

OIL ANALYSIS REPORT

HOG PROCESSING B59497 - SOUTH JARVIS NECK BREAKER (S/N 4027244) Component

Hydraulic System

PETRO CANADA PURITY FG AW HYDRAULIC 46 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

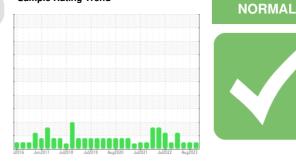
All component wear rates are normal.

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.



Sample Rating Trend

SAMPLE INFORMATION method limit/base current history1	history2
Sample Number Client Info WC0856082 WC0808536	WC0657741
Sample Date Client Info 31 Oct 2023 03 Aug 2023	12 May 2023
Machine Age mths Client Info 0 0	0
Oil Age mths Client Info 0 0	0
Oil Changed Client Info N/A N/A	N/A
Sample Status NORMAL NORMAL	NORMAL
CONTAMINATION method limit/base current history1	history2
Water WC Method >0.05 NEG NEG	NEG
WEAR METALS method limit/base current history1	history2
Iron ppm ASTM D5185m >20 <1 1	1
Chromium ppm ASTM D5185m >20 <1	0
Nickel ppm ASTM D5185m >20 0 <1	0
Titanium ppm ASTM D5185m <1 0	<1
Silver ppm ASTM D5185m 0 0	0
Aluminum ppm ASTM D5185m >20 0 0	<1
Lead ppm ASTM D5185m >20 0 0	0
Copper ppm ASTM D5185m >20 1 <1	<1
Tin ppm ASTM D5185m >20 0 0	0
Vanadium ppm ASTM D5185m <1 0	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 1	0
Barium ppm ASTM D5185m 0 1 Molybdenum ppm ASTM D5185m 0 0	0
Barium ppm ASTM D5185m 0 1 Molybdenum ppm ASTM D5185m 0 0 Manganese ppm ASTM D5185m 0 0	0 0 0 0
Barium ppm ASTM D5185m 0 1 Molybdenum ppm ASTM D5185m 0 0 Manganese ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m 0 0	0 0 0 0
Barium ppm ASTM D5185m 0 1 Molybdenum ppm ASTM D5185m 0 0 Manganese ppm ASTM D5185m <1 0 Magnesium ppm ASTM D5185m 0 0 Calcium ppm ASTM D5185m 0 0	0 0 0 0 0
Barium ppm ASTM D5185m 0 1 Molybdenum ppm ASTM D5185m 0 0 Manganese ppm ASTM D5185m <1 0 Magnesium ppm ASTM D5185m 0 0 Calcium ppm ASTM D5185m 0 0 Phosphorus ppm ASTM D5185m 0 0	0 0 0 0 0 444
Barium ppm ASTM D5185m 0 1 Molybdenum ppm ASTM D5185m 0 0 Manganese ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m 0 0 Calcium ppm ASTM D5185m 0 0 Phosphorus ppm ASTM D5185m 0 0 Zinc ppm ASTM D5185m 0 9	0 0 0 0 0 0 444 0
Barium ppm ASTM D5185m 0 1 Molybdenum ppm ASTM D5185m 0 0 Manganese ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m 0 0 Calcium ppm ASTM D5185m 0 0 Phosphorus ppm ASTM D5185m 0 0 Phosphorus ppm ASTM D5185m 375 428 Zinc ppm ASTM D5185m 0 9 Sulfur ppm ASTM D5185m 125 519	0 0 0 0 0 444
Barium ppm ASTM D5185m 0 1 Molybdenum ppm ASTM D5185m 0 0 Manganese ppm ASTM D5185m <1 0 Magnesium ppm ASTM D5185m 0 0 Calcium ppm ASTM D5185m 0 0 Phosphorus ppm ASTM D5185m 0 0 Zinc ppm ASTM D5185m 0 9	0 0 0 0 0 0 444 0
Barium ppm ASTM D5185m 0 1 Molybdenum ppm ASTM D5185m 0 0 Manganese ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m 0 0 Calcium ppm ASTM D5185m 0 0 Phosphorus ppm ASTM D5185m 0 0 Phosphorus ppm ASTM D5185m 375 428 Zinc ppm ASTM D5185m 0 9 Sulfur ppm ASTM D5185m 125 519	0 0 0 0 0 444 0 564
BariumppmASTM D5185m01MolybdenumppmASTM D5185m00ManganeseppmASTM D5185m<10MagnesiumppmASTM D5185m00CalciumppmASTM D5185m00PhosphorusppmASTM D5185m00PhosphorusppmASTM D5185m375428ZincppmASTM D5185m09SulfurppmASTM D5185m125519	0 0 0 0 0 444 0 564 history2
Barium ppm ASTM D5185m 0 1 Molybdenum ppm ASTM D5185m 0 0 Manganese ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m 0 0 Calcium ppm ASTM D5185m 0 0 Phosphorus ppm ASTM D5185m 0 0 Phosphorus ppm ASTM D5185m 375 428 Zinc ppm ASTM D5185m 0 9 Sulfur ppm ASTM D5185m 125 519 CONTAMINANTS method limit/base current history1 Silicon ppm ASTM D5185m >15 4 3	0 0 0 0 0 444 0 564 history2 3
