



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Machine Id
AMERICAN SKILL Z-DRIVE
Component
Port Hydraulic System
Fluid
CHEVRON CLARITY HYDRAULIC AW 46 (--- GAL)

RECOMMENDATION

The oil is near the end of it's useful service life, recommend schedule an oil change. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MWM729845	MWM730036	MWM730475
Sample Date		Client Info		20 Jan 2024	08 Sep 2020	12 May 2020
Machine Age	hrs	Client Info		0	18362	16389
Oil Age	hrs	Client Info		1200	1000	1000
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Chngd	Not Chngd	Not Chngd
Filter Changed		Client Info		Not Chngd	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	<1	<1	<1
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		3	3	3
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	0	<1	0
Lead	ppm	ASTM D5185m	>20	<1	3	<1
Copper	ppm	ASTM D5185m	>20	<1	<1	<1
Tin	ppm	ASTM D5185m	>10	<1	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

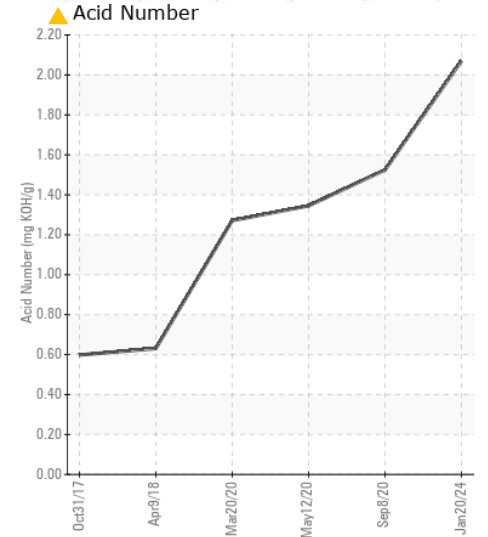
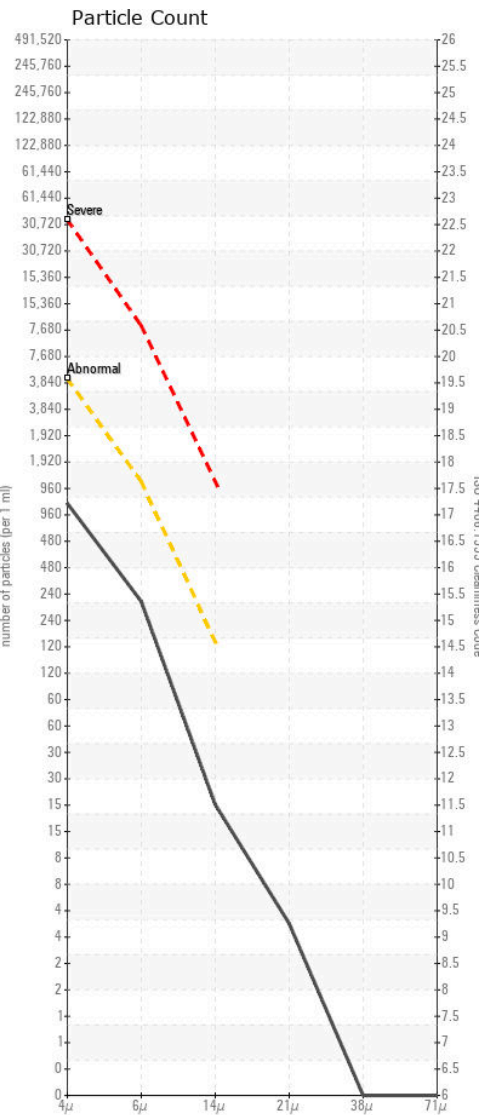
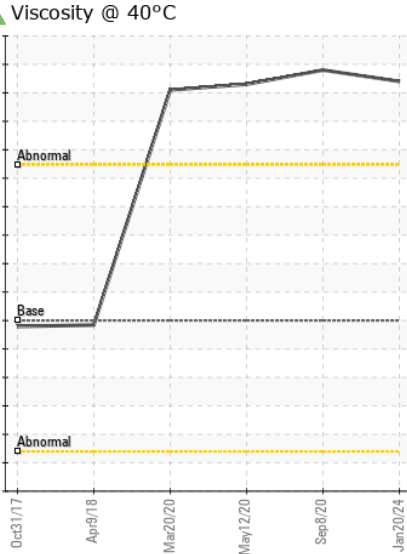
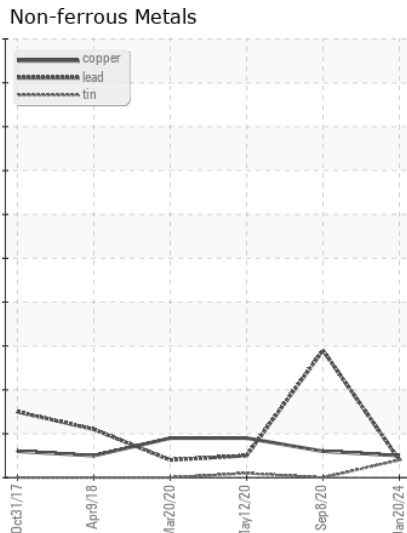
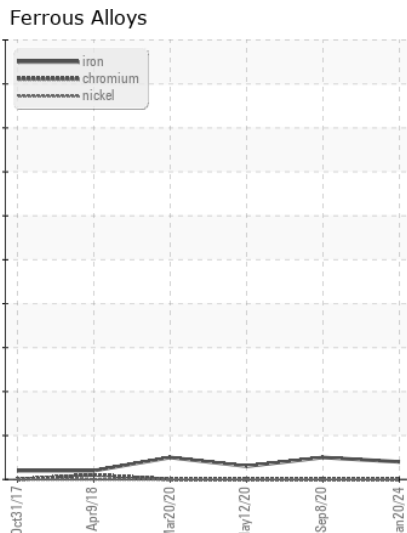
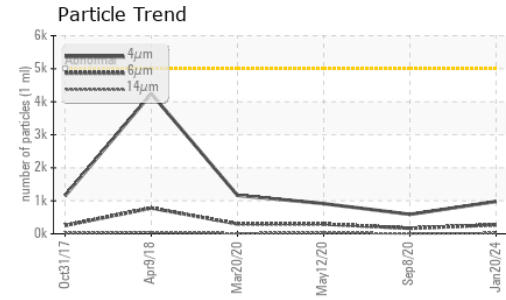
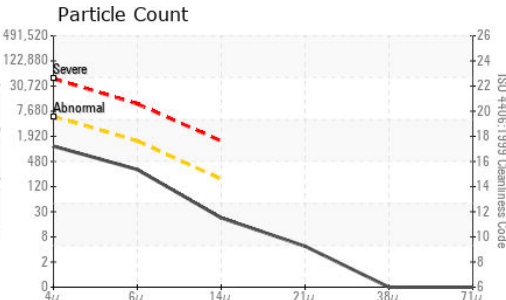
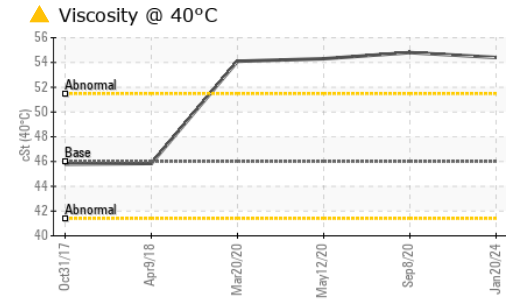
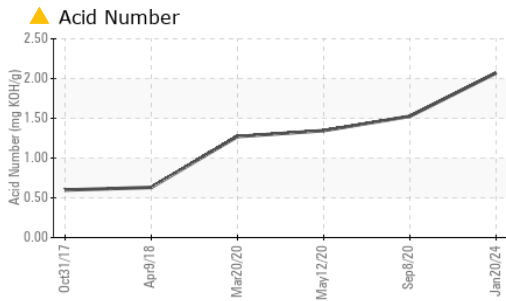
