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MUNICIPALITY OF PHNOM PENH  
KINGDOM OF CAMBODIA

NO.

# THE STUDY ON SOLID WASTE MANAGEMENT IN THE MUNICIPALITY OF PHNOM PENH IN THE KINGDOM OF CAMBODIA

## Final Report Databook



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# Data 1

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*Waste Amount and Composition  
Survey  
(Rainy and Dry Season)*

# Data 1 Waste Amount and Composition Survey (Rainy and Dry Season)

## 1.1 Waste amount survey

### 1.1.1 Result in dry season

Table 1-1: Generation Source and Number of Waste Samples

Generation Source		Samples Per Day	Survey Days	Total Samples
Households (by income)	High	20	7	140
	Middle	20	7	140
	Low	20	7	140
Commercial	Restaurants	5	7	35
	Other Shops	5	7	35
Markets		2	7	14
Schools		2	7	14
Streets		8	7	56
Hotels		2	7	14
Offices		5	7	35
Collection Vehicles		1	7	7
Total		90	---	630

Table 1-2: Household Waste Generation Ratio in the Target area

Item	High Income	Middle Income	Low Income
Number of samples	140	140	140
Average value (g/person/day)	668.5	545.3	445.9
Maximum value (g/person/day)	2021	1280	1300
Minimum value (g/person/day)	255	167	87

Table 1-3: Population by Income Level & Household Waste Generation Ratio

Item	Average monthly income (Riel)	Population by Income Level	Generation Ratio (g/person/day)
High Income Household	3,708,000	10%	668.5
Middle Income Household	1,291,000	30%	545.3
Low Income Household	636,000	60%	445.9
Weight Average	---	---	<b>498.0</b>

Table 1-4: Daily Waste Generation Amount in Dry Season (2003)

Waste Type	Unit	Number of Generation Sources	Generation Ratio	Daily Generation Amount (tons/day)
Household Waste	597.3	1,199,414	498.0	597.3
Commercial Waste (Restaurants)	54.0	27,808	1,940	7.4
Commercial Waste (Other Shops)	153.1	33,524	4,566	8.4
Market Waste	88.0	51,766	1,700	42.5
School Waste	6.9	385,013	18	6.9
Street Sweeping Waste	2.6	56	47,235	2.6
Hotel Waste	2.7	13,385	199	1.2
Office Waste	1.1	368	2,946	1.1
Total				905.7

### 1.1.2 Result in rainy season

Table 1-5: Generation Source and Number of Waste Samples

Generation Source		Samples Per Day	Survey Days	Total Samples
Households (by income)	High	20	7	140
	Middle	20	7	140
	Low	20	7	140
Commercial	Restaurants	5	7	35
	Other Shops	5	7	35
Markets		2	7	14
Schools		2	7	14
Streets		8	7	56
Hotels		2	7	14
Offices		5	7	35
Collection Vehicles		1	7	7
Total		90	---	630

Table 1-6: Household Waste Generation Ratio in the Target area

Item	High Income	Middle Income	Low Income
Number of samples	140	140	140
Average value (g/person/day)	646.2	501.4	435.2
Maximum value (g/person/day)	1216	923	900
Minimum value (g/person/day)	250	196	104

Table 1-7: Population by Income Level & Household Waste Generation Ratio

Item	Average monthly income (Riel)	Population by Income Level	Generation Ratio (g/person/day)
High Income Household	3,708,000	10%	646.2
Middle Income Household	1,291,000	30%	501.4
Low Income Household	636,000	60%	435.2
Weight Average	---	---	476.1

Table 1-8: Daily Waste Generation Amount in Rainy Season (2003)

Waste Type	Unit	Number of Generation Sources	Generation Ratio	Daily Generation Amount (tons/day)
Household Waste	g/person/day	1,199,414	476	570.9
Commercial Waste (Restaurants)	g/table/day	27,808	1,387	38.6
Commercial Waste (Other Shops)	g/shop/day	33,524	4,437	148.8
Market Waste	g/stall/day	51,766	1,945	100.7
School Waste	g/student/day	385,013	21	8.1
Street Sweeping Waste	g/km/day	56	59,510	3.3
Hotel Waste	g/room/day	13,385	263	3.5
Office Waste	g/office/day	368	4,174	1.5
Total				875.4

## 1.2 Waste composition survey in dry season

### 1.2.1 Methodology

#### a. Reduction Method for sampling

After transporting all sample waste to the disposal site (waste composition analysis point), the waste samples from each representative sector were reduced by the following method:

- Step 1.** Mixing: Waste from each source is mixed for every category. If the waste contains large particles (e.g., cardboard, textiles, etc.) those items are cut into smaller pieces and mixed again. Cutting the waste into smaller pieces is carried out to obtain an even mixture.
- Step 2.** Dividing: Once the waste is mixed well, it is divided into four segments of approximately the same size.
- Step 3.** Reduction: The two segments of waste diagonally opposite each other are removed and the remaining waste is mixed again.
- Step 4.** The above steps are repeated until the volume of the remaining waste is reduced in size to approximately 40 liters.
- Step 5.** The waste sample is then put into a calibrated plastic bucket and dropped 3 times from a height of 30 centimeters. Then, the volume and weight are recorded.



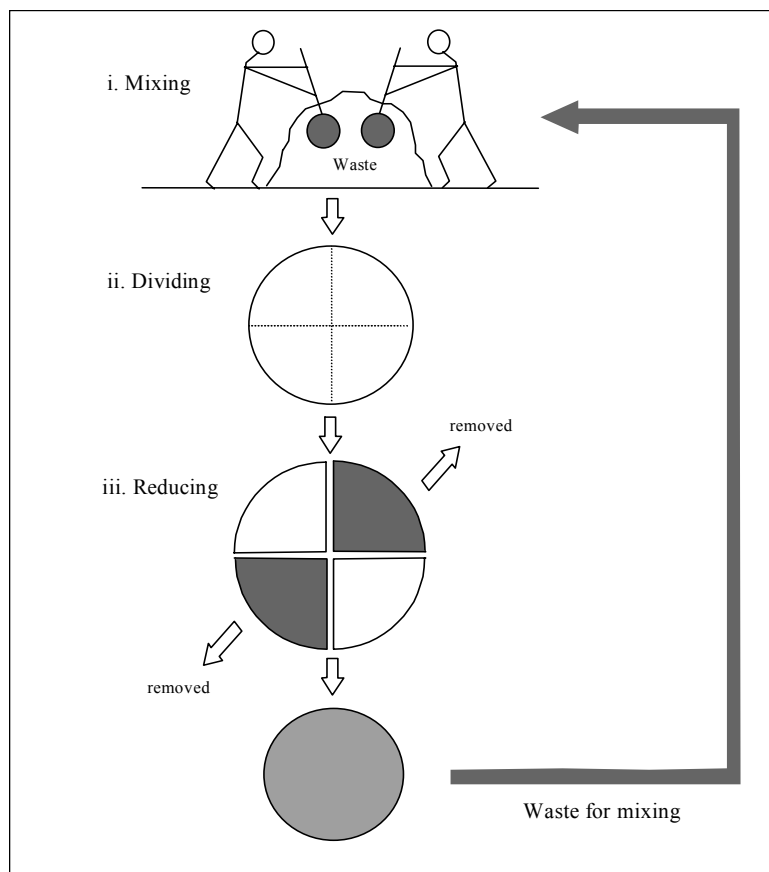


Figure 1-1: Mixing, Reduction, and Separation of Waste Samples (Reduction method)

**b. Specific gravity**

The specific gravity of the waste sample was calculated with the following formula.

$$\text{Specific gravity} = \text{Net weight of waste} / \text{Volume of waste}$$

**c. Physical Composition (wet basis)**

The physical composition was measured on a “wet basis” (as discarded, before the waste had a chance to dry). The samples were divided into the following 10 components, and the weight of each was measured.

- paper
- rubber and leather
- kitchen waste
- textiles
- plastics
- grass and wood
- metals
- bottles and glass
- soil and stone
- others

**d. Three contents (water content)**

First, the samples were weighed before drying. Then, after drying out for two hours in a dryer set at 110 degrees, the samples were weighed again, and the water content was calculated by the following formula.

$$\text{Water Content(\%)} = \frac{\text{Original Weight} - \text{Dry Weight}}{\text{Original Weight}} \times 100$$

**e. Three contents (combustible matter, ash)**

After weighing the dried wastes, the samples were mixed and crushed, and then dried out again for five hours in a dryer set at 550 degrees to measure combustible matter and ash.

Ash (%) = sample weight after drying at 550 degrees / original sample weight × 100

Combustible matter (%) = 100 - water content (%) – ash (%)

**f. Chemical analysis**

The method of total nitrogen is the Kjeldahl Method (1965). The method of carbon is the Walkly and Black Method (1934).

**f.1 Nitrogen**

Total N is determined by the macro Kjeldahl method which uses digestion with concentrated sulphuric acid (H<sub>2</sub>SO<sub>4</sub>) with added sodium sulphate (NaSO<sub>4</sub>) or potassium sulphate (K<sub>2</sub>SO<sub>4</sub>) to raise the boiling point, and copper (CuSO<sub>4</sub>.7H<sub>2</sub>O) and selenium (Se) power as catalysts to convert N in the sample to ammonium sulphate, (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>. This is carried out in 150-ml calibrated test tubes using a commercial (in this case, a GERHARDT Kjeldahltherm) digestion block.

**Apparatus**

- a) DIGESTION TUBES, 150-ml calibrated glass test tubes
- b) DIGESTION BLOCK (GERHARDT KJELDAHLTHERM), with 2 rows of 4 holes
- c) STEAM DISTILLATION ASSEMBLY (GERHARDR Vapodist 1)
- d) FUME CUPBOARD
- e) BURETTE, readable to 0.05ml

**Reagents**

- a) SULPHURIC ACID, H<sub>2</sub>SO<sub>4</sub> concentrated with specific gravity of 1.84g/m<sup>3</sup>
- b) MIXED CATALYST. Combine 40g of anhydrous potassium sulphate (K<sub>2</sub>SO<sub>4</sub>), 4 g of copper in a mortar with pestle and mix carefully
- c) SODIUM HYDROXIDE SOLUTION = 10M. Carefully, dissolve 800g of NaOH pellets in 2L of water, stirring constantly.
- d) TALC, fine power
- e) BORIC ACID, 2% Dissolve 40.0g H<sub>3</sub>BO<sub>3</sub> in water and make to 2000ml
- d) SULPHURIC ACID, 0.1M. Pipette 28 ml of concentrated H<sub>2</sub>SO<sub>4</sub> into a 1-liter volumetric flask and make to volume with water.
- e) ALIZARIN-BROMOCRESOL GREEN MIXED INDICATOR. Mix 0.05g of alizarin red S (C<sub>14</sub>H<sub>6</sub>Na<sub>2</sub>O<sub>7</sub>S) and 0.05g of bromocresol in 100ml water.

f) PHENOLPHTHALEIN INDICATOR, 1% Dissolve 1g in 100ml into a dry 150ml of ethanol.

## Procedure

### DIGESTION

- a) Weigh 1.00g of waste into a dry 150-ml digestion tube.
- b) 1 reagent blank and 1 control sample should be carried throughout the following procedure.
- c) Add 10 small (= 5mm diameter) glass beads to the digestion tube to control boiling.
- d) Add catalyst mixture (2 to 3g).
- e) Add 15 ml of concentrated H<sub>2</sub>SO<sub>4</sub>.
- f) Swirl gently to mix and place on the preheated digestion block (=370 °C).
- g) Boil the digestion mixture until it decolorizes (usually a pale greenish brown or off white color) and then carry on digestion for a further 60-90 minutes.
- h) Remove tube from block
- i) Before the mixture is completely cooled, add 5g of talc fine powder, 2 drops of phenolphthalein indicator 1% and then carefully add 60 ml of 10M NaOH. The solution color should now be red.
- j) When cool, transfer to distillation apparatus.

### DISTILLATION AND TITRATION

- a) Before analyzing samples, wash distillation apparatus by carrying out a distillation using water only.
- b) Transfer the whole sample in its digestion flask to the steam distillation apparatus.
- c) Put into a 250 ml conical flask add 50ml of 2% boric acid and 15 drops of mixed indicator. Place the flask under the delivery tube of the condenser so that the tip is under the surface of liquid.
- d) With steam, distil the sample solution into the boric acid. The indicator in the boric acid will change colour as the NH<sub>3</sub> begins to distil over.
- e) When about 150 ml of distillate has been collected, remove the 250 ml flask from the apparatus, rinsing the tip of the delivery tube with water into the flask.
- f) Stop the entry of steam. The distilling flask will empty and then can be removed.
- g) Titrate the distillate against 0.1M H<sub>2</sub>SO<sub>4</sub> to the yellow/orange colour of the indicator. Record titres (T<sub>1</sub> for blank and T<sub>2</sub> for sample).

### Calculation of results

$$\text{Total N (\%)} = (T_1 - T_2) * M * 0.014 * 100/W,$$

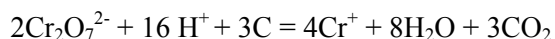
where

T <sub>1</sub>	=	blank titre (mL) with 0.1M H <sub>2</sub> SO <sub>4</sub>
T <sub>2</sub>	=	sample titre (mL) with 0.1M H <sub>2</sub> SO <sub>4</sub>

M	=	molarity of H <sub>2</sub> SO <sub>4</sub> of H <sub>2</sub> SO <sub>4</sub> (= 0.1M)
0.014	=	weight of 1 millimole of nitrogen (g)
W	=	sample weight (= 1g)

## f.2 Carbon

The method to identify carbon is an adaptation of the Walkly and Black (1934) procedure in which waste is oxidized by dichromate (Cr<sub>2</sub>O<sub>7</sub><sup>2-</sup>) and sulphuric acid (H<sub>2</sub>SO<sub>4</sub>) using the heat of dilution of the sulphuric acid (about 120°C) according to the following reaction.



Unreduced dichromate is titrated with ferrous ammonium sulphate using diphenylamine as a redox indicator. Oxidation of organic matter is not complete, averaging about 77%; therefore, a factor of 1.3 is applied during the calculation.

### Apparatus

FUME CUPBOARD

AURETTE, readable to 0.05 ml

### Reagents

- POTASSIUM DICHROMATE, 1 N. Dissolve 98.07g of K<sub>2</sub>Cr<sub>2</sub>O<sub>7</sub> (dried overnight at 105°C) in water and make to 2 liters.
- FERROUS AMMONIUM SULPHATE (FAS) SOLUTION, 0.5N in 0.5N H<sub>2</sub>SO<sub>4</sub>. Dissolve 393g of Fe(NH<sub>4</sub>)<sub>2</sub>(SO<sub>4</sub>)<sub>2</sub>·6H<sub>2</sub>O in about 1500ml water. Then add 30 ml of concentrated H<sub>2</sub>SO<sub>4</sub> and make to 2 liters with water.
- DIPHENYLAMINE INDICATOR. Dissolve 0.5g of diphenylamine in 100ml of concentrated H<sub>2</sub>SO<sub>4</sub>.
- SODIUM FLUORIDE, NaF Laboratory Grade reagent.
- SULPHURIC ACID, H<sub>2</sub>SO<sub>4</sub> concentrated with specific gravity of 1.84 g/cm<sup>3</sup>.

### Procedure

- Weigh 0.5g of waste into a dry 250-ml conical flask. (The laboratory usually uses 1.0g of waste. The amount of waste used depends on the total N%, the lower the total N %, the greater amount of waste used.)
- Include 1 reagent blank and 1 control waste sample in each batch.
- Add 10ml of 1N K<sub>2</sub>Cr<sub>2</sub>O<sub>7</sub> to the flask and swirl gently to disperse the waste and achieve complete wetting.
- In the fume cupboard, add 20 ml of concentrated H<sub>2</sub>SO<sub>4</sub> and immediately swirl vigorously for 1 minute to thoroughly mix waste with reagents.

Note: This step and the timing of the next step are important as the oxidation of carbon is dependant on the acid being mixed rapidly to obtain the maximum temperature, and on the reaction continuing for the correct time.

- Let stand for 30 minutes

- f) Add 100ml of water to the flask
- g) Add 3-5 g of NaF crystal and 10 drops of diphenylamine indicator (5 drops for the blank) and 20 mL of water.
- i) Titrate the excess potassium dichromate with 0.5N FAS solution. During the titration the indicator colour changes from pale muddy blue to dark muddy blue and flashes to brilliant green at the end point. Record titration results ( $T_1$  for blank and  $T_2$  for samples).

### Calculations

$$\text{Normality of FAS (N)} = 10/T_1,$$

where  $T_1$  = mL FAS solution for blank titration

$$\text{Organic C(\%)} = (T_1 - T_2) * N * 0.003 * f * 100/W,$$

where  $T_1$  = mL FAS solution for blank titration

$T_2$  = mL FAS solution for sample titration

N = normality of FAS solution (from [1] = 0.5N)

0.003 = weight of 1 milliequivalent of carbon (g)

f = oxidation factor (f=1.3)

w = weight of sample (w=1g)

1.2.2

Result in dry season

Table 1-9: Specific Gravity of Household Waste

Category	Dry season										Unit: kg/l	
	23 March 2003	24 March 2003	25 March 2003	26 March 2003	27 March 2003	28 March 2003	29 March 2003	30 March 2003				
High income	Total	0.17	0.24	0.20	0.21	0.17	0.25	0.30				
	Paper	0.12	0.19	0.40	0.20	0.20	0.08	0.07				
	Rubber /Leather	NA	NA	NA	NA	NA	NA	NA				
	Kitchen Waste	0.36	0.45	0.45	0.57	0.41	0.44	0.49				
	Metals	NA	NA	NA	NA	NA	NA	NA				
	Textile	NA	NA	0.13	NA	NA	0.10	0.20				
	Bottles /Glass	NA	NA	NA	0.50	NA	NA	NA				
	Grass /Wood	0.19	0.08	0.40	0.09	0.18	0.11	0.11				
	Soil /Stone	NA	0.60	NA	NA	NA	NA	NA				
	Plastics	0.05	0.06	0.06	0.06	0.06	0.08	0.07				
	Others	NA	0.50	NA	NA	NA	NA	NA				
	Total	0.25	0.19	0.29	0.18	0.31	0.28	0.30				
	Middle income	Paper	0.09	0.30	0.20	0.09	0.13	0.06	0.16			
Rubber /Leather		NA	NA	NA	NA	NA	NA	NA				
Kitchen Waste		0.46	0.39	0.32	0.43	0.58	0.45	0.46				
Metals		NA	NA	NA	NA	0.30	0.10	0.15				
Textile		0.30	NA	NA	0.08	0.10	0.10	0.15				
Bottles /Glass		NA	NA	NA	NA	NA	NA	0.40				
Grass /Wood		0.30	0.20	0.40	NA	0.08	NA	0.15				
Soil /Stone		NA	NA	NA	NA	0.60	NA	NA				
Plastics		0.07	0.06	0.08	0.15	0.15	0.06	0.17				
Others		NA	NA	NA	NA	NA	NA	NA				
Total		0.24	0.29	0.24	0.23	0.22	0.21	0.17				
Low income		Paper	0.17	NA	NA	NA	0.20	0.12	0.20			
		Rubber /Leather	NA	NA	NA	NA	NA	NA	NA			
	Kitchen Waste	0.50	0.41	0.49	0.29	0.17	0.39	0.36				
	Metals	NA	NA	NA	NA	NA	NA	NA				
	Textile	NA	NA	NA	NA	NA	0.20	NA				
	Bottles /Glass	NA	NA	NA	NA	NA	NA	NA				
	Grass /Wood	0.05	NA	0.40	0.10	0.10	0.07	NA				
	Soil /Stone	NA	NA	NA	NA	0.80	0.40	NA				
	Plastics	0.06	0.05	0.05	0.06	0.05	0.06	0.07				
	Others	NA	NA	0.60	0.40	NA	0.27	NA				
	Total	0.17	0.31	0.29	0.15	0.06	0.20	0.22				
	Uncollected area	Paper	0.17	0.08	NA	0.07	0.03	0.03	0.06			
		Rubber /Leather	NA	NA	NA	NA	NA	NA	NA			
Kitchen Waste		0.36	0.27	0.30	0.31	0.20	0.45	0.35				
Metals		NA	NA	0.20	NA	NA	NA	NA				
Textile		NA	0.17	0.40	NA	0.05	NA	NA				
Bottles /Glass		NA	NA	NA	NA	NA	NA	NA				
Grass /Wood		0.14	0.06	0.16	0.16	0.06	0.12	0.06				
Soil /Stone		NA	0.80	0.80	0.73	0.30	0.73	0.40				
Plastics		0.04	0.03	0.07	0.04	0.03	0.03	0.03				
Others		NA	0.40	0.80	0.35	NA	0.10	0.20				

Table 1-10: Bulk Density of Other Waste (1/2)

Category	Dry season										Unit: kg/l	
	23 March 2003	24 March 2003	25 March 2003	26 March 2003	27 March 2003	28 March 2003	29 March 2003	30 March 2003				
Restaurant	Total		0.40	0.40	0.31	0.40	0.34	0.42				
	Paper		0.45	0.30	0.36	0.33	0.56	0.41	0.33			
	Rubber /Leather		NA	NA	NA	NA	NA	NA	NA			
	Kitchen Waste		0.50	0.62	0.49	0.55	0.73	0.88	0.64			
	Metals		0.13	NA	NA	0.40	0.20	0.10	0.20			
	Textile		NA	NA	NA	NA	NA	NA	NA			
	Bottles /Glass		0.36	0.26	0.29	0.60	0.17	0.19	0.37			
	Grass /Wood		NA	NA	NA	NA	NA	0.13	0.10			
	Soil /Stone		0.60	NA	NA	NA	NA	NA	0.60			
	Plastics		0.07	0.07	0.07	0.15	0.06	0.09	0.08			
	Others		NA	NA	NA	NA	NA	NA	NA			
	Total		0.35	0.36	0.30	0.33	0.33	0.27	0.23			
	Other shop	Paper		0.17	NA	NA	0.20	0.24	0.20	0.08		
Rubber /Leather			NA	NA	NA	NA	NA	NA	NA			
Kitchen Waste			0.42	0.46	0.53	0.47	0.40	0.36	0.44			
Metals			NA	NA	0.30	NA	NA	NA	NA			
Textile			0.50	NA	NA	NA	NA	NA	NA			
Bottles /Glass			NA	NA	NA	NA	NA	NA	NA			
Grass /Wood			NA	NA	NA	NA	0.15	NA	NA			
Soil /Stone			NA	NA	NA	NA	NA	NA	NA			
Plastics			0.04	0.08	0.07	0.03	0.04	0.06	0.06			
Others			NA	NA	NA	NA	NA	NA	NA			
Total			0.15	0.13	0.14	0.14	0.19	0.13	0.09			
Market		Paper		0.09	0.08	0.08	0.12	0.08	0.09	0.05		
		Rubber /Leather		NA	NA	NA	NA	NA	NA	NA		
	Kitchen Waste		0.35	0.21	0.28	0.27	0.26	0.31	0.41			
	Metals		NA	NA	NA	NA	NA	NA	NA			
	Textile		0.40	NA	NA	NA	NA	NA	NA			
	Bottles /Glass		1.00	NA	NA	NA	NA	NA	NA			
	Grass /Wood		0.05	NA	NA	0.05	0.05	NA	0.03			
	Soil /Stone		NA	NA	0.80	0.80	NA	NA	NA			
	Plastics		0.04	0.02	0.03	0.04	0.03	0.04	0.02			
	Others		0.41	NA	NA	NA	0.80	0.80	NA			
	Total		0.07	0.14	0.13	0.04	0.09	0.11				
	School	Paper		0.14	0.15	0.17	0.04	0.12	0.15			
		Rubber /Leather		NA	NA	NA	NA	NA	NA			
Kitchen Waste			0.70	0.37	0.30	0.20	0.42	0.75				
Metals			NA	NA	NA	NA	NA	NA				
Textile			NA	NA	NA	NA	NA	0.20				
Bottles /Glass			NA	NA	NA	NA	NA	NA				
Grass /Wood			0.08	0.10	0.11	NA	0.12	0.08				
Soil /Stone			NA	0.80	0.60	NA	0.60	0.55				
Plastics			0.05	0.06	0.08	0.03	0.08	0.08				
Others			0.80	0.80	0.30	0.40	0.25	0.33				

