

OIL ANALYSIS REPORT

Area {UNASSIGNED} Accurshear Shear (S/N 7035)

Hydraulic System

PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

All component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Fluid Condition

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



Sample Rating Trend

SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PC0087743		
Sample Date		Client Info		24 Jun 2024		
Machine Age	yrs	Client Info		0		
Oil Age	yrs	Client Info		2		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.05	NEG		
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	<1		
Chromium	ppm	ASTM D5185(m)	>20	0		
Nickel	ppm	ASTM D5185(m)	>20	0		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)		0		
Aluminum	ppm	ASTM D5185(m)	>20	<1		
Lead	ppm	ASTM D5185(m)	>20	0		
Copper	ppm	ASTM D5185(m)	>20	<1		
Tin	ppm	ASTM D5185(m)	>20	0		
Antimony	ppm	ASTM D5185(m)		0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185(m)	limit/base 0	current	history1	history2
	ppm ppm		0			
Boron		ASTM D5185(m)	0	<1		
Boron Barium	ppm	ASTM D5185(m) ASTM D5185(m)	0 0 0	<1 0		
Boron Barium Molybdenum	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0	<1 0 0		
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0 1	<1 0 0 0		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 0 1 0	<1 0 0 0 <1		
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 1 0 100 670	<1 0 0 <1 101	 	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 1 0 100 670	<1 0 0 <1 101 637	 	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 1 0 100 670 850	<1 0 0 <1 101 637 839	 	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 1 0 100 670 850	<1 0 0 <1 101 637 839 1483		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 1 0 100 670 850 1600	<1 0 0 <1 101 637 839 1483 <1		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 1 1 0 100 670 850 1600	<1 0 0 <1 101 637 839 1483 <1 <i>current</i>	 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m)	0 0 1 0 100 670 850 1600 limit/base >15	<1 0 0 <1 101 637 839 1483 <1 <i>current</i>	 history1 	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS ppm	ASTM D5185(m) ASTM D5185(m)	0 0 1 0 100 670 850 1600 limit/base >15	<1 0 0 <1 101 637 839 1483 <1 Current 0 0	 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS ppm	ASTM D5185(m) ASTM D5185(m)	0 0 1 0 100 670 850 1600 imit/base >15 >20	<1 0 0 1 1 101 637 839 1483 <1 <i>current</i> 0 0 <1 <i>current</i> 3844	 history1 	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS ppm	ASTM D5185(m) ASTM D5185(m)	0 0 0 1 0 100 670 850 1600 1600 1600 15 5 5 5 20 10 10 10 10 10 10 10 10 10 10 10 10 10	<1 0 0 1 1 101 637 839 1483 <1 <i>current</i> 0 0 <1 <i>current</i>	 history1 history1	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEANI Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS ppm	ASTM D5185(m) ASTM D5185(m)	0 0 0 1 0 100 670 850 1600 1600 1600 15 5 5 5 20 10 10 10 10 10 10 10 10 10 10 10 10 10	<1 0 0 1 1 101 637 839 1483 <1 <i>current</i> 0 0 <1 <i>current</i> 3844	 history1 history1 	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEANI Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS ppm	ASTM D5185(m) ASTM D5185(m)	0 0 0 1 0 670 850 1600 1 1600 1 1600 1 100 1 100 1 2 100 2 1 3 1300 2 160	<1 0 0 () () () () () () () () () ()	 history1 history1 history1	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEANI Particles >4µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647	0 0 0 1 0 670 850 1600 1 1600 1 1600 1 100 1 100 1 2 100 2 1 3 1300 2 160	<1 0 0 4 1 101 637 839 1483 <1 <i>current</i> 0 0 0 <1 <i>current</i> 3844 471 16	 history1 history1	 history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEANI Particles >4µm Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	0 0 0 1 1 0 100 670 850 1600 1600 >15 >15 >20 limit/base >20 limit/base >5000 >1300 >160 >40 >40	<1 0 0 () () () () () () () () () ()	 history1 history1 history1	 history2 history2 history2



