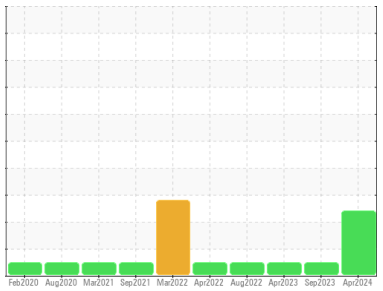
OIL ANALYSIS REPORT

Sample Rating Trend



DIRT

Area
MILLING
Machine Id
C-112
Component
Gearbox
Fluid
MOBIL SHC 630 (1 LTR)

DIAGNOSIS

Recommendation
We advise that you check all areas where dirt can enter the system. Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
There is a high amount of silt (particulates < 14 microns in size) present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0919955**	WC0854681	WC0809612
Sample Date		Client Info		**02 Apr 2024**	06 Sep 2023	12 Apr 2023
Machine Age	mths	Client Info		**97**	97	97
Oil Age	mths	Client Info		**0**	18	13
Oil Changed		Client Info		**N/A**	Oil Added	Not Changd
Sample Status				**ABNORMAL**	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.2	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	**79**	11	15
Chromium	ppm	ASTM D5185m	>15	**<1**	0	0
Nickel	ppm	ASTM D5185m	>15	**<1**	<1	0
Titanium	ppm	ASTM D5185m		**<1**	0	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>25	**5**	1	0
Lead	ppm	ASTM D5185m	>100	**0**	<1	0
Copper	ppm	ASTM D5185m	>200	**<1**	<1	0
Tin	ppm	ASTM D5185m	>25	**<1**	0	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	0	0
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m		**3**	1	3
Calcium	ppm	ASTM D5185m		**12**	3	2
Phosphorus	ppm	ASTM D5185m		**434**	503	388
Zinc	ppm	ASTM D5185m		**10**	0	0
Sulfur	ppm	ASTM D5185m		**0**	3	0

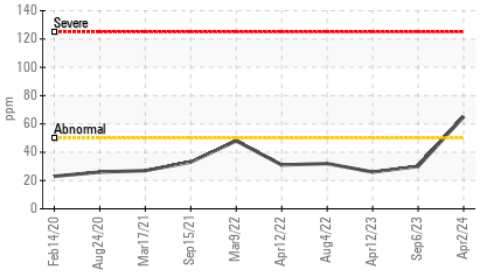
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	**65**	30	26
Sodium	ppm	ASTM D5185m		**2**	0	<1
Potassium	ppm	ASTM D5185m	>20	**4**	0	<1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	**220916**	36151	133567
Particles >6µm		ASTM D7647	>5000	**117386**	3107	16314
Particles >14µm		ASTM D7647	>640	**475**	142	202
Particles >21µm		ASTM D7647	>160	**52**	15	16
Particles >38µm		ASTM D7647	>40	**0**	0	1
Particles >71µm		ASTM D7647	>10	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	**25/24/16**	22/19/14	24/21/15

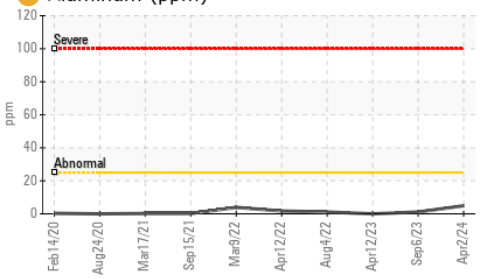
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.53**	0.49	0.49

OIL ANALYSIS REPORT

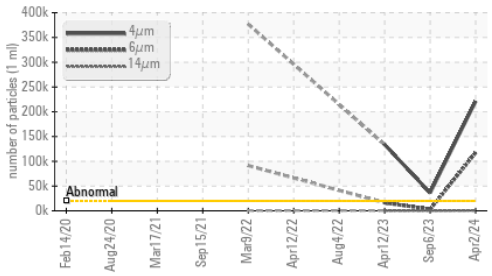
Silicon (ppm)