Table 1-11: Bulk Density of Other Waste (2/2)

Category	Dry season										Unit: kg/l	
	23 March 2003	24 March 2003	25 March 2003	26 March 2003	27 March 2003	28 March 2003	29 March 2003	30 March 2003				
Street Sweeping	Total	0.18	0.14			0.17	0.21	0.11	0.11			
	Paper	0.03	0.03			0.02	NA	NA	0.10			
	Rubber/Leather	NA	NA			NA	NA	NA	NA			
	Kitchen Waste	NA	NA			0.27	0.18	NA	NA			
	Metals	NA	NA			NA	NA	NA	NA			
	Textile	NA	NA			0.20	0.30	NA	NA			
	Bottles/Glass	NA	NA			NA	0.80	NA	NA			
	Grass/Wood	0.08	0.08			0.05	0.08	0.07	0.07			
	Soil/Stone	1.05	0.63			1.02	1.00	0.80	0.80			
	Plastics	0.03	0.02			0.06	0.03	0.04	0.04			
	Others	NA	NA			NA	NA	NA	NA			
	Total		0.14	0.23	0.15	0.11	0.25	0.22	0.22	0.18		
	Hotel	Paper		0.08	0.40	0.40	0.06	0.10	0.12	0.10		
Rubber/Leather			NA	NA	NA	NA	NA	NA	NA			
Kitchen Waste			0.28	NA	0.45	0.17	0.49	0.35	0.35			
Metals			NA	NA	NA	NA	NA	NA	NA			
Textile			NA	NA	NA	NA	NA	NA	NA			
Bottles/Glass			NA	NA	NA	NA	NA	NA	NA			
Grass/Wood			0.11	0.25	0.12	0.08	0.27	0.13	0.15			
Soil/Stone			NA	NA	NA	0.35	NA	0.67	NA			
Plastics			0.03	0.04	0.04	0.04	0.03	0.02	0.06			
Others			NA	NA	NA	NA	NA	NA	NA			
Total			0.14	0.09	0.09	0.11	0.11	0.12	0.12			
Office		Paper		0.08	0.08	0.07	0.05	0.10	0.05			
		Rubber/Leather		NA	NA	NA	NA	NA	NA			
	Kitchen Waste		0.32	NA	0.23	0.30	0.31	0.30				
	Metals		NA	NA	NA	NA	NA	NA				
	Textile		NA	NA	NA	NA	NA	NA				
	Bottles/Glass		NA	NA	NA	NA	NA	NA				
	Grass/Wood		0.10	0.13	NA	0.40	0.13	NA				
	Soil/Stone		0.60	0.13	NA	0.50	0.53	NA				
	Plastics		0.03	0.03	0.03	0.03	0.02	0.05				
	Others		0.35	NA	NA	NA	NA	NA				
	Total		0.22	0.39	0.23	0.23	0.14	0.24	0.19	0.24		
	Collection Vehicle	Paper		0.28	0.38	0.34	0.14	0.24	0.18	0.09		
		Rubber/Leather		NA	NA	NA	NA	NA	NA	NA		
Kitchen Waste			0.34	0.47	0.42	0.25	0.47	0.44	0.39			
Metals			NA	0.20	NA	0.13	NA	NA	NA			
Textile			NA	0.34	NA	0.40	0.25	0.10	0.17			
Bottles/Glass			NA	NA	NA	NA	NA	NA	NA			
Grass/Wood			NA	0.25	NA	NA	NA	0.16	0.08			
Soil/Stone			NA	NA	NA	1.20	NA	0.50	NA			
Plastics			0.04	0.12	0.04	0.03	0.06	0.06	0.06	0.06		
Others			NA	0.62	NA	0.40	NA	0.40	0.40	NA		

Table 1-12: Physical Composition of Household Waste

Category	Dry season										Unit: kg	
	23 March 2003	24 March 2003	25 March 2003	26 March 2003	27 March 2003	28 March 2003	29 March 2003	30 March 2003				
High income	Paper		0.7	1.3	0.2	0.4	0.6	0.3	0.4			
	Rubber/Leather		NA	NA	0.1	NA	NA	NA	NA			
	Kitchen Waste		2.5	5.9	5	5.7	4.1	4.8	4.9			
	Textile		0.13	0.2	0.4	0.2	NA	0.2	0.2			
	Plastic		1.4	1.1	0.9	1	1.6	1.5	1.7			
	Grass/Wood		3.7	1.1	0.2	0.7	0.7	0.9	0.8			
	Metals		0.001	0.001	0.001	0.001	0.2	0.001	NA			
	Bottles/Glass		NA	0.25	0.2	0.5	0.001	NA	NA			
	Soil/Stone		0.001	0.6	NA	NA	0.001	NA	NA			
	Others		NA	0.25	NA	NA	0.001	NA	NA			
	Total		0.7	0.7	0.5	0.2	0.9	0.8	0.3	0.8		
	Middle income	Paper		NA	NA	NA	0.001	0.001	NA	NA		
		Rubber/Leather		6.9	3.9	4.5	9.5	8.1	6.3	9.7		
Kitchen Waste			0.3	0.2	0.001	0.4	0.1	0.2	0.3			
Textile			3.6	0.9	1.2	3.2	3.7	2	3.8			
Plastic			0.3	0.2	0.4	0.001	0.5	0.001	0.3			
Grass/Wood			0.001	0.001	NA	NA	0.3	0.1	0.001			
Metals			NA	0.001	NA	NA	NA	NA	0.8			
Bottles/Glass			0.001	0.001	0.001	0.001	0.6	NA	0.001			
Soil/Stone			NA	NA	NA	0.2	NA	NA	NA			
Others			0.5	0.2	0.1	0.1	0.6	0.2	0.2			
Total			9	3.3	4.9	3.8	3.3	8.5	2.5	2.5		
Low income		Paper		0.05	0.001	0.2	0.2	0.4	0.2	0.1		
		Rubber/Leather		2.4	1.1	0.6	0.9	2	2.3	0.8		
	Kitchen Waste		0.1	0.2	0.2	0.2	0.2	0.2	0.1			
	Textile		NA	NA	0.001	0.001	0.001	0.001	NA			
	Plastic		NA	0.001	0.001	0.1	0.4	1.2	0.001			
	Grass/Wood		NA	NA	0.3	0.2	NA	0.8	NA			
	Metals		0.5	0.3	0.1	0.5	0.1	0.2	0.3			
	Bottles/Glass		NA	NA	NA	NA	NA	NA	NA			
	Soil/Stone		2.5	3	1.8	2.8	0.8	2.7	4.5			
	Others		0.007	0.07	0.5	0.4	0.001	0.1	0.001			
	Total		0.7	0.75	0.7	1.1	0.5	0.5	0.8			
	Uncollected area	Paper		1.3	0.5	1.1	3.2	1.1	3.5	0.6		
		Rubber/Leather		0.15	0.001	0.2	0.001	0.001	0.001	0.001		
Kitchen Waste			NA	0.001	0.001	0.001	0.2	0.001	NA			
Textile			0.75	0.8	0.4	2.9	0.6	2.2	0.8			
Plastic			0.42	0.4	0.4	0.4	0.1	0.3	0.2			
Grass/Wood			0.42	0.4	0.4	0.4	0.1	0.3	0.2			
Metals			0.42	0.4	0.4	0.4	0.1	0.3	0.2			
Bottles/Glass			0.42	0.4	0.4	0.4	0.1	0.3	0.2			
Soil/Stone			0.42	0.4	0.4	0.4	0.1	0.3	0.2			
Others			0.42	0.4	0.4	0.4	0.1	0.3	0.2			

Table 1-13: Physical Composition of Other Waste (1/2)

Unit: kg

Category	Dry season									
	23 March 2003	24 March 2003	25 March 2003	26 March 2003	27 March 2003	28 March 2003	29 March 2003	30 March 2003		
Restaurant	Paper	5	2.1	1.8	2	3.9	4.1	2.6		
	Rubber/Leather		NA	NA	0.001	0.001	NA	0.001		
	Kitchen Waste	15.4	8.1	4.9	6.1	8.7	10.5	8.9		
	Textile	0.001	NA	0.001	NA	0.001	NA	0.001		
	Plastic	2.9	1.3	0.9	1.5	2.4	1.9			
	Grass/Wood	0.2	0.001	0.001	NA	0.1	0.8	0.2		
	Metals	0.5	0.001	0.2	0.2	0.5	0.4			
	Bottles/Glass	2.5	2.3	2.3	0.6	2.5	3.3	1.1		
	Soil/Stone	0.6	NA	NA	NA	0.1	0.6	NA		
	Others	NA	NA	0.001	NA	0.001	NA	NA		
Other Shop	Paper	0.5	0.2	0.1	0.2	1.2	1	0.3		
	Rubber/Leather	NA	NA	NA	NA	NA	NA	NA		
	Kitchen Waste	7.5	7.8	4.2	5.2	8.4	5.1	3.5		
	Textile	2.5	NA	0.001	0.001	NA	NA	NA		
	Plastic	0.7	0.5	0.5	0.3	0.6	1.4	0.9		
	Grass/Wood	NA	0.001	0.001	NA	0.3	0.001	NA		
	Metals	0.001	NA	0.3	NA	NA	NA	NA		
	Bottles/Glass	NA	NA	NA	NA	NA	NA	NA		
	Soil/Stone	NA	NA	NA	NA	0.3	NA	NA		
	Others	NA	NA	0.001	NA	NA	NA	NA		
Market	Paper	1.5	0.55	0.3	0.7	0.5	0.9	0.4		
	Rubber/Leather	NA	NA	NA	0.001	NA	NA	NA		
	Kitchen Waste	8.5	2.05	3.6	3.5	5.7	4.9	4.9		
	Textile	0.4	0.001	NA	0.001	NA	NA	0.001		
	Plastic	1.8	0.8	0.6	1	0.8	1.1	0.5		
	Grass/Wood	0.7	0.001	0.001	0.2	0.3	0.001	0.3		
	Metals	NA	0.001	0.001	0.001	NA	0.001	0.001		
	Bottles/Glass	1	0.001	0.001	0.1	NA	0.001	NA		
	Soil/Stone	NA	NA	0.4	0.4	NA	0.2	0.001		
	Others	2.9	0.01	NA	NA	0.4	NA	NA		
School	Paper	1.1	1.5	1.9	0.7	2.6	1.9			
	Rubber/Leather	NA	0.001	0.001	NA	0.001	0.001			
	Kitchen Waste	0.7	1.1	1.5	0.1	2.1	1.5			
	Textile	NA	0.001	0.1	0.001	NA	0.1			
	Plastic	1.8	1.5	3.2	0.3	2.6	2.6			
	Grass/Wood	0.9	0.9	1.7	0.001	1.1	1.2			
	Metals	NA	0.001	0.001	NA	0.001	0.001			
	Bottles/Glass	NA	NA	NA	NA	0.001	NA			
	Soil/Stone	0.2	0.8	0.6	0.001	0.3	1.1			
	Others	0.4	0.8	0.9	0.2	0.5	1			

Table 1-14: Physical Composition of Other Waste (2/2)

Unit: kg

Category	Dry season									
	23 March 2003	24 March 2003	25 March 2003	26 March 2003	27 March 2003	28 March 2003	29 March 2003	30 March 2003		
Street Sweeping	Paper	0.3	0.3			0.1				
	Rubber/Leather	NA	NA	NA	NA	NA	NA	NA		
	Kitchen Waste	0.001	0.001			0.8	0.9	0.2		
	Textile	NA	0.05	0.15	0.3	0.5	0.8	0.4		
	Plastic	0.3	0.3	0.5	1.7	2.5	2.2			
	Grass/Wood	1.5	1.5	0.001	NA	0.001	NA			
	Metals	NA	0.001	NA	NA	0.4	0.4			
	Bottles/Glass	NA	0.001	NA	NA	0.4	NA			
	Soil/Stone	2.1	2.5			5.1	5	2.4		
	Others	NA	NA				NA	NA		
Hotel	Paper		0.3	0.4	0.2	0.5	0.2	0.7		
	Rubber/Leather		NA	NA	NA	NA	NA	NA		
	Kitchen Waste		1.7	NA	0.9	0.5	5.4	4.5	2.1	
	Textile		NA	NA	0.001	0.001	NA	0.001	NA	
	Plastic		0.5	0.5	0.3	0.4	0.8	0.6	0.7	
	Grass/Wood		1.5	7	1.5	0.7	4.3	1.5	1.7	
	Metals		NA	NA	NA	NA	0.001	0.001	NA	
	Bottles/Glass		0.001	0.4	NA	NA	NA	0.001	0.001	
	Soil/Stone		0.001	NA	0.2	0.7	NA	1	0.001	
	Others		NA	NA	NA	NA	0.001	0.2	NA	
Office	Paper		0.9	0.75	1.7	1.3	0.9	1.2		
	Rubber/Leather		NA	NA	0.001		0.001	0.001		
	Kitchen Waste		2.25	0.3	3	1.2	2.5	1.5		
	Textile		0.001	NA	NA	NA	NA	0.001		
	Plastic		0.7	0.7	0.8	0.5	0.5	0.5		
	Grass/Wood		0.5	0.75	0.001	0.4	0.5	0.001		
	Metals		0.001	NA	NA	NA	0.001	0.001		
	Bottles/Glass		0.062	0.001	0.01	0.001	0.001	NA		
	Soil/Stone		0.3	0.001	0.001	1	0.8	NA		
	Others		0.7	0.001	NA	NA	NA	NA		
Collection Vehicle	Paper		2.2	1.5	1.7	1.7	3.1	0.7	1.1	
	Rubber/Leather		NA	0.2	NA	0.01	0.001	0.001	NA	
	Kitchen Waste		4.1	23.6	5.9	3.5	9.9	5.7	3.5	
	Textile		0.13	1.7	0.1	0.2	1	0.2	1.2	
	Plastic		1.8	4.4	1.6	1.5	3	1.5	1.4	
	Grass/Wood		0.09	0.5	0.001	0.2	0.1	1.1	0.4	
	Metals		0.05	0.6	0.001	0.2	0.001	0.1	NA	
	Bottles/Glass		0.8	0.001	NA	0.001	0.2	0.001	0.001	
	Soil/Stone		0.15	0.001	NA	0.6	0.1	1	0.001	
	Others		0.5	3.7	NA	0.4	NA	1.2	NA	



Table 1-15: Water Content of Household Waste

Unit: %

Category	Dry season									
	23 March 2003	24 March 2003	25 March 2003	26 March 2003	27 March 2003	28 March 2003	29 March 2003	30 March 2003		
High income	Total	72.5	81.5	68.4	71.9	67.4	34.5	78.2		
	Paper	14.5	59.5	54.7	39.0	36.7	37.8	58.9		
	Rubber/Leather	NA	NA	6.2	NA	NA	NA	NA		
	Kitchen Waste	36.4	77.1	81.4	79.4	73.1	73.6	70.5		
	Metals	3.2	NA	NA	NA	NA	NA	NA		
	Textile	26.4	NA	56.0	66.4	NA	57.5	65.9		
	Bottles/Glass	NA	NA	NA	5.3	NA	NA	NA		
	Grass/Wood	62.4	56.1	70.6	64.2	68.1	47.9	52.2		
	Soil/Stone	NA	11.8	NA	NA	NA	NA	NA		
	Plastics	32.3	13.7	58.0	45.0	58.3	65.3	58.0		
Others	NA	46.0	NA	NA	NA	NA	NA			
Middle income	Total	78.6	66.7	78.6	78.0	55.6	44.8	64.2		
	Paper	46.4	62.9	59.0	30.7	55.5	53.0	50.7		
	Rubber/Leather	NA	NA	NA	NA	NA	NA	NA		
	Kitchen Waste	82.3	76.2	75.7	80.3	80.4	72.4	76.2		
	Metals	NA	NA	NA	2.6	NA	NA	NA		
	Textile	39.3	56.6	NA	13.5	79.0	43.2	47.4		
	Bottles/Glass	NA	NA	NA	NA	NA	NA	2.7		
	Grass/Wood	73.2	53.4	79.1	NA	55.2	54.4	68.8		
	Soil/Stone	NA	NA	NA	NA	14.4	NA	NA		
	Plastics	47.0	47.4	14.3	34.8	23.6	35.8	36.3		
Others	NA	NA	NA	72.8	NA	NA	NA			
Low income	Total	68.9	79.4	76.7	62.4	71.0	46.4	50.6		
	Paper	47.3	54.5	48.2	45.7	37.7	45.9	53.6		
	Rubber/Leather	NA	NA	NA	NA	NA	NA	NA		
	Kitchen Waste	68.7	77.9	71.4	68.5	58.8	96.1	61.5		
	Metals	NA	NA	NA	NA	NA	NA	NA		
	Textile	59.4	NA	42.1	37.2	37.2	45.1	76.0		
	Bottles/Glass	NA	NA	NA	NA	NA	NA	NA		
	Grass/Wood	63.1	54.5	68.5	41.4	64.3	59.1	53.9		
	Soil/Stone	NA	NA	NA	4.5	35.8	NA	NA		
	Plastics	55.7	39.3	56.0	50.8	38.0	53.7	53.9		
Others	NA	NA	54.1	38.1	NA	58.7	NA			
Uncollected area	Total	68.2	69.5	50.0	66.4	79.6	23.0	33.2		
	Paper	51.6	58.9	58.6	17.8	25.0	18.2	30.2		
	Rubber	NA	NA	NA	NA	NA	NA	NA		
	Kitchen	80.1	87.5	54.7	87.4	75.8	80.4	85.7		
	Metals	NA	NA	NA	1.3	NA	NA	NA		
	Textile	NA	8.5	31.4	NA	7.7	NA	NA		
	Bottles	NA	NA	NA	0.4	NA	NA	NA		
	Grass/Wood	56.3	41.8	61.0	30.3	31.0	45.8	52.8		
	Soil/Stone	NA	12.4	24.1	13.0	17.7	9.2	18.0		
	Plastics	27.8	34.1	49.1	42.7	3.9	20.7	20.8		
Others	NA	44.5	23.7	25.5	NA	42.1	33.0			

Table 1-16: Water Content of Other Waste (1/2)

Unit: %

Category	Dry season									
	23 March 2003	24 March 2003	25 March 2003	26 March 2003	27 March 2003	28 March 2003	29 March 2003	30 March 2003		
Restaurant	Total	60.6	73.1	75.8	49.9	72.3	63.6	75.5	76.3	
	Paper	73.1	76.5	72.1	67.9	72.1	57.1	71.5		
	Rubber/Leather	NA	NA	NA	NA	NA	NA	NA		
	Kitchen Waste	67.1	73.9	84.0	87.0	84.7	71.9	83.8		
	Metals	5.1	NA	70.2	30.0	3.9	4.8	15.1		
	Textile	NA	NA	NA	NA	NA	NA	NA		
	Bottles/Glass	0.4	0.4	0.4	0.4	0.2	0.3	3.5		
	Grass/Wood	63.5	NA	NA	NA	NA	74.1	52.9		
	Soil/Stone	1.4	NA	NA	NA	NA	NA	13.6		
	Plastics	78.8	63.0	49.0	61.6	53.0	36.8	36.5		
Others	NA	NA	NA	NA	NA	NA	NA			
Other Shops	Total	69.9	77.0	82.1	76.9					
	Paper	51.2	87.5	51.7	55.5					
	Rubber/Leather	NA	NA	NA	NA					
	Kitchen Waste	90.0	87.4	77.6	78.3					
	Metals	NA	NA	5.0	NA					
	Textile	63.4	NA	NA	NA					
	Bottles/Glass	NA	NA	NA	NA					
	Grass/Wood	NA	NA	NA	NA					
	Soil/Stone	NA	NA	NA	NA					
	Plastics	51.2	52.4	36.6	53.9					
Others	NA	NA	NA	NA						
Market	Total	32.9	82.8	68.8	70.3	62.2	52.2	52.1		
	Paper	25.3	41.5	28.8	27.0	52.5	33.1	14.8		
	Rubber/Leather	NA	NA	NA	NA	NA	NA	NA		
	Kitchen Waste	56.7	80.7	90.4	79.6	79.5	76.1	42.5		
	Metals	NA	NA	NA	NA	NA	NA	NA		
	Textile	17.4	NA	NA	NA	NA	NA	NA		
	Bottles/Glass	1.1	NA	NA	NA	NA	NA	NA		
	Grass/Wood	38.0	NA	NA	NA	34.9	48.9	47.3		
	Soil/Stone	31.9	18.0	34.3	32.5	40.2	18.2	16.3		
	Plastics	38.9	33.5	NA	NA	51.1	NA	NA		
Others	NA	NA	NA	NA	NA	NA	NA			
School	Total	32.9	43.3	49.0						
	Paper	53.8	36.9	NA						
	Rubber/Leather	NA	NA	NA						
	Kitchen Waste	78.8	75.9	58.6						
	Metals	NA	NA	NA						
	Textile	NA	NA	NA						
	Bottles/Glass	50.0	49.3	45.1						
	Grass/Wood	21.0	21.7	15.3						
	Soil/Stone	39.7	30.4	15.8						
	Plastics	40.5	42.6	43.7						

Table 1-17: Water Content of Other Waste (2/2)

Unit: %

Category	Dry season									
	23 March 2003	24 March 2003	25 March 2003	26 March 2003	27 March 2003	28 March 2003	29 March 2003	30 March 2003		
Street Sweeping	13.48	13.5			18.9	26.4				
Total	21.62	21.6			8.8	15.1				
Paper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Rubber/Leather	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Kitchen Waste	NA	NA	NA	NA	69.0	79.5	NA	NA	NA	NA
Metals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Textile	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bottles/Glass	NA	NA	NA	NA	NA	17.5	NA	NA	NA	NA
Grass/Wood	18.06	18.1	NA	NA	18.4	14.1	NA	NA	NA	NA
Soil/Stone	2	2.0	NA	NA	2.3	2.9	NA	NA	NA	NA
Plastics	35.56	4.5	NA	NA	28.0	4.2	NA	NA	NA	NA
Others	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total		66.9		53.7		51.5				
Paper		22.3		66.1		49.5				
Rubber/Leather		NA		NA		NA				
Kitchen Waste		72.4		85.2		83.7				
Metals		NA		NA		NA				
Textile		NA		NA		NA				
Bottles/Glass		NA		NA		NA				
Grass/Wood		55.9		60.5		65.2				
Soil/Stone		NA		36.3		NA				
Plastics		6.3		58.2		23.7				
Others		NA		NA		NA				
Total		63.7		69.4		47.3				
Paper		24.1		10.0		23.0				
Rubber/Leather		NA		NA		NA				
Kitchen Waste		79.2		76.6		55.4				
Metals		NA		NA		NA				
Textile		NA		NA		NA				
Bottles/Glass		NA		2.4		NA				
Grass/Wood		48.4		NA		39.7				
Soil/Stone		23.6		NA		10.8				
Plastics		11.3		2.6		2.8				
Others		40.7		NA		NA				
Total		53.7		44.2		69.7				
Paper		67.7		62.4		63.8				
Rubber/Leather		NA		18.2		NA				
Kitchen Waste		75.3		81.6		76.7				
Metals		4.3		4.6		NA				
Textile		68.2		61.8		55.1				
Bottles/Glass		0.7		NA		NA				
Grass/Wood		49.0		73.1		NA				
Soil/Stone		49.0		NA		0.2				
Plastics		23.9		57.0		13.3				
Others		67.9		60.5		NA				

