Report No.	**70.400.20.305.01-00/01**
Dated	**2020-03-24**

Technical Report

Applicant:	LONGi Green Energy Technology Co., Ltd. No.388,Middle Hangtian Road, Chang ' an District, Xi ' an, Shaanxi 710100, P.R.China
Attn:	Wu Jing
Manufacturer:	LONGi Green Energy Technology Co., Ltd.
Test subject:	Refer to next pages
Test specification:	**Extractable Heavy Metals Test** Using the Toxicity Characteristic Leaching Procedure, test Method EPA 1311:1992, analysis was performed by ICP-OES.
Test result:	Refer to the data listed in following pages
Conclusion:	Extractable Heavy Metals Test Pass
Remarks:	1. The result relates only to the items tested 2. Samples were tested as received

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Shanghai Chemical Lab
No. 1999 Du Hui Road

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China

1. Order

1.1 Date of Purchase Order,
2020-03-10

1.2 Customer's Reference
Nil

1.3 Receipt Date of Test Sample
2020-03-10

1.4 Date of Testing
2020-03-10~2020-03-19

1.5 Document submitted
Nil

1.6 Location of Testing
TÜV PS SHA

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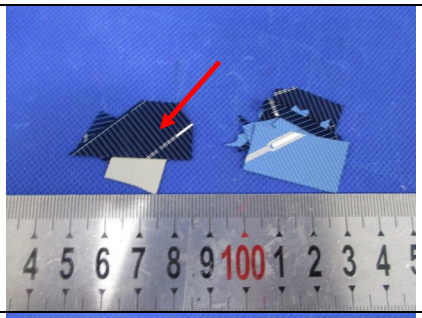
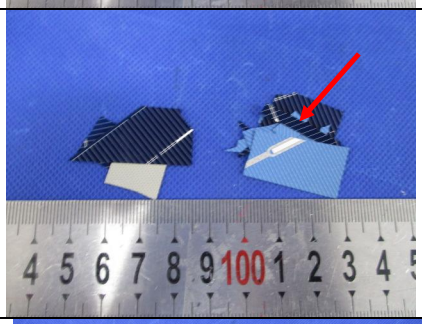
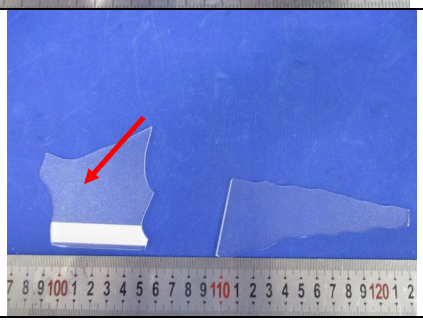
2. Description of the tested subject

No.	Tested sample	Picture
001	PERC Half Cell	
002	Bifacial PERC Half Cell	
003	Front cover	

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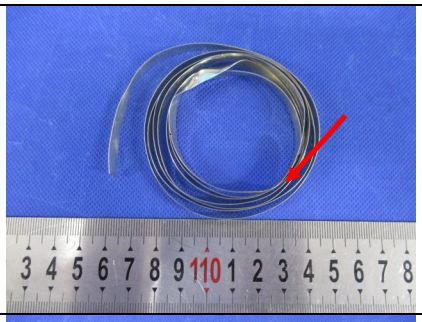
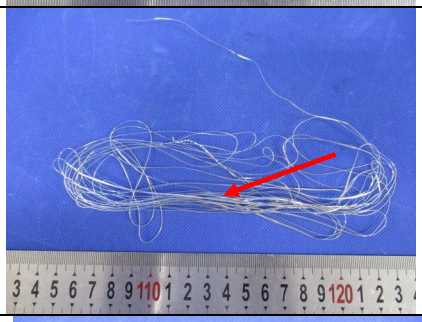
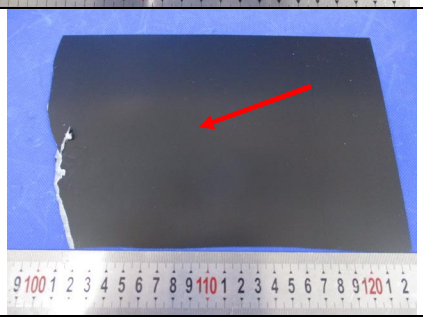
No.	Tested sample	Picture
004	String connector	
005	Cell interconnector	
006	Backsheet(Black)	

