

LABORATORY ANALYSIS



11525 Rock Island Court, St. Louis, MO 63043
Tel: 1-800-876-0008 info@englube.com

Department **REYLAM-PRESS**
 Equipment No. **MAN18 DEREELEL(LAM LINE 18) (00097)**
 System **Hydraulic System**
 Oil Type **ENGINEERED LUBRICANTS ENLUBE 20-AW (--- GAL)**

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

Diagnosis

We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We advise that you use off-line filtration with water adsorbent filters to attempt to remove the water from this oil. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. There is a moderate concentration of water present in the oil. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. Viscosity of sample indicates oil is within ISO 46 range, advise investigate. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Sample Information

Lab Number	New	2404-00855	2401-00697	2310-00775
Date of Sample	(Typical)	05 Apr 2024	19 Jan 2024	10 Oct 2023
Oil Added		UNK	UNK	UNK
Last Drain Date		--	--	--
Last Filter Service		--	--	--
Sample Point		---	---	---
Sample Status		ABNORMAL	NORMAL	NORMAL

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

SSU Vis. @ 100F	SSU	272.3	236.7	243.4
cSt Vis. @ 40C	cSt	46	45.85	47.12

% WATER - KARL FISCHER (ASTM E203)

% Water (KF)	%	0.142	---	---
ppm Water (KF)	ppm	1,420	---	---

COLOR (BASED ON ASTM D1500 STANDARDS)

Color	Scale 0-8	1.5*	1.0	0.5
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PARTICLE COUNT (PER 1ML)

ISO CODE	ISO 4406(c)	>19/18/14	18/16/12	19/16/12	19/17/13
4 Micron & Larger	particles/ml	>5000	2,302	2,830	3,367
6 Micron & Larger	particles/ml	>2500	397	633	829
14 Micron & Larger	particles/ml	>160	22	39	42
21 Micron & Larger	particles/ml	>40	4	10	11
38 Micron & Larger	particles/ml	>10	0	0	0
70 Micron & Larger	particles/ml	>3	0	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	55	61	62
Magnesium (Mg)	ppm	<5	<5	<5
Phosphorus(P)	ppm	484	479	499
Silicon (Si)	ppm	<5	<5	<5
Zinc (Zn)	ppm	715	584	603
Sulfur (S)	ppm	1,980	1,650	1,450

Customer Id: MOTMCA
 Sample No.: EN24040855
 Lab Number: 24040855
 Test Package: TEST

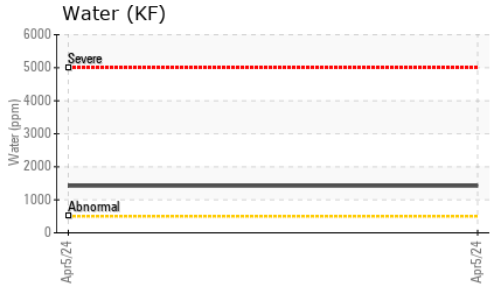


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To discuss the diagnosis or test data:
 Brian Klutenkamper +1 (314)872-9540
bklutenkamper@englube.com

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

OIL ANALYSIS REPORT



DR FERROGRAPHY READINGS

L		■ 0.1	■ 3.3	■ 1.6
S		■ 0.1	■ 2.5	■ 0.8
WPC	DL + DS	■ 0.2	■ 5.8	■ 2.4

