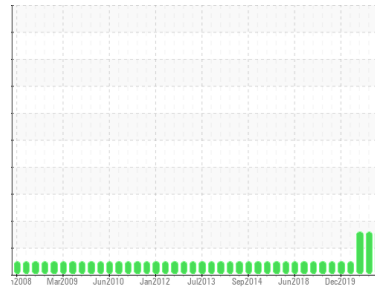




OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id
K-2002 Instrument Air Compressor

Component
Tank Air Compressor
 Fluid
CASTROL Alpha HC 68 (--- GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Elemental level of silicon (Si) above normal indicating ingress of seal material. The amount and size of particulates present in the system are acceptable.

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		HLC0003124	HLC0002314	HLC0002685
Sample Date	Client Info		03 Jan 2024	12 Oct 2023	10 Jun 2023
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	ABNORMAL	ABNORMAL

CONTAMINATION	method	limit/base	current	history1	history2
Water	WC Method	>0.1	NEG	NEG	NEG

WEAR METALS	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >70	<1	0	0
Chromium	ppm	ASTM D5185m >15	<1	<1	0
Nickel	ppm	ASTM D5185m >6	<1	0	0
Titanium	ppm	ASTM D5185m	<1	0	0
Silver	ppm	ASTM D5185m	<1	0	0
Aluminum	ppm	ASTM D5185m >10	2	<1	1
Lead	ppm	ASTM D5185m >20	<1	0	0
Copper	ppm	ASTM D5185m >80	<1	<1	0
Tin	ppm	ASTM D5185m >15	<1	0	0
Antimony	ppm	ASTM D5185m	---	---	---
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	<1	0	0

ADDITIVES	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0
Barium	ppm	ASTM D5185m	0	0	4
Molybdenum	ppm	ASTM D5185m	<1	<1	0
Manganese	ppm	ASTM D5185m	<1	0	0
Magnesium	ppm	ASTM D5185m	<1	0	<1
Calcium	ppm	ASTM D5185m	4	1	0
Phosphorus	ppm	ASTM D5185m	<1	0	3
Zinc	ppm	ASTM D5185m	0	0	1
Sulfur	ppm	ASTM D5185m	211	228	292

CONTAMINANTS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >12	▲ 14	▲ 21	▲ 15
Sodium	ppm	ASTM D5185m	0	0	<1
Potassium	ppm	ASTM D5185m >20	<1	2	<1

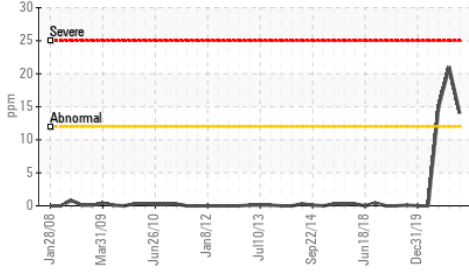
FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		5875	15238	9164
Particles >6µm	ASTM D7647	>2500	813	1273	1135
Particles >14µm	ASTM D7647	>320	31	11	29
Particles >21µm	ASTM D7647	>80	7	3	6
Particles >38µm	ASTM D7647	>20	0	0	0
Particles >71µm	ASTM D7647	>4	0	0	0
Oil Cleanliness	ISO 4406 (c)	>--/18/15	20/17/12	21/17/11	20/17/12



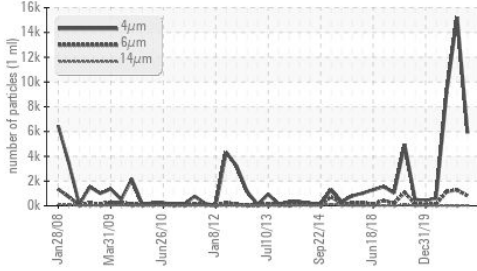
Hilcorp Alaska, LLC

OIL ANALYSIS REPORT

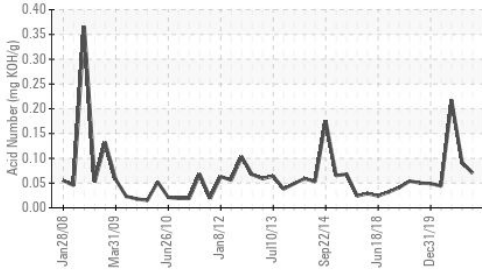
▲ Silicon (ppm)



