4	■ 0.7	■ 0.1
WPC	DL + DS	■ 3	■ 4.8	■ 2.1