



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
HAL PANNELL (S/N 2354)
Component
Port Reduction Gear
Fluid
CHEVRON MEROPA 220 (150 GAL)

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

Moderate concentration of visible dirt/debris present in the oil.

FLUID CONDITION

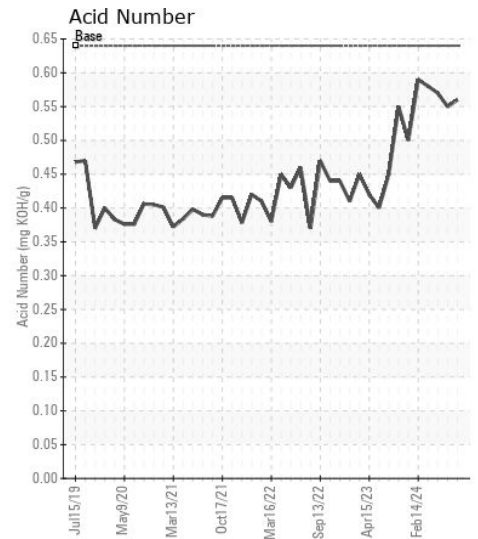
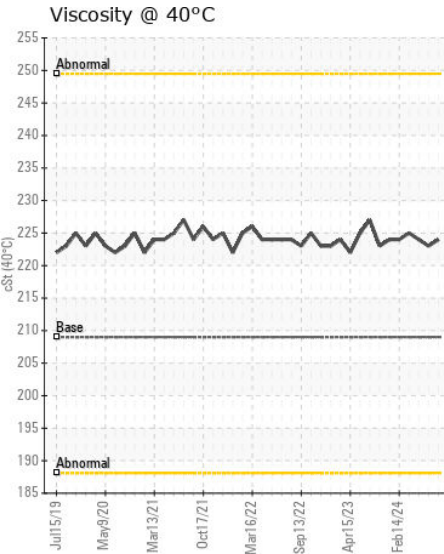
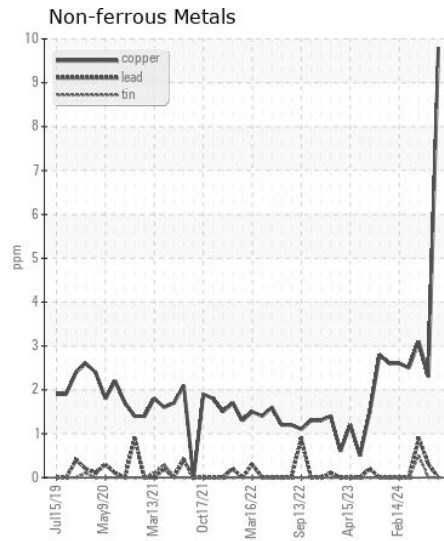
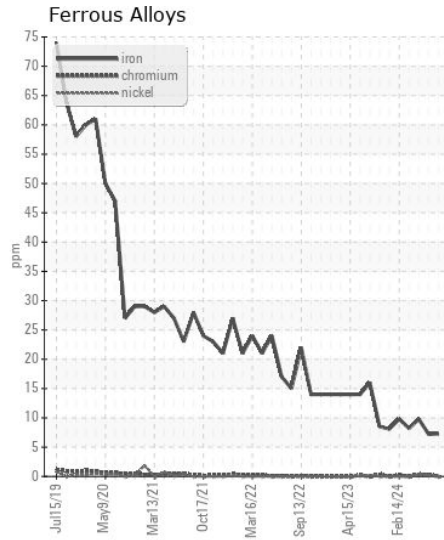
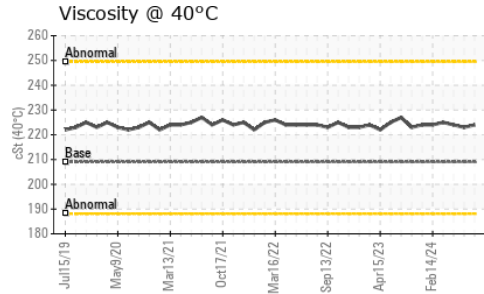
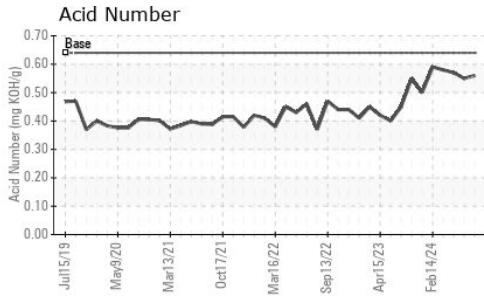
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0069588	MW0069618	MW0066377
Sample Date		Client Info		16 Jun 2024	18 May 2024	16 Apr 2024
Machine Age	hrs	Client Info		45552	45350	44830
Oil Age	hrs	Client Info		4575	4573	3823
Filter Age	hrs	Client Info		114	112	3823
Oil Changed		Client Info		Not Changd	N/A	Not Changd
Filter Changed		Client Info		Changed	N/A	Not Changd
Sample Status				ABNORMAL	NORMAL	NORMAL

Iron	ppm	ASTM D5185m	>150	7	7	10
Chromium	ppm	ASTM D5185m	>10	0	<1	<1
Nickel	ppm	ASTM D5185m	>10	0	<1	<1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m		0	<1	0
Aluminum	ppm	ASTM D5185m	>25	0	2	1
Lead	ppm	ASTM D5185m	>100	0	<1	<1
Copper	ppm	ASTM D5185m	>50	10	2	3
Tin	ppm	ASTM D5185m	>10	0	0	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

Silicon	ppm	ASTM D5185m	>50	<1	1	1
Potassium	ppm	ASTM D5185m	>20	0	2	1
Water		WC Method	>0.1	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	▲ MODER	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

Sodium	ppm	ASTM D5185m		2	2	0
Boron	ppm	ASTM D5185m	40	7	4	8
Barium	ppm	ASTM D5185m		1	0	<1
Molybdenum	ppm	ASTM D5185m		0	<1	<1
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m		<1	1	<1
Calcium	ppm	ASTM D5185m		116	18	20
Phosphorus	ppm	ASTM D5185m	270	252	138	253
Zinc	ppm	ASTM D5185m		49	10	14
Sulfur	ppm	ASTM D5185m	8600	6561	5245	6730
Acid Number (AN)	mg KOH/g	ASTM D8045	0.64	0.56	0.55	0.57
Visc @ 40°C	cSt	ASTM D445	209	224	223	224



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0069588
Lab Number : 06231573
Unique Number : 11115066
Test Package : MAR 2

Received : 09 Jul 2024
Tested : 12 Jul 2024
Diagnosed : 12 Jul 2024 - Sean Felton

AMERICAN COMMERCIAL LINES
 PO BOX 610, 1701 E. MARKET STREET
 JEFFERSONVILLE, IN
 US 47130
 Contact: RONALD SCHNEIDER
 ronald.schneider@bargeacbl.com

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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