

OIL ANALYSIS REPORT

Area M460 [7240] Machine Id KAESER 2008 - MIKE MOLSTEAD MOTORS INC Component

Compressor

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sample Ratin	g irena	
	Nov2023	



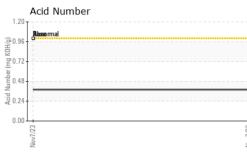
NORMAL

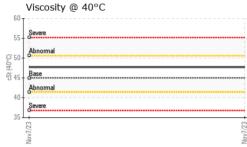
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		UCH06015218		
Sample Date		Client Info		07 Nov 2023		
Machine Age	hrs	Client Info		15228		
Oil Age	hrs	Client Info		1460		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINATIO	N	method	limit/base	current	history1	history2
Water		WC Method	>0.05	NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	0		
Chromium	ppm	ASTM D5185m	>10	0		
Nickel	ppm	ASTM D5185m	>3	0		
Titanium	ppm	ASTM D5185m	>3	0		
Silver	ppm	ASTM D5185m	>2	0		
Aluminum	ppm	ASTM D5185m	>10	0		
Lead	ppm	ASTM D5185m	>10	0		
Copper	ppm	ASTM D5185m	>50	4		
Tin	ppm	ASTM D5185m	>10	0		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0		
Barium	ppm	ASTM D5185m	90	0		
Molybdenum	ppm	ASTM D5185m	0	0		
Manganese	ppm	ASTM D5185m		<1		
Magnesium	ppm	ASTM D5185m	100	16		
Calcium	ppm	ASTM D5185m	0	1		
Phosphorus	ppm	ASTM D5185m	0	2		
Zinc	ppm	ASTM D5185m	0	22		
Sulfur	ppm	ASTM D5185m	23500	18966		
CONTAMINANTS	;	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<1		
Sodium	ppm	ASTM D5185m		4		
Potassium	ppm	ASTM D5185m	>20	<1		
FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.38		