Barium ppm ASTM D5185m 0 1 Molybdenum ppm ASTM D5185m 0 0 Manganese ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m 0 0 Calcium ppm ASTM D5185m 0 0 Phosphorus ppm ASTM D5185m 0 0 Sulfur ppm ASTM D5185m 375 428 Zinc ppm ASTM D5185m 0 9 Sulfur ppm ASTM D5185m 125 519 CONTAMINANTS method limit/base current history1 Silicon ppm ASTM D5185m<>15 4 3 Sodium ppm ASTM D5185m 2 0	0 0 0 0 0 0 444 0 564 history2 3 < 1
Barium ppm ASTM D5185m 0 1 Molybdenum ppm ASTM D5185m 0 0 Manganese ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m 0 0 Calcium ppm ASTM D5185m 0 0 Phosphorus ppm ASTM D5185m 375 428 Zinc ppm ASTM D5185m 0 9 Sulfur ppm ASTM D5185m 125 519 CONTAMINANTS method limit/base current history1 Silicon ppm ASTM D5185m >15 4 3 Sodium ppm ASTM D5185m >20 <1 <1	0 0 0 0 0 444 0 564 history2 3 <1 0
Barium ppm ASTM D5185m 0 1 Molybdenum ppm ASTM D5185m 0 0 Manganese ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m 0 0 Calcium ppm ASTM D5185m 0 0 Phosphorus ppm ASTM D5185m 0 0 Phosphorus ppm ASTM D5185m 375 428 Zinc ppm ASTM D5185m 0 9 Sulfur ppm ASTM D5185m 125 519 CONTAMINANTS method limit/base current history1 Silicon ppm ASTM D5185m >15 4 3 Sodium ppm ASTM D5185m >20 <1 <1 FLUID CLEANLINESS method limit/base current history1	0 0 0 0 0 444 0 564 history2 3 <1 0 0 history2
Barium ppm ASTM D5185m 0 1 Molybdenum ppm ASTM D5185m 0 0 Manganese ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m 0 0 Calcium ppm ASTM D5185m 0 0 Phosphorus ppm ASTM D5185m 375 428 Zinc ppm ASTM D5185m 0 9 Sulfur ppm ASTM D5185m 0 9 Sulfur ppm ASTM D5185m 125 519 CONTAMINANTS method limit/base current history1 Silicon ppm ASTM D5185m >15 4 3 Sodium ppm ASTM D5185m >20 <1 <1 FLUID CLEANLINESS method limit/base current history1 Particles >4µm ASTM D7647 >10000	0 0 0 0 0 444 0 564 history2 3 3 <1 0 0 history2 7999
Barium ppm ASTM D5185m 0 1 Molybdenum ppm ASTM D5185m 0 0 Manganese ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m 0 0 Calcium ppm ASTM D5185m 0 0 Calcium ppm ASTM D5185m 0 0 Phosphorus ppm ASTM D5185m 0 0 Phosphorus ppm ASTM D5185m 375 428 Zinc ppm ASTM D5185m 0 9 Sulfur ppm ASTM D5185m 125 519 CONTAMINANTS method limit/base current history1 Silicon ppm ASTM D5185m >15 4 3 Sodium ppm ASTM D5185m >20 <1 <1 FLUID CLEANLINESS method limit/base current history1 Particles >4µm ASTM D7647 >10000 <th>0 0 0 0 0 444 0 564 history2 3 <1 0 0 history2 7999 660</th>	0 0 0 0 0 444 0 564 history2 3 <1 0 0 history2 7999 660
Barium ppm ASTM D5185m 0 1 Molybdenum ppm ASTM D5185m 0 0 Manganese ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m 0 0 Calcium ppm ASTM D5185m 0 0 Phosphorus ppm ASTM D5185m 0 0 Phosphorus ppm ASTM D5185m 375 428 Zinc ppm ASTM D5185m 0 9 Sulfur ppm ASTM D5185m 125 519 CONTAMINANTS method limit/base current history1 Silicon ppm ASTM D5185m >15 4 3 Sodium ppm ASTM D5185m >20 <1 <1 FLUID CLEANLINESS method limit/base current history1 Particles >4µm ASTM D7647 10000 <th>0 0 0 0 0 444 0 564 history2 3 <1 0 0 history2 7999 660 31</th>	0 0 0 0 0 444 0 564 history2 3 <1 0 0 history2 7999 660 31
Barium ppm ASTM D5185m 0 1 Molybdenum ppm ASTM D5185m 0 0 Manganese ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m 0 0 Calcium ppm ASTM D5185m 0 0 Calcium ppm ASTM D5185m 0 0 Phosphorus ppm ASTM D5185m 375 428 Zinc ppm ASTM D5185m 0 9 Sulfur ppm ASTM D5185m 125 519 CONTAMINANTS method limit/base current history1 Silicon ppm ASTM D5185m >15 4 3 Sodium ppm ASTM D5185m >20 <11 <1 FLUID CLEANLINESS method limit/base current history1 Particles >4µm ASTM D7647 >10000 5526 1722 Particles >4µm ASTM D7647 <	0 0 0 0 0 0 444 0 564 history2 3 < 1 0 0 history2 7999 660 31 8

