

OIL ANALYSIS REPORT

Area Plate Mill/166 Hot Mill Machine Id #1 LUBE SYSTEM (PLS005) (S/N 1000001259) Component

Gear Lube System Fluid GEAR OIL ISO 460 (--- GAL)

DIAGNOSIS

Recommendation

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

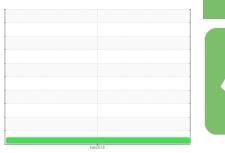
All component wear rates are normal.

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.





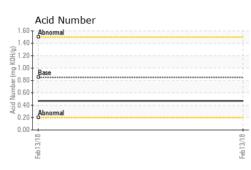
NORMAL

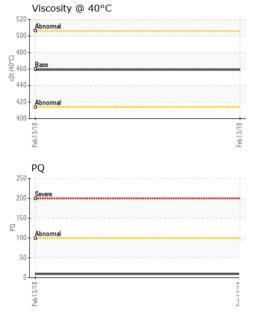
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0286395		
Sample Date		Client Info		13 Feb 2018		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				NORMAL		
CONTAMINATION	١	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG		
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*		9		
Iron	ppm	ASTM D5185(m)	>150	25		
Chromium	ppm	ASTM D5185(m)	>10	0		
Nickel	ppm	ASTM D5185(m)	>10	<1		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)		0		
Aluminum	ppm	ASTM D5185(m)	>25	2		
Lead	ppm	ASTM D5185(m)	>100	<1		
Copper	ppm	ASTM D5185(m)	>50	2		
Tin	ppm	ASTM D5185(m)	>10	0		
Antimony	ppm	ASTM D5185(m)		<1		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	50	<1		
Barium	ppm	ASTM D5185(m)	15	0		
Molybdenum	ppm	ASTM D5185(m)	15	0		
Manganese	ppm	ASTM D5185(m)		<1		
Magnesium	ppm	ASTM D5185(m)	50	<1		
Calcium	ppm	ASTM D5185(m)		<1		
Phosphorus	ppm	ASTM D5185(m)	350	254		
Zinc	ppm	ASTM D5185(m)	100	1		
Sulfur	ppm	ASTM D5185(m)	12500	8613		
Lithium	ppm	ASTM D5185(m)		<1		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>50	2		
Sodium	ppm	ASTM D5185(m)		<1		
Potassium	ppm	ASTM D5185(m)	>20	<1		
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.85	0.470		

Sample Rating Trend



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VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE		
Yellow Metal	scalar	Visual*	NONE	NONE		
Precipitate	scalar	Visual*	NONE	NONE		
Silt	scalar	Visual*	NONE	NONE		
Debris	scalar	Visual*	NONE	VLITE		
Sand/Dirt	scalar	Visual*	NONE	NONE		
Appearance	scalar	Visual*	NORML	NORML		
Odor	scalar	Visual*	NORML	NORML		
Emulsified Water	scalar	Visual*	>0.1	NEG		
Free Water	scalar	Visual*		NEG		
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	460	459		
SAMPLE IMAGES	\$	method	limit/base	current	history1	history2
Color					no image	no image
Bottom					no image	no image
GRAPHS						
Ferrous Alloys				PQ		
25 20 iron 1			220			
20 assessesses chromium			200	Severe		•••••
E 10			180	-		
5			160			
			140			
Feb 13/18			120 Lep 13/18			
—			훈 문 100	Abnormal		
Non-ferrous Metal	5					
copper			80			
E 6+			60			
			40			
2-			20			
			0 <u>000</u>	L		
Feb 13/18			Feb13/18	Feb13/18		
⊥″ Viscosity @ 40°C			ιĒ			
520 Abnormal			2 00	Acid Number		
500 -			B/HO) 1 CO	Abnormal		
0 480 - Base			Ē			
3 440			2.00 (b)(A)(0) (m) (m) (m) (m) (m) (m) (m) (m) (m) (m	Base		
420 - Abnormal			Z 0.50	Abnormal		
400			0.00	L.		
Feb 13/1			Feb13/18	Feb13/18		
: WearCheck - C8-1175 : WC0286395 : 02199069 : 4642186	Appleby Recei Teste Diagr	ived :15 ed :16	gton, ON L7L 5 Feb 2018 5 Feb 2018 5 Feb 2018 - W	.5H9 ALGOM /	A STEEL INC 301 WALLA SAULT S	

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CALA

ISO 17025:2017 Accredited Laboratory

Contact/Location: Maintenance Technology - Algoma Reliability - ALGSSM