Table 1-18: Three Contents and Element Analysis of Household Waste

Unit: %

Category	Dry season										
	23 March 2003	24 March 2003	25 March 2003	26 March 2003	27 March 2003	28 March 2003	29 March 2003	30 March 2003			
High income	Three contents	Water content		72.5	81.4	68.3	71.9	67.4	34.5	78.3	
			Combustibles		15.5	13.6	27.1	14.9	26.7	58.2	16.2
				Ash		12.0	5.0	4.6	13.2	5.9	7.3
Middle income	Three contents	Water content		78.6	66.7	78.6	78.0	55.6	44.8	64.2	
			Combustibles		16.4	23.9	15.9	19.1	38.4	44.1	29.8
				Ash		5.0	9.4	5.5	2.9	6.0	11.1
	Element analysis	Carbon	Kitchen waste		23.4	25.6	39.0	37.1	21.5	26.3	26.9
			Grass/ wood		28.5	32.2	36.1	NA	27.3	23.4	37.1
		Nitrogen	Kitchen waste		1.4	1.6	1.0	1.9	2.1	1.5	1.9
Grass/ wood			0.5	1.0	1.6	NA	1.3	1.1	1.4		
Low income	Three contents	Water content		68.9	79.4	76.7	62.4	71.0	46.4	50.6	
			Combustibles		17.4	16.4	18.7	15.6	24.5	41.2	42.3
				Ash		13.7	4.2	4.6	22.0	4.5	12.4
Uncollected area	Three contents	Water content		68.2	69.5	50.0	66.3	79.6	23.0	33.2	
			Combustibles		26.3	15.9	40.6	25.8	14.2	67.4	58.3
				Ash		5.5	14.6	9.4	7.9	6.2	9.6

Table 1-19: Three Contents and Element Analysis of Other Wastes (1/2)

Category	Three contents	Dry season										Unit: %
		23 March 2003	24 March 2003	25 March 2003	26 March 2003	27 March 2003	28 March 2003	29 March 2003	30 March 2003			
Restaurant	Water content		60.5	75.8	49.9	72.3	63.7	75.5	76.4			
	Combustibles		33.7	10.9	44.0	20.4	32.6	21.3	20.8			
	Ash		5.8	13.3	6.1	7.3	3.7	3.2	2.8			
	Element analysis											
Shop	Carbon		20.5	29.3	36.5	34.1	29.3	36.5	34.1			
	Nitrogen		2.0	2.0	1.6	1.3	1.8	1.6	2.2			
	Water content		69.9	76.9	82.1	76.8						
	Combustibles		26.0	13.6	15.0	19.0						
Market	Ash		4.1	9.5	2.9	4.2						
	Water content		32.9	82.8	68.8	70.3	62.2	52.1	52.1			
	Combustibles		46.7	13.5	21.6	19.8	27.3	24.5	40.2			
	Element analysis											
School	Carbon		26.3	20.3	39.0	24.4	27.3	28.5	32.2			
	Nitrogen		1.1	2.0	2.3	2.2	2.2	2.1	1.9			
	Water content		32.9		43.3		49.0					
	Combustibles		56.6		46.2		38.2					
	Ash		10.5		10.5		12.8					

Table 1-20: Three Contents and Element Analysis of Other Wastes (2/2)

Category	Three contents	Dry season										Unit: %
		23 March 2003	24 March 2003	25 March 2003	26 March 2003	27 March 2003	28 March 2003	29 March 2003	30 March 2003			
Street sweeping	Water content		13.5	13.5			18.9	26.4				
	Combustibles		60.8	83.2			63.1	42.1				
	Ash		25.7	3.3			18.0	31.5				
Hotel	Water content		66.9		53.7			51.5				
	Combustibles		25.5		41.1			46.0				
	Ash		7.6		5.2			2.5				
Office	Water content		63.7		69.4			47.3				
	Combustibles		31.9		27.2			32.6				
	Ash		4.4		3.4			20.1				
Collection vehicle	Water content		53.7	79.3	44.2	69.7						
	Combustibles		38.3	17.0	49.1	18.5						
	Ash		8.0	3.7	6.7	11.8						

1.2.3

Result in rainy season

Table 1-21: Specific Gravity of Household Waste

Unit: kg/l

Category	Rainy season							
	21 Oct 2003	22 Oct 2003	23 Oct 2003	24 Oct 2003	25 Oct 2003	26 Oct 2003	27 Oct 2003	28 Oct 2003
High income								
Total		0.32	0.24	0.31	0.26	0.32	0.27	0.24
Paper		0.11	0.15	0.25	0.23	0.15	0.19	0.21
Rubber/Leather		NA	NA	NA	NA	NA	NA	NA
Kitchen Waste		0.52	0.54	0.54	0.55	0.54	0.49	0.52
Metals		0.09	0.15	0.24	0.14	NA	0.12	0.09
Textile		0.18	0.38	0.40	0.10	NA	0.19	0.15
Bottles/Glass		0.54	0.52	1.65	0.37	NA	0.56	NA
Grass/Wood		0.15	0.28	0.26	0.15	0.33	0.19	0.23
Soil/Stone		NA	NA	1.10	NA	1.10	NA	NA
Plastics		0.08	0.04	0.07	0.08	0.09	0.05	0.07
Others		0.36	0.70	NA	NA	0.48	NA	0.60
Total		0.16	0.28	0.23	0.27	0.27	0.33	0.23
Middle income								
Paper		0.09	0.22	0.28	0.28	0.18	0.28	0.18
Rubber/Leather		NA	0.13	0.18	0.10	NA	0.08	0.14
Kitchen Waste		0.46	0.54	0.61	0.53	0.50	0.67	0.55
Metals		0.28	0.11	0.13	0.15	0.13	0.16	0.10
Textile		0.20	0.19	0.35	0.18	0.11	0.14	0.18
Bottles/Glass		NA	0.44	NA	NA	NA	0.40	NA
Grass/Wood		0.21	0.33	0.23	0.19	0.42	0.19	0.25
Soil/Stone		0.68	NA	NA	NA	NA	0.83	NA
Plastics		0.10	0.10	0.07	0.07	0.06	0.08	0.06
Others		0.50	0.56	0.64	0.50	NA	NA	NA
Total		0.19	0.26	0.18	0.16	0.28	0.20	0.24
Paper		0.11	0.14	0.22	0.06	0.16	0.12	0.12
Rubber/Leather		NA	0.25	0.20	NA	NA	NA	NA
Kitchen Waste		0.35	0.65	0.41	0.36	0.50	0.54	0.45
Metals		0.20	0.10	0.12	0.48	0.16	0.20	0.16
Textile		0.06	0.14	0.31	0.12	0.25	0.28	0.08
Bottles/Glass		NA	NA	NA	NA	NA	0.20	0.16
Grass/Wood		0.06	0.18	0.18	0.15	0.38	0.16	0.21
Soil/Stone		NA	NA	0.40	1.10	0.19	1.08	NA
Plastics		0.04	0.04	0.05	0.05	0.07	0.04	0.04
Others		NA	0.66	0.60	0.50	1.08	NA	0.42

Table 1-22: Specific Gravity of Other Waste (1/2)

Unit: kg/l

Category	Rainy season							
	21 Oct 2003	22 Oct 2003	23 Oct 2003	24 Oct 2003	25 Oct 2003	26 Oct 2003	27 Oct 2003	28 Oct 2003
Restaurant								
Total		0.27	0.24	0.27	0.24	0.26	0.26	0.29
Paper		0.37	0.19	0.34	0.29	0.31	0.31	0.26
Rubber/Leather		NA	NA	NA	NA	0.13	NA	NA
Kitchen Waste		0.48	0.59	0.54	0.49	0.30	0.45	0.50
Metals		0.33	0.11	0.10	0.13	0.18	0.15	0.14
Textile		0.13	0.13	0.13	0.27	0.20	0.17	0.19
Bottles/Glass		0.41	NA	0.47	0.65	0.30	0.24	0.41
Grass/Wood		0.18	0.18	0.14	0.18	0.14	0.17	0.10
Soil/Stone		NA	NA	NA	NA	0.75	0.37	0.67
Plastics		0.05	0.06	0.08	0.03	0.04	0.04	0.06
Others		0.80	1.13	NA	0.60	0.88	0.45	0.51
Total		0.26	0.16	0.22	0.25	0.26	0.26	0.18
Paper		0.14	0.15	0.18	0.16	0.16	0.14	0.12
Rubber/Leather		NA	NA	NA	NA	NA	NA	NA
Kitchen Waste		0.41	0.34	0.46	0.43	0.61	0.56	0.42
Metals		0.27	NA	0.20	0.16	0.11	0.14	0.13
Textile		NA	0.40	0.23	0.12	0.14	0.05	0.08
Bottles/Glass		NA	NA	NA	NA	NA	NA	NA
Grass/Wood		0.32	0.05	0.26	0.22	0.30	0.32	0.25
Soil/Stone		NA	NA	NA	NA	NA	NA	NA
Plastics		0.04	0.04	0.06	0.06	0.05	0.05	0.04
Others		NA	NA	0.45	NA	0.50	0.40	0.50
Total		0.15	0.18	0.17	0.15	0.15	0.24	0.15
Paper		0.18	0.22	0.14	0.18	0.09	0.11	0.11
Rubber/Leather		0.15	NA	NA	NA	NA	0.50	NA
Kitchen Waste		0.28	0.38	0.29	0.31	0.33	0.41	0.30
Metals		NA	NA	NA	NA	NA	0.16	NA
Textile		0.14	0.24	0.20	0.10	0.06	0.15	0.05
Bottles/Glass		0.50	0.44	NA	NA	NA	0.42	NA
Grass/Wood		0.12	0.23	0.11	0.16	0.14	0.21	0.10
Soil/Stone		NA	0.36	0.35	NA	NA	NA	NA
Plastics		0.03	0.04	0.04	0.02	0.03	0.05	0.02
Others		NA	NA	NA	0.28	NA	4.52	NA
Total		0.17	0.19	0.19	0.19	0.19	0.15	0.13
Paper		0.36	0.24	0.24	0.45	0.28	0.21	0.21
Rubber/Leather		NA	NA	NA	NA	NA	NA	NA
Kitchen Waste		NA	0.44	0.44	0.42	0.48	0.48	0.43
Metals		NA	NA	NA	NA	0.14	0.20	0.20
Textile		0.13	0.14	0.14	NA	0.08	NA	NA
Bottles/Glass		NA	NA	NA	NA	NA	NA	NA
Grass/Wood		0.20	0.17	0.17	0.14	0.18	0.18	0.10
Soil/Stone		1.25	0.89	1.06	1.06	1.10	0.85	0.86
Plastics		0.08	0.07	0.10	0.07	0.08	0.08	0.06
Others		0.77	0.59	0.77	0.77	0.83	0.83	0.72

Table 1-23: Specific Gravity of Other Waste (2/2)

Unit: kg/l

Category	Rainy season							
	21 Oct 2003	22 Oct 2003	23 Oct 2003	24 Oct 2003	25 Oct 2003	26 Oct 2003	27 Oct 2003	28 Oct 2003
Total		0.26	0.24	0.21	0.23	0.16	0.23	0.19
Paper		0.11	0.11	0.08	0.04	0.08	0.04	0.06
Rubber/Leather		0.36	0.21	0.40	NA	0.16	0.13	NA
Kitchen Waste		0.37	0.55	0.30	0.40	NA	0.40	0.24
Metals		NA	NA	NA	NA	NA	NA	NA
Textile		0.18	0.36	0.07	NA	0.10	0.15	NA
Bottles/Glass		NA	0.30	0.60	NA	NA	0.45	NA
Grass/Wood		0.08	0.09	0.01	0.01	0.07	0.01	0.09
Soil/Stone		1.46	0.74	1.55	1.56	1.35	1.56	0.84
Plastics		0.07	0.06	0.04	0.03	0.03	0.03	0.04
Others		0.38	0.58	NA	NA	NA	0.32	NA
Total		0.24	0.21	0.13	0.17	0.18	0.25	0.13
Paper		0.09	0.11	0.09	0.13	0.08	0.11	0.09
Rubber/Leather		NA	NA	NA	NA	NA	NA	0.19
Kitchen Waste		0.28	0.47	0.34	0.25	0.32	0.37	0.35
Metals		NA	NA	NA	NA	NA	NA	NA
Textile		0.20	0.45	0.20	0.13	NA	NA	0.67
Bottles/Glass		NA	NA	0.44	NA	0.32	NA	NA
Grass/Wood		0.19	0.17	0.05	0.20	0.15	0.08	0.09
Soil/Stone		0.80	1.14	0.66	1.77	0.69	1.20	0.91
Plastics		0.06	0.05	0.02	0.05	0.03	0.02	0.03
Others		0.56	NA	0.60	NA	0.53	0.51	0.56
Total		0.09	0.17	0.13	0.08	0.17	0.17	0.03
Paper		0.05	0.13	0.09	0.10		0.08	0.04
Rubber/Leather		NA	NA	NA	NA	NA	NA	NA
Kitchen Waste		0.48	0.43	0.45	0.28	0.59	0.59	0.29
Metals		NA	0.20	NA	0.90	NA	NA	NA
Textile		NA	NA	0.25	0.12	NA	NA	NA
Bottles/Glass		NA	NA	NA	0.11	NA	NA	NA
Grass/Wood		0.15	0.24	0.05	0.15		0.18	0.18
Soil/Stone		NA	0.90	1.41	1.25		NA	NA
Plastics		0.02	0.03	0.02	0.03		0.04	0.01
Others		0.40	0.53	0.44	0.60		NA	0.34
Total		0.20	0.35	0.18	0.23	0.16	0.25	0.24
Paper		0.09	0.37	0.44	0.24	0.18	0.15	0.11
Rubber/Leather		NA	0.40	0.12	0.14	0.20	NA	NA
Kitchen Waste		0.43	0.72	0.48	0.52	0.36	0.54	0.33
Metals		0.80	NA	NA	NA	NA	0.36	NA
Textile		0.23	0.14	0.22	0.16	0.16	0.18	0.10
Bottles/Glass		0.70	0.53	0.28	0.48	0.47	0.76	NA
Grass/Wood		0.31	0.38	0.14	0.43	0.18	0.19	0.14
Soil/Stone		1.10	0.82	0.31	0.72	0.66	NA	1.12
Plastics		0.05	0.08	0.04	0.05	0.07	0.07	0.04
Others		0.77	0.55	0.48	0.63	0.34	0.50	0.56

Table 1-24: Physical Composition of Household Waste

Unit: kg

Category	Rainy season							
	21 Oct 2003	22 Oct 2003	23 Oct 2003	24 Oct 2003	25 Oct 2003	26 Oct 2003	27 Oct 2003	28 Oct 2003
Total		0.75	0.75	0.75	1.15	0.45	1.15	0.85
Paper		0.001	0.001	0.001	0.04	0.001	0.001	0.001
Rubber/Leather		8.25	8.65	10.75	8.85	7.05	7.85	6.75
Kitchen Waste		3.25	2.0	1.9	2.2	2.4	1.9	1.75
Textile		1.35	2.25	2.85	1.35	3.95	0.95	4.75
Grass/Wood		0.14	0.09	0.06	0.11	0.02	0.15	0.17
Metals		0.27	0.13	0.33	0.55	NA	0.56	NA
Bottles/Glass		0.07	0.001	0.22	0.001	0.55	NA	0.05
Soil/Stone		1.45	0.14	0.001	NA	0.24	NA	0.18
Others		0.85	0.65	0.55	0.85	0.55	0.85	0.55
Total		0.001	0.02	0.09	0.02	0.05	0.05	0.07
Paper		3.25	6.45	6.05	7.35	4.95	10.65	5.45
Rubber/Leather		0.2	0.75	1.05	0.45	0.45	0.55	0.55
Kitchen Waste		3.0	2.75	2.0	1.7	1.4	2.4	1.35
Textile		1.05	0.65	0.45	0.75	1.25	1.35	1.75
Grass/Wood		0.14	0.17	0.13	0.12	0.13	0.16	0.15
Metals		0.17	NA	0.22	0.001	NA	0.4	0.001
Bottles/Glass		2	0.14	0.8	0.1	NA	NA	NA
Soil/Stone		0.17	0.55	0.65	0.35	0.16	0.35	0.35
Others		0.001	0.05	0.05	0.001	0.001	0.001	0.02
Total		0.06	0.23	0.25	0.23	0.05	0.5	0.1
Paper		1.25	1.3	1.6	1.25	2.0	1.3	1.6
Rubber/Leather		0.06	0.35	0.35	0.45	0.75	1.45	1.05
Kitchen Waste		0.05	0.2	0.24	0.12	0.08	0.05	0.04
Textile		NA	NA	NA	NA	NA	NA	NA
Grass/Wood		NA	NA	NA	0.08	0.11	0.06	0.04
Metals		NA	NA	NA	0.08	0.19	0.27	0.001
Bottles/Glass		NA	0.33	0.06	0.05	0.27	NA	1.25
Soil/Stone		NA	0.85	0.85	0.85	0.85	0.85	0.85
Others		0.001	0.001	0.001	0.001	0.001	0.001	0.001

Table 1-25: Physical Composition of Other Waste (1/2)

Category	Rainy season							Unit: kg	
	21 Oct 2003	22 Oct 2003	23 Oct 2003	24 Oct 2003	25 Oct 2003	26 Oct 2003	27 Oct 2003		28 Oct 2003
Restaurant	Paper	4.45	3.15	3.05	3.75	2.45	3.45	2.55	0.01
	Rubber/Leather	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Kitchen Waste	4.35	8.25	7.5	3.45	3.65	5.35	5.45	5.45
	Textile	0.02	0.19	0.13	0.04	0.1	0.05	0.19	0.19
	Plastic	0.75	1.6	2.2	0.75	0.85	0.95	1.5	1.5
	Grass/Wood	0.35	0.55	0.55	0.35	0.97	1.35	1.15	1.15
	Metals	0.05	0.11	0.26	0.1	0.35	0.3	0.27	0.27
	Bottles/Glass	1.65	NA	0.7	1.3	2.75	2.15	0.82	0.82
	Soil/Stone	0.001	0.1	NA	0.05	0.3	0.56	0.47	0.47
	Others	0.08	1.7	NA	NA	0.15	NA	0.68	0.61
Other Shop	Paper	0.55	0.45	0.55	0.5	0.52	0.54	0.52	0.52
	Rubber/Leather	0.001	0.001	0.001	NA	NA	NA	NA	NA
	Kitchen Waste	2.85	5.05	3.65	2.8	3.85	3.9	4.86	4.86
	Textile	NA	0.1	0.69	0.16	0.2	0.36	0.33	0.33
	Plastic	0.45	0.75	0.75	0.45	0.7	0.85	0.6	0.6
	Grass/Wood	1.9	0.35	1.55	1.27	1.0	1.47	1.33	1.33
	Metals	0.08	0.001	0.04	0.02	0.04	0.06	0.04	0.04
	Bottles/Glass	0.001	NA	NA	NA	NA	NA	NA	NA
	Soil/Stone	0.001	0.001	NA	NA	NA	NA	NA	NA
	Others	NA	NA	NA	0.09	0.01	0.02	0.06	0.04
Market	Paper	0.35	0.65	0.95	0.95	0.37	0.52	0.45	0.45
	Rubber/Leather	0.001	0.001	0.001	0.001	0.001	0.01	0.05	0.05
	Kitchen Waste	7.1	7.55	4.05	6.15	4.25	5.6	3.35	3.35
	Textile	0.14	0.06	0.05	0.05	0.05	0.07	0.05	0.05
	Plastic	0.55	1.2	1.2	0.55	0.75	0.82	0.7	0.7
	Grass/Wood	0.85	0.45	0.45	0.95	0.85	0.78	1.15	1.15
	Metals	NA	0.001	NA	0.001	NA	NA	NA	NA
	Bottles/Glass	0.5	0.11	NA	0.05	0.25	0.15	NA	NA
	Soil/Stone	NA	0.18	0.07	0.001	NA	0.04	NA	NA
	Others	NA	NA	NA	0.07	NA	NA	0.01	NA
School	Paper	1.45	2.85	2.85	1.35	2.55	2.55	1.25	1.25
	Rubber/Leather	0.001	NA	NA	0.001	NA	0.001	NA	NA
	Kitchen Waste	0.001	0.24	0.24	0.21	0.19	0.19	0.13	0.13
	Textile	0.13	0.05	0.05	NA	0.08	0.08	NA	NA
	Plastic	2.1	2.1	1.65	3.3	3.3	3.3	1.35	1.35
	Grass/Wood	3.45	2.95	1.55	1.55	4.6	4.6	1.75	1.75
	Metals	0.001	0.001	0.001	0.001	0.07	0.07	0.05	0.05
	Bottles/Glass	0.001	NA	NA	NA	NA	NA	NA	NA
	Soil/Stone	1.25	1.07	0.53	1.07	0.53	0.88	0.17	0.17
	Others	1.15	0.47	0.96	1.08	1.08	1.08	0.18	0.18

Table 1-26: Physical Composition of Other Waste (2/2)