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No.	Tested sample	Picture
007	Frame(Black)	
008	Frame	
009	Adhesive/Potting material(Black)	

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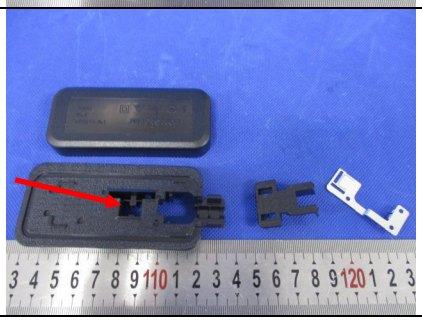
No.	Tested sample	Picture
0010	Adhesive/Potting material	
0011	Black plastic shell	
0012	Junction box	

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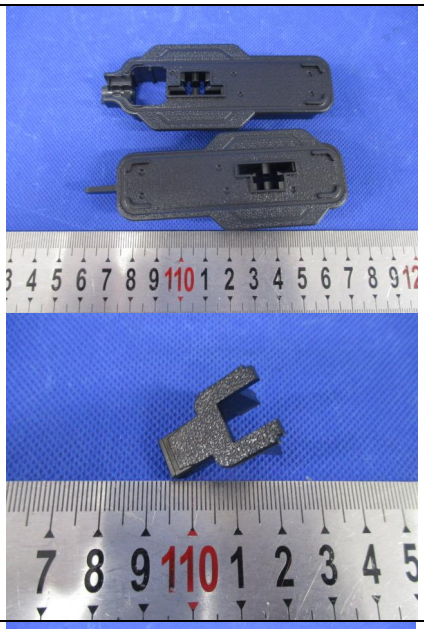
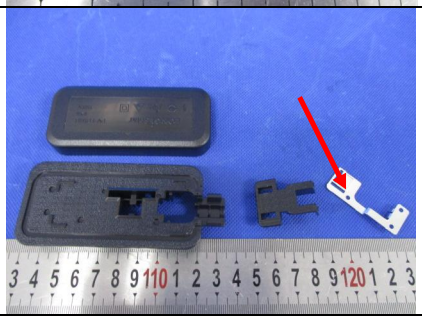
No.	Tested sample	Picture
		
0013	Silvery metal slice	

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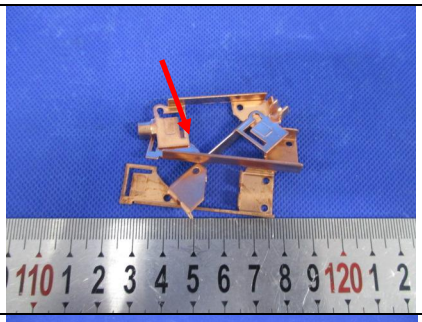
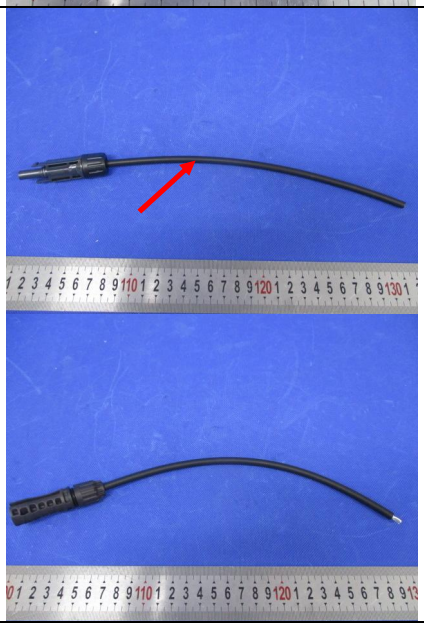
No.	Tested sample	Picture
0014	Coppery metal	
0015	Cable	

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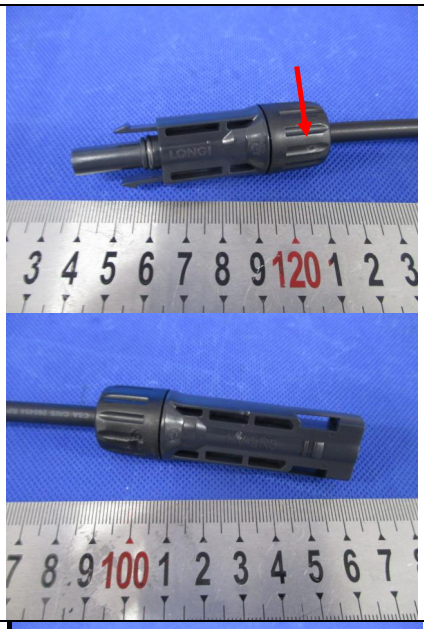
No.	Tested sample	Picture
0016	Connector	
0017	Grey plastic shell	

