

# **OIL ANALYSIS REPORT**

# Sample Rating Trend







Area OIL Machine Id

# P-3160A (S/N WATER INJECTION PUMP) Pump

**CASTROL PERFECTO XPG 32 (35 GAL)** 

### Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

### Contamination

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

## **Fluid Condition**

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

		r2020 Mar20	21 Dec2021 May2022	Oct2022 Mar2023 Sep2023 F	eb2024	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		HLC0003292	HLC0003305	HLC0003133
Sample Date		Client Info		01 Jun 2024	02 May 2024	01 Apr 2024
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	V	method	limit/base	current	history1	history2
Water		WC Method	>.1	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	0	0	<1
Chromium	ppm	ASTM D5185m	>5	0	0	<1
Nickel	ppm	ASTM D5185m	>5	0	0	<1
Titanium	ppm	ASTM D5185m	>3	0	0	<1
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>7	0	0	1
Lead	ppm	ASTM D5185m	>12	0	<1	2
Copper	ppm	ASTM D5185m	>30	<1	0	<1
Tin	ppm	ASTM D5185m	>9	0	0	1
Vanadium	ppm	ASTM D5185m		<1	<1	<1
Cadmium	ppm	ASTM D5185m		0	0	<1
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm		0	0	0	0
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0	<1
Manganese	ppm		0	0	0	<1
Magnesium	ppm	ASTM D5185m	0	0	0	<1
Calcium	ppm	ASTM D5185m	0	0	0	4
Phosphorus	ppm	ASTM D5185m	25	48 0	13	25 2
Zinc Sulfur	ppm	ASTM D5185m ASTM D5185m	1500	1552	0 1671	1502
	ppm					
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>60	<1	<1	<1
Sodium	ppm	ASTM D5185m	0.0	1	2	0
Potassium	ppm	ASTM D5185m		0	<1	1
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		127	49	102
Particles >6µm		ASTM D7647	>2500	35	15	42
Particles >14µm		ASTM D7647	>320	5	1	11
Particles >21µm		ASTM D7647		0	1	4
Particles >38µm		ASTM D7647	>20	0	0	1
Particles >71µm		ASTM D7647	>4	0	0	0
Oil Cleanliness		ISO 4406 (c)	>/18/15	14/12/10	13/11/7	14/13/11
FLUID DEGRADA	TION	method	limit/base	current	history1	history2

Acid Number (AN)

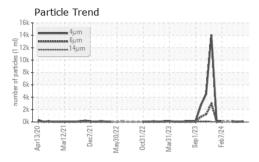
mg KOH/g ASTM D8045 0.05

0.10

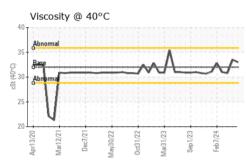
Contact/Location: PERRY NEEL - BPENOR

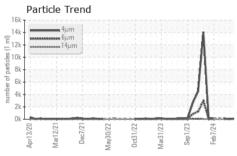


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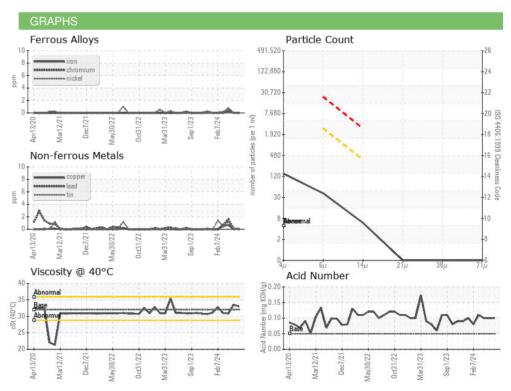


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual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

Visc @ 40°C	cSt	ASTM D445	32.0	33.0	33.5	30.8	

SAMPLE IMAGES	method		history1	history2
Color		,		









Laboratory

Sample No. Lab Number : 06205342

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : HLC0003292

Unique Number : 11072803

Received **Tested** Diagnosed

: 10 Jun 2024 : 12 Jun 2024

: 12 Jun 2024 - Don Baldridge

PRUDHOE BAY, AK US 99734 Contact: PERRY NEEL pneel@hilcorp.com T: (907)670-3514 F: (907)659-5377

HILCORP NORTHSTAR FACILITY

Test Package : IND 2 ( Additional Tests: PrtCount ) Certificate 12367 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)