Category	Rainy season										Unit: kg
	21 Oct 2003	22 Oct 2003	23 Oct 2003	24 Oct 2003	25 Oct 2003	26 Oct 2003	27 Oct 2003	28 Oct 2003			
Street Sweeping	Paper	0.95	0.31	0.25	0.35	0.01	0.01	0.05	0.01	0.01	
	Rubber/Leather	0.18	0.06	0.1	0.06	0.15	0.06	NA	0.19	0.17	
	Kitchen Waste	0.55	0.19	0.15	0.07	0.02	0.1	0.15	NA	NA	
	Textile	0.55	0.15	0.07	0.35	0.35	0.35	0.53	0.35	0.35	
	Plastic	1.75	0.73	0.35	4.1	0.2	2.2	2.81	2.9	2.9	
	Grass/Wood	4.65	2.83	0.01	0.05	NA	NA	0.01	NA	NA	
	Metals	0.001	0.01	0.01	0.66	NA	NA	0.16	0.001	0.001	
	Bottles/Glass	0.001	0.1	0.66	NA	NA	NA	0.16	0.001	0.001	
	Soil/Stone	18.95	8.5	7.75	6.25	4.05	8.41	8.41	5.05	5.05	
	Others	1.15	0.13	NA	NA	NA	NA	0.33	NA	NA	
Hotel	Paper	0.09	0.65	1.05	0.25	0.95	0.85	0.85	0.85	0.85	
	Rubber/Leather	NA	0.01	0.001	0.001	0.001	0.001	0.001	0.001	0.29	
	Kitchen Waste	0.85	5.15	3.35	0.75	2.85	7.75	3.45	3.45	3.45	
	Textile	0.08	0.45	0.1	0.16	0.001	NA	0.8	0.8	0.8	
	Plastic	0.75	1.3	0.55	0.55	0.9	0.45	0.75	0.75	0.75	
	Grass/Wood	6.1	0.25	0.1	2.55	0.15	0.02	0.55	0.55	0.55	
	Metals	0.07	0.001	0.001	NA	NA	0.001	0.001	0.05	0.05	
	Bottles/Glass	NA	NA	NA	0.44	NA	0.32	NA	0.001	0.001	
	Soil/Stone	0.2	0.57	0.53	0.53	0.53	0.55	0.12	0.82	0.82	
	Others	2.25	NA	0.3	NA	0.79	0.41	0.79	0.79	0.79	
Office	Paper	1.25	1.75	1.65	1.35	1.35	1.35	1.35	1.5	1.5	
	Rubber/Leather	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	
	Kitchen Waste	2.85	2.15	1.35	0.55	2.95	2.95	2.95	0.29	0.29	
	Textile	NA	NA	NA	0.3	0.35	0.02	NA	NA	NA	
	Plastic	0.35	1.0	0.35	0.75	0.75	NA	0.15	0.15	0.15	
	Grass/Wood	0.15	1.45	0.13	1.45	1.45	NA	0.35	0.35	0.35	
	Metals	0.001	0.05	0.05	0.18	0.18	0.35	0.02	0.02	0.02	
	Bottles/Glass	NA	NA	NA	NA	0.22	NA	NA	0.001	0.001	
	Soil/Stone	NA	0.18	1.13	0.25	0.25	0.55	0.05	0.05	0.05	
	Others	0.1	0.53	0.35	0.48	0.48	0.001	0.24	0.24	0.24	
Collection Vehicle	Paper	1.15	1.1	1.75	0.95	1.16	1.05	0.75	0.75	0.75	
	Rubber/Leather	0.001	0.06	0.18	0.11	0.06	0.001	0.001	0.001	0.001	
	Kitchen Waste	4.75	5.46	3.35	7.25	5.68	10.85	1.65	1.65	1.65	
	Textile	2.25	0.84	0.65	0.16	0.64	0.55	0.09	0.09	0.09	
	Plastic	1.7	1.54	1.3	1.2	1.54	2.5	1.0	1.0	1.0	
	Grass/Wood	1.55	1.17	0.55	0.85	1.37	2.45	0.95	0.95	0.95	
	Metals	0.12	0.09	0.001	0.001	0.09	0.18	0.14	0.14	0.14	
	Bottles/Glass	0.07	0.13	0.42	0.12	0.19	0.19	0.02	0.02	0.02	
	Soil/Stone	0.55	0.32	0.31	0.18	0.2	NA	0.28	0.28	0.28	
	Others	3.85	1.19	0.12	0.25	0.99	0.2	1.01	1.01	1.01	

Table 1-27: Water Content of Household Waste

Unit: %

Category	Rainy season											
	21 Oct 2003	22 Oct 2003	23 Oct 2003	24 Oct 2003	25 Oct 2003	26 Oct 2003	27 Oct 2003	28 Oct 2003	29 Oct 2003	30 Oct 2003	31 Oct 2003	1 Nov 2003
High income	Total	76.9	79.1	77.6	63.2	67.7	76.3	66.3				
	Paper	37.3	54.6	66.0	61.0	64.2	68.2	60.3				
	Rubber /Leather	NA	NA	NA	47.8	NA	NA	NA				
	Kitchen Waste	78.9	80.4	76.1	77.2	78.8	79.6	58.9				
	Metals	3.5	13.7	16.1	11.2	1.2	3.5	6.5				
	Textile	52.5	63.4	58.2	47.0	NA	68.6	51.0				
	Bottles /Glass	0.3	1.3	2.3	0.7	NA	2.1	NA				
	Grass /Wood	69.3	61.1	78.0	76.2	79.4	80.9	74.7				
	Soil /Stone	0.4	NA	10.8	NA	8.1	NA	7.9				
	Plastics	54.5	54.4	56.9	56.5	47.7	53.2	30.7				
	Others	63.8	66.6	NA	NA	63.3	NA	52.5				
	Middle income	Total	76.7	73.6	86.9	67.8	56.8	62.9	66.1			
Paper		51.1	60.6	59.8	62.8	59.8	50.1	48.5				
Rubber /Leather		NA	17.0	13.7	15.0	8.3	6.1	2.8				
Kitchen Waste		42.3	74.4	67.9	75.6	81.6	65.5	75.8				
Metals		0.8	6.6	9.0	5.1	4.7	8.8	4.4				
Textile		60.0	44.0	53.8	50.7	12.4	59.0	40.4				
Bottles /Glass		NA	0.8	NA	NA	NA	0.4	NA				
Grass /Wood		66.1	78.7	82.8	68.8	76.6	72.8	58.5				
Soil /Stone		56.6	NA	NA	19.5	NA	6.3	8.5				
Plastics		46.4	65.0	55.0	48.8	53.6	64.9	40.7				
Others		70.1	60.2	56.5	50.7	NA	NA	NA				
Low income		Total	76.9	66.6	68.9	60.9	72.4	82.0	68.1			
	Paper	49.1	60.8	29.2	39.8	55.4	59.6	31.7				
	Rubber /Leather	NA	39.7	6.4	NA	NA	NA	2.8				
	Kitchen Waste	71.5	80.3	77.9	79.5	81.9	73.5	79.2				
	Metals	3.0	0.7	0.6	1.6	2.3	26.9	1.6				
	Textile	39.3	36.7	59.3	36.1	65.0	64.5	22.7				
	Bottles /Glass	NA	NA	NA	NA	NA	0.2	1.5				
	Grass /Wood	63.8	68.2	40.2	84.7	79.1	77.8	65.1				
	Soil /Stone	NA	NA	10.9	26.2	0.1	6.6	NA				
	Plastics	71.8	64.4	40.5	39.0	49.7	48.4	36.0				
	Others	NA	48.4	37.4	48.7	57.3	NA	42.5				

Table 1-28: Water Content of Other Waste (1/2)

Unit: %

Category	Rainy season											
	21 Oct 2003	22 Oct 2003	23 Oct 2003	24 Oct 2003	25 Oct 2003	26 Oct 2003	27 Oct 2003	28 Oct 2003	29 Oct 2003	30 Oct 2003	31 Oct 2003	1 Nov 2003
Restaurant	Total		59.8	71.2	74.8	67.7	48.3	72.6	74.1			
	Paper		67.3	52.4	62.6	62.0	69.0	73.1	52.9			
	Rubber /Leather		NA	NA	NA	NA	15.8	NA	NA			
	Kitchen Waste		71.9	7.9	80.3	79.9	80.5	79.2	79.5			
	Metals		7.3	2.4	17.3	3.7	0.8	3.1	7.1			
	Textile		69.2	25.1	34.6	70.1	61.1	70.9	48.2			
	Bottles /Glass		0.7	NA	2.2	0.3	0.8	0.2	11.0			
	Grass /Wood		29.8	77.7	82.4	71.8	78.1	83.4	69.0			
	Soil /Stone		NA	12.4	NA	6.1	0.1	3.7	3.1			
	Plastics		65.4	59.3	49.4	40.6	32.9	53.6	40.0			
	Others		52.8	62.7	53.5	63.6	68.9	67.0	44.6			
	Other Shops	Total		70.5		78.3			49.9	72.4		
Paper			59.8		52.3			50.6	28.7			
Rubber /Leather			NA		NA			NA	NA			
Kitchen Waste			69.2		84.3			67.9	68.4			
Metals			2.0		0.4			0.1	NA			
Textile			NA		53.6			30.5	NA			
Bottles /Glass			NA		NA			NA	NA			
Grass /Wood			78.7		81.5			78.8	85.1			
Soil /Stone			NA		NA			2.1	NA			
Plastics			64.3		67.1			42.2	50.1			
Others			NA		63.8			NA	NA			
Market		Total		56.0	74.7	65.6	68.1	75.1	73.7	67.5		
	Paper		54.1	43.0	42.5	61.8	37.4	49.5	50.3			
	Rubber /Leather		14.5	NA	NA	NA	NA	33.4	4.5			
	Kitchen Waste		82.0	92.0	78.4	73.0	91.6	77.5	58.5			
	Metals		NA	NA	NA	NA	NA	4.2	NA			
	Textile		45.7	50.0	58.0	13.3	60.6	53.8	17.1			
	Bottles /Glass		2.1	NA	NA	0.4	1.0	0.6	NA			
	Grass /Wood		58.5	68.2	61.4	72.4	74.7	83.3	79.8			
	Soil /Stone		NA	2.2	2.3	NA	NA	12.5	NA			
	Plastics		45.3	60.7	54.2	52.9	36.8	32.9	39.4			
	Others		NA	NA	NA	60.5	NA	63.0	NA			
	School	Total		51.2		41.7			50.1	44.5		
Paper			49.0		46.5			53.5	58.1			
Rubber /Leather			NA		NA			NA	NA			
Kitchen Waste			NA		67.3			60.2	48.0			
Metals			NA		NA			0.2	2.3			
Textile			66.2		61.3			29.8	NA			
Bottles /Glass			NA		NA			NA	NA			
Grass /Wood			54.2		48.0			48.8	60.0			
Soil /Stone			20.9		21.4			10.2	8.4			
Plastics			54.9		49.3			35.5	30.2			
Others			28.1		55.8			42.1	29.2			

Table 1-29: Water Content of Other Waste (2/2)

Unit: %

Category	Rainy season											
	21 Oct 2003	22 Oct 2003	23 Oct 2003	24 Oct 2003	25 Oct 2003	26 Oct 2003	27 Oct 2003	28 Oct 2003	28 Oct 2003	28 Oct 2003	28 Oct 2003	28 Oct 2003
Total	21.1	15.6	10.1	19.7	34.4							
Paper	44.5	19.1	5.8	13.4	24.7							
Rubber /Leather	1.3	0.8	0.7	NA	NA							
Kitchen Waste	71.0	76.4	NA	75.0	76.1							
Metals	NA	7.1	NA	NA	NA							
Textile	6.6	3.1	13.0	16.5	NA							
Bottles /Glass	NA	2.3	NA	NA	NA							
Grass /Wood	32.4	42.8	28.9	21.9	24.7							
Soil /Stone	3.7	2.4	1.6	8.1	2.7							
Plastics	2.5	25.2	11.3	8.9	8.4							
Others	20.7	NA	NA	32.7	NA							
Total	70.2	69.9	60.4	55.4	58.6							
Paper	50.1	58.2	31.8	52.4	49.3							
Rubber /Leather	NA	NA	NA	NA	NA							
Kitchen Waste	87.3	78.6	83.5	79.2	78.0							
Metals	NA	NA	NA	NA	NA							
Textile	65.8	63.6	45.1	45.5	NA							
Bottles /Glass	NA	NA	2.7	NA	0.5							
Grass /Wood	68.3	67.5	54.0	60.8	59.3							
Soil /Stone	13.1	5.4	38.6	7.7	17.4							
Plastics	58.0	32.1	44.3	38.9	27.0							
Others	64.3	NA	56.7	NA	49.4							
Total	61.6	58.0	58.0	54.5	42.0							
Paper	26.4	18.2	NA	20.6	14.9							
Rubber /Leather	NA	NA	NA	NA	NA							
Kitchen Waste	82.5	73.6	62.3	62.1	62.1							
Metals	NA	0.1	0.1	0.1	0.6							
Textile	NA	NA	NA	NA	NA							
Bottles /Glass	NA	NA	NA	NA	NA							
Grass /Wood	48.4	44.7	58.7	58.7	36.0							
Soil /Stone	NA	8.2	NA	NA	8.7							
Plastics	46.8	23.4	25.8	22.8	22.8							
Others	58.9	68.3	NA	NA	38.9							
Total	58.2	69.0	55.7	54.4	54.4							
Paper	44.3	74.4	60.4	57.2	52.5							
Rubber /Leather	NA	12.3	6.1	26.6	NA							
Kitchen Waste	63.0	83.4	88.7	75.7	NA							
Metals	1.5	NA	4.3	0.8	0.2							
Textile	34.6	66.3	50.1	40.3	7.7							
Bottles /Glass	NA	4.4	1.7	2.2	1.3							
Grass /Wood	62.5	58.5	78.2	73.7	64.9							
Soil /Stone	27.8	3.9	20.0	40.3	22.7							
Plastics	43.8	44.6	51.2	26.5	25.5							
Others	80.6	45.2	59.1	63.9	44.7							

Table 1-30: Three Contents and Element Analysis of Household Waste

Unit: %

Category	Rainy season																			
	21 Oct 2003	22 Oct 2003	23 Oct 2003	24 Oct 2003	25 Oct 2003	26 Oct 2003	27 Oct 2003	28 Oct 2003	28 Oct 2003	28 Oct 2003	28 Oct 2003	28 Oct 2003								
High income	Three contents	Water content	76.9	79.1	77.6	63.2	67.7	76.3	66.3	66.3	66.3	66.3								
													Combusitbles	21.6	20.1	19.2	33.0	25.8	22.6	30.5
Three contents	Water content	76.7	73.6	86.9	67.8	56.8	62.9	66.1												
									Combusitbles	21.5	17.9	12.1	30.4	37.1	31.7	30.5				
																	Ash	1.8	8.5	1.0
Middle income	Element analysis	Carbon	Klitchen waste	27.3	26.9	27.3	28.3	32.2												
									Grass/ wood	29.1	35.1	28.3	36.1	31.2	29.3					
																Nitrogen	Klitchen waste	1.7	1.1	1.3
Grass/ wood	1.0	2.0	1.4	1.8	0.8	1.5														
							Low income	Three contents	Water content	76.9	66.6	68.9	60.9	72.4	82.0					
																Combusitbles	20.0	31.5	26.5	36.1
Ash	3.1	1.9	4.6	3.0	2.8	1.3														



Table 1-31: Three Contents and Element Analysis of Other Wastes (1/2)

Category	Rainy season									
	21 Oct 2003		21 Oct 2003		21 Oct 2003		21 Oct 2003		21 Oct 2003	
	21 Oct 2003	21 Oct 2003	21 Oct 2003	21 Oct 2003	21 Oct 2003	21 Oct 2003	21 Oct 2003	21 Oct 2003	21 Oct 2003	21 Oct 2003
Restaurant	Three contents	Water content	59.8	71.2	74.8	67.7	48.3	72.6	74.1	
		Combustibles	38.4	26.7	23.8	30.1	48.6	24.8	21.0	
		Ash	1.8	2.1	1.4	2.2	3.1	2.6	4.9	
Element analysis	Carbon	Kitchen waste	25.4	25.0	33.7	29.3	25.4	23.4	30.2	
		Grass/wood	29.3	26.9	33.2	34.1	35.1	34.1	25.4	
		Kitchen waste	2.2	1.5	1.8	2.1	1.5	3.2	1.8	
Nitrogen	Grass/wood	1.3	1.4	1.2	1.6	1.8	2.2	2.1		
		Water content	70.5		78.3			49.9	72.4	
		Combustibles	27.1		20.5			43.2	18.5	
Shop	Three contents	Ash	2.4		1.2			6.9	9.1	
		Water content	56.0	74.7	65.6	68.1	75.1	73.7	67.5	
		Combustibles	26.0	21.1	31.5	23.3	23.5	21.0	29.5	
Market	Element analysis	Carbon	Ash	18.0	4.2	2.9	8.6	1.4	5.3	3.0
			Kitchen waste	22.4	26.3	31.2	29.6	25.4	26.3	19.9
			Grass/wood	30.2	27.3	30.2	31.2	31.2	21.5	27.3
School	Three contents	Ash	Kitchen waste	2.4	1.8	1.4	1.3	0.5	2.0	1.4
			Grass/wood	1.5	1.4	1.0	1.2	1.4	2.4	1.3
			Water content	51.6		41.7			50.1	44.5
Combustibles	39.7		36.6			32.3	30.9			
Ash	8.7		21.7			17.6	24.6			

Unit: %

Table 1-32: Three Contents and Element Analysis of Other Wastes (2/2)

Category	Rainy season										
	21 Oct 2003		21 Oct 2003		21 Oct 2003		21 Oct 2003		21 Oct 2003		
	21 Oct 2003	21 Oct 2003	21 Oct 2003	21 Oct 2003	21 Oct 2003	21 Oct 2003	21 Oct 2003	21 Oct 2003	21 Oct 2003	21 Oct 2003	
Street sweeping	Three contents	Water content		21.1		15.6		10.1		19.7	34.4
		Combustibles		42.3		37.0		53.5		28.3	26.9
		Ash		36.6		47.4		36.4		52.0	36.7
Hotel	Three contents	Water content		70.2		60.4		36.8		58.6	
		Combustibles		28.3		35.5		54.4		35.6	
		Ash		1.5		4.1		8.8		5.8	
Office	Three contents	Water content		61.6		58.0				54.5	42.0
		Combustibles		35.7		36.8				35.6	52.5
		Ash		2.7		5.2				9.9	5.5
Collection vehicle	Three contents	Water content		58.2		69.0		55.7			54.4
		Combustibles		41.2		29.4		39.6			35.0
		Ash		0.6		1.6		4.7			10.6

Unit: %

# Data 2

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*Time and Motion Survey  
(Rainy and Dry Season)*

## Data 2 Time & Motion Survey (Dry and Wet Season)

### 2.1 Data obtained from the survey

Vehicle ID	Vehicle type	Date	Season (wet or dry)	Data form	District	Number of workers	Prep. Time T1	Waiting Time T11	Travel Time T2+T4+T5	Travel distance (m)	Travel Speed (km/hr)	Collection Time (minutes) T3	Collection Amount (m3)	Collection Amount (ton)*1	Collection Rate (t/hr)	Discharge Time (minutes) T6	Rest Time (minutes) T7	Repair Time (minutes) T8	Full Cycle Time (minutes)
<b>Dry Season</b>																			
65	Boxer 3.5t	31-Mar	D	00021	Dang Kor	4			76	45100	36	295	6	2.50	0.51	131			502
67	Boxer 3.5t	31-Mar	D	00022	Don Penh	4			14	2100	9	64	6	3.06	2.87	195			273
65	Boxer 3.5t	1-Apr	D	00024	Dang Kor	5	14		127	22100	10	70	6	2.50	2.14	80			291
67	Boxer 3.5t	1-Apr	D	00025	Don Penh	4			61	15900	16	93	6	3.06	1.97	55			209
67	Boxer 3.5t	1-Apr	D	00025	Don Penh	4			71	24000	20	70	6	3.06	2.62	24			165
67	Boxer 3.5t	2-Apr	D	00028	Don Penh	4			91	26000	17	46	6	3.06	3.99	19		318	474
24	Boxer 3.5t	5-Apr	D	00036	Dang Kor	5	9	1	109	48510	27	31	1.6	3.09	5.98	30			180
24	Boxer 3.5t	5-Apr	D	00036	Dang Kor	5			89	35900	24	79	3.6	3.09	2.35	35			203
66	Boxer 4.5t	24-Mar	D	00002	Toul Kok	6	10	45	31	14810	29	89	6	3.34	2.25	13			188
66	Boxer 4.5t	24-Mar	D	00002	Toul Kok	6			39	6900	11	78	6	3.34	2.57				117
66	Boxer 4.5t	25-Mar	D	00006	Camkarm n	4	13	15	66	19800	18	157	6	3.34	1.28	13			264
66	Boxer 4.5t	26-Mar	D	00009	Toul Kok	5	40	8	52	13500	16	121	6	3.34	1.66				221
23	Boxer 4.5t	27-Mar	D	00013	7 Makara	5	10	10	97	19200	12	170	6	3.57	1.26	15			302
23	Boxer 4.5t	27-Mar	D	00013	7 Makara	5	3		18	5600	19	34	6	3.57	6.30				55
23	Boxer 4.5t	28-Mar	D	00014	7 Makara	5	5	3	62	10080	10	272	6	3.57	0.79	38			380
23	Boxer 4.5t	28-Mar	D	00014	7 Makara	5			22	5900	16	58	6	3.57	3.69				80
23	Boxer 4.5t	29-Mar	D	00017	7 Makara	5	14		99	19600	12	150	6	3.57	1.43	30			293
23	Boxer 4.5t	29-Mar	D	00017	7 Makara	5	5		12	5000	25	48	6	3.57	4.46				65
9	Boxer 4.5t	2-Apr	D	00027	Dang Kor	5	38		59	18500	19	46	6	2.23	2.91	30			173
24	Boxer 4.5t	2-Apr	D	00026	Dang Kor	5	5		112	21000	11	43	6	3.09	4.31	10			170
24	Boxer 4.5t	3-Apr	D	00031	Dang Kor	5	5	17	81	23200	17	99	6	3.09	1.87	42			244
49	Boxer 4.5t	3-Apr	D	00030	Mean Chey	1	10		57	20050	21	135	6	3.05	1.36	8			210
49	Boxer 4.5t	3-Apr	D	00030	Mean Chey	1			68	24220	21	131	6	3.05	1.40	8	15		222
12	Boxer 4.5t	4-Apr	D	00032	Reussey Keo	5	31		67	23800	21	186	6	3.79	1.22	10			294
12	Boxer 4.5t	5-Apr	D	00035	Mean Chey	5	29		84	28050	20	165	6	3.79	1.38	13	29		320
43	Deawoo 11t	24-Mar	D	00001	Toul Kok	4	15		23	7630	20	97	26.5	6.69	4.14	15			150
43	Deawoo 11t	25-Mar	D	00005	Camkarm n	5			50	15600	19	110	26.5	6.69	3.65	25	31		216
43	Deawoo 11t	26-Mar	D	00008	Camkarm n	5	50		4	600	9	234	26.5	6.69	1.72				288
26	Deawoo 11t	27-Mar	D	00011	Camkarm n	5	66	1	29	7300	15	257	26.5	8.28	1.93				353
26	Deawoo 11t	28-Mar	D	00015	Toul Kok	5	14	31	30	6500	13	228	26.5	8.28	2.18	35			338
26	Deawoo 11t	29-Mar	D	00019	Camkarm n	5	15	4	39	3543	5	201	26.5	8.28	2.47				259
79	Deawoo 11t	3-Apr	D	00029	Reussey Keo	5	21		80	24750	19	215	26.5	6.56	1.83	6			322
PPW M	Deawoo 11t	3-Apr	D	00037	Camkarm n	1			45	10800	14	85	26.5	7.33	5.17	40	10		180
79	Deawoo 11t	4-Apr	D	00033	Mean Chey	5	23		87	28050	19	52	6	6.56	7.57	28	66		256