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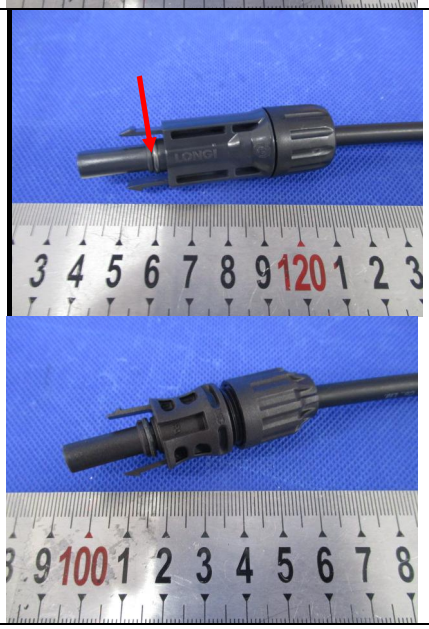
No.	Tested sample	Picture
		
0018	Grey soft plastic ring	

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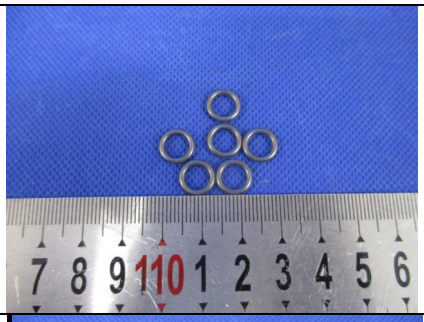
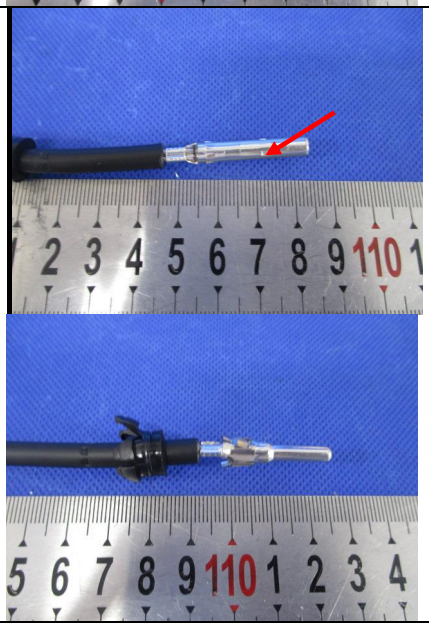
No.	Tested sample	Picture
		
0019	Silvery metal rod	

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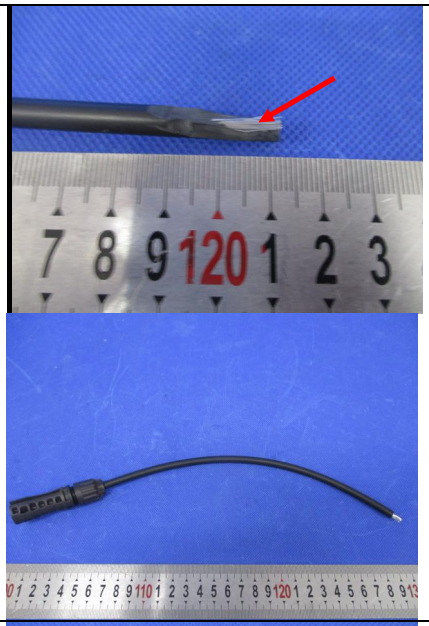
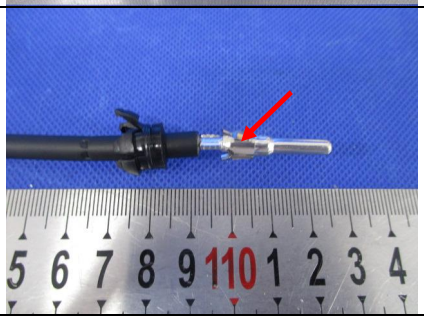
0020	Silvery metal wire	
0021	Silvery metal slice	

