



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
IRIG [6606317]
 Machine Id
IRIG-PRM-PMUD-0301 IRIG-PRM-PMUD-0301 #1 MUD PUMP
 Component
Pump
 Fluid
MOBIL SHC 632 (140 GAL)

RECOMMENDATION

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		HLC0003033	HLC0003064	HLC0002834
Sample Date		Client Info		20 Feb 2024	05 Feb 2024	02 Nov 2023
Machine Age	hrs	Client Info		20054	19974	19025
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	N/A	Filtered
Filter Changed		Client Info		Cleaned	N/A	Cleaned
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	32	43	40
Chromium	ppm	ASTM D5185m	>5	<1	1	2
Nickel	ppm	ASTM D5185m	>5	0	0	<1
Titanium	ppm	ASTM D5185m	>3	1	2	2
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>7	18	25	19
Lead	ppm	ASTM D5185m	>12	0	0	0
Copper	ppm	ASTM D5185m	>30	2	3	4
Tin	ppm	ASTM D5185m	>9	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

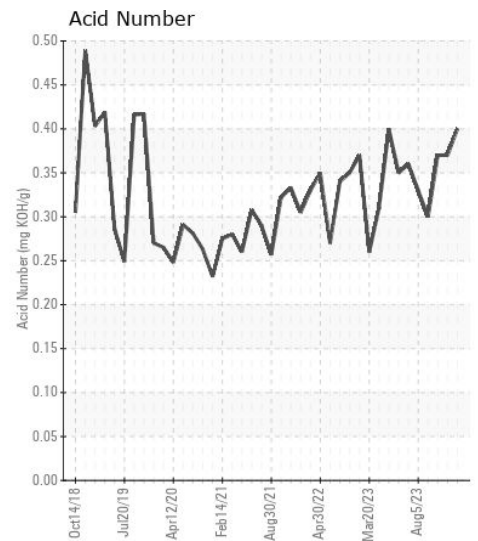
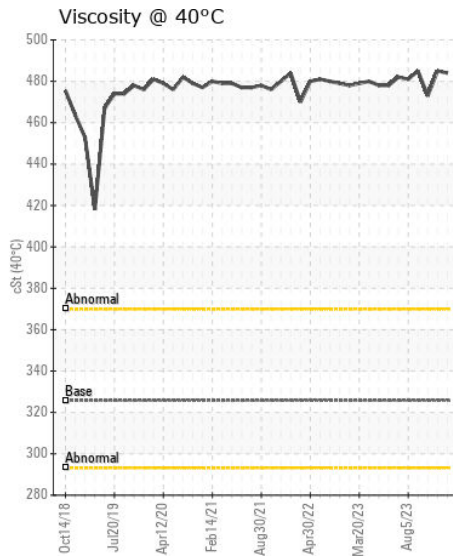
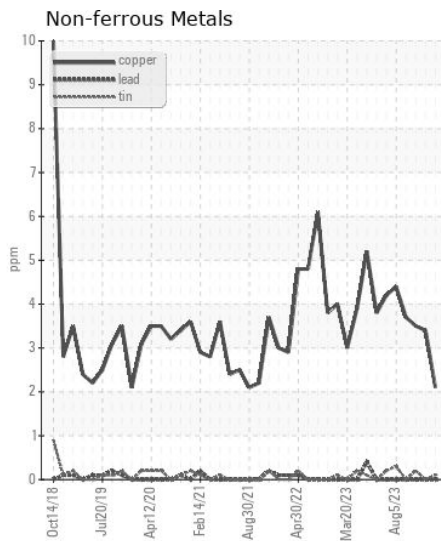
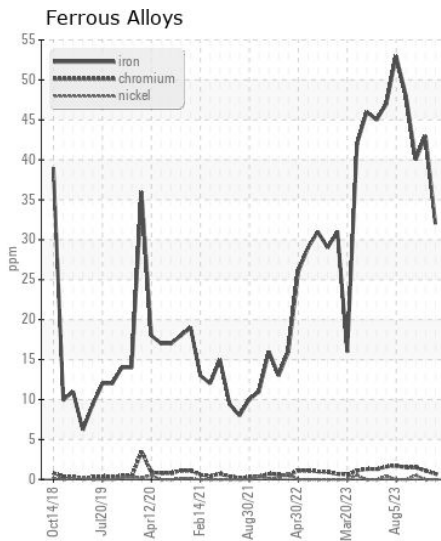
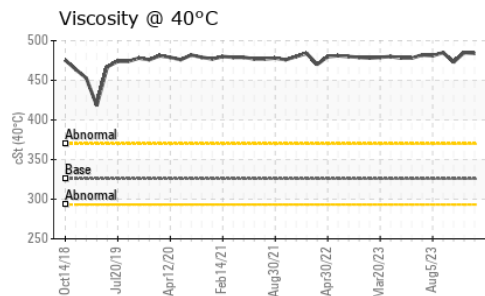
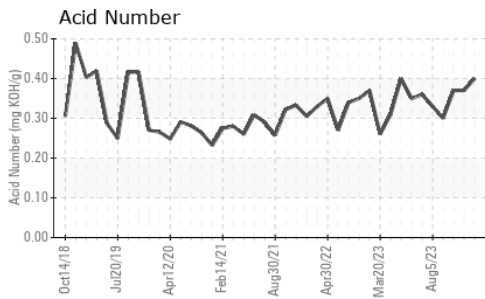
There is a moderate amount of visible silt present in the sample.

Silicon	ppm	ASTM D5185m	>60	52	69	54
Potassium	ppm	ASTM D5185m	>20	15	20	15
Water		WC Method	>.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>320000	---	277070	---
Particles >6µm		ASTM D7647	>40000	---	67328	---
Particles >14µm		ASTM D7647	>640	---	118	---
Particles >21µm		ASTM D7647	>160	---	14	---
Particles >38µm		ASTM D7647	>40	---	0	---
Particles >71µm		ASTM D7647	>10	---	0	---
Oil Cleanliness		ISO 4406 (c)	>25/22/16	---	25/23/14	---
Silt	scalar	*Visual	NONE	▲ MODER	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT	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	>.1	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		21	32	21
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		2	4	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		4	1	0
Calcium	ppm	ASTM D5185m		11	10	0
Phosphorus	ppm	ASTM D5185m		420	425	354
Zinc	ppm	ASTM D5185m		0	0	0
Sulfur	ppm	ASTM D5185m		30	46	0
Acid Number (AN)	mg KOH/g	ASTM D8045		0.40	0.37	0.37
Visc @ 40°C	cSt	ASTM D445	325.8	484	485	473



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : HLC0003033
Lab Number : 06121646
Unique Number : 10930479
Test Package : IND 2 (Additional Tests: PrtCount)

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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)