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>15	4	6	5
Potassium	ppm	ASTM D5185m	>20	<1	6	<1
Water		WC Method	>0.05	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	978	589	915
Particles >6µm		ASTM D7647	>1300	271	168	296
Particles >14µm		ASTM D7647	>160	19	10	28
Particles >21µm		ASTM D7647	>40	4	2	11
Particles >38µm		ASTM D7647	>10	0	0	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	17/15/11	16/15/10	17/15/12
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	>0.05	NEG	NEG	NEG

FLUID CONDITION

The oil viscosity is higher than normal. The AN level is at the top-end of the recommended limit.

Sodium	ppm	ASTM D5185m		1	1	0
Boron	ppm	ASTM D5185m		0	1	1
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		0	0	0
Calcium	ppm	ASTM D5185m		0	<1	0
Phosphorus	ppm	ASTM D5185m		254	313	299
Zinc	ppm	ASTM D5185m		75	20	4
Sulfur	ppm	ASTM D5185m		378	376	376
Acid Number (AN)	mg KOH/g	ASTM D8045		▲ 2.07	▲ 1.525	▲ 1.345
Visc @ 40°C	cSt	ASTM D445	46.0	▲ 54.4	▲ 54.8	▲ 54.3



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MWM729845 **Received** : 31 Jan 2024
Lab Number : 06075671 **Diagnosed** : 01 Feb 2024
Unique Number : 10857762 **Diagnostician** : Don Baldrige
Test Package : MAR 2

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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)