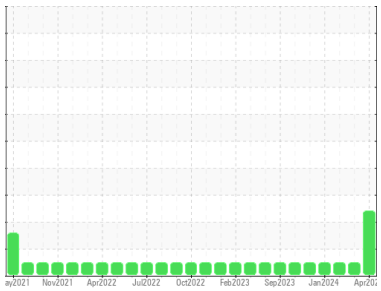
Hilcorp Alaska, LLC

OIL ANALYSIS REPORT

Area
Mod 55
Machine Id
CP-55304 CP-55304
Component
Reciprocating Compressor
Fluid
LO-ASH ENGINE OIL SAE 30 (15 GAL)

Sample Rating Trend



VISCOSITY

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
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Fluid Condition
The oil viscosity is lower than normal. Additive levels indicate the addition of a different brand, or type of oil. Confirm oil type. The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**HLC0002997**	HLC0002992	HLC0002948
Sample Date		Client Info		**02 Apr 2024**	02 Mar 2024	05 Feb 2024
Machine Age	days	Client Info		**0**	0	0
Oil Age	days	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ATTENTION**	NORMAL	NORMAL

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	>50	**0**	9	9
Chromium	ppm	ASTM D5185m	>10	**0**	0	0
Nickel	ppm	ASTM D5185m		**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	0	<1
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>25	**<1**	3	3
Lead	ppm	ASTM D5185m	>25	**0**	1	0
Copper	ppm	ASTM D5185m	>50	**0**	4	5
Tin	ppm	ASTM D5185m	>15	**0**	2	1
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	37	**0**	3	2
Barium	ppm	ASTM D5185m	12	**0**	0	0
Molybdenum	ppm	ASTM D5185m	200	**0**	54	54
Manganese	ppm	ASTM D5185m		**0**	<1	0
Magnesium	ppm	ASTM D5185m	5	**92**	4	1
Calcium	ppm	ASTM D5185m	1600	**4**	1357	1344
Phosphorus	ppm	ASTM D5185m	300	**1189**	254	263
Zinc	ppm	ASTM D5185m	400	**0**	313	307
Sulfur	ppm	ASTM D5185m	2600	**21382**	3084	2661

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**<1**	3	3
Sodium	ppm	ASTM D5185m		**0**	<1	1
Potassium	ppm	ASTM D5185m	>20	**3**	0	0

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		**1102**	370	342
Particles >6µm		ASTM D7647	>2500	**144**	51	78
Particles >14µm		ASTM D7647	>320	**7**	5	5
Particles >21µm		ASTM D7647	>80	**3**	2	1
Particles >38µm		ASTM D7647	>20	**0**	0	0
Particles >71µm		ASTM D7647	>4	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>--/18/15	**17/14/10**	16/13/10	16/13/10

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.32**	0.683	0.444

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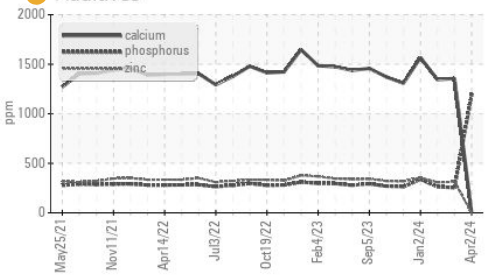
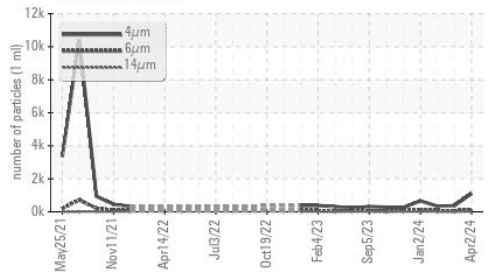
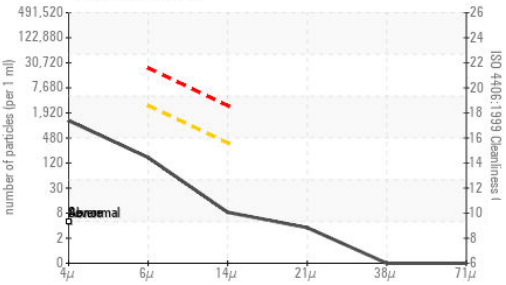
Additives



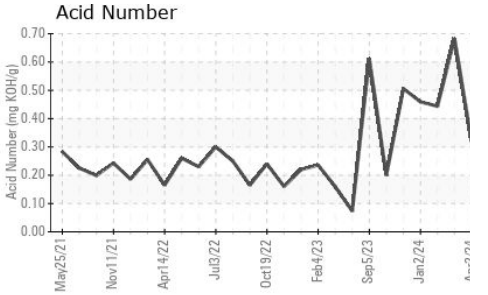
Particle Trend



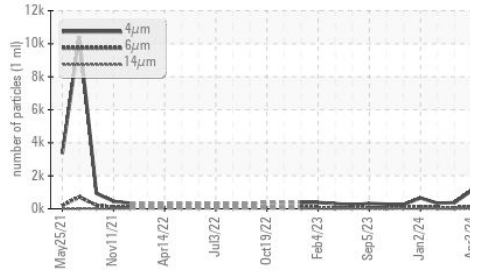
Particle Count



Acid Number



Particle Trend



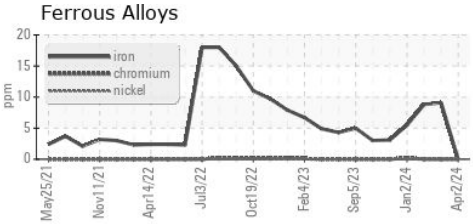
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	101	**101.2**	120	120

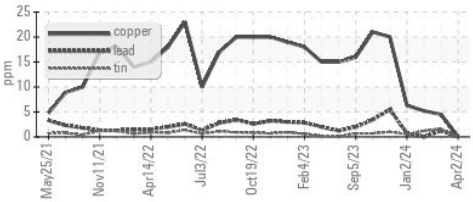
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

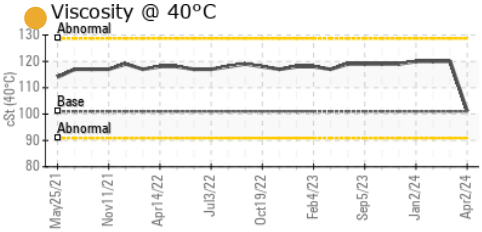
Ferrous Alloys



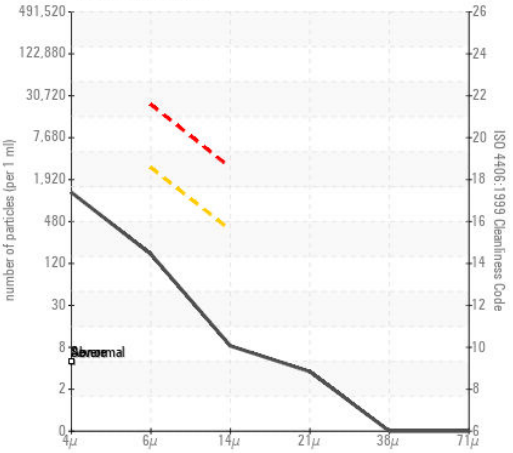
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : HLC0002997
Lab Number : 06146544
Unique Number : 10976622
Test Package : IND 2 (Additional Tests: PrtCount)

Received : 11 Apr 2024
Tested : 18 Apr 2024
Diagnosed : 18 Apr 2024 - Jonathan Hester

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)

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