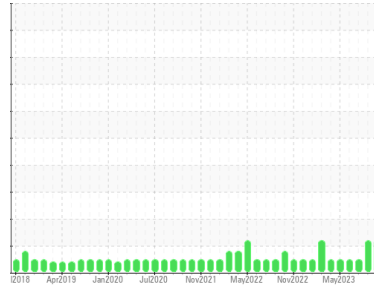




PROBLEM SUMMARY

Sample Rating Trend



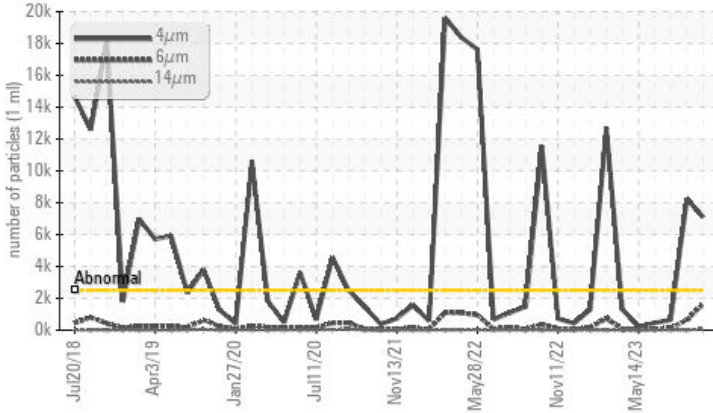
ISO



Area
IRIG [6076655]
 Machine Id
IRIG-BLR-HPU-0901 IRIG-BLR-HPU-0901 HPU-GENERATOR MODULE
 Component
Pump
 Fluid
MOBIL DTE 10 EXCEL 32 (140 GAL)

COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	ABNORMAL	NORMAL
Particles >4µm	ASTM D7647	>2500	▲ 7105	▲ 8236	653
Particles >6µm	ASTM D7647	>640	▲ 1653	▲ 644	113
Oil Cleanliness	ISO 4406 (c)	>18/16/14	▲ 20/18/13	▲ 20/17/11	17/14/11

Customer Id: BPEMPU
 Sample No.: HLC0002806
 Lab Number: 05964175
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Don Baldrige +1
don.b505@comcast.net

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.

HISTORICAL DIAGNOSIS

08 Sep 2023 Diag: Doug Bogart

ISO



No corrective action is recommended at this time. The filtration at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



29 Jul 2023 Diag: Don Baldrige

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



30 Jun 2023 Diag: Doug Bogart

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

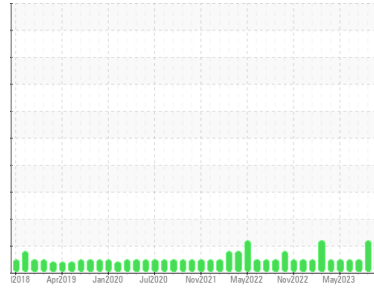
view report





OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area
IRIG [6076655]
 Machine Id
IRIG-BLR-HPU-0901 IRIG-BLR-HPU-0901 HPU-GENERATOR MODULE
 Component
Pump
 Fluid
MOBIL DTE 10 EXCEL 32 (140 GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil.

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			HLC0002806	HLC0002825	HLC0002706
Sample Date	Client Info			19 Sep 2023	08 Sep 2023	29 Jul 2023
Machine Age	hrs	Client Info		786	786	771
Oil Age	hrs	Client Info		0	0	0
Oil Changed	Client Info			N/A	Filtered	N/A
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	1	2	2
Chromium	ppm	ASTM D5185m	>5	0	0	0
Nickel	ppm	ASTM D5185m	>5	0	0	<1
Titanium	ppm	ASTM D5185m	>3	0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>7	0	<1	0
Lead	ppm	ASTM D5185m	>12	0	0	0
Copper	ppm	ASTM D5185m	>30	8	8	8
Tin	ppm	ASTM D5185m	>9	0	0	0
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m		0	0	0
Calcium	ppm	ASTM D5185m	120	102	113	97
Phosphorus	ppm	ASTM D5185m	475	447	467	415
Zinc	ppm	ASTM D5185m		56	33	61
Sulfur	ppm	ASTM D5185m	1275	1485	1798	1568

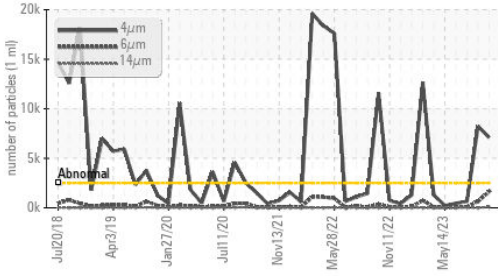
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>60	<1	<1	1
Sodium	ppm	ASTM D5185m		2	3	0
Potassium	ppm	ASTM D5185m	>20	2	<1	1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>2500	▲ 7105	▲ 8236	653
Particles >6µm		ASTM D7647	>640	▲ 1653	▲ 644	113
Particles >14µm		ASTM D7647	>160	70	11	19
Particles >21µm		ASTM D7647	>40	13	2	8
Particles >38µm		ASTM D7647	>10	0	0	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>18/16/14	▲ 20/18/13	▲ 20/17/11	17/14/11

