




Lubricants are the lifeblood of your rotating machinery. Without them, your production capacity would come to a grinding halt. By performing routine oil analysis, you are monitoring your machine's "blood" and measuring for any changes that may be occurring- changes that may do harm to the bearings, gears, contaminate lines and corrode or plug up internal systems. Much like a doctor drawing a blood sample from your body, an oil sample taken from a return line or reservoir can provide a wealth of information about the health of the machine system. Keeping data on the chemistry, contamination and wear components of your machine's oil is a crucial factor in knowing if harmful changes might be attacking the components of your expensive and critical machinery.

Calkins Technical Products wants to be your predictive maintenance partner by providing world-class oil analysis services. We will provide your company with self-contained, sealed sample bottles ready for use when you need them, and when filled you send them directly to the lab for analysis. Upon arrival the tests are performed and results e-mailed within hours. Other benefits include not having to purchase and house expensive testing equipment, and not needing to train and pay for on-site personnel to run the tests.

Fluid Analysis
"The **SMART** thing to do"



- **S**aves you money
- **M**akes maintenance more effective
- **A**llows extended drains with confidence
- **R**esults in increased reliability
- **T**akes the guess work out of maintenance

Please call us at 585-424-7325 and let us help you set up your oil analysis program and start tracking the health of your machines. We also offer vibration analysis programs, motion amplification, thermography and ultrasound testing. Our Service personnel are also experts in motor and pump repair, balancing, laser alignments, and we can custom cut gaskets to your specifications of size and material.



IND II WEAR CHECK
INDUSTRIAL OIL ANALYSIS REPORT

CONTAMINATION: **ABNORMAL**
OIL CONDITION: **NORMAL**
WEAR: **NORMAL**

K-1301 Centrifugal - Centrifugal Compressor

Unit Make: Nuovo-Pignone Date Rec'd: Jun 22, 2001 Sample Date: Jun 20, 2001
 Unit Model: BCL 354 Serial No: 9681 Time on Oil: 0 hrs
 Comp Make: Nuovo-Pignone Cust. Ref No: [n/a] Time on Oil: 0 hrs
 Comp Model: BCL 354 Strub No: WC-22013757 Time on Filter: 0 hrs

RECOMMENDATION
Diagnosis: Barry Oskin
We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.

CONTAMINATION
There is a high amount of particulates (5 to >100 microns in size) present in the oil.

Sample Date	1/13/01	2/2/01	3/16/01	Current	Abn
Silicon	0.6	0.7	1.3	0.0	---
Potassium	7.7	3.0	1.3	0.0	---
Water (%)	<0.1	<0.1	<0.1	<0.1	0.1
>5µm	333	1066	773	2777	---
>15µm	31	89	68	268	---
>25µm	17	23	26	122	---
>50µm	1	2	3	9	---
>100µm	0	0	0	0	---
ISO 4406	16/13	17/14	17/13	19/16	---

OIL CONDITION
Oil Type: SHELL TURBO 32
The condition of oil is suitable for further service.

Sample Date	1/13/01	2/2/01	3/16/01	Current	Base
Boron	4.2	4.3	4.7	0.3	---
Barium	0.3	0.4	0.5	0.0	---
Calcium	1.3	1.4	1.8	0.0	---
Magnesium	0.3	0.3	0.4	0.3	---
Molybdenum	0.3	0.4	0.6	0.0	---
Sodium	4.4	4.8	6.2	7.1	---
Phosphorus	4.7	5.7	6.6	2.1	---
Sulfur	2109	2130	2180	2105	---
Zinc	0.8	0.8	1.0	1.1	---
Visco@40°C	35.0	32.8	32.0	34.3	32
Visco@100°C	---	---	---	---	5.4
Oxidation	---	---	---	---	---
TAN	0.026	0.036	0.010	0.126	---
TBN	---	---	---	---	---

WEAR
All component wear rates are normal.

Sample Date	1/13/01	2/2/01	3/16/01	Current	Abn
Iron	0.1	0.3	0.4	0.4	---
Nickel	0.5	0.6	0.9	0.8	---
Chromium	0.2	0.3	0.4	0.0	---
Titanium	0.4	0.5	0.6	0.0	---
Copper	0.6	0.9	0.9	0.0	---
Aluminum	2.1	3.0	3.8	0.0	---
Tin	0.8	1.3	1.9	0.0	---
Lead	1.3	1.7	2.8	0.2	---
Silver	0.4	0.6	0.8	0.0	---

Report ID: CUSANY [WCALAB] 00123456 Pg 1

Quick Sample Status

Unit Identification

Sample Information
Sample, Received Date
Sample Number
Time on oil, filter, component

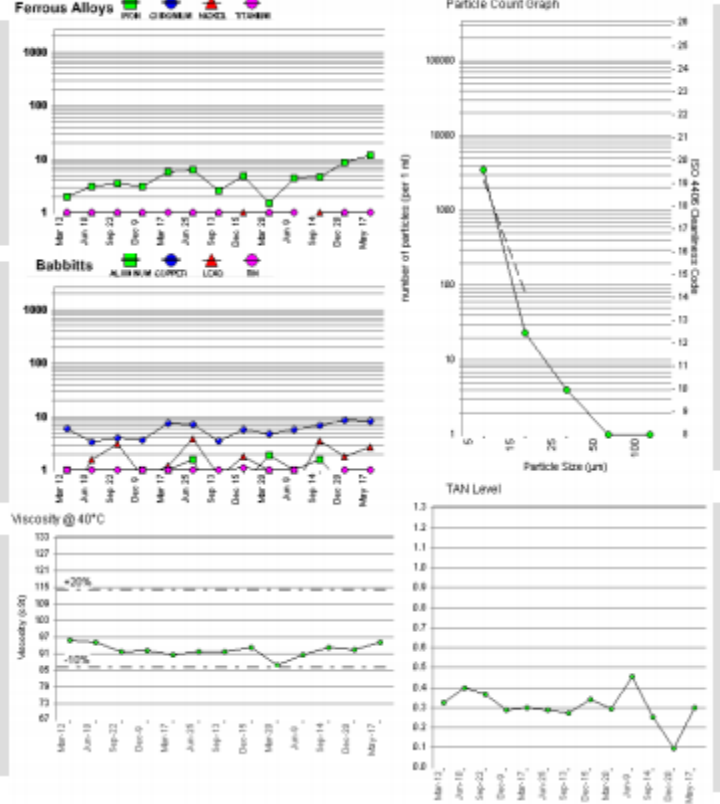
Abnormal Limits

Target ISO Cleanliness Level

New oil baseline

Report Identification

Graphs



Particle Count Graph
A chart of the current particle levels in an easy to read format showing the current particle levels against the ISO level. The chart also shows the target level.

TAN Graph
Trend of the TAN level of the oil showing both the base and typical levels of the base oil.

If you have any questions concerning this sample report (work order no 00072619) please call 1-800-268-2131.

The leader in oil analysis
WearCheck International
Africa, Asia, Australia, Europe, North America

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