



January 23, 2013
January 30, 2014

Updated with Thickness and additional requested information.

Mail To:

Doug Evans
New Pig
5 Pork Ave.
Tipton, PA 16684

email: dougev@newpig.com
email:bethp@newpig.com

Bill To:

<= Same (P.O. Number: 1024)
New Pig Energy
19 Colonnade Way Ste 117 #148
State College, PA 16803

Dear Mr. Evans:

Thank you for consulting TRI/Environmental, Inc. (TRI) for your geosynthetics testing needs. TRI is pleased to submit this final report for laboratory testing.

TRI Job Reference Number: E2375-26-04
Material(s) Tested: 1 New Pig 100 mil Well Pad Liner Nonwoven Geotextile Composite
Test(s) Requested: Permittivity (ASTM D 4491, 6 inch Falling Head)

If you have any questions or require any additional information, please call us at 1-800-880-8378.

Sincerely,

Mansukh Patel
Sr. Laboratory Coordinator
Geosynthetic Services Division
www.GeosyntheticTesting.com

cc: Sam R. Allen, Vice President and Division Manager



GEOTEXTILE TEST RESULTS

TRI Client: New Pig

Material: New Pig 100 mil Well Pad Liner Nonwoven Geotextile Composite

Test Date: 02/01/13

Sample Identification: 11/01/12 8/10/8 #205001

TRI Log #: E2375-26-04

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.
	1	2	3	4	5	6	7	8	9	10		
Falling Head Permittivity (ASTM D 4491, Falling Head; 2 in opening)												
Sample has been sealed at edge by RTV Sealant on Edge of specimen -Sealant had been cured for Three days before testing)												
Water Temp. (C):	20											
Correction Factor:	1.00											
Test Specimen No. >:	1					2						
Nominal Thickness (mils)	100.0					100						
Volume Collected (liters)	NO FLOW					NO FLOW						
Time (hrs)	72.0					72.0						
Specimen Permittivity @20°C (sec-1)	No Flow up to 72 Hours					No Flow up to 72 Hours						
Specimen Flow rate (GPM/ft2)	No Flow up to 72 Hours					No Flow up to 72 Hours						
Specimen Permeability (cm/s)												
	3					4						
Nominal Thickness (mils)	100					100						
Thickness (mm)												
Volume Collected (liters)	NO FLOW					NO FLOW						
Time (hrs)	72.0					72.0						
Specimen Permittivity @20°C (sec-1)	No Flow up to 72 Hours					No Flow up to 72 Hours						
Specimen Flow rate (GPM/ft2)	No Flow up to 72 Hours					No Flow up to 72 Hours						
Specimen Permeability (cm/s)												
	TEMPERATURE CORRECTED VALUES					Permittivity (s-1) Flow rate (GPM/ft2) Permeability (cm/s)					No Flow	No Flow up to 72 Hrs

Nominal Thickness provided by client.

The testing is based upon accepted industry practice as well as the test method listed. Test results reported herein do not apply to samples other than those tested. TRI neither accepts responsibility for nor makes claim as to the final use and purpose of the material. TRI observes and maintains client confidentiality. TRI limits reproduction of this report, except in full, without prior approval of TRI.