Vehicle ID	Vehicle type	Date	Season (wet or dry)	Data form	District	Number of workers	Prep. Time T1	Waiting Time T11	Travel Time T2+T4+T5	Travel distance (m)	Travel Speed (km/hr)	Collection Time (minutes) T3	Collection Amount (m3)	Collection Amount (ton)*1	Collection Rate (t/hr)	Discharge Time (minutes) T6	Rest Time (minutes) T7	Repair Time (minutes) T8	Full Cycle Time (minutes)
PPW M	Deawoo 11t	4-Apr	D	00038	Camkarm	1			147	21600	9	110	26.5	7.33	4.00	40	130		427
79	Deawoo 11t	5-Apr	D	00034	Reussey Keo	5	5		66	23300	21	75	26.5	6.56	5.25	5			151
PPW M	Deawoo 11t	5-Apr	D	00039	Camkarm	1			130	21600	10	96	26.5	7.33	4.58	95	10		331
PPW M	Deawoo 11t	6-Apr	D	00040	Camkarm	1			145	21600	9	125	26.5	7.33	3.52	25	15		310
21	Isuzu 6t	1-Apr	D	00023	Camkarm	7	33		102	21050	12	137		2.55	1.12	31			303
59	Kamaz 11t	22-Mar	D	00004	Don Penh	4	6		132	28000	13	183	47.4	5.24	1.72	12			333
93	Kamaz 11t	24-Mar	D	00003	Don Penh	4	100		136	30000	13	193	28.8	5.35	1.66	12			441
93	Kamaz 11t	25-Mar	D	00007	Don Penh	4	8	20	159	20000	8	119	17.4	5.35	2.70	15			321
59	Kamaz 11t	26-Mar	D	00010	Don Penh	4	15	20	109	25300	14	159	19.8	5.24	1.98	60			363
93	Kamaz 11t	31-Mar	D	00020	Don Penh	3		136	15	4500	18	59		5.35	5.44				210
76	Titan 2.5t	27-Mar	D	00012	Camkarm	5	8	63	31	8800	17	35	4.5	2.04	3.50	9			146
76	Titan 2.5t	27-Mar	D	00012	Camkarm	5			13	0	0	91	4.5	2.04	1.35				104
76	Titan 2.5t	28-Mar	D	00016	Toul Kok	4	19	35	27	8100	18	74	4.5	2.04	1.65				155
76	Titan 2.5t	28-Mar	D	00016	Toul Kok	4			18	5800	19	71	4.5	2.04	1.72	17			106
76	Titan 2.5t	29-Mar	D	00018	Camkarm	4	20	19	48	9100	11	95	4.5	2.04	1.29	11			193
76	Titan 2.5t	29-Mar	D	00018	Camkarm	4			24	7100	18	55	4.5	2.04	2.23	30			109
76	Titan 2.5t	29-Mar	D	00018	Camkarm	4			21	6700	19	108	4.5	2.04	1.13		2		131
<b>Rainy Season</b>																			
28	Dealous 7t	14-Nov	W	W027	Camkarm	4	25	3	46.0	10700	14	29		4.18	8.65			40	143
28	Dealous 7t	14-Nov	W	W028	Camkarm	3	2		39.0	5500	8	200		4.22	1.27			100	341
28	Dealous 7t	5-Dec	W	W013	Toul Kork	5	13		87	29600	20	94		2.25	1.44				194
28	Dealous 7t	6-Dec	W	W014	Camkarm	4	3		66	18880	17	137		4.27	1.87				206
28	Dealous 7t	8-Dec	W	W015	Toul Kork	4	0		115	31200	16	248		2.24	0.54	8			371
43	Deawoo 11t	11-Nov	W	W016	Toul Kork	6			51.0	8900	10	288		9.13	1.90	55.0			394
45	Deawoo 11t	11-Nov	W	W017	Toul Kork	6	18		40.0	12400	19	206		8.80	2.56	70			334
54	Deawoo 11t	11-Nov	W	W018	Toul Kork	6	20		38.0	6700	11	332		9.30	1.68	25			415
80	Deawoo 11t	11-Nov	W	W019	Toul Kork	5	5		40.0	11390	17	353		6.80	1.16	0.0			398
89	Deawoo 11t	11-Nov	W	W020	Camkarm	7	15	5	36.0	16200	27	165		6.76	2.46	0.0			221
13	Deawoo 11t	12-Nov	W	W022	Daum Penh	4	2		104.0	17600	10	176		9.99	3.41	67	10		359
13	Deawoo 11t	12-Nov	W	W021	Meanchey	4	53		33.0	11100	20	214		10.00	2.80	30			330
81	Deawoo 11t	12-Nov	W	W024	Russey Keo	5			106.0	34600	20	63		9.66	9.20	105		105	379
81	Deawoo 11t	12-Nov	W	W025	Russey Keo	7		15	40.0	18000	27	168		9.66	3.45	30		110	363
79	Deawoo 11t	22-Dec	W	W001	Toul Kork	6	14		36	7220	12	56		7.98	8.55	10			116
79	Deawoo 11t	22-Dec	W	W002	Toul Kork	6	7		64	18400	17	296		7.13	1.45	8		34.0	409
26	Deawoo 11t	23-Dec	W	W003	Russey Keo	6	18		34	13200	23	209		9.42	2.70	9			270
26	Deawoo 11t	23-Dec	W	W004	Russey Keo	6			79	28900	22	110		5.32	2.90	10	4.0		203
45	Deawoo 11t	24-Dec	W	W005	Toul Kork	6	38		77	20200	16	447		10.90	1.46	12			574
43	Deawoo 11t	25-Dec	W	W006	Toul Kork	6	20		42	13700	20	296		7.13	1.45	9		49.0	416
43	Deawoo 11t	25-Dec	W	W007	Toul Kork	6			95	29200	18	102		3.78	2.22	10	26.0		233
79	Deawoo 11t	26-Dec	W	W008	Russey Keo	6	17		24	3700	9	175		7.74	2.65	11			227

Vehicle ID	Vehicle type	Date	Season (wet or dry)	Data form	District	Number of workers	Prep. Time T1	Waiting Time T11	Travel Time T2+T4+T5	Travel distance (m)	Travel Speed (km/hr)	Collection Time (minutes) T3	Collection Amount (m3)	Collection Amount (ton) *1	Collection Rate (t/hr)	Discharge Time (minutes) T6	Rest Time (minutes) T7	Repair Time (minutes) T8	Full Cycle Time (minutes)
79	Deawoo 11t	26-Dec	W	W009	Russey Keo	6			147	50600	21	173		7.80	2.71	7	9.0		336
43	Deawoo 11t	29-Dec	W	W011	Russey Keo	6			63	23800	23	130		6.39	2.95	11	17.0		221
54	Deawoo 11t	30-Dec	W	W012	Camkarmon	6	13		60	19000	19		6.39			7	34.0		114
59	Kamaz 11t	12-Nov	W	W023	Russey Keo	5			136.0	42600	19	275		6.66	1.45	60			471
59	Kamaz 11t	13-Nov	W	W026	Daun Penh	6	17		160.0	23400	9	342		9.11	1.60	12	40		571
59	Kamaz 11t	14-Nov	W	W029	Daun Penh	6	33		22.0	8320	23		8.23			52			107
59	Kamaz 11t	14-Nov	W	W030	Daun Penh	5			88.0	20000	14	317		5.40	1.02	15	32		452
61	Kamaz 11t	15-Nov	W	W031	Daun Penh	5	32		101.0	45400	27	161	0	9.30	3.47	26			320
61	Kamaz 11t	15-Nov	W	W032	Daun Penh	5	63		77.0	23400	18	234		5.80	1.49	45			419
61	Kamaz 11t	16-Nov	W	W033	Daun Penh	5	39		83.0	25100	18	125		6.99	3.36				247
61	Kamaz 11t	16-Nov	W	W034	Daun Penh	5	55		56.0	21200	23	233		4.77	1.23				344
59	Kamaz 11t	17-Nov	W	W035	Daun Penh	5			119.0	25900	13	267		5.94	1.33	9			395
59	Kamaz 11t	17-Nov	W	W036	Daun Penh	5			110.0	34200	19	189		5.40	1.71	15	22		336
59	Kamaz 11t	18-Nov	W	W037	Daun Penh	5			93.0	19400	13	247		8.23	2.00				340
93	Kamaz 11t	18-Nov	W	W038	7 Makara	4	32		75.0	20100	16	85		4.54	3.20				192
Dry Season Average						4.3	20.6	26.8	66.2	16983	16.1	118	12.5	4.3	2.71	33.6	34.2	318.0	242.9
Wet Season Average						5.3	22.2	7.7	72.5	20803	17.5	204	0.0	7.0	2.67	25.1	21.6	73.0	317.9
Overall Average						4.7	21.3	23.7	68.8	18589	16.7	153	12.2	5.4	2.69	30.0	27.9	108.0	268.3

# Data 3

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*Public Opinion Survey*

## Data 3 Public Opinion Survey

### 3.1 Questionnaire and Data

#### 3.1.1 Households Survey

Q1.1 Before asking about waste issues, I have a question what do you think the most serious problems in Phnom Penh at present?

	Type of collection								Total	
	Block/Curbside/Com munal Collection		Door to Door Collection		Urban total		Non-Collection			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Inadequate supply of safe water	5	1.8%	0		5	1.7%	21	19.8%	26	6.5%
2 High crime rate	47	16.8%	0		47	16.0%	15	14.2%	62	15.5%
3 Poverty problems	51	18.3%	1	6.7%	52	17.7%	21	19.8%	73	18.3%
4 Economic issues such as Inflation	14	5.0%	3	20.0%	17	5.8%	1	0.9%	18	4.5%
5 Social unrest	10	3.6%	3	20.0%	13	4.4%	1	0.9%	14	3.5%
6 Political instability	4	1.4%	0		4	1.4%			4	1.0%
7 Pollution problems (air, water, noise and waste)	58	20.8%	3	20.0%	61	20.7%	21	19.8%	82	20.5%
8 Flood	0		0		0	0.0%	3	2.8%	3	0.8%
9 Drug problems	45	16.1%	2	13.3%	47	16.0%	6	5.7%	53	13.3%
10 Unemployment	43	15.4%	3	20.0%	46	15.6%	17	16.0%	63	15.8%
11 Land dispute	2	0.7%	0		2	0.7%			2	0.5%
<b>Total</b>	<b>279</b>	<b>100.0%</b>	<b>15</b>	<b>100.0%</b>	<b>294</b>	<b>100.0%</b>	<b>106</b>	<b>100.0%</b>	<b>400</b>	<b>100.0%</b>

Q1.2 And what do you think the second most serious problems?

	Type of collection								Total	
	Block/Curbside/Com munal Collection		Door to Door Collection		urban total		Non-Collection			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Inadequate supply of safe water	51	18.3%	1	6.7%	52	17.7%	27	25.5%	79	19.8%
2 High crime rate	101	36.2%	7	46.7%	108	36.7%	25	23.6%	133	33.3%
3 Poverty problems	97	34.8%	10	66.7%	107	36.4%	50	47.2%	157	39.3%
4 Economic issues such as Inflation	57	20.4%	4	26.7%	61	20.7%	16	15.1%	77	19.3%
5 Social unrest	42	15.1%	6	40.0%	48	16.3%	6	5.7%	54	13.5%
6 Political instability	39	14.0%	8	53.3%	47	16.0%	11	10.4%	58	14.5%
7 Pollution problems (air, water, noise and waste)	125	44.8%	8	53.3%	133	45.2%	41	38.7%	174	43.5%
8 Flood	21	7.5%	2	13.3%	23	7.8%	25	23.6%	48	12.0%
9 Drug problems	168	60.2%	11	73.3%	179	60.9%	55	51.9%	234	58.5%
10 Unemployment	119	42.7%	6	40.0%	125	42.5%	47	44.3%	172	43.0%
11 Land dispute	30	10.8%	0		30	10.2%	7	6.6%	37	9.3%
<b>Total</b>	<b>279</b>	<b>100.0%</b>	<b>15</b>	<b>100.0%</b>			<b>106</b>	<b>100.0%</b>	<b>400</b>	<b>100.0%</b>

Q2 Thinking about daily, please specify the priority in which the following aspects should be solved or improved

		Type of collection								Total	
		Block/Curbside/Com munal Collection		Door to Door Collection		urban total		Non-Collection			
		Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
Water Supply	1 Very Important	176	63.1%	12	80.0%	188	63.9%	87	82.1%	275	68.8%
	2 Important	95	34.1%	3	20.0%	98	33.3%	14	13.2%	112	28.0%
	3 Little Important	8	2.9%	0		8	2.7%	3	2.8%	11	2.8%
	4 Not Important	0		0		0		2	1.9%	2	0.5%
<b>Total</b>		<b>279</b>	<b>100.0%</b>	<b>15</b>	<b>100.0%</b>	<b>294</b>	<b>100.0%</b>	<b>106</b>	<b>100.0%</b>	<b>400</b>	<b>100.0%</b>
<b>Mean</b>			<b>1.40</b>		<b>1.20</b>		<b>1.39</b>		<b>1.25</b>		<b>1.35</b>
Sewer Pipe Network	1 Very Important	59	21.1%	5	33.3%	64	21.8%	28	26.4%	92	23.0%
	2 Important	182	65.2%	10	66.7%	192	65.3%	55	51.9%	247	61.8%
	3 Little Important	34	12.2%	0		34	11.6%	21	19.8%	55	13.8%
	4 Not Important	4	1.4%	0		4	1.4%	2	1.9%	6	1.5%
<b>Total</b>		<b>279</b>	<b>100.0%</b>	<b>15</b>	<b>100.0%</b>	<b>294</b>	<b>100.0%</b>	<b>106</b>	<b>100.0%</b>	<b>400</b>	<b>100.0%</b>
<b>Mean</b>			<b>1.94</b>		<b>1.67</b>		<b>1.93</b>		<b>1.97</b>		<b>1.94</b>
Storm water drainage	1 Very Important	35	12.5%	5	33.3%	40	13.6%	9	8.5%	49	12.3%
	2 Important	135	48.4%	8	53.3%	143	48.6%	58	54.7%	201	50.3%
	3 Little Important	94	33.7%	2	13.3%	96	32.7%	29	27.4%	125	31.3%
	4 Not Important	15	5.4%	0		15	5.1%	10	9.4%	25	6.3%
<b>Total</b>		<b>279</b>	<b>100.0%</b>	<b>15</b>	<b>100.0%</b>	<b>294</b>	<b>100.0%</b>	<b>106</b>	<b>100.0%</b>	<b>400</b>	<b>100.0%</b>
<b>Mean</b>			<b>2.32</b>		<b>1.80</b>		<b>2.29</b>		<b>2.38</b>		<b>2.32</b>
Septic Tank Water collection	1 Very Important	53	19.0%	5	33.3%	58	19.7%	26	24.5%	84	21.0%
	2 Important	163	58.4%	8	53.3%	171	58.2%	52	49.1%	223	55.8%
	3 Little Important	51	18.3%	2	13.3%	53	18.0%	21	19.8%	74	18.5%

		Type of collection								Total	
		Block/Curbside/Com munal Collection		Door to Door Collection		urban total		Non-Collection		Count	Col %
		Count	Col %	Count	Col %	Count	Col %	Count	Col %		
	4 Not Important	12	4.3%	0		12	4.1%	7	6.6%	19	4.8%
Total		279	100.0%	15	100.0%	294	100.0%	106	100.0%	400	100.0%
			2.08		1.80		2.06		2.08		2.07
Solid Waste Collection	1 Very Important	158	56.6%	8	53.3%	166	56.5%	39	36.8%	205	51.3%
	2 Important	111	39.8%	6	40.0%	117	39.8%	41	38.7%	158	39.5%
	3 Little Important	10	3.6%	1	6.7%	11	3.7%	22	20.8%	33	8.3%
	4 Not Important	0		0				4	3.8%	4	1.0%
Total		279	100.0%	15	100.0%	294	100.0%	106	100.0%	400	100.0%
			1.47		1.53		1.47		1.92		1.59
Electricity Supply	1 Very Important	176	63.1%	14	93.3%	190	64.6%	78	73.6%	268	67.0%
	2 Important	92	33.0%	1	6.7%	93	31.6%	22	20.8%	115	28.8%
	3 Little Important	9	3.2%	0		9	3.1%	5	4.7%	14	3.5%
	4 Not Important	2	0.7%	0		2	0.7%	1	0.9%	3	0.8%
Total		279	100.0%	15	100.0%	294		106	100.0%	400	100.0%
			1.42		1.07		1.40		1.33		1.38
Access road to the house	1 Very Important	29	10.4%	0		29	9.9%	9	8.5%	38	9.5%
	2 Important	180	64.5%	3	20.0%	183	62.2%	63	59.4%	246	61.5%
	3 Little Important	48	17.2%	10	66.7%	58	19.7%	23	21.7%	81	20.3%
	4 Not Important	22	7.9%	2	13.3%	24	8.2%	11	10.4%	35	8.8%
Total		279	100.0%	15	100.0%	294		106	100.0%	400	100.0%
			2.23		2.93		2.26		2.34		2.28
Telephone	1 Very Important	23	8.2%	2	13.3%	25	8.5%	5	4.7%	30	7.5%
	2 Important	150	53.8%	5	33.3%	155	52.7%	49	46.2%	204	51.0%
	3 Little Important	83	29.7%	7	46.7%	90	30.6%	36	34.0%	126	31.5%
	4 Not Important	23	8.2%	1	6.7%	24	8.2%	16	15.1%	40	10.0%
Total		279	100.0%	15	100.0%	294		106	100.0%	400	100.0%
			2.38		2.47		2.38		2.59		2.44

Q3.1 Are you interested in Environmental Issues?

		Type of collection								Total	
		Block/Curbside/Com munal Collection		Door to Door Collection		urban total		Non-Collection		Count	Col %
		Count	Col %	Count	Col %	Count	Col %	Count	Col %		
1	Yes	249	89.2%	15	100.0%	264	89.8%	94	88.7%	358	89.5%
2	Yes, but a little	28	10.0%			28	9.5%	8	7.5%	36	9.0%
3	No	2	0.7%			2	0.7%	4	3.8%	6	1.5%
Total		279	100.0%	15	100.0%			106	100.0%	400	100.0%

Q3.2 What kind of environmental problems do you think most serious now in Phnom Penh?

		Type of collection								Total	
		Block/Curbside/Com munal Collection		Door to Door Collection		urban total		Non-Collection		Count	Col %
		Count	Col %	Count	Col %	Count	Col %	Count	Col %		
1	Water Pollution	38	13.7%	2	13.3%	40	13.6%	39	38.2%	79	20.1%
2	Air Pollution	121	43.7%	6	40.0%	127	43.2%	34	33.3%	161	40.9%
3	Noise problems	31	11.2%	1	6.7%	32	10.9%	3	2.9%	35	8.9%
4	Solid waste problems	79	28.5%	6	40.0%	85	28.9%	16	15.7%	101	25.6%
5	Flooding	8	2.9%			8	2.7%	10	9.8%	18	4.6%
Total		277	100.0%	15	100.0%			102	100.0%	394	100.0%

Q3.3 How much do you feel environmental degradation affect your life?

		Type of collection								Total	
		Block/Curbside/Com munal Collection		Door to Door Collection		urban total		Non-Collection		Count	Col %
		Count	Col %	Count	Col %	Count	Col %	Count	Col %		
1	It does not affect at all							2	1.9%	2	0.5%
2	It affects to some degree	109	39.1%	5	33.3%	114	38.8%	23	21.7%	137	34.3%
3	It caused serious problems	169	60.6%	10	66.7%	179	60.9%	79	74.5%	258	64.5%
4	I do not know	1	0.4%			1	0.3%	2	1.9%	3	0.8%
Total		279	100.0%	15	100.0%			106	100.0%	400	100.0%

Q4.1 In general, do you think that improper waste management causes problems?

		Type of collection								Total	
		Block/Curbside/Com munal Collection		Door to Door Collection		urban total		Non-Collection		Count	Col %
		Count	Col %	Count	Col %	Count	Col %	Count	Col %		
1	Yes	279	100.0%	15	100.0%	294	100.0%	101	95.3%	395	98.8%
2	No							5	4.7%	5	1.3%
Total		279	100.0%	15	100.0%	294		106	100.0%	400	100.0%



Q4.2 What kinds of problems are caused by bad waste management?

	Type of collection								Total	
	Block/Curbside/Communal Collection		Door to Door Collection		urban total		Non-Collection			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Scattered waste on the street causes offensive odor	243	87.1%	7	46.7%	250	85.0%	87	86.1%	337	85.3%
2 Scattered waste on the street attracts rats and flies	171	61.3%	13	86.7%	184	62.6%	70	69.3%	254	64.3%
3 Rats and flies attracted by waste bring about some kinds of diseases	127	45.5%	8	53.3%	135	45.9%	43	42.6%	178	45.1%
4 Dumped wastes in canal block drainage systems and result in Flooding	140	50.2%	14	93.3%	154	52.4%	54	53.5%	208	52.7%
5 Dumped waste in canal pollute water and this causes skin diarrhea	138	49.5%	13	86.7%	151	51.4%	47	46.5%	198	50.1%
6 Open burning of waste result in emission of harmful gases	47	16.8%	4	26.7%	51	17.3%	14	13.9%	65	16.5%
7 Improper treatment of wastes at the final disposal site contaminates river and ground water	33	11.8%	1	6.7%	34	11.6%	7	6.9%	41	10.4%
Total	279	100.0%	15	100.0%			101	100.0%	395	100%

Q5.1 In Phnom Penh, are there any problems caused by wastes?

	Type of collection								Total	
	Block/Curbside/Communal Collection		Door to Door Collection		urban total		Non-Collection			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Yes	269	96.4%	15	100.0%	284	96.6%	91	85.8%	375	93.8%
2 No	7	2.5%			7	2.4%	7	6.6%	14	3.5%
3 I do not know	3	1.1%			3	1.0%	8	7.5%	11	2.8%
Total	279	100.0%	15	100.0%			106	100.0%	400	100.0%

Q5.2 In Phnom Penh, What kinds of problems are there how?

	Type of collection								Total	
	Block/Curbside/Communal Collection		Door to Door Collection		urban total		Non-Collection			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 A lot of wastes are scattered on the street	215	79.9%	6	40.0%	221	75.2%	78	85.7%	299	79.7%
2 Wastes on the street are scavenged by animals	85	31.6%	8	53.3%	93	31.6%	27	29.7%	120	32.0%
3 Wastes left on the street cause offensive odor	185	68.8%	13	86.7%	198	67.3%	77	84.6%	275	73.3%
4 Wastes left on the street attract rats and flies	77	28.6%	10	66.7%	87	29.6%	26	28.6%	113	30.1%
5 Dumped wastes in canal block drainage systems and cause flood in rainy season	193	71.7%	14	93.3%	207	70.4%	68	74.7%	275	73.3%
6 Dumped wastes in canal pollute water and cause skin diseases and diarrhea	56	20.8%	9	60.0%	65	22.1%	20	22.0%	85	22.7%
7 Fires at the final disposal site cause emission of polluted gases	34	12.6%	5	33.3%	39	13.3%	12	13.2%	51	13.6%
8 Waste at the final disposal site pollutes ground water	30	11.2%	3	20.0%	33	11.2%	9	9.9%	42	11.2%
9 The current dumpsite is almost full	31	11.5%	2	13.3%	33	11.2%	6	6.6%	39	10.4%
Total	269	100.0%	15	100.0%			91	100.0%	375	100.0%

Q6 Do you where waste from households are brought for final disposal?

	Type of collection								Total	
	Block/Curbside/Communal Collection		Door to Door Collection		urban total		Non-Collection			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Yes	151	54.1%	7	46.7%	158	53.7%	51	48.1%	209	52.3%
2 No	128	45.9%	8	53.3%	136	46.3%	55	51.9%	191	47.8%
Total	279	100.0%	15	100.0%	294		106	100.0%	400	100.0%

Q6 Name of place

	Type of collection								Total	
	Block/Curbside/Communal Collection		Door to Door Collection		urban total		Non-Collection			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
Stoeung Mean Chey Pile of garbage	149	98.7%	1	14.3%	150	94.9%	51	100.0%	201	96.2%
Pile of garbage behind the Ang Eng School	2	1.3%	6	85.7%	8	5.1%			8	3.8%
Total	151	100.0%	7	100.0%	158	100.0%	51	100.0%	209	100.0%

Q7 If you know, please tell us how much waste is generated at your house every day?