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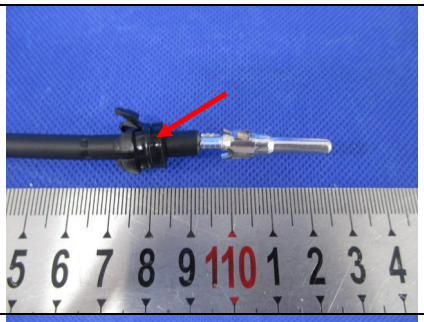
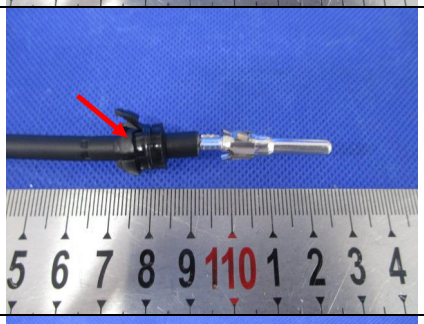
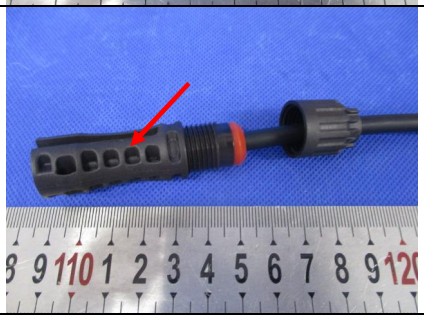
No.	Tested sample	Picture
0022	Black soft plastic ring	
0023	Black plastic frame	
0024	Black plastic shell	

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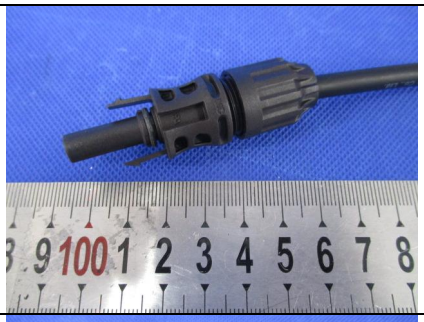
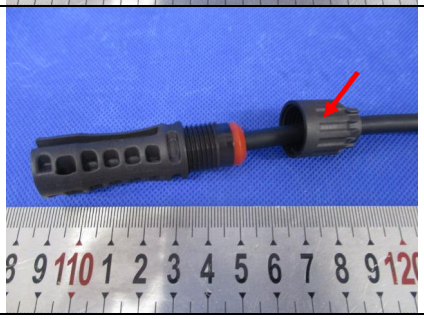
No.	Tested sample	Picture
		
0025	Red soft plastic block	
0026	Black plastic shell	

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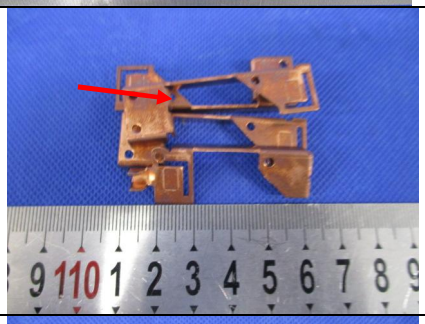
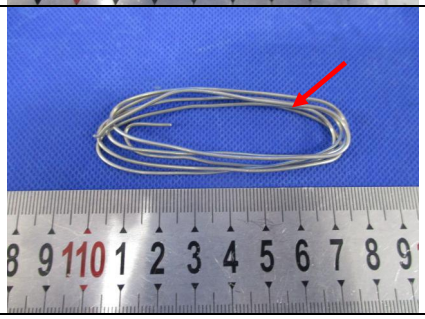
No.	Tested sample	Picture
		
0027	Coppery metal block	
0028	Solder Wire	

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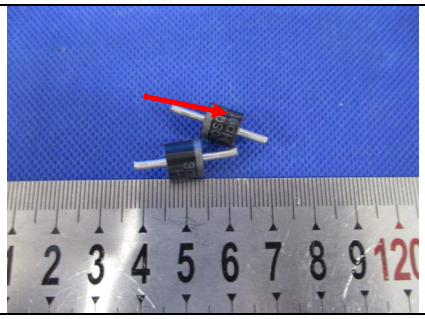
China

No.	Tested sample	Picture
0029	Diode	

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3. Test Results

3.1 Extractable Heavy Metals Test

Using the Toxicity Characteristic Leaching Procedure, test Method EPA 1311:1992, analysis was performed by ICP-OES.