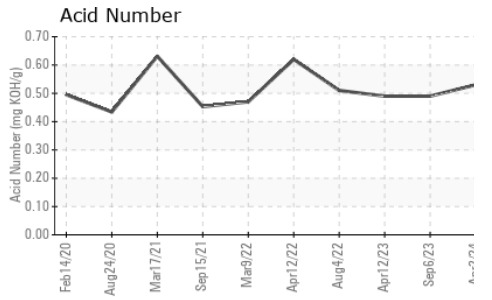
Aluminum (ppm)



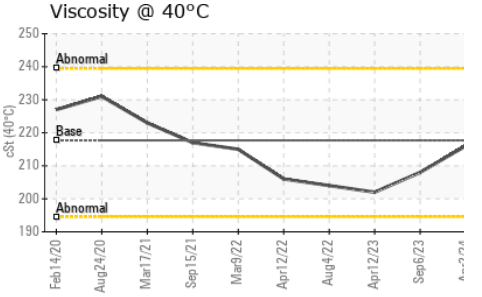
Particle Trend



Acid Number



Viscosity @ 40°C



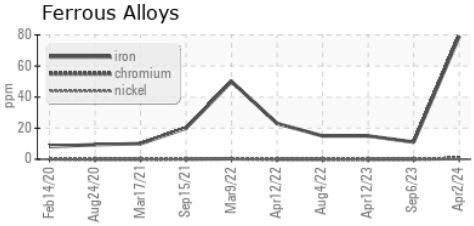
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	217.7	**216**	208	202

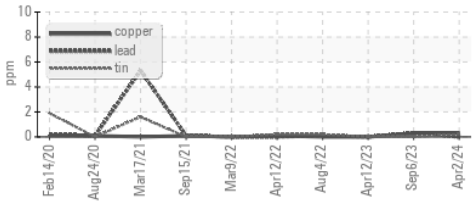
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

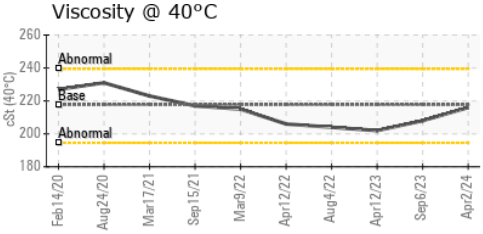
Ferrous Alloys



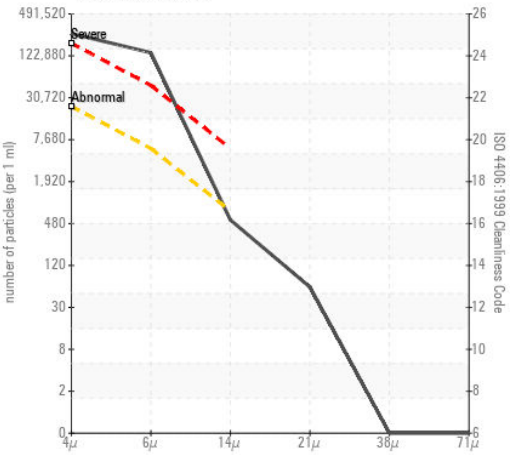
Non-ferrous Metals



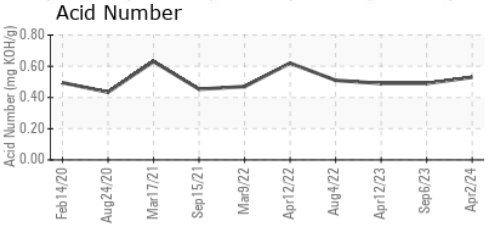
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0919955
Lab Number : 06138529
Unique Number : 10963337
Test Package : IND 2 (Additional Tests: PrtCount)

Received : 04 Apr 2024
Tested : 05 Apr 2024
Diagnosed : 06 Apr 2024 - Don Baldridge

To discuss this sample report, contact Customer Service at 1-800-237-1369.
** - Denotes test methods that are outside of the ISO 17025 scope of accreditation.*
Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

POET BIOREFINING - Groton
40425 133RD STREET
GROTON, SD
US 57445-6400
Contact: GAVIN KRUEGER
Gavin.Krueger@POET.COM
T: 6(05)846-6863
F: (605)397-2754

Report Id: POEGRO [WUSCAR] 06138529 (Generated: 04/06/2024 12:11:05) Rev: 1

Submitted By: GAVIN KRUEGER