		Type of collection								Total		
		Block/Curbside/Communal		Door to Door Collection		urban total		Non-Collection				
		Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	
General (kitchen waste)	0	1	0.4%			1	0.3%	7	6.6%	8	2.0%	
	0.1	1	0.4%			1	0.3%			1	0.3%	
	0.2	1	0.4%			1	0.3%	1	0.9%	2	0.5%	
	0.3	2	0.7%			2	0.7%			2	0.5%	
	0.4	1	0.4%			1	0.3%			1	0.3%	
	0.5	1	0.4%			1	0.3%	1	0.9%	2	0.5%	
	0.7	2	0.7%			2	0.7%			2	0.5%	
	1	214	76.7%	8	53.3%	222	75.5%	83	78.3%	305	76.3%	
	2	48	17.2%	7	46.7%	55	18.7%	9	8.5%	64	16.0%	
	3	7	2.5%			7	2.4%	3	2.8%	10	2.5%	
4	1	0.4%			1	0.3%	1	0.9%	2	0.5%		
5							1	0.9%	1	0.3%		
Total		279	100.0%	15	100.0%	294	100.0%	106	100.0%	400	100.0%	
Cans	0	188	67.4%	3	20.0%	191	65.0%	95	89.6%	286	71.5%	
	1	53	19.0%	1	6.7%	54	18.4%	10	9.4%	64	16.0%	
	2	23	8.2%	2	13.3%	25	8.5%	1	0.9%	26	6.5%	
	3	9	3.2%	3	20.0%	12	4.1%			12	3.0%	
	4	3	1.1%	1	6.7%	4	1.4%			4	1.0%	
	5	3	1.1%	3	20.0%	6	2.0%			6	1.5%	
	10			1	6.7%	1	0.3%			1	0.3%	
	12			1	6.7%	1	0.3%			1	0.3%	
Total		279	100.0%	15	100.0%	294	100.0%	106	100.0%	400	100.0%	
Glass Bottles	0	232	83.2%	13	86.7%	245	83.3%	92	86.8%	337	84.3%	
	1	40	14.3%	2	13.3%	42	14.3%	14	13.2%	56	14.0%	
	2	5	1.8%			5	1.7%			5	1.3%	
	3	2	0.7%			2	0.7%			2	0.5%	
Total		279	100.0%	15	100.0%	294	100.0%	106	100.0%	400	100.0%	
Plastic Bottles	0	210	75.3%	5	33.3%	215	73.1%	95	89.6%	310	77.5%	
	1	47	16.8%	1	6.7%	48	16.3%	11	10.4%	59	14.8%	
	2	15	5.4%	2	13.3%	17	5.8%			17	4.3%	
	3	4	1.4%	6	40.0%	10	3.4%			10	2.5%	
	5			1	6.7%	1	0.3%			1	0.3%	
	6	1	0.4%			1	0.3%			1	0.3%	
	8	1	0.4%			1	0.3%			1	0.3%	
	10	1	0.4%			1	0.3%			1	0.3%	
Total		279	100.0%	15	100.0%	294	100.0%	106	100.0%	400	100.0%	
Paper/ Cardboard	0	74	26.5%	7	46.7%	81	27.6%	65	61.3%	146	36.5%	
	0.1	1	0.4%			1	0.3%			1	0.3%	
	1	39	14.0%			39	13.3%	16	15.1%	55	13.8%	
	2	72	25.8%	1	6.7%	73	24.8%	16	15.1%	89	22.3%	
	3	46	16.5%	2	13.3%	48	16.3%	4	3.8%	52	13.0%	
	4	18	6.5%			18	6.1%	3	2.8%	21	5.3%	
	5	19	6.8%	2	13.3%	21	7.1%	1	0.9%	22	5.5%	
	6	3	1.1%	1	6.7%	4	1.4%			4	1.0%	
	8	1	0.4%	1	6.7%	2	0.7%			2	0.5%	
	10	5	1.8%	1	6.7%	6	2.0%	1	0.9%	7	1.8%	
	15	1	0.4%			1	0.3%			1	0.3%	
	Total		279	100.0%	15	100.0%	294	100.0%	106	100.0%	400	100.0%
	Plastic bags	0	19	6.8%			19	6.5%	5	4.7%	24	6.0%
		1	11	3.9%			11	3.7%	4	3.8%	15	3.8%
		2	50	17.9%			50	17.0%	30	28.3%	80	20.0%
3		69	24.7%	4	26.7%	73	24.8%	18	17.0%	91	22.8%	
4		33	11.8%	2	13.3%	35	11.9%	5	4.7%	40	10.0%	
5		32	11.5%	4	26.7%	36	12.2%	19	17.9%	55	13.8%	
6		12	4.3%	4	26.7%	16	5.4%	5	4.7%	21	5.3%	
7		6	2.2%	1	6.7%	7	2.4%			7	1.8%	
8		8	2.9%			8	2.7%	9	8.5%	17	4.3%	
10		26	9.3%			26	8.8%	10	9.4%	36	9.0%	
11		4	1.4%			4	1.4%			4	1.0%	
12		5	1.8%			5	1.7%	1	0.9%	6	1.5%	
13		1	0.4%			1	0.3%			1	0.3%	
15		3	1.1%			3	1.0%			3	0.8%	
Total			279	100.0%	15	100.0%	294	100.0%	106	100.0%	400	100.0%

Q8.1 How do you store waste at your house?

	Type of collection		Door to Door Collection		urban total		Non-Collection		Total	
	Block/Curbside/Communal Collection		Door to Door Collection		urban total		Non-Collection		Total	
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 In a plastic/paper bag	226	81.0%	8	53.3%	234	79.6%	66	62.3%	300	75.0%
2 In a rice/cement bag	13	4.7%	2	13.3%	15	5.1%	1	0.9%	16	4.0%
3 In a carton box			1	6.7%	1	0.3%			1	0.3%
4 In a basket	12	4.3%	3	20.0%	15	5.1%	8	7.5%	23	5.8%
5 In a metal/plastic/wood container	27	9.7%	1	6.7%	28	9.5%	8	7.5%	36	9.0%
6 On the ground	1	0.4%			1	0.3%	23	21.7%	24	6.0%
Total	279	100.0%	15	100.0%	294	100.0%	106	100.0%	400	100.0%

Q8.2 Why do you use such containers?

	Type of collection		Door to Door Collection		urban total		Non-Collection		Total	
	Block/Curbside/Communal Collection		Door to Door Collection		urban total		Non-Collection		Total	
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 It keeps the place clean after the collection work	168	60.4%	6	40.0%	174	59.2%	58	69.9%	232	61.7%
2 It prevents foul odors	215	77.3%	13	86.7%	228	77.6%	71	85.5%	299	79.5%
3 It is easy to handle	216	77.7%	12	80.0%	228	77.6%	55	66.3%	283	75.3%
4 Keeps away pests such as flies	65	23.4%	8	53.3%	73	24.8%	25	30.1%	98	26.1%
5 Low cost or available free	83	29.9%	5	33.3%	88	29.9%	22	26.5%	110	29.3%
Total	278	100.0%	15	100.0%			83	100.0%	376	100.0%

Q9 Who handles and discharges your waste in your household most often?

	Type of collection		Door to Door Collection		urban total		Non-Collection		Total	
	Block/Curbside/Communal Collection		Door to Door Collection		urban total		Non-Collection		Total	
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 female adult	160	57.3%	11	73.3%	171	58.2%	80	75.5%	251	62.8%
2 male adult	71	25.4%			71	24.1%	21	19.8%	92	23.0%
3 female children	25	9.0%	3	20.0%	28	9.5%	2	1.9%	30	7.5%
4 male children	9	3.2%	1	6.7%	10	3.4%	3	2.8%	13	3.3%
5 maid or house staff	13	4.7%			13	4.4%			13	3.3%
6 pay someone to discharge	1	0.4%			1	0.3%			1	0.3%
Total	279	100.0%	15	100.0%	294		106	100.0%	400	100.0%

Q10 Do you receive waste collection service at present?

	Type of collection		Door to Door Collection		urban total		Non-Collection		Total	
	Block/Curbside/Communal Collection		Door to Door Collection		urban total		Non-Collection		Total	
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Yes	279	100.0%	15	100.0%	294	100.0%			294	73.5%
2 No							106	100.0%	106	26.5%
Total	279	100.0%	15	100.0%			106	100.0%	400	100.0%

Q11 What kind of collection service is provided for your district?

	Type of collection						Total	
	Block/Curbside/Communal Collection		Door to Door Collection		urban total		Total	
	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Block (bell) collection	95	34.1%			95	32.3%	95	32.3%
2 Curbside collection	156	55.9%			156	53.1%	156	53.1%
3 Communal collection	27	9.7%			27	9.2%	27	9.2%
4 Door to door collection			15	100.0%	15	5.1%	15	5.1%
6 I do not know	1	0.4%			1	0.3%	1	0.3%
Total	279	100.0%	15	100.0%	294	100.0%	294	100.0%

Q12 What is the frequency of the waste collection service in your area? (per week)

	Type of collection	
	Block/Curbside/Communal Collection	
	Count	Col %
1 Everyday	128	45.9%
2 6 times	5	1.8%
3 5 times	4	1.4%
4 4 times	13	4.7%
5 3 times	86	30.8%
6 2 times	19	6.8%
7 Once a week	2	0.7%
8 Irregular	16	5.7%
9 I do not know	6	2.2%
Total	279	100.0%

Q13 How often do you discharge your waste? (per week)

	Type of collection	
	Block/Curbside/Communal Collection	
	Count	Col %
1 Everyday	193	69.2%
2 6 times	7	2.5%
3 5 times	9	3.2%
4 4 times	7	2.5%
5 3 times	47	16.8%
6 2 times	5	1.8%
8 Irregular	10	3.6%
9 I do not know	1	0.4%
Total	279	100.0%

Q14.1 Where is your waste discharged?

	Type of collection	
	Block/Curbside/Communal Collection	
	Count	Col %
1 In a bin or on ground at a collection point	132	47.3%
2 In a bin or on ground along the street, where a collection vehicle passes	146	52.3%
4 Any place I want	1	0.4%
Total	279	100.0%

Q14.2 Why do you discharge your waste there?

	Type of collection	
	Block/Curbside/Communal Collection	
	Count	Col %
1 I do not know where I have to discharge my waste	1	100.0%
Total	1	100.0%

Q15 How do you transport your waste to the collection point and dump it?

	Type of collection	
	Block/Curbside/Communal Collection	
	Count	Col %
1 bring waste in a bag and put the bag on the ground or in a collection bin	220	79.1%
2 bring wastes in a bag, box, basket or container and put the waste inside on the ground or in bin directly	57	20.5%
231 Bring Garbage to put in the Track	1	0.4%
Total	278	100.0%

Q16 What time is your waste collected by collector?

	Type of collection	
	Block/Curbside/Communal Collection	
	Count	Col %
1 In the morning	94	33.7%
2 In the afternoon	47	16.8%
3 In the evening	44	15.8%
4 At night	22	7.9%
5 Irregular	69	24.7%
6 I do not know	3	1.1%
Total	279	100.0%

Q17.1 When (what time) your waste is discharged?

	Type of collection	
	Block/Curbside/Communal Collection	
	Count	Col %
1 Just before the collection service/ After the collection vehicle gives a signal	164	58.8%
2 In the morning regardless of the collection service time	40	14.3%
3 In the afternoon regardless of the collection service time	3	1.1%
4 In the evening regardless of the collection service time	7	2.5%
5 At night regardless of the collection service time	14	5.0%
6 Whenever wastes are generated	51	18.3%
Total	279	100.0%

Q17.2

	Type of collection	
	Block/Curbside/Communal Collection	
	Count	Col %
1 Frequency of collection service is too few	25	21.7%
2 No one is home at collection time	21	18.3%
3 A collection vehicle does not come regularly and I do not know when it comes	31	27.0%
4 I do not want to keep the waste long at home and want to discharge the waste as early as possible	38	33.0%
Total	115	100.0%

Q17.3 Do you think that your waste left on the street causes problems such as animal scavenging and bad smells?

	Type of collection	
	Block/Curbside/Communal Collection	
	Count	Col %
1 Yes	94	81.7%
2 No	21	18.3%
Total	115	100.0%

Q18 What is the frequency of the waste collection service in your area? (per week)

	Type of collection	
	Door to Door Collection	
	Count	Col %
1 Every day	9	60.0%
2 6 times	4	26.7%
3 5 times	1	6.7%
8 Irregular	1	6.7%
Total	15	100.0%

Q19 How often do you discharge your waste?

	Type of collection	
	Door to Door Collection	
	Count	Col %
1 I discharge my waste only when waste collectors come to my house	4	26.7%
2 I discharge my waste more often than the collection service	11	73.3%
Total	15	100.0%

Q20 Why do you discharge your wastes even when there is no collection service?

	Type of collection	
	Door to Door Collection	
	Count	Col %
2 No one is home at collection time	6	54.5%
3 The frequency of collection is irregular	2	18.2%
4 I do not want to keep the waste long and want to discharge it as soon as possible	3	27.3%
Total	11	100.0%

Q21 Where do you discharge your wastes when there are no collection service?

	Type of collection	
	Door to Door Collection	
	Count	Col %
1 I discharge my wastes in front of my house	7	63.6%
2 I discharge my wastes on the street	4	36.4%
Total	11	100.0%

Q22 Do you think that your waste left on the street causes problems such as animal scavenging or bad smells?

	Type of collection	
	Door to Door Collection	
	Count	Col %
1. Yes	11	100%
Total	11	100.0%

Q23 How do you discharge your waste?

	Type of collection	
	Door to Door Collection	
	Count	Col %
1 Bring waste in a plastic/paper bag and put the bag in the collector's cart	8	53.3%
2 Bring waste in a bag, box, basket or container and put the waste in the collector's cart	7	46.7%
Total	15	100.0%

Q24 What time is your waste collected?

	Type of collection	
	Door to Door Collection	
	Count	Col %
1 In the morning	3	20.0%
2 In the afternoon	3	20.0%
3 In the evening	6	40.0%
4 At night	2	13.3%
5 Irregular	1	6.7%
Total	15	100.0%

Q25.1 Do you pay collection fee?

	Type of collection				Total	
	Block/Curbside/Communal Collection		Door to Door Collection		Urban total	
	Count	Col %	Count	Col %	Count	Col %
1 Yes, I pay collection fee directly	28	10.0%	15	100.0%	43	14.6%
2 Yes, I pay collection fee with electricity bill	244	87.5%			244	83.0%
3 No, I do not pay collection fee	4	1.4%			4	1.4%
4 I do not know	3	1.1%			3	1.0%
Total	279	100.0%	15	100.0%	294	100.0%

Q25.2 How much do you pay for collection service every month?

	Type of collection				Total	
	Block/Curbside/Communal Collection		Door to Door Collection		Urban total	
	Count	Col %	Count	Col %	Count	Col %
9 I do not know	2	0.7%			2	0.7%
1000	1	0.4%			1	0.3%
2000	1	0.4%			1	0.3%
2300	1	0.4%			1	0.3%
2500	5	1.8%			5	1.7%
3000	8	2.9%			8	2.8%
3200	25	9.2%			25	8.7%
3500	1	0.4%			1	0.3%
4000	215	79.0%	14	93.3%	229	79.8%
6000	1	0.4%			1	0.3%
7000	1	0.4%			1	0.3%
8000	1	0.4%	1	6.7%	2	0.7%
20000	6	2.2%			6	2.1%
28000	4	1.5%			4	1.4%
Total	272	100.0%	15	100.0%	287	100.0%

Q26 How is the bill collected?

	Type of collection				Total	
	Block/Curbside/Communal Collection		Door to Door Collection		Urban total	
	Count	Col %	Count	Col %	Count	Col %
1 A bill collector of a waste collection company/electricity comes to my house every month	89	32.7%	3	20.0%	92	32.1%
2 A bill collector of the Phnom Penh government comes to my house every month	6	2.2%	12	80.0%	18	6.3%
3 I go to the office to pay the bill	176	64.7%			176	61.3%
4 I do not know	1	0.4%			1	0.3%
Total	272	100.0%	15	100.0%	287	100.0%

Q27.1 Do you know who is in charge of waste collection?

	Type of collection				Total	
	Block/Curbside/Communal Collection		Door to Door Collection		Urban total	
	Count	Col %	Count	Col %	Count	Col %
1 Yes	138	49.5%	15	100.0%	153	52.0%
2 No	141	50.5%			141	48.0%
Total	279	100.0%	15	100.0%	294	100.0%

Q27.2 Who is it?

1 Private company (CINTRI)	131	94.9%	1	6.7%	132	86.3%
2 Phnom Penh government (PPWM)	7	5.1%	13	86.7%	20	13.1%
3 NGO			1	6.7%	1	0.7%
Total	138	100.0%	15	100.0%	153	100.0%

Q28 What do you think about collection fee?

	Type of collection				Total	
	Block/Curbside/Communal Collection		Door to Door Collection		Urban total	
	Count	Col %	Count	Col %	Count	Col %
1 Too expensive	9	3.2%			9	3.1%
2 Expensive	70	25.1%	2	13.3%	72	24.5%
3 Appropriate	193	69.2%	13	86.7%	206	70.1%
6 I do not know	7	2.5%			7	2.4%
Total	279	100.0%	15	100.0%	294	100.0%

Q29 Are you satisfied with the collection service?

	Type of collection				Total	
	Block/Curbside/Communa l Collection		Door to Door Collection		Urban total	
	Count	Col %	Count	Col %	Count	Col %
1 Yes very much	34	12.2%	2	13.3%	36	12.2%
2 Yes to some extent	189	67.7%	12	80.0%	201	68.4%
3 Not much	51	18.3%	1	6.7%	52	17.7%
4 Not at all	3	1.1%			3	1.0%
5 I do not know	2	0.7%			2	0.7%
Total	279	100.0%	15	100.0%	294	100.0%

Q30.1 Why are you unsatisfied with the service?

	Type of collection				Total	
	Block/Curbside/Communa l Collection		Door to Door Collection		Urban total	
	Count	Col %	Count	Col %	Count	Col %
1 Frequency of collection is too few	10	17.9%			10	17.5%
2 Frequency of collection is irregular	25	44.6%	1	100.0%	26	45.6%
3 Collection time is not appropriate	8	14.3%			8	14.0%
4 A lot of wastes are left on the streets	11	19.6%			11	19.3%
5 Collection point is far away from my house	2	3.6%			2	3.5%
Total	56	100.0%	1	100.0%	57	100.0%

Q30.2 And another you unsatisfied with the service?

	Type of collection				Total	
	Block/Curbside/Communa l Collection		Door to Door Collection		Urban total	
	Count	Col %	Count	Col %	Count	Col %
1 Frequency of collection is too few	26	46.4%	1	100.0%	27	47.4%
2 Frequency of collection is irregular	15	26.8%			15	26.3%
3 Collection time is not appropriate	22	39.3%			22	38.6%
4 A lot of wastes are left on the streets	16	28.6%			16	28.1%
5 Collection point is far away from my house	3	5.4%	1	100.0%	4	7.0%
6 Collection points are full of waste and dirty	16	28.6%			16	28.1%
100 None	2	3.6%			2	3.5%
241 Garbageman's not collect off garbages	1	1.8%			1	1.8%
242 Have not Garbage can to use	1	1.8%			1	1.8%
Total	56	100.0%	1	100.0%	57	100.0%

Q31.1 To improve the quality of service, do you agree with the increase in collection fee?

	Type of collection				Total	
	Block/Curbside/Communa l Collection		Door to Door Collection		Urban total	
	Count	Col %	Count	Col %	Count	Col %
1 Yes, I agree with the increase in the collection fee	32	11.5%	4	26.7%	36	12.2%
2 Collection service company should take an effort to improve their service without increasing the fee	211	75.6%	7	46.7%	218	74.1%
3 I can change the way to discharge wastes, discharging my waste on designated time and designate place, so that it is possible to improve the collection service without increase in the collection fee	33	11.8%	4	26.7%	37	12.6%
4 I do not know	3	1.1%			3	1.0%
Total	279	100.0%	15	100.0%	294	100.0%

Q31.2 If collection service is improved, e.g. increase in collection frequency and fixed collection time, how much are you willing to pay monthly?

	Type of collection				Total	
	Block/Curbside/Communa l Collection		Door to Door Collection		Urban total	
	Count	Col %	Count	Col %	Count	Col %
98 DK	7	2.5%			7	2.4%
1000	1	0.4%			1	0.3%
2000	1	0.4%			1	0.3%
2500	2	0.7%			2	0.7%
3000	12	4.3%			12	4.1%
3200	21	7.5%			21	7.1%
3500	5	1.8%			5	1.7%
4000	182	65.2%	7	46.7%	189	64.3%
4500	9	3.2%			9	3.1%
4800	2	0.7%			2	0.7%
5000	4	1.4%			4	1.4%
6000	18	6.5%	5	33.3%	23	7.8%
6500	1	0.4%	2	13.3%	3	1.0%
7500	1	0.4%			1	0.3%
8000	3	1.1%	1	6.7%	4	1.4%

	Type of collection				Total	
	Block/Curbside/Communa l Collection		Door to Door Collection		Urban total	
	Count	Col %	Count	Col %	Count	Col %
10000	1	0.4%			1	0.3%
20000	5	1.8%			5	1.7%
28000	3	1.1%			3	1.0%
32000	1	0.4%			1	0.3%
Total	279	100.0%	15	100.0%	294	100.0%

Q32 What kinds of collection method do you prefer?

	Type of collection				Total	
	Block/Curbside/Communa l Collection		Door to Door Collection		Urban total	
	Count	Col %	Count	Col %	Count	Col %
1 Block (bell) collection	58	20.8%			58	19.7%
2 Curbside collection	152	54.5%	4	26.7%	156	53.1%
3 Communal collection	19	6.8%	2	13.3%	21	7.1%
4 Door to door collection	50	17.9%	9	60.0%	59	20.1%
Total	279	100.0%	15	100.0%	294	100.0%

Q33 How is your wastes disposed of?

	Type of collection	
	Non-Collection	
	Count	Col %
1 It is dumped on the street, in the canal or open land	39	36.8%
2 It is burned outside	74	69.8%
3 It is buried	18	17.0%
4 It is composted	11	10.4%
5 It is transported to a collection point in other areas	5	4.7%
6 I do not know	1	0.9%
Total	106	100.0%

Q34 What kinds of problems do you face now because there is no collection service?

	Type of collection	
	Non-Collection	
	Count	Col %
1 Wastes are scattered around my house	52	49.1%
2 There are a lot of rats and flies	49	46.2%
3 There is a problem of offensive odor	60	56.6%
4 River/underground water is contaminated by waste	27	25.5%
5 People suffer from skin diseases	14	13.2%
6 People suffer from diarrhea	20	18.9%
7 Drainage canals are blocked with waste	8	7.5%
100 None	12	11.3%
Total	106	100.0%

Q35 Do you need waste collection service?

	Type of collection	
	Non-Collection	
	Count	Col %
1 Yes, very much	25	23.6%
2 Yes to some extent	49	46.2%
3 I do not need very much	27	25.5%
4 I do not need at all	5	4.7%
Total	106	100.0%

Q36.1 Are you willing to pay to receive the waste collection service?

	Type of collection	
	Non-Collection	
	Count	Col %
1 Very willing	14	13.2%
2 Willing to some extent	57	53.8%
3 Not willing very much	25	23.6%
4 Not at all	10	9.4%
Total	106	100.0%

Q36.2 How much can you afford to pay per month to receive the collection service?