Acid Number (AN)

mg KOH/g ASTM D8045 0.26

Report Id: HORFREWC [WUSCAR] 06010725 (Generated: 11/20/2023 18:00:14) Rev: 1

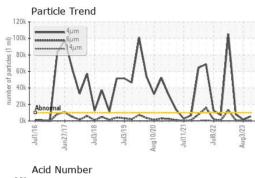
0.28 Contact/Location: JERRY SORRICK - HORFREWC

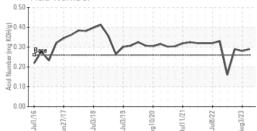
0.29

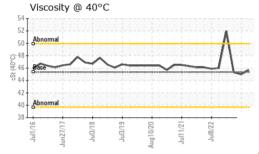
0.29



OIL ANALYSIS REPORT







120

Ê^{100k}

40

20

0 Jull/16

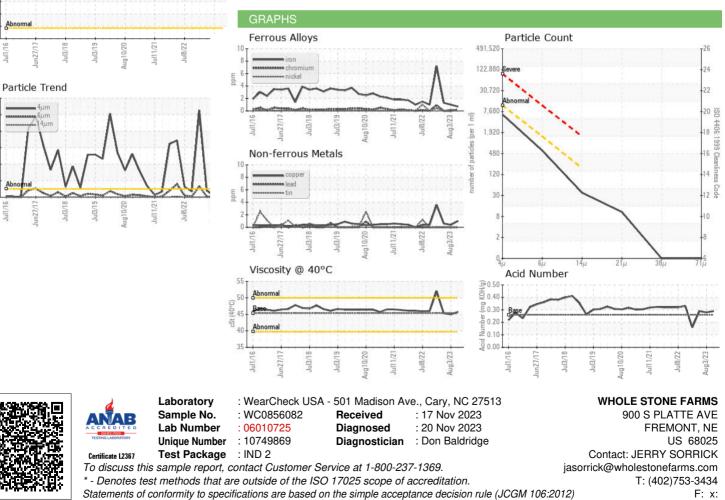
/LCum

les (1 1 80

nartic 60

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	LIGHT
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
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45.36	45.7	45.0	45.3
SAMPLE IMAGES	;	method	limit/base	current	history1	history2
Color						

Bottom



Contact/Location: JERRY SORRICK - HORFREWC