Test item	MDL (mg/L)	Result				Regulatory Level (mg/L)
		001	002	003	004	
Arsenic (As)	0.2	<0.2	<0.2	<0.2	<0.2	**5.0**
Barium(Ba)	0.2	7.8	2.3	<0.2	<0.2	**100.0**
Cadmium(Cd)	0.2	<0.2	<0.2	<0.2	<0.2	**1.0**
Chromium(Cr)	0.2	<0.2	<0.2	<0.2	<0.2	**5.0**
Lead (Pb)	0.2	0.9	<0.2	<0.2	<0.2	**5.0**
Mercury(Hg)	0.2	<0.2	<0.2	<0.2	<0.2	**0.2**
Selenium(Se)	0.2	<0.2	<0.2	<0.2	<0.2	**1.0**
Silver(Ag)	0.2	<0.2	<0.2	<0.2	<0.2	**5.0**

Remark:

1. MDL = Method Detection Limit
2. ND = Not detected (<MDL)
3. “mg/L” denotes “milligram per liter”
4. Maximum Concentration quote from 40 CFR 261.24 - Toxicity characteristic table 1: Maximum Concentration of Contaminants for the Toxicity Characteristic

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3.1 Extractable Heavy Metals Test

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Test item	MDL (mg/L)	Result				Regulatory Level (mg/L)
		005	006	007	008	
Arsenic (As)	0.2	<0.2	<0.2	<0.2	<0.2	**5.0**
Barium(Ba)	0.2	<0.2	<0.2	<0.2	<0.2	**100.0**
Cadmium(Cd)	0.2	<0.2	<0.2	<0.2	<0.2	**1.0**
Chromium(Cr)	0.2	<0.2	<0.2	<0.2	<0.2	**5.0**
Lead (Pb)	0.2	<0.2	<0.2	<0.2	<0.2	**5.0**
Mercury(Hg)	0.2	<0.2	<0.2	<0.2	<0.2	**0.2**
Selenium(Se)	0.2	<0.2	<0.2	<0.2	<0.2	**1.0**
Silver(Ag)	0.2	<0.2	<0.2	<0.2	<0.2	**5.0**

Remark:

1. MDL = Method Detection Limit
2. ND = Not detected (<MDL)
3. “mg/L” denotes “milligram per liter”
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3.1 Extractable Heavy Metals Test

Using the Toxicity Characteristic Leaching Procedure, test Method EPA 1311:1992, analysis was performed by ICP-OES.

Test item	MDL (mg/L)	Result				Regulatory Level (mg/L)
		009	010	011	012	
Arsenic (As)	0.2	<0.2	<0.2	<0.2	<0.2	**5.0**
Barium(Ba)	0.2	<0.2	<0.2	<0.2	<0.2	**100.0**
Cadmium(Cd)	0.2	<0.2	<0.2	<0.2	<0.2	**1.0**
Chromium(Cr)	0.2	<0.2	<0.2	<0.2	<0.2	**5.0**
Lead (Pb)	0.2	<0.2	<0.2	<0.2	<0.2	**5.0**
Mercury(Hg)	0.2	<0.2	<0.2	<0.2	<0.2	**0.2**
Selenium(Se)	0.2	<0.2	<0.2	<0.2	<0.2	**1.0**
Silver(Ag)	0.2	<0.2	<0.2	<0.2	<0.2	**5.0**

Remark:

1. MDL = Method Detection Limit
2. ND = Not detected (<MDL)
3. “mg/L” denotes “milligram per liter”
4. Maximum Concentration quote from 40 CFR 261.24 - Toxicity characteristic table 1: Maximum Concentration of Contaminants for the Toxicity Characteristic

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3.1 Extractable Heavy Metals Test

Using the Toxicity Characteristic Leaching Procedure, test Method EPA 1311:1992, analysis was performed by ICP-OES.