	Type of collection	
	Non-Collection	
	Count	Col %
98 DK	22	20.8%
100 None	1	0.9%
500	6	5.7%



	Type of collection	
	Non-Collection	
	Count	Col %
600	2	1.9%
1000	17	16.0%
1500	2	1.9%
2000	21	19.8%
3000	8	7.5%
4000	27	25.5%
Total	106	100.0%

Q37 To decrease the collection fee, are you willing to participate in waste collection activities such as bringing your waste to a designated place at designated time and source separation?

	Type of collection	
	Non-Collection	
	Count	Col %
1 Very willing	24	22.6%
2 Willing to some extent	55	51.9%
3 Not willing very much	24	22.6%
4 Not at all	3	2.8%
Total	106	100.0%

Q38.1 Do you consider that recycling of non-hazardous waste such as paper, plastic, glass and metals is necessary?

	Type of collection								Total	
	Block/Curbside/Communal Collection		Door to Door Collection		Urban total		Non-Collection			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Yes	201	72.0%	10	66.7%	211	71.8%	67	63.2%	278	69.5%
2 No	78	28.0%	5	33.3%	83	28.2%	39	36.8%	122	30.5%
Total	279	100.0%	15	100.0%	294		106	100.0%	400	100.0%

Q38.2 Why do you think that it is necessary?

	Type of collection								Total	
	Block/Curbside/Communal Collection		Door to Door Collection		Urban total		Non-Collection			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Recycling would reduce the amount of waste to landfill	30	14.9%	4	40.0%	34	16.1%	11	16.4%	45	16.2%
2 Recycling would help to protect the environment	83	41.3%			83	39.3%	26	38.8%	109	39.2%
3 Recycling would earn you some extra money	88	43.8%	6	60.0%	94	44.5%	30	44.8%	124	44.6%
Total	201	100.0%	10	100.0%	211	100.0%	67	100.0%	278	100.0%

Q39 Do you separate recyclable goods and sell them?

	Type of collection								Total	
	Block/Curbside/Communal Collection		Door to Door Collection		Urban total		Non-Collection			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Yes	165	59.1%	8	53.3%	173	58.8%	52	49.1%	225	56.3%
2 No	114	40.9%	7	46.7%	121	41.2%	54	50.9%	175	43.8%
Total	279	100.0%	15	100.0%	294	100.0%	106	100.0%	400	100.0%

Q40.1 – Paper

		Type of collection								Total	
		Block/Curbside/Communal Collection		Door to Door Collection		Urban total		Non-Collection			
		Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
Paper	1 Yes	18	10.9%			18	6.1%		0.0%	18	8.0%
	2 No	147	89.1%	8	100.0%	155	52.7%	52	49.1%	207	92.0%
Total		165	100.0%	8	100.0%	173	58.8%	52	100.0%	225	100.0%
Kilogram	0.5	3	16.7%							3	16.7%
	1	10	55.6%							10	55.6%
	1.5	1	5.6%							1	5.6%
	2	4	22.2%							4	22.2%
Total		18	100.0%							18	100.0%
How much?	100	2	11.1%							2	11.1%
	150	1	5.6%							1	5.6%
	200	7	38.9%							7	38.9%
	300	2	11.1%							2	11.1%
	450	1	5.6%							1	5.6%
	600	2	11.1%							2	11.1%
	700	1	5.6%							1	5.6%
	2000	1	5.6%							1	5.6%
4000	1	5.6%							1	5.6%	
Total		18	100.0%							18	100.0%

		Type of collection								Total	
		Block/Curbside/Com munal Collection		Door to Door Collection		Urban total		Non-Collection			
		Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
To whom you sell?	1 Those who come to my house	18	100.0%							18	100.0%
Total		18	100.0%							18	100.0%

Q40.2 – Cardboard

		Type of collection								Total	
		Block/Curbside/Com munal Collection		Door to Door Collection		Urban total		Non-Collection			
		Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
Cardboard	1 Yes	8	4.8%			8	2.7%		0.0%	8	3.6%
	2 No	157	95.2%	8	100.0%	165	56.1%	52	49.1%	217	96.4%
Total		165	100.0%	8	100.0%	173	58.8%	52	49.1%	225	100.0%
Kilogram	1	3	30.0%							3	30.0%
	3	1	10.0%							1	10.0%
	4	1	10.0%							1	10.0%
	5	2	20.0%							2	20.0%
	10	3	30.0%							3	30.0%
Total		10	100.0%							10	100.0%
How much?	100	2	20.0%							2	20.0%
	150	1	10.0%							1	10.0%
	450	1	10.0%							1	10.0%
	500	3	30.0%							3	30.0%
	800	1	10.0%							1	10.0%
	2000	1	10.0%							1	10.0%
	2500	1	10.0%							1	10.0%
Total		10	100.0%							10	100.0%
To whom you sell?	1 Those who come to my house	10	100.0%							10	100.0%
Total		10	100.0%							10	100.0%

Q40.3 – Glass bottles

		Type of collection								Total	
		Block/Curbside/Com munal Collection		Door to Door Collection		Urban total		Non-Collection			
		Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
Glass bottles	1 Yes	135	81.8%			135	45.9%	48	45.3%	183	81.3%
	2 No	30	18.2%	8	100.0%	38	12.9%	4	3.8%	42	18.7%
Total		165	100.0%	8	100.0%	173	58.8%	52	49.1%	225	100.0%
Bottle	1	32	23.7%					9	18.8%	41	22.4%
	2	40	29.6%					19	39.6%	59	32.2%
	3	32	23.7%					9	18.8%	41	22.4%
	4	9	6.7%					2	4.2%	11	6.0%
	5	9	6.7%					5	10.4%	14	7.7%
	6	1	0.7%					1	2.1%	2	1.1%
	10	6	4.4%					1	2.1%	7	3.8%
	15	1	0.7%							1	0.5%
	20	4	3.0%					2	4.2%	6	3.3%
	30	1	0.7%							1	0.5%
Total		135	100.0%					48	100.0%	183	100.0%
How much?	100	29	21.5%					11	22.9%	40	21.9%
	200	49	36.3%					21	43.8%	70	38.3%
	300	31	23.0%					7	14.6%	38	20.8%
	400	5	3.7%					1	2.1%	6	3.3%
	500	9	6.7%					6	12.5%	15	8.2%
	600	1	0.7%					1	2.1%	2	1.1%
	800	1	0.7%							1	0.5%
	1000	6	4.4%							6	3.3%
	1500	1	0.7%							1	0.5%
	2000	2	1.5%					1	2.1%	3	1.6%
4500	1	0.7%							1	0.5%	
Total		135	100.0%					48	100.0%	183	100.0%
To whom you sell?	1 Those who come to my house	134	99.3%					48	100.0%	182	99.5%
	2 Shop	1	0.7%							1	0.5%
Total		135	100.0%					48	100.0%	183	100.0%

Q40.4 – Aluminum cans

		Type of collection								Total	
		Block/Curbside/Com munal Collection		Door to Door Collection		Urban total		Non-Collection			
		Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
Aluminum cans	1 Yes	126	76.4%	8	100.0%	134	45.6%	19	17.9%	153	68.0%
	2 No	39	23.6%			39	13.3%	33	31.1%	72	32.0%
Total		165	100.0%	8	100.0%	173	58.8%	52	49.1%	225	100.0%
Can	1	1	0.8%					1	5.3%	2	1.3%
	2	3	2.4%					1	5.3%	4	2.6%
	3	4	3.2%					4	21.1%	8	5.2%
	4	2	1.6%							2	1.3%
	5	19	15.1%					8	42.1%	27	17.6%
	6	8	6.3%					3	15.8%	11	7.2%
	7	1	0.8%							1	0.7%
	8	3	2.4%							3	2.0%
	10	37	29.4%	4	50.0%					41	26.8%
	12	3	2.4%							3	2.0%
	15	6	4.8%							6	3.9%
	20	18	14.3%	1	12.5%					19	12.4%
	24	8	6.3%	1	12.5%					9	5.9%
	25	1	0.8%							1	0.7%
	30	4	3.2%	1	12.5%			1	5.3%	6	3.9%
	40			1	12.5%					1	0.7%
	48	1	0.8%							1	0.7%
50	4	3.2%							4	2.6%	
60	1	0.8%					1	5.3%	2	1.3%	
72	1	0.8%							1	0.7%	
144	1	0.8%							1	0.7%	
Total		126	100.0%	8	100.0%			19	100.0%	153	100.0%
How much?	100	8	6.3%					5	26.3%	13	8.5%
	200	28	22.2%					11	57.9%	39	25.5%
	250	1	0.8%							1	0.7%
	300	7	5.6%	1	12.5%			1	5.3%	9	5.9%
	400	22	17.5%	3	37.5%					25	16.3%
	450	1	0.8%							1	0.7%
	500	16	12.7%					1	5.3%	17	11.1%
	600	5	4.0%							5	3.3%
	700	1	0.8%	1	12.5%					2	1.3%
	800	14	11.1%	1	12.5%					15	9.8%
	900	1	0.8%	1	12.5%					2	1.3%
	1000	9	7.1%	1	12.5%					10	6.5%
	1200	2	1.6%							2	1.3%
	1300	1	0.8%							1	0.7%
	1400	1	0.8%							1	0.7%
	1500	1	0.8%							1	0.7%
	1600	1	0.8%							1	0.7%
	2000	3	2.4%							3	2.0%
	2400	1	0.8%							1	0.7%
2500	1	0.8%							1	0.7%	
3000							1	5.3%	1	0.7%	
3600	1	0.8%							1	0.7%	
7200	1	0.8%							1	0.7%	
Total		126	100.0%	8	100.0%			19	100.0%	153	100.0%
To whom you sell?	1 Those who come to my house	126	100.0%	8	100.0%			19	100.0%	153	100.0%
Total		126	100.0%	8	100.0%			19	100.0%	153	100.0%

Q40.5 – Metal cans

		Type of collection								Total	
		Block/Curbside/Com munal Collection		Door to Door Collection		Urban total		Non-Collection			
		Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
Metal cans	1 Yes	30	18.2%	3	37.5%	33	11.2%			33	14.7%
	2 No	135	81.8%	5	62.5%	140	47.6%	52	49.1%	192	85.3%
Total		165	100.0%	8	100.0%	173	58.8%	52	49.1%	225	100.0%
Can	1	13	43.3%							13	39.4%
	2	4	13.3%	1	33.3%					5	15.2%
	3	4	13.3%	1	33.3%					5	15.2%
	4	3	10.0%	1	33.3%					4	12.1%
	5	2	6.7%							2	6.1%
	7	1	3.3%							1	3.0%
8	2	6.7%							2	6.1%	

		Type of collection								Total	
		Block/Curbside/Comunal Collection		Door to Door Collection		Urban total		Non-Collection			
		Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
	20	1	3.3%							1	3.0%
Total		30	100.0%	3	100.0%					33	100.0%
How much?	100	14	46.7%							14	42.4%
	200	5	16.7%							5	15.2%
	300	3	10.0%							3	9.1%
	400	2	6.7%	1	33.3%					3	9.1%
	500	1	3.3%							1	3.0%
	600			1	33.3%					1	3.0%
	700	2	6.7%							2	6.1%
	800	3	10.0%							3	9.1%
Total		30	100.0%	3	100.0%					33	100.0%
To whom you sell?	1 Those who come to my house	30	100.0%	3	100.0%					33	100.0%
Total		30	100.0%	3	100.0%					33	100.0%

Q40.6 – Plastic bottles

		Type of collection								Total	
		Block/Curbside/Comunal Collection		Door to Door Collection		Urban total		Non-Collection			
		Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
Plastic bottles	1 Yes	26	15.8%	2	25.0%	28	9.5%	1	0.9%	29	12.9%
	2 No	139	84.2%	6	75.0%	145	49.3%	51	48.1%	196	87.1%
Total		165	100.0%	8	100.0%	173	58.8%	52	49.1%	225	100.0%
Bottle	1	1	3.8%							1	3.4%
	2	1	3.8%							1	3.4%
	3	1	3.8%							1	3.4%
	5	3	11.5%	1	50.0%					4	13.8%
	6	3	11.5%	1	50.0%					4	13.8%
	8	3	11.5%							3	10.3%
	10	3	11.5%							3	10.3%
	12	1	3.8%							1	3.4%
	15	3	11.5%							3	10.3%
	20	3	11.5%					1	100.0%	4	13.8%
	25	1	3.8%							1	3.4%
	30	2	7.7%							2	6.9%
	40	1	3.8%							1	3.4%
Total		26	100.0%	2	100.0%			1	100.0%	29	100.0%
How much?	100	1	3.8%							1	3.4%
	200	4	15.4%							4	13.8%
	300	2	7.7%	1	50.0%					3	10.3%
	500	2	7.7%	1	50.0%			1	100.0%	4	13.8%
	600	4	15.4%							4	13.8%
	800	3	11.5%							3	10.3%
	1000	3	11.5%							3	10.3%
	1200	1	3.8%							1	3.4%
	1500	3	11.5%							3	10.3%
	2000	1	3.8%							1	3.4%
	2500	1	3.8%							1	3.4%
3000	1	3.8%							1	3.4%	
Total		26	100.0%	2	100.0%			1	100.0%	29	100.0%
To whom you sell?	1 Those who come to my house	26	100.0%	2	100.0%			1	100.0%	29	100.0%
Total		26	100.0%	2	100.0%			1	100.0%	29	100.0%

Q40.8 – Hard plastics

		Type of collection								Total	
		Block/Curbside/Comunal Collection		Door to Door Collection		Urban total		Non-Collection			
		Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
Hard plastics	1 Yes	5	3.0%			5	1.7%	1	0.9%	6	2.7%
	2 No	160	97.0%	8	100.0%	168	57.1%	51	48.1%	219	97.3%
Total		165	100.0%	8	100.0%	173	58.8%	52	49.1%	225	100.0%
Kilogram	2	1	20.0%							1	16.7%
	3	1	20.0%							1	16.7%
	7	1	20.0%							1	16.7%
	10	2	40.0%							2	33.3%
20							1	100.0%	1	16.7%	
Total		5	100.0%					1	100.0%	6	100.0%

		Type of collection								Total	
		Block/Curbside/Communal Collection		Door to Door Collection		Urban total		Non-Collection			
		Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
How much?	200	2	40.0%							2	33.3%
	300	1	20.0%							1	16.7%
	400							1	100.0%	1	16.7%
	600	1	20.0%							1	16.7%
	700	1	20.0%							1	16.7%
Total		5	100.0%					1	100.0%	6	100.0%
To whom you sell?	1 Those who come to my house	5	100.0%					1	100.0%	6	100.0%
Total		5	100.0%					1	100.0%	6	100.0%

Q40.11 – Organic waste

		Type of collection								Total	
		Block/Curbside/Communal Collection		Door to Door Collection		Urban total		Non-Collection			
		Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
Organic waste	1 Yes	2	1.2%			2	0.7%			2	0.9%
	2 No	163	98.8%	8	100.0%	171	58.2%	52	49.1%	223	99.1%
Total		165	100.0%	8	100.0%	173	58.8%	52	49.1%	225	100.0%
Kilogram	5	1	50.0%							1	50.0%
	10	1	50.0%							1	50.0%
Total		2	100.0%							2	100.0%
How much?	1300	1	50.0%							1	50.0%
	3000	1	50.0%							1	50.0%
Total		2	100.0%							2	100.0%
To whom you sell?	1 Those who come to my house	2	100.0%							2	100.0%
Total		2	100.0%							2	100.0%

Q41 Why don't you separate recyclable waste such as paper, bottles, and metals from other waste?

		Type of collection								Total	
		Block/Curbside/Communal Collection		Door to Door Collection		Urban total		Non-Collection			
		Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1	It is inconvenient or difficult	35	30.7%			35	28.9%	10	18.5%	45	25.7%
2	It would take too much time	37	32.5%	4	57.1%	41	33.9%	9	16.7%	50	28.6%
3	The need/benefit of recycling are not clear	41	36.0%	3	42.9%	44	36.4%	35	64.8%	79	45.1%
211	Small House	1	0.9%			1	0.8%			1	0.6%
Total		114	100.0%	7	100.0%	121		54	100.0%	175	100.0%

Q42 We would like to know how do you deal with plastic bags in your daily life. How do you deal with bags?

		Type of collection								Total	
		Block/Curbside/Communal Collection		Door to Door Collection		Urban total		Non-Collection			
		Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1	I discharge plastic bags along with other wastes	252	90.3%	14	93.3%	266	90.5%	88	83.0%	354	88.5%
2	I throw away plastic bags on the street or in the canal	1	0.4%			1	0.3%	15	14.2%	16	4.0%
3	I try to use plastic bags again for storing wastes or for another shopping	24	8.6%			24	8.2%	3	2.8%	27	6.8%
4	I sell plastic bags to shops or waste pickers	2	0.7%	1	6.7%	3	1.0%			3	0.8%
Total		279	100.0%	15	100.0%	294		106	100.0%	400	100.0%

Q43 Would you cooperate by donating those materials or participating in collection activities?

		Type of collection								Total	
		Block/Curbside/Communal Collection		Door to Door Collection		Urban total		Non-Collection			
		Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1	Yes, I would	272	97.5%	15	100.0%	287	97.6%	101	95.3%	388	97.0%
2	No, I would not	6	2.2%			6	2.0%	4	3.8%	10	2.5%
3	I don't know	1	0.4%			1	0.3%	1	0.9%	2	0.5%
Total		279	100.0%	15	100.0%	294		106	100.0%	400	100.0%

Q44.1 Have you ever heard the term "Compost"?

		Type of collection								Total	
		Block/Curbside/Communal Collection		Door to Door Collection		Urban total		Non-Collection			
		Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1	Yes	100	35.8%	12	80.0%	112	38.1%	60	56.6%	172	43.0%
2	No	179	64.2%	3	20.0%	182	61.9%	46	43.4%	228	57.0%
Total		279	100.0%	15	100.0%	294		106	100.0%	400	100.0%

Q44.2 Have you composted your kitchen and garden at your premise?

	Type of collection								Total	
	Block/Curbside/Com munal Collection		Door to Door Collection		Urban total		Non-Collection			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Yes	1	1.0%			1	0.9%	10	16.7%	11	6.4%
2 No	99	99.0%	12	100.0%	111	99.1%	50	83.3%	161	93.6%
Total	100	100.0%	12	100.0%	112	100.0%	60	100.0%	172	100.0%

Q44.3 would you be willing to compost kitchen, garden, and possible paper waste?

	Type of collection								Total	
	Block/Curbside/Com munal Collection		Door to Door Collection		Urban total		Non-Collection			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Yes	2	2.0%			2	1.8%	9	15.0%	11	6.4%
2 No	98	98.0%	12	100.0%	110	98.2%	51	85.0%	161	93.6%
Total	100	100.0%	12	100.0%	112		60	100.0%	172	100.0%

Q44.4 how long would you willing to store such wastes between collection?

	Type of collection								Total	
	Block/Curbside/Com munal Collection		Door to Door Collection		Urban total		Non-Collection			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
2 One day only	1	50.0%	0		1				1	9.1%
5 More than 3 days	1	50.0%	0		1		9	100.0%	10	90.9%
Total	2	100.0%	0		2		9	100.0%	11	100.0%

Q45.1 Have you ever received instruction from the local government, NGO or neighbors how to discharge wastes?

	Type of collection								Total	
	Block/Curbside/Com munal Collection		Door to Door Collection		Urban total		Non-Collection			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Yes	64	22.9%			64		9	8.5%	73	18.3%
2 No	210	75.3%	15	100.0%	225		97	91.5%	322	80.5%
3 I do not know	5	1.8%			5				5	1.3%
Total	279	100.0%	15	100.0%	294		106	100.0%	400	100.0%

Q45.2 Who taught you such methods?

	Type of collection								Total	
	Block/Curbside/Com munal Collection		Door to Door Collection		Urban total		Non-Collection			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Yes	64	22.9%	0		64	22.9%	2	22.2%	26	35.6%
2 School teacher	7	10.9%	0		7	10.9%			7	9.6%
3 Community member	2	3.1%	0		2	3.1%			2	2.7%
4 NGO member	8	12.5%	0		8	12.5%	1	11.1%	9	12.3%
5 Municipality	43	67.2%	0		43	67.2%	9	100.0%	52	71.2%
98 DK	1	1.6%	0		1	1.6%			1	1.4%
151 Broadcast on TV	4	6.3%	0		4	6.3%			4	5.5%
152 Elder Neighbor	1	1.6%	0		1	1.6%			1	1.4%
153 Physician	1	1.6%	0		1	1.6%			1	1.4%
154 Rubish Company Agency	2	3.1%	0		2	3.1%			2	2.7%
Total	64	100.0%	0		64	100.0%	9	100.0%	73	100.0%

Q45.3 Have you changed the way to discharge wastes after the instruction?

	Type of collection								Total	
	Block/Curbside/Com munal Collection		Door to Door Collection		Urban total		Non-Collection			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Yes	61	95.3%	0		61	95.3%	6	66.7%	67	91.8%
2 No	3	4.7%	0		3	4.7%	1	11.1%	4	5.5%
3 I do not know			0				2	22.2%	2	2.7%
Total	64	100.0%	0		64	100.0%	9	100.0%	73	100.0%

Q46 Does anyone in your family or your maid clean the sidewalk or adjacent public area in front of your house?

	Type of collection								Total	
	Block/Curbside/Com munal Collection		Door to Door Collection		Urban total		Non-Collection			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Yes, sometimes	89	31.9%	9	60.0%	98	33.3%	33	31.1%	131	32.8%
2 Yes, almost daily	145	52.0%			145	49.3%	54	50.9%	199	49.8%
3 No	45	16.1%	6	40.0%	51	17.3%	19	17.9%	70	17.5%
Total	279	100.0%	15	100.0%	294	100.0%	106	100.0%	400	100.0%

Q47 To solve problems of scattered wastes on the street, which measure do you think most effective?

	Type of collection								Total	
	Block/Curbside/Communal Collection		Door to Door Collection		Urban total		Non-Collection			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 To enact an anti-littering law and regulation and control it strictly	137	49.1%	4	26.7%	141	48.0%	10	9.4%	151	37.8%
2 The number of collection vehicles and workers should be increased	58	20.8%	2	13.3%	60	20.4%	26	24.5%	86	21.5%
3 To instruct people how to discharge waste in order to improve the manner	36	12.9%	6	40.0%	42	14.3%	40	37.7%	82	20.5%
4 More street side waste containers have to be installed	48	17.2%	3	20.0%	51	17.3%	28	26.4%	79	19.8%
5 I do not know							2	1.9%	2	0.5%
Total	279	100.0%	15	100.0%	294	100.0%	106	100.0%	400	100.0%

Q48 Do you agree with these rules?

	Type of collection								Total	
	Block/Curbside/Communal Collection		Door to Door Collection		Urban total		Non-Collection			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 To establish rules is good and I follow the rules	157	56.3%	3	20.0%	160	54.4%	42	39.6%	202	50.5%
2 To establish rules is good and if waste collection vehicle/worker come on time, I will follow the rules	120	43.0%	12	80.0%	132	44.9%	59	55.7%	191	47.8%
3 To establish rules is good, but I do not want to follow the rules	2	0.7%			2	0.7%			2	0.5%
4 To impose rule is not good, and I do not want to follow the rules							1	0.9%	1	0.3%
5 I do not know							4	3.8%	4	1.0%
Total	279	100.0%	15	100.0%	294	100.0%	106	100.0%	400	100.0%

Q49.1 Do you think a campaign to raise awareness of people for maintaining a cleaner city and environment is necessary?