13 T 12

cSt (100°C) Base Abnormal 8 7 Jun24/24

61

ber of particles (1 ml) 3 k 3 k 5 k

In 1k an an 0k• Jun24/24

> 13 т 12 Abn

cSt (100°C) Base Abnormal 8 7 Jun24/24

42 Abnormal 40. 38 Jun24/24

61

f particles (1 ml) 84 k 24 k ÷ 2 Jag 2k 2 1k Ok Jun24/24

回花花坊

OIL ANALYSIS REPORT

3-	Viscosity @ 100°C	FLUID DEGRAD) ATION	method	limit/base	current	history1	history2
2-	AL	Acid Number (AN)	mg KOH/g	ASTM D974*	0.60	0.84		
11-	Abnormal	VISUAL		method	limit/base	current	history1	history2
0	Base	White Metal	scalar	Visual*	NONE	NONE		
9-	Abnormal	Yellow Metal	scalar	Visual*	NONE	NONE		
8-		Precipitate	scalar	Visual*	NONE	NONE		
71	124 + 124 +	Silt	scalar	Visual*	NONE	NONE		
	Jun24,24	Debris	scalar	Visual*	NONE	NONE		
	Dautiala Tuan d	Sand/Dirt	scalar	Visual*	NONE	NONE		
kт	Particle Trend	Appearance	scalar	Visual*	NORML	NORML		
k -		Odor	scalar	Visual*	NORML	NORML		
k -	••••••••••••••••••••••••••••••••••••••	Emulsified Water	scalar	Visual*	>0.05	NEG		
k -		Free Water	scalar	Visual*		NEG		
k -		FLUID PROPE	RTIES	method	limit/base	current	history1	history2
k -		Visc @ 40°C	cSt	ASTM D7279(m)	47.9	46.6		
kΤ	/24 -	Visc @ 100°C	cSt	ASTM D7279(m)	9.67	9.1		
	Jun24/24	Viscosity Index (VI)	Scale	ASTM D2270*	192	181		
	Viscosity @ 100°C	SAMPLE IMAG	ES	method	limit/base	current	history1	history2
³ T								
2-	Abnormal	Color				5=	no image	no image
1-	0	00101					nomage	no image
0-	Base							
9-	Abnormal							
8-		Bottom					no image	no image
71	124 - 124 -							
	Jun24,24	GRAPHS						
	Viscosity @ 40°C	Ferrous Alloys				Particle Count		
⁴ T	Abnormal	10 iron 1			491,52	⁰		T ²⁶
2		E 5			122,88	0 - Severe		-24
8	Base				30,72	0		-22
6 -		24/24			4/54 1 ml	0 Abnormal		-20 \$8
2		Jun24			Jun24/24 Jun24/24 89'2 89'2		•	-20 4406:1999 -18 ::1999 -16 Ce
0	Abnormal	Non-ferrous Metals	5		apite 48	0		16 99
81	- + 52	¹⁰						10 8
		copper					•	-14 Ine
	4.2 mul							-14 In
	Jun24,024	E 5-						-14 ess Code -12 Code -10
	Particle Trend				to 12 uappum 3			-14 Inness Code
	Particle Trend					0- 8- 2-		-14 animess Code -12 Code -10 -8 6
	Particle Trend	udd 5 +72+72unp Viscosity @ 40°C			Jun24/24 Aumber of	0 8 2 4μ 6μ	4μ 21μ	-14 anliness Code
	Particle Trend	Viscosity @ 40°C			Jun24/24 Aumber of	0 8 2 4μ 6μ	4μ 21μ	-14 animess Code -12 Code -10 -8 6
	Particle Trend	Viscosity @ 40°C			Jun24/24 Aumber of	0 8 2 4μ 6μ	4μ 21μ	-14 animess Code -12 Code -10 -8 6
	Particle Trend	Uiscosity @ 40°C			Jun24/24 Aumber of	0 8 2 4μ 6μ	4μ 21μ	-14 animess Code -12 Code -10
k	Particle Trend	Viscosity @ 40°C			12 12 13 14 10 10 10 10 10 10 10 10 10 10 10 10 10	Acid Number	4μ 21μ	114 miness Code 112 Code 10
5k - 5k - 8k - 2k - 1k -	Particle Trend	Viscosity @ 40°C			Jun24/24 Aumber of	0 8 2 4μ 6μ	4μ 21μ	-14 animess Code -12 Code -10
5k - 5k - 8k - 2k - 1k -	Particle Trend	WearCheck - C8-1175 : WearCheck - C8-1175 : PC0087743 : 02644041 : 5801580 : IND 2 (Additional Tess contact Customer Service of accreditation, (m) model : WearCheck - C8-1175	Recei Teste Diagn ts: KV10 ce at 1-8 ethod mo	ived : 25 id : 26 nosed : 26 0, VI) 200-268-213 iodified, (e) te	gton, ON L7 5 Jun 2024 5 Jun 2024 6 Jun 2024 - V 7. 5 sted at exter	Acid Number Acid Number 4 January 6 January Acid Number 4 January 4 Janu	38 GLENGARF Contact: E duane.swaving T:	WALII Y CRESC FERGUS CA N1M 3 Duane Swa

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Submitted By: Derek Gansekoele