OIL ANALYSIS REPORT

VISUAL





White Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE Precipitate scalar *Visual NONE NONE Silt scalar *Visual NONE NONE Bobris scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual NORML NEG Free Water scalar *Visual NORML NEG NEG Free Water scalar *Visual NORML NEG NeG Neg no image Non-ferrous Metals Mon-ferrous Metals	 		NONE	DNE	al N	*Visua	scalar	etal	White Me			
Precipitate scalar *Visual NONE NONE Sitt scalar *Visual NONE NONE Bebris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NORML NORML Appearance scalar *Visual NORML NORML Emulsified Water scalar *Visual *Visual NORML * Emulsified Water scalar *Visual *Visual ** ** *******************************												
Silt scalar *Visual NONE NONE Bebris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual NORML NORML Free Water scalar *Visual NORML NORML Color NEG Color no image Bottom no image Nor-ferrous Metals Nor-ferrous Metals			NONE	DNE	al N	*Visua	scalar	letal	Yellow M			
Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Emulsified Water scalar *Visual NORML NORML Emulsified Water scalar *Visual NORML NORML Free Water scalar *Visual NORML NORML NORML SAMPLE IMAGES method imit/base current history1 Color Color no image Color no image Color no image Non-ferrous Metals Mon-ferrous Metals			NONE	ONE	al N	*Visua	scalar	te	Precipitat			
Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.05 NEG Free Water scalar *Visual >0.05 NEG Free Water scalar *Visual >0.05 NEG FUID PROPERTIES method imit/base current history1 Visc @ 40°C cSt ASTM D445 45 47.7 SAMPLE IMAGES method imit/base current history1 Color for no image n			NONE	DNE	al N	*Visua	scalar		Silt			
Appearance scalar 'Visual NORML NORML Odor scalar 'Visual NORML NORML Emulsified Water scalar 'Visual >0.05 NEG Free Water scalar 'Visual >0.05 NEG Free Water scalar 'Visual NORML NORML Free Water scalar 'Visual NORML NORML SAMPLE IMAGES method imit/base current history1 Color Norferrous Alloys Non-ferrous Metals 			NONE	ONE	al N	*Visua	scalar		Debris			
Appearance scalar Visual NORML NORML Cdor scalar Visual NORML NORML Emulsified Water scalar Visual >0.05 NEG Free Water scalar Visual NORML NORML Free Water scalar Visual NORM Free Water Scalar V			NONE	DNE	al N	*Visua	scalar	t	Sand/Dir			
Color scalar Visual >0.05 NEG Free Water scalar 'Visual >0.05 NEG Free Water scalar 'Visual NEG FLUID PROPERTIES method imit/base current history1 Visc @ 40°C cSt ASTM D445 45 47.7 SAMPLE IMAGES method limit/base current history1 Color Color imit/base current history1 Bottom imit/base current history1 Non-ferrous Alloys			NORML			*Visua		nce	Appearar	7/23 -		
Free Water scalar *Visual NEG FLUID PROPERTIES method limit/base current history1 Visc @ 40°C cSt ASTM D445 45 47.7 SAMPLE IMAGES method limit/base current history1 Color Non-ferrous Metals			NORML	DRML	al N	*Visua	scalar		Odor	Nov		
FLUID PROPERTIES method limit/base current history1 Visc @ 40°C cSt ASTM D445 45 47.7 SAMPLE IMAGES method limit/base current history1 Color Imit/base current history1 Bottom Imit/base current history1 Reapender Imit/base current history1 Imit/Imit/base current history1 Imit/Imit/Imit/Base current history1 Imit/Imit/Imit/Imit/Imit/Imit/Imit/Imit/			NEG	.05	al >	*Visua	scalar	d Water	Emulsifie			
Visc @ 40°C cSt ASTM D445 45 47.7 SAMPLE IMAGES method imit/base current history1 Color no image Bottom no image CRAPHS Ferrous Alloys 0 0 0 0 0 0 0 0 0 0 0 0 0			NEG		al	*Visua	scalar	ter	Free Wat			
Visc @ 40°C cSt ASTM D445 45 47.7 SAMPLE IMAGES method imit/base current history1 Color no image Bottom no image CRAPHS Ferrous Alloys 0 0 0 0 0 0 0 0 0 0 0 0 0	history2	history1	ourropt	mit/baco	bod	moth			ELUID			
SAMPLE IMAGES method limit/base current history1 Color Imit/base current history1 Bottom Imit/base no image Bottom Imit/base no image GRAPHS Imit/base no image Ferrous Alloys Imit/base Imit/base Imit/base Imit/base Imit/base		, i i i i i i i i i i i i i i i i i i i										
Color no image Bottom no image no image no image no image			47.7		ID445 4	ASIM	cSt	-0°C	Visc @ 4			
Bottom no image CRAPHS Ferrous Alloys 0 0 0 0 0 0 0 0 0 0 0 0 0	history2	history1	current	mit/base	hod	metł	ES	LE IMAGE	SAMPL			
GRAPHS Ferrous Alloys	no image	no image	9.						Color	Nov7/23		
Ferrous Alloys	no image	no image							Bottom			
Copper Copper lead tin									udd 2 - EZ/LvoN			
2							als	copper lead				
Nov7/23				//23					0			
Viscosity @ 40°C Acid Number			Acid Number					ty @ 40°C	Viscosit			
				≘ ^{1.20} ⊺					Severe			
55 - determine			0	5 0.96					33	ĩ		
Co 50 Aonormal Base b Water and the second				<u>ق</u> 0.72					Base	1000		
87 45 Abnormal				- 10.48					Automat	č		
40 Severe 20.24				0					Severe			
Nov7/23			1/23									
Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 DELTA INDUSTRIES - CE Sample No. : UCH06015218 Received : 22 Nov 2023 6540	DAR RAPII 4TH ST S			NC 27513 2023 2023	: 22 No : 26 No	d ed	Receive Diagnos	15218 <mark>8</mark>	: WearChe : UCH060 : <mark>0601521</mark>	le No. umber	Sample Lab Nur	

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

F: (319)862-2501