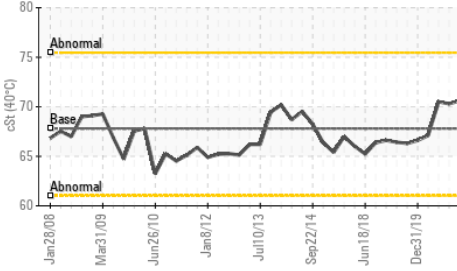
Particle Trend



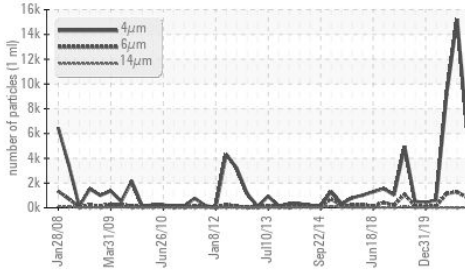
Acid Number



Viscosity @ 40°C



Particle Trend



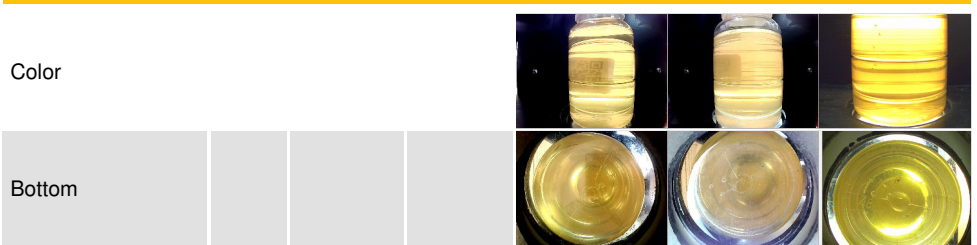
FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN) mg KOH/g	ASTM D8045	0.07	0.091	0.217
VISUAL				
method	limit/base	current	history1	history2
White Metal	scalar *Visual	NONE	NONE	NONE
Yellow Metal	scalar *Visual	NONE	NONE	NONE
Precipitate	scalar *Visual	NONE	NONE	NONE
Silt	scalar *Visual	NONE	NONE	NONE
Debris	scalar *Visual	NONE	NONE	NONE
Sand/Dirt	scalar *Visual	NONE	NONE	NONE
Appearance	scalar *Visual	NORML	NORML	NORML
Odor	scalar *Visual	NORML	NORML	NORML
Emulsified Water	scalar *Visual	>0.1	NEG	NEG
Free Water	scalar *Visual		NEG	NEG

FLUID PROPERTIES

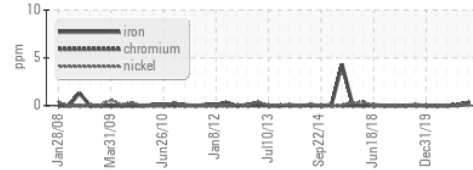
method	limit/base	current	history1	history2
Visc @ 40°C cSt	ASTM D445	70.6	70.3	70.5

SAMPLE IMAGES

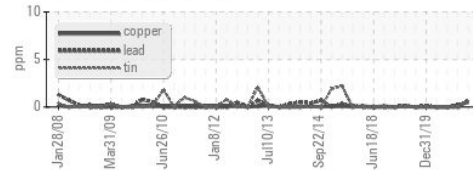


GRAPHS

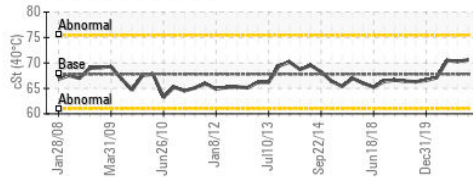
Ferrous Alloys



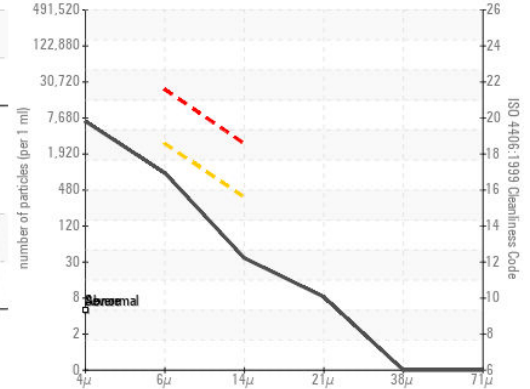
Non-ferrous Metals



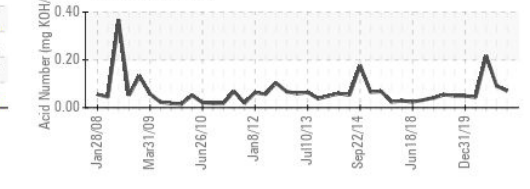
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : HLC0003124

Lab Number : 06131393

Unique Number : 10950858

Test Package : IND 2 (Additional Tests: PrtCount)

Received : 27 Mar 2024

Tested : 28 Mar 2024

Diagnosed : 01 Apr 2024 - Don Baldrige

HILCORP ALASKA LLC - ENDICOTT

604 WAREHOUSE ENDICOTT

PRUDHOE BAY, AK

US 99734

Contact: SEAN LOWTHER

slowther@hilcorp.com

T: (907)659-6800

F:

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)