Test item	MDL (mg/L)	Result				Regulatory Level (mg/L)
		013	014	015	016	
Arsenic (As)	0.2	<0.2	<0.2	<0.2	<0.2	**5.0**
Barium(Ba)	0.2	<0.2	<0.2	<0.2	<0.2	**100.0**
Cadmium(Cd)	0.2	<0.2	<0.2	<0.2	<0.2	**1.0**
Chromium(Cr)	0.2	<0.2	<0.2	<0.2	<0.2	**5.0**
Lead (Pb)	0.2	<0.2	<0.2	<0.2	<0.2	**5.0**
Mercury(Hg)	0.2	<0.2	<0.2	<0.2	<0.2	**0.2**
Selenium(Se)	0.2	<0.2	<0.2	<0.2	<0.2	**1.0**
Silver(Ag)	0.2	<0.2	<0.2	<0.2	<0.2	**5.0**

Remark:

1. MDL = Method Detection Limit
2. ND = Not detected (<MDL)
3. “mg/L” denotes “milligram per liter”
4. Maximum Concentration quote from 40 CFR 261.24 - Toxicity characteristic table 1: Maximum Concentration of Contaminants for the Toxicity Characteristic

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China

3.1 Extractable Heavy Metals Test

Using the Toxicity Characteristic Leaching Procedure, test Method EPA 1311:1992, analysis was performed by ICP-OES.

Test item	MDL (mg/L)	Result				Regulatory Level (mg/L)
		017	018	019	020	
Arsenic (As)	0.2	<0.2	<0.2	<0.2	<0.2	**5.0**
Barium(Ba)	0.2	<0.2	<0.2	<0.2	<0.2	**100.0**
Cadmium(Cd)	0.2	<0.2	<0.2	<0.2	<0.2	**1.0**
Chromium(Cr)	0.2	<0.2	<0.2	<0.2	<0.2	**5.0**
Lead (Pb)	0.2	<0.2	<0.2	<0.2	<0.2	**5.0**
Mercury(Hg)	0.2	<0.2	<0.2	<0.2	<0.2	**0.2**
Selenium(Se)	0.2	<0.2	<0.2	<0.2	<0.2	**1.0**
Silver(Ag)	0.2	<0.2	<0.2	<0.2	<0.2	**5.0**

Remark:

1. MDL = Method Detection Limit
2. ND = Not detected (<MDL)
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Using the Toxicity Characteristic Leaching Procedure, test Method EPA 1311:1992, analysis was performed by ICP-OES.

Test item	MDL (mg/L)	Result				Regulatory Level (mg/L)
		021	022	023	024	
Arsenic (As)	0.2	<0.2	<0.2	<0.2	<0.2	**5.0**
Barium(Ba)	0.2	<0.2	<0.2	<0.2	<0.2	**100.0**
Cadmium(Cd)	0.2	<0.2	<0.2	<0.2	<0.2	**1.0**
Chromium(Cr)	0.2	0.3	<0.2	<0.2	<0.2	**5.0**
Lead (Pb)	0.2	<0.2	<0.2	<0.2	<0.2	**5.0**
Mercury(Hg)	0.2	<0.2	<0.2	<0.2	<0.2	**0.2**
Selenium(Se)	0.2	<0.2	<0.2	<0.2	<0.2	**1.0**
Silver(Ag)	0.2	<0.2	<0.2	<0.2	<0.2	**5.0**

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Test item	MDL (mg/L)	Result				Regulatory Level (mg/L)
		025	026	027	028	
Arsenic (As)	0.2	<0.2	<0.2	<0.2	<0.2	**5.0**
Barium(Ba)	0.2	<0.2	<0.2	<0.2	<0.2	**100.0**
Cadmium(Cd)	0.2	<0.2	<0.2	<0.2	<0.2	**1.0**
Chromium(Cr)	0.2	<0.2	<0.2	<0.2	<0.2	**5.0**
Lead (Pb)	0.2	<0.2	<0.2	<0.2	<0.2	**5.0**
Mercury(Hg)	0.2	<0.2	<0.2	<0.2	<0.2	**0.2**
Selenium(Se)	0.2	<0.2	<0.2	<0.2	<0.2	**1.0**
Silver(Ag)	0.2	0.3	<0.2	<0.2	<0.2	**5.0**

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Test item	MDL (mg/L)	Result	Regulatory Level (mg/L)
		029	
Arsenic (As)	0.2	<0.2	**5.0**
Barium(Ba)	0.2	<0.2	**100.0**
Cadmium(Cd)	0.2	<0.2	**1.0**
Chromium(Cr)	0.2	<0.2	**5.0**
Lead (Pb)	0.2	<0.2	**5.0**
Mercury(Hg)	0.2	<0.2	**0.2**
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Engineer:

Ms. Peng Qiping

Checked by:

Ms. Qi Nannan

- End of Report -

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