



May 7, 2012

## ENGINEERING LABORATORY TEST REPORT

<b>Send to:</b>	Canplas Industries Ltd. 500 Veterans Drive Barrie ON L4M 4V3 Canada Attn: Tim Bach	<b>Plant:</b>	Canplas Industries Ltd. 31 Patterson Road Barrie ON L4M 4V3 Canada Attn: Mrs. Elizabeth Miller
<b>Client #:</b>	C0006197	<b>Plant #:</b>	C0006199

**NSF Job#:** J-00111494

**Description of Test Sample:** Model GT500 Grease Interceptor (25 gpm)  
Configuration #1: Solids interceptor filled with gravel  
Configuration #2: Solids interceptor empty with coarse screen

**Sample Received:** April 13, 2012 – Submitted in good condition by client

**Date of Test:** April 18-27, 2012

**Location of Test:** NSF International, Ann Arbor, MI

**Test Protocol:** PDI G101-2010 Grease Interceptors - Special testing for South Africa performed with a 1-1/2" P-trap instead of a flow control orifice.

**Results:** Configuration #1: Solids interceptor filled with gravel **INCOMPLETE**  
Configuration #2: Solids interceptor empty **FAIL**

**Report Authorization:** \_\_\_\_\_  
Manager, Engineering Laboratory

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**PDI G101 Section 5.1 Media Analysis**

**COMPLETE**

pH value	n/a
Lard specific gravity	0.874
Viscosity	6.83 cP

**PDI G101 Section 5.4 Flow Rate Verification**

**Not Applicable**

Type of Grease Interceptor	N/A	
Size of Flow Controller	None	inches
Flow Time 1 Sink 1+2	N/A	sec
Flow Time 2 Sink 1+2	N/A	sec
Flow Time 3 Sink 1+2	N/A	sec
Flow Time Average Sink 1+2	N/A	sec
Flow Rate Average Sink 1+2	N/A	gpm
Deviation from Req Average Sink 1+2	N/A	%
Flow Time 1 Sink 2+1	N/A	sec
Flow Time 2 Sink 2+ 1	N/A	sec
Flow Time 3 Sink 2+ 1	N/A	sec
Flow Time Average Sink 2+1	N/A	sec
Flow Rate Average Sink 2+1 (gpm)	N/A	gpm
Deviation from Req Average Sink 2+1	N/A	%
Max allowable deviation from average	N/A	%
Max allowable deviation between runs	N/A	%
Max deviation between runs	N/A	%
Flow rate acceptable?	N/A	

Note: Flow rates were controlled by a 1-1/2 inch P-trap and not calibrated with an external flow control orifice. Refer to Figure 1.



**PDI G101 Section 7 Rating Test (Grease Retention Capacity)**

Configuration #1: Solids interceptor filled with gravel

**INCOMPLETE\***

Model	GT500 (25 gpm)	
Flow	23.4**	GPM
Flow Restrictor ID	None	inches
Breakdown Increment Number	5	
Pounds Grease Retained at Breakdown	23.14	lbs.
Incremental Efficiency	89.4	%
Average Efficiency	93.0	%
Required Total Amount of Grease Retained	56.25	lbs.
Actual Total Amount of Grease Retained	<b>23.14</b>	<b>lbs.</b>

\* Testing is INCOMPLETE because the test was stopped before breakdown.

Configuration #2: Solids interceptor empty with coarse screen removed

**FAIL**

Model	GT500 (25 gpm)	
Flow	23.3**	GPM
Flow Restrictor ID	None	inches
Breakdown Increment Number	2	
Pounds Grease Retained at Breakdown	9.34	lbs.
Incremental Efficiency	86.8	%
Average Efficiency	93.4	%
Required Total Amount of Grease Retained	56.25	lbs.
Actual Total Amount of Grease Retained	<b>9.34</b>	<b>lbs.</b>

\*\* The flow rate through the 1-1/2" P-trap was significantly lower than required by the PDI G101 test protocol.