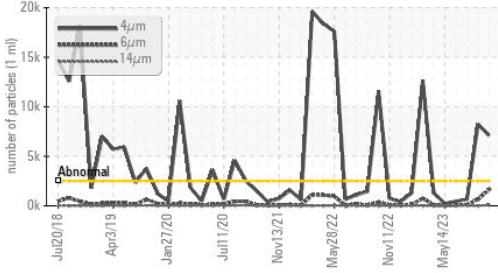
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.06	0.141	0.052

OIL ANALYSIS REPORT

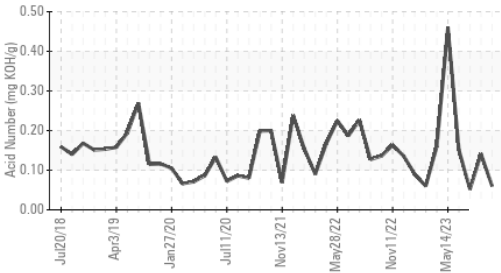
▲ Particle Trend



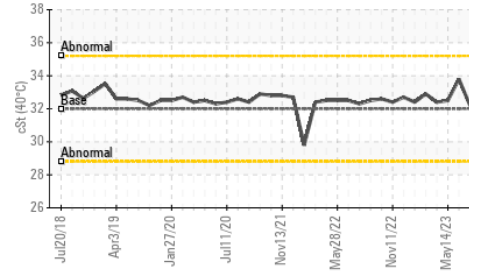
▲ Particle Trend



Acid Number



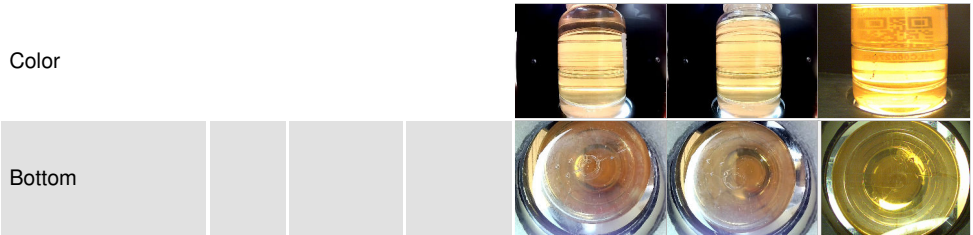
Viscosity @ 40°C



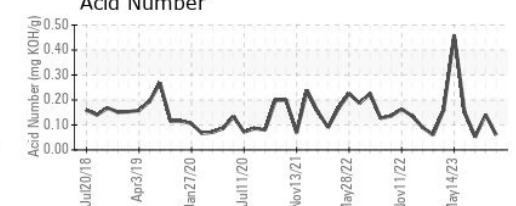
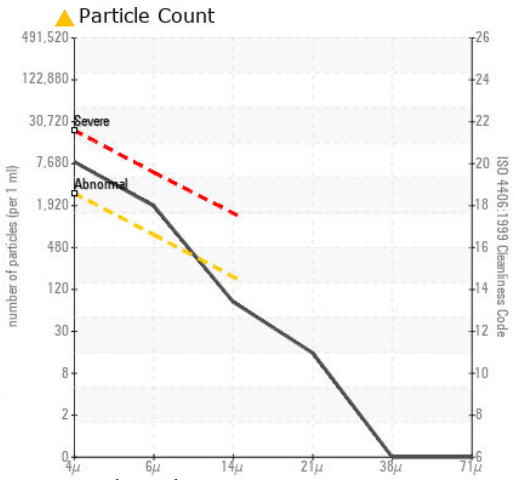
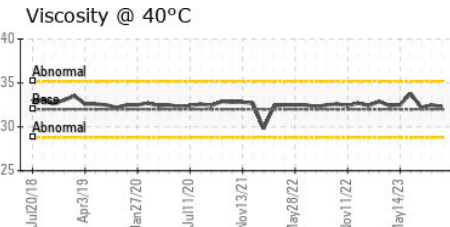
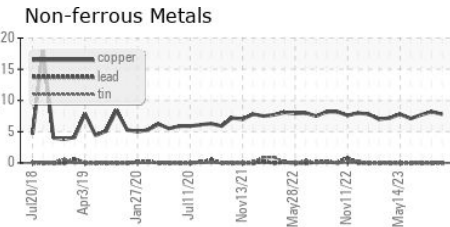
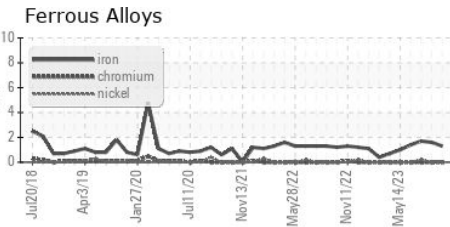
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D445	32	32.3	32.5	32.2

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------



GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : HLC0002806 **Received** : 28 Sep 2023
Lab Number : 05964175 **Diagnosed** : 01 Oct 2023
Unique Number : 10670726 **Diagnostician** : Don Baldrige
Test Package : IND 2 (Additional Tests: PrtCount)

HILCORP EXPLORATION ALASKA - MILN POINT
 1000 MILN POINT RD
 PRUDOE BAY, AK
 US 99734
 Contact: Evan Reilly
 evan.reilly@hilcorp.com
 T: (907)670-3231
 F: x:

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)