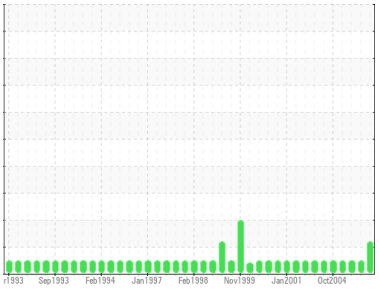
OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY

Area
Hydraulics
Machine Id
PRESS #2
Component
Hydraulic System
Fluid
SUNOCO SUNVIS 846 ISO 46 (550 GAL)

DIAGNOSIS

Recommendation
We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.

Wear
All component wear rates are normal.

Contamination
There is a moderate amount of particulates (5 to 100 microns in size) present in the oil.

Fluid Condition
The viscosity of the oil is higher than normal, possibly indicating the addition of a heavier grade of oil.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC22045392**	WC22043231	WC22040606
Sample Date		Client Info		**07 Dec 2005**	30 Aug 2005	27 Apr 2005
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)		**5**	5	4
Chromium	ppm	ASTM D5185(m)		**<1**	<1	<1
Nickel	ppm	ASTM D5185(m)		**<1**	0	<1
Titanium	ppm	ASTM D5185(m)		**<1**	0	0
Silver	ppm	ASTM D5185(m)		**0**	<1	<1
Aluminum	ppm	ASTM D5185(m)		**<1**	<1	<1
Lead	ppm	ASTM D5185(m)		**2**	<1	<1
Copper	ppm	ASTM D5185(m)		**14**	16	15
Tin	ppm	ASTM D5185(m)		**<1**	<1	0
Vanadium	ppm	ASTM D5185(m)		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**1**	1	2
Barium	ppm	ASTM D5185(m)		**2**	2	3
Molybdenum	ppm	ASTM D5185(m)		**<1**	0	<1
Manganese	ppm	ASTM D5185(m)		**<1**	<1	<1
Magnesium	ppm	ASTM D5185(m)		**63**	69	59
Calcium	ppm	ASTM D5185(m)		**86**	86	78
Phosphorus	ppm	ASTM D5185(m)		**540**	525	466
Zinc	ppm	ASTM D5185(m)		**583**	614	534
Sulfur	ppm	ASTM D5185(m)		**2014**	2104	2002

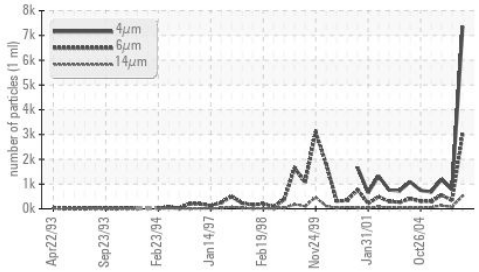
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)		**5**	3	3
Sodium	ppm	ASTM D5185(m)		**3**	3	3
Potassium	ppm	ASTM D5185(m)		**2**	0	<1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		**7360**	768	1192
Particles >6µm		ASTM D7647		▲ **3003**	334	560
Particles >14µm		ASTM D7647		▲ **510**	74	128
Particles >21µm		ASTM D7647		**136**	27	47
Particles >38µm		ASTM D7647		**10**	5	7
Particles >71µm		ASTM D7647		**0**	0	0
Oil Cleanliness		ISO 4406 (c)		▲ **20/19/16**	17/16/13	17/16/14

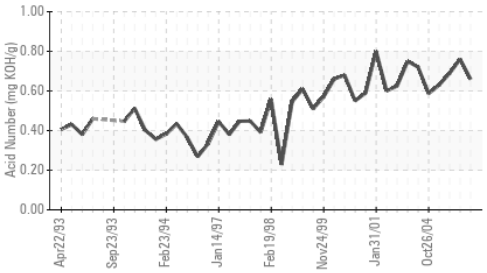
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		**0.66**	0.76	0.689

OIL ANALYSIS REPORT

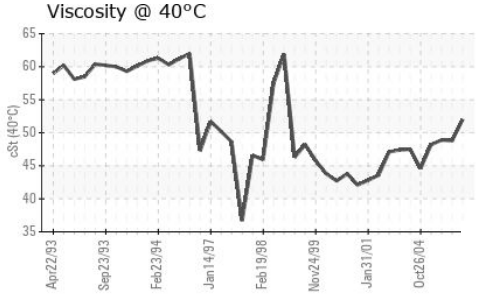
Particle Trend



Acid Number

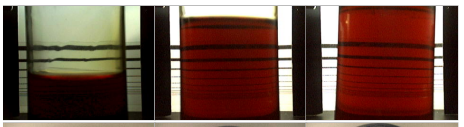


Viscosity @ 40°C



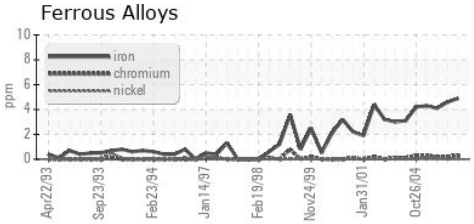
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Precipitate	scalar	Visual*	NONE	**NONE**	NONE	NONE
Silt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Debris	scalar	Visual*	NONE	**NONE**	VLITE	VLITE
Sand/Dirt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Appearance	scalar	Visual*	NORML	**NORML**	NORML	NORML
Odor	scalar	Visual*	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	Visual*		**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)		▲ **52.0**	48.8	48.9

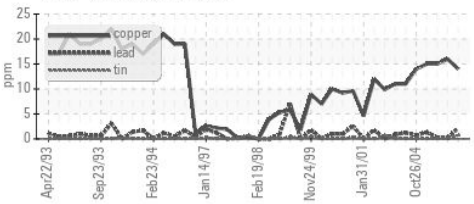
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

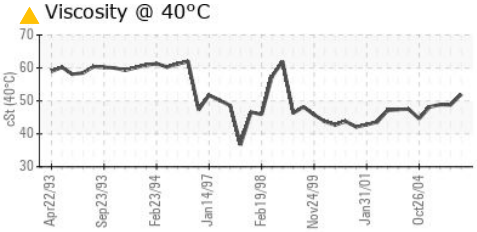
Ferrous Alloys



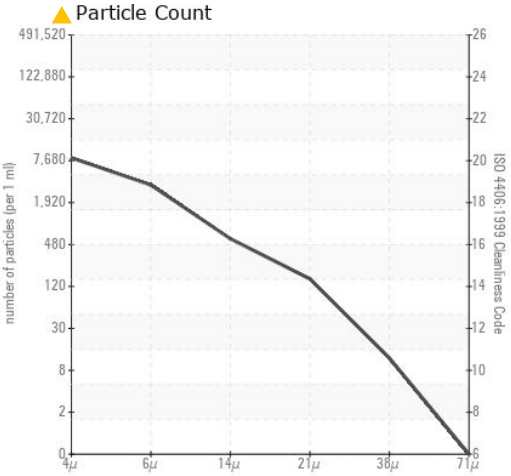
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC22045392 **Received** : 08 Dec 2005
Lab Number : 01257855 **Tested** : 12 Dec 2005
Unique Number : 2124133 **Diagnosed** :
Test Package : IND 2 (Additional Tests: SCREEN)

To discuss this sample report, contact Customer Service at 1-800-268-2131.
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
Validity of results and interpretation are based on the sample and information as supplied.

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