**Figure 1 - P-trap (1-1/2 inch pipe size)**



**Figure 2 - GT500 Grease Interceptor**

GREASE INTERCEPTOR RATING TEST FORM															
Interceptor ID Canplas GT500 (GI 25) Grease Interceptor with gravel in solids strainer basket											Report No.: J-00111494				
Capacity No. 1		35		Test Vehicle:				***** Flow Control Data *****						Page 5 of 6	
Capacity No. 2		35		Spec. Gravity: 0.874				Observers: Jon McGaugh						Test Date: 4/18/2012	
Separate No. 1		na		Viscosity: 6.83 cP				Kane Vincent						Notes: Drainage gauged on clear compartment. Tabulated "amounts retained" is a calculation of Added minus "Skimmed." Tabulated "skim amounts" includes pro-rata addition for reclaimed from skim tank after chilling. All weights taken after de-watering by Separatory funnel chilling.	
Separate No. 2		na		Test Temperature: 150-160 ° F											
Simultaneous		23.3		Water : 160				Orifice Size: 1 1/2" P-trap							
Simultaneous		23.4		Test Temperature: 150-160 ° F				Air Intake: 1" Max: Height 28.125"							
					***** INCREMENTAL *****				***** ACCUMULATED *****						
					(drop-skim)/ drop x 100 = efficiency				(drop-skim) / drop x 100 = efficiency						
No.	Test	Clear	Sec.	Rate:GPM	lb. Added	lb. Skimmed	lb. Retained	Efficiency	lb. Added	lb. Skimmed	lb. Retained	Efficiency			
1	1	2	171.59	23.3	5	0.01	4.99	99.8	5.00	0.01	4.99	100			
2	2	1	169.98	23.5	5	0.29	4.71	94.2	10.00	0.30	9.70	97			
3	1	2	171.06	23.3	5	0.52	4.48	89.6	15.00	0.82	14.18	95			
4	2	1	170.65	23.4	5	0.51	4.49	89.8	20.00	1.33	18.67	93			
5	1	2	171.00	23.3	5	0.53	4.47	89.4	25.00	1.86	23.14	93			
6	2	1													
7	1	2													
8	2	1													
9	1	2													
10	2	1													
11	1	2													
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29	1	2													
30	2	1													
31	1	2													
<b>Average Or Total</b>		170.86		23.4		25		1.86		23.14				<b>INCOMPLETE</b>	

**Summary & Adjusted Results based on the totals at the increment when Grease retained equals 2 1/4 times rated capacity**

=		<b>78.75</b>
Increment No.		5
1) Total Skimmed:		1.86
2) Total Retained :		23.14
3) Total Added:		25.00
Eff. = (line 3 - line1) / line 3		
<b>Efficiency % =</b>		<b>92.6</b>

**Summary and Adjusted Results based on the totals at Break down point.**

Break down	
Increment No.	5
Pounds Retained :	23.14
1) Total Skimmed :	1.86
2) Total Retained :	23.14
3) Total Added :	25.00
Eff. = (line 3 - line1) / line 3	
<b>Efficiency % =</b>	<b>92.6</b>

GPM: N/A

**GREASE INTERCEPTOR RATING TEST FORM**

Interceptor ID Canplas GT500 (GI 25) Grease Interceptor with solids intceptor and coarse strainer removed

Report No.: J-00111494

Capacity No. 1	25	Test Vehicle:	***** Flow Control Data *****	
Capacity No. 2	25	Spec. Gravity: 0.874	Observers:	Jon McGaugh
Separate No. 1	na	Viscosity: 6.83 cP	Trey Allen	
Separate No. 2	na	Test Temperature: 150-160 ° F		
Simultaneous	23.1	Water : 160	Orifice Size: 1 1/2" P-trap	
Simultaneous	23.4	Test Temperature: 150-160 ° F	Air Intake: 1" Max: Height 28.125"	

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Test Date: 4/27/2012

Notes: Drainage gauged on clear compartment.  
Tabulated "amounts retained" is a calculation of Added minus "Skimmed."

Tabulated "skim amounts" includes pro-rata addition for reclaimed from skim tank after chilling.

All weights taken after de-watering by Separatory funnel chilling.

					***** INCREMENTAL *****				***** ACCUMULATED *****			
					(drop-skim)/ drop x 100 = efficiency				(drop-skim) / drop x 100 = efficiency			
No.	Test	Clear	Sec.	Rate:GPM	lb. Added	lb. Skimmed	lb. Retained	Efficiency	lb. Added	lb. Skimmed	lb. Retained	Efficiency
1	1	2	124.88	22.8	5	0.00	5.00	100.0	5.00	0.00	5.00	100
2	2	1	121.02	23.5	5	0.66	4.34	86.8	10.00	0.66	9.34	93
3	1	2	121.98	23.4	5	1.13	3.87	77.4	15.00	1.79	13.21	88
4	2	1	121.74	23.4	5	1.50	3.50	70.0	20.00	3.29	16.71	84
5	1	2	123.25	23.1	5	1.55	3.45	69.0	25.00	4.84	20.16	81
6	2	1	122.57	23.3	5	1.30	3.70	74.0	30.00	6.14	23.86	80
7	1	2										
8	2	1										
9	1	2										
10	2	1										
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27	1	2										
28	2	1										
29	1	2										
30	2	1										
31	1	2										

**Summary & Adjusted Results based on the totals at the increment when Grease retained equals 2 1/4 times rated capacity**

= 56.25

Increment No. 2

1) Total Skimmed: 0.66

2) Total Retained : 9.34

3) Total Added: 10.00

Eff. = (line 3 - line1) / line 3

Efficiency % = 93.4

**Summary and Adjusted Results based on the totals at Break down point.**

Break down

Increment No. 2

Pounds Retained : 9.34

1) Total Skimmed : 0.66

2) Total Retained : 9.34

3) Total Added : 10.00

Eff. = (line 3 - line1) / line 3

Efficiency % = 93.4

**Average Or Total** 122.57 23.3 30 6.14 23.86

GPM: N/A

**FAIL**