	Type of collection								Total	
	Block/Curbside/Communal Collection		Door to Door Collection		Urban total		Non-Collection			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Yes, it is necessary	275	98.6%	15	100.0%	290	98.6%	106	100.0%	396	99.0%
2 No, it is not necessary	4	1.4%			4	1.4%			4	1.0%
Total	279	100.0%	15	100.0%	294	100.0%	106	100.0%	400	100.0%

Q49.2 Who should organize the campaign?

	Type of collection								Total	
	Block/Curbside/Communal Collection		Door to Door Collection		Urban total		Non-Collection			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Central government	45	16.4%	2	13.3%	47	16.2%	9	8.5%	56	14.1%
2 Municipality	188	68.4%	9	60.0%	197	67.9%	74	69.8%	271	68.4%
3 Community leaders	6	2.2%	3	20.0%	9	3.1%			9	2.3%
4 School	3	1.1%			3	1.0%	3	2.8%	6	1.5%
5 NGO	20	7.3%			20	6.9%	10	9.4%	30	7.6%
6 Private enterprise	4	1.5%	1	6.7%	5	1.7%			5	1.3%
221 Ministry of Environment	9	3.3%			9	3.1%	10	9.4%	19	4.8%
Total	275	100.0%	15	100.0%	290	100.0%	106	100.0%	396	100.0%

Q50.1 Are there any community organization such as resident association and supporting group of Buddhist temple in your Phum or Krom?

	Type of collection								Total	
	Block/Curbside/Communal Collection		Door to Door Collection		Urban total		Non-Collection			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Yes	6	2.2%			6	2.0%	4	3.8%	10	2.5%
2 No	273	97.8%	15	100.0%	288	98.0%	102	96.2%	390	97.5%
Total	279	100.0%	15	100.0%	294	100.0%	106	100.0%	400	100.0%

Q50.2 What kinds of functions does the community (organization) committee have?

	Type of collection								Total	
	Block/Curbside/Communal Collection		Door to Door Collection		Urban total		Non-Collection			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 I get information from the government through the organization	1	16.7%	0		1	16.7%	1	25.0%	2	20.0%
2 The organization conducts a public campaign	4	66.7%	0		4	66.7%	3	75.0%	7	70.0%
3 There is a meeting organized by the committee	1	16.7%	0		1	16.7%			1	10.0%
Total	6	100.0%	0		6	100.0%	4	100.0%	10	100.0%

Q51 Record Gender

	Type of collection								Total	
	Block/Curbside/Com munal Collection		Door to Door Collection		Urban total		Non-Collection			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Male	114	40.9%	8	53.3%	122	41.5%	54	50.9%	176	44.0%
2 Female	165	59.1%	7	46.7%	172	58.5%	52	49.1%	224	56.0%
Total	279	100.0%	15	100.0%	294	100.0%	106	100.0%	400	100.0%

Q52 Could you please tell me your age ?

	Type of collection								Total	
	Block/Curbside/Com munal Collection		Door to Door Collection		Urban total		Non-Collection			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
2 18 - 24 years	42	15.1%	3	20.0%	45	15.3%	13	12.3%	58	14.5%
3 25 - 29 years	21	7.5%	3	20.0%	24	8.2%	3	2.8%	27	6.8%
4 30 - 34 years	35	12.5%	1	6.7%	36	12.2%	19	17.9%	55	13.8%
5 35 - 39 years	35	12.5%	4	26.7%	39	13.3%	13	12.3%	52	13.0%
6 40 - 44 years	32	11.5%	1	6.7%	33	11.2%	11	10.4%	44	11.0%
7 45 - 49 years	27	9.7%			27	9.2%	15	14.2%	42	10.5%
8 50 - 54 years	23	8.2%			23	7.8%	12	11.3%	35	8.8%
9 55 - 59 years	27	9.7%	1	6.7%	28	9.5%	7	6.6%	35	8.8%
10 60 - 64 years	25	9.0%	2	13.3%	27	9.2%	9	8.5%	36	9.0%
11 Over 65+ years	12	4.3%			12	4.1%	4	3.8%	16	4.0%
Total	279	100.0%	15	100.0%	294	100.0%	106	100.0%	400	100.0%

Q53 Are you literacy?

	Type of collection								Total	
	Block/Curbside/Com munal Collection		Door to Door Collection		Urban total		Non-Collection			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Yes	262	93.9%	15	100.0%	277	94.2%	97	91.5%	374	93.5%
2 No	17	6.1%			17	5.8%	9	8.5%	26	6.5%
Total	279	100.0%	15	100.0%	294	100.0%	106	100.0%	400	100.0%

Q54 What is your ethnicity?

	Type of collection								Total	
	Block/Curbside/Com munal Collection		Door to Door Collection		Urban total		Non-Collection			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Khmer	272	97.5%	15	100.0%	287	97.6%	102	96.2%	389	97.3%
2 Cham	3	1.1%			3	1.0%	4	3.8%	7	1.8%
3 Vietnamese	3	1.1%			3	1.0%			3	0.8%
4 Chinese	1	0.4%			1	0.3%			1	0.3%
Total	279	100.0%	15	100.0%	294	100.0%	106	100.0%	400	100.0%

Q55 What type of housing do you live now?

	Type of collection								Total	
	Block/Curbside/Co mmunal Collection		Door to Door Collection		Urban total		Non-Collection			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Villa (Independent House) owned by you or your family	13	4.7%	1	6.7%	14				14	3.5%
2 Rented villa	1	0.4%							1	0.3%
3 Condominium/apartment owned by you or your family	15	5.4%							15	3.8%
4 Rented condominium/apartment	3	1.1%							3	0.8%
5 Townhouse owned by you or your family	190	68.1%	14	93.3%			39	36.8%	243	60.8%
6 Rented Townhouse	15	5.4%					1	0.9%	16	4.0%
7 Shanty brick house owned by you or your family	15	5.4%					16	15.1%	31	7.8%
8 Rented shanty brick house	5	1.8%							5	1.3%
9 Shanty wooden house owned by you or your family	17	6.1%					47	44.3%	64	16.0%
10 Rented shanty wooden house	4	1.4%					2	1.9%	6	1.5%
11 Shanty house made from palm leaf, owned you or your family	1	0.4%					1	0.9%	2	0.5%
Total	279	100.0%	15	100.0%			106	100.0%	400	100.0%

Q56 How many years have you dwelled in present premises? If you moved to the current place less than 5 years ago, where are you from?

	Type of collection								Total	
	Block/Curbside/Com munal Collection		Door to Door Collection		Urban total		Non-Collection			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Less than 5 years	35	12.5%	1	6.7%			14	13.2%	50	12.5%
2 5 - 9 years	58	20.8%	6	40.0%			18	17.0%	82	20.5%



	Type of collection								Total	
	Block/Curbside/Comunal Collection		Door to Door Collection		Urban total		Non-Collection			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
3 10 - 19 years	95	34.1%	7	46.7%			27	25.5%	129	32.3%
4 20 years or more	90	32.3%	1	6.7%			47	44.3%	138	34.5%
9 No response	1	0.4%							1	0.3%
Total	279	100.0%	15	100.0%			106	100.0%	400	100.0%

Q57 Where do you get water?

	Type of collection								Total	
	Block/Curbside/Comunal Collection		Door to Door Collection		Urban total		Non-Collection			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Piped water connected in house	262	93.9%	15	100.0%			31	29.2%	308	77.0%
2 Shared piped water	6	2.2%					3	2.8%	9	2.3%
3 Public well							21	19.8%	21	5.3%
4 Water vendor	11	3.9%					47	44.3%	58	14.5%
261 Drill well by their own							4	3.8%	4	1.0%
Total	279	100.0%	15	100.0%			106	100.0%	400	100.0%

Q58 What type of toilet facility do you use?

	Type of collection								Total	
	Block/Curbside/Comunal Collection		Door to Door Collection		Urban total		Non-Collection			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Toilet in my house, connected to drainage system	88	31.5%	5	33.3%			2	1.9%	95	23.8%
2 Toilet in my house, not connected to drainage system	184	65.9%	10	66.7%			92	86.8%	286	71.5%
3 Public toilet	4	1.4%					3	2.8%	7	1.8%
4 Toilet of others with a charge	2	0.7%					1	0.9%	3	0.8%
5 I do not use toilet							8	7.5%	8	2.0%
201 Share toilet	1	0.4%							1	0.3%
Total	279	100.0%	15	100.0%			106	100.0%	400	100.0%

Q59 Do you have electricity in your house?

	Type of collection								Total	
	Block/Curbside/Comunal Collection		Door to Door Collection		Urban total		Non-Collection			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Yes, I have my own connection	260	93.2%	15	100.0%			74	69.8%	349	87.3%
2 Yes, I buy from someone	19	6.8%					28	26.4%	47	11.8%
3 No							4	3.8%	4	1.0%
Total	279	100.0%	15	100.0%			106	100.0%	400	100.0%

### 3.1.2 Business Establishment Survey

Q1.1 Before asking about waste issues, I have a question what do you think the most serious problems in Phnom Penh at present?

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Inadequate supply of safe water							1	5.0%			1	1.0%
2 High crime rate	2	9.1%							2	10.0%	4	3.9%
3 Poverty problems	3	13.6%	2	10.0%	2	10.0%	3	15.0%	4	20.0%	14	13.7%
4 Economic issues such as Inflation	2	9.1%	1	5.0%	2	10.0%			1	5.0%	6	5.9%
5 Social unrest	1	4.5%					1	5.0%	2	10.0%	4	3.9%
6 Political instability			1	5.0%	3	15.0%					4	3.9%
7 Pollution problems (air, water, noise and waste)	6	27.3%	6	30.0%	2	10.0%	8	40.0%	3	15.0%	25	24.5%
8 Flood			2	10.0%							2	2.0%
9 Drug problems	1	4.5%	3	15.0%	3	15.0%	4	20.0%	4	20.0%	15	14.7%
10 Unemployment	7	31.8%	5	25.0%	8	40.0%	3	15.0%	4	20.0%	27	26.5%
Total	22	100.0%	20	100.0%	20	100.0%	20	100.0%	20	100.0%	102	100.0%

Q1.2 And what do you think the second most serious problems?

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Inadequate supply of safe water	2	9.1%	3	15.0%	2	10.0%	3	15.0%	1	5.0%	11	10.8%
2 High crime rate	3	13.6%	2	10.0%	5	25.0%	4	20.0%	1	5.0%	15	14.7%
3 Poverty problems	9	40.9%	6	30.0%	6	30.0%	6	30.0%	5	25.0%	32	31.4%
4 Economic issues such as Inflation	3	13.6%	2	10.0%	4	20.0%	3	15.0%	4	20.0%	16	15.7%
5 Social unrest	2	9.1%	6	30.0%	2	10.0%	4	20.0%	2	10.0%	16	15.7%
6 Political instability	1	4.5%	2	10.0%	1	5.0%	3	15.0%	5	25.0%	12	11.8%

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market		Count	Col %
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
7 Pollution problems (air, water, noise and waste)	6	27.3%	4	20.0%	8	40.0%	9	45.0%	5	25.0%	32	31.4%
8 Flood	3	13.6%	3	15.0%	5	25.0%	2	10.0%	2	10.0%	15	14.7%
9 Drug problems	14	63.6%	13	65.0%	10	50.0%	11	55.0%	11	55.0%	59	57.8%
10 Unemployment	8	36.4%	10	50.0%	5	25.0%	11	55.0%	13	65.0%	47	46.1%
11 Land dispute	2	9.1%	2	10.0%					2	10.0%	6	5.9%
100 None	1	4.5%									1	1.0%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

Q2 Thinking about your daily business, please specify the priority in which the following aspects should be solved or improved

		Type of Business										Total	
		Shop		Restaurant		Office		Hotel		Market		Count	Col %
		Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
Water Supply	1 Very Important	12	54.5%	11	55.0%	10	50.0%	13	65.0%	6	30.0%	52	51.0%
	2 Important	9	40.9%	8	40.0%	10	50.0%	7	35.0%	10	50.0%	44	43.1%
	3 Little Important	1	4.5%	0		0		0		3	15.0%	4	3.9%
	4 Not Important	0		1	5.0%	0		0		1	5.0%	2	2.0%
	<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>
<b>Mean</b>		<b>1.50</b>		<b>1.55</b>		<b>1.50</b>		<b>1.35</b>		<b>1.95</b>		<b>1.57</b>	
Sewer Pipe Network	1 Very Important	4	18.2%	1	5.0%	2	10.0%	4	20.0%	5	25.0%	16	15.7%
	2 Important	13	59.1%	15	75.0%	15	75.0%	13	65.0%	9	45.0%	65	63.7%
	3 Little Important	4	18.2%	3	15.0%	3	15.0%	2	10.0%	3	15.0%	15	14.7%
	4 Not Important	1	4.5%	1	5.0%	0		1	5.0%	3	15.0%	6	5.9%
	<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>
<b>Mean</b>		<b>2.09</b>		<b>2.20</b>		<b>2.05</b>		<b>2.00</b>		<b>2.20</b>		<b>2.11</b>	
Storm water drainage	1 Very Important	5	22.7%	3	15.0%	3	15.0%	7	35.0%	2	10.0%	20	19.6%
	2 Important	8	36.4%	10	50.0%	10	50.0%	8	40.0%	9	45.0%	45	44.1%
	3 Little Important	7	31.8%	6	30.0%	6	30.0%	4	20.0%	6	30.0%	29	28.4%
	4 Not Important	2	9.1%	1	5.0%	1	5.0%	1	5.0%	3	15.0%	8	7.8%
	<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>
<b>Mean</b>		<b>2.27</b>		<b>2.25</b>		<b>2.25</b>		<b>1.95</b>		<b>2.50</b>		<b>2.25</b>	
Septic Tank Water collection	1 Very Important	3	13.6%	4	20.0%	7	35.0%	3	15.0%	5	25.0%	22	21.6%
	2 Important	10	45.5%	8	40.0%	6	30.0%	12	60.0%	8	40.0%	44	43.1%
	3 Little Important	6	27.3%	7	35.0%	5	25.0%	2	10.0%	5	25.0%	25	24.5%
	4 Not Important	3	13.6%	1	5.0%	2	10.0%	3	15.0%	2	10.0%	11	10.8%
	<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>
<b>Mean</b>		<b>2.41</b>		<b>2.25</b>		<b>2.10</b>		<b>2.25</b>		<b>2.20</b>		<b>2.25</b>	
Solid Waste Collection	1 Very Important	14	63.6%	14	70.0%	15	75.0%	13	65.0%	10	50.0%	66	64.7%
	2 Important	8	36.4%	4	20.0%	4	20.0%	6	30.0%	6	30.0%	28	27.5%
	3 Little Important	0		2	10.0%	1	5.0%	1	5.0%	4	20.0%	8	7.8%
	4 Not Important	0		0		0		0		0		0	
	<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>
<b>Mean</b>		<b>1.36</b>		<b>1.40</b>		<b>1.30</b>		<b>1.40</b>		<b>1.70</b>		<b>1.43</b>	
Electricity Supply	1 Very Important	15	68.2%	13	65.0%	15	75.0%	16	80.0%	11	55.0%	70	68.6%
	2 Important	1	4.5%	6	30.0%	3	15.0%	3	15.0%	6	30.0%	19	18.6%
	3 Little Important	4	18.2%	0		2	10.0%	1	5.0%	3	15.0%	10	9.8%
	4 Not Important	2	9.1%	1	5.0%	0		0		0		3	2.9%
	<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>
<b>Mean</b>		<b>1.68</b>		<b>1.45</b>		<b>1.35</b>		<b>1.25</b>		<b>1.60</b>		<b>1.47</b>	
Access road to the building/shop	1 Very Important	4	18.2%	4	20.0%	6	30.0%	4	20.0%	11	55.0%	29	28.4%
	2 Important	9	40.9%	6	30.0%	6	30.0%	6	30.0%	2	10.0%	29	28.4%
	3 Little Important	3	13.6%	4	20.0%	0		4	20.0%	1	5.0%	12	11.8%
	4 Not Important	6	27.3%	6	30.0%	8	40.0%	6	30.0%	6	30.0%	32	31.4%
	<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>
<b>Mean</b>		<b>2.50</b>		<b>2.60</b>		<b>2.50</b>		<b>2.60</b>		<b>2.10</b>		<b>2.46</b>	
Telephone	1 Very Important	8	36.4%	6	30.0%	9	45.0%	11	55.0%	8	40.0%	42	41.2%
	2 Important	9	40.9%	6	30.0%	5	25.0%	8	40.0%	8	40.0%	36	35.3%
	3 Little Important	4	18.2%	7	35.0%	5	25.0%	0		3	15.0%	19	18.6%
	4 Not Important	1	4.5%	1	5.0%	1	5.0%	1	5.0%	1	5.0%	5	4.9%
	<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>
<b>Mean</b>		<b>1.91</b>		<b>2.15</b>		<b>1.90</b>		<b>1.55</b>		<b>1.85</b>		<b>1.87</b>	
Internet	1 Very Important	1	4.5%	0		3	15.0%	0		1	5.0%	5	4.9%
	2 Important	2	9.1%	3	15.0%	3	15.0%	5	25.0%	2	10.0%	15	14.7%
	3 Little Important	12	54.5%	11	55.0%	9	45.0%	7	35.0%	11	55.0%	50	49.0%
	4 Not Important	7	31.8%	6	30.0%	5	25.0%	8	40.0%	6	30.0%	32	31.4%
	<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>
<b>Mean</b>		<b>3.14</b>		<b>3.15</b>		<b>2.80</b>		<b>3.15</b>		<b>3.10</b>		<b>3.07</b>	

**Q3.1 Are you interested in Environmental Issues?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Yes	20	90.9%	19	95.0%	19	95.0%	20	100.0%	20	100.0%	98	96.1%
2 Yes, but a little	2	9.1%	1	5.0%	1	5.0%					4	3.9%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

**Q3.2 What kind of environmental problems do you think most serious now in Phnom Penh?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Water Pollution	3	13.6%	1	5.0%	3	15.0%			1	5.0%	8	7.8%
2 Air Pollution	8	36.4%	7	35.0%	4	20.0%	4	20.0%	9	45.0%	32	31.4%
3 Noise problems	1	4.5%	1	5.0%	3	15.0%	3	15.0%	2	10.0%	10	9.8%
4 Solid (garbage) waste problems	10	45.5%	11	55.0%	10	50.0%	13	65.0%	8	40.0%	52	51.0%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

**Q3.3 How much do you feel environmental degradation affect your life?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 It does not affect at all					1	5.0%	1	5.0%			2	2.0%
2 It affects to some degree	12	54.5%	9	45.0%	9	45.0%	4	20.0%	8	40.0%	42	41.2%
3 It caused serious problems	10	45.5%	11	55.0%	10	50.0%	15	75.0%	12	60.0%	58	56.9%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

**Q4.1 In general, do you think that improper waste management causes problems?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Yes	22	100%	20	100%	20	100%	20	100%	20	100%	102	100%
<b>Total</b>	<b>22</b>	<b>100%</b>	<b>20</b>	<b>100%</b>	<b>20</b>	<b>100%</b>	<b>20</b>	<b>100%</b>	<b>20</b>	<b>100%</b>	<b>102</b>	<b>100%</b>

**Q4.2 What kinds of problems are caused by had waste management?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Scattered waste on the street causes offensive odor	16	72.7%	9	45.0%	7	35.0%	11	55.0%	16	80.0%	59	57.8%
2 Scattered waste on the street attracts rats and flies.	14	63.6%	15	75.0%	15	75.0%	13	65.0%	13	65.0%	70	68.6%
3 Rats and flies attracted by waste bring about some kinds of diseases	8	36.4%	11	55.0%	11	55.0%	6	30.0%	7	35.0%	43	42.2%
4 Dumped wastes in canal block drainage systems and result in Flooding	9	40.9%	10	50.0%	13	65.0%	14	70.0%	11	55.0%	57	55.9%
5 Dumped wastes in canal pollute water and this causes skin diseases and diarrhea.	12	54.5%	6	30.0%	4	20.0%	5	25.0%	3	15.0%	30	29.4%
6 Open burning of waste result in emission of harmful gases.			2	10.0%	3	15.0%			1	5.0%	6	5.9%
7 Improper treatment of wastes at the final disposal site contaminates river and ground water.	2	9.1%	1	5.0%	1	5.0%	3	15.0%	1	5.0%	8	7.8%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

**Q5.1 In Phnom Penh, are there any problems caused by wastes?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Yes	22	100.0%	20	100.0%	18	90.0%	20	100.0%	20	100.0%	100	98.0%
2 No					2	10.0%					2	2.0%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

**Q5.2 In Phnom Penh, what kinds of problems are there now?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 A lot of wastes are scattered on the street	12	54.5%	13	65.0%	9	50.0%	7	35.0%	9	45.0%	50	50.0%
2 Wastes on the street are scavenged by animals	4	18.2%	10	50.0%	4	22.2%	9	45.0%	10	50.0%	37	37.0%
3 Wastes left on the street cause offensive odor	10	45.5%	12	60.0%	11	61.1%	8	40.0%	12	60.0%	53	53.0%
4 Wastes left on the street attract rats and flies	10	45.5%	8	40.0%	4	22.2%	10	50.0%	8	40.0%	40	40.0%

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market		Count	Col %
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
5 Dumped wastes in canal block drainage systems and cause flood in rainy season	10	45.5%	7	35.0%	8	44.4%	9	45.0%	6	30.0%	40	40.0%
6 Dumped wastes in canal pollute water and cause skin diseases and diarrhea	5	22.7%	3	15.0%	4	22.2%	6	30.0%	5	25.0%	23	23.0%
7 Fires at the final disposal site cause emission of polluted	6	27.3%	1	5.0%	2	11.1%	2	10.0%	1	5.0%	12	12.0%
8 Waste at the final disposal site pollutes ground water	3	13.6%			1	5.6%	2	10.0%	1	5.0%	7	7.0%
9 The current dumpsite is almost full					2	11.1%			1	5.0%	3	3.0%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>18</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>100</b>	<b>100.0%</b>

**Q6 Do you know where waste from households and offices are brought for final disposal?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market		Count	Col %
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
1 Yes	16	72.7%	8	40.0%	9	45.0%	6	30.0%	7	35.0%	46	45.1%
2 No	6	27.3%	12	60.0%	11	55.0%	14	70.0%	13	65.0%	56	54.9%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

**Q6 (Name of place)**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market		Count	Col %
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
101 Stoeung Mean Chey Dump	16	100.0%	7	87.5%	9	100.0%	6	100.0%	7	100.0%	45	97.8%
102 Ang Eng School Dump			1	12.5%							1	2.2%
<b>Total</b>	<b>16</b>	<b>100.0%</b>	<b>8</b>	<b>100.0%</b>	<b>9</b>	<b>100.0%</b>	<b>6</b>	<b>100.0%</b>	<b>7</b>	<b>100.0%</b>	<b>46</b>	<b>100.0%</b>

**Q7.1 Is there a position which is in charge of waste management on the decision making level in your office or shop?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market		Count	Col %
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
1 Yes	12	54.5%	12	60.0%	20	100.0%	18	90.0%	9	45.0%	71	69.6%
2 No	10	45.5%	8	40.0%			2	10.0%	11	55.0%	31	30.4%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

**Q7.2 Which is it?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market		Count	Col %
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
1 owner/general manager	9	75.0%	10	83.3%	5	25.0%	6	33.3%	9	100.0%	39	54.9%
2 The person who is in charge of environment issues	1	8.3%	1	8.3%	2	10.0%	3	16.7%			7	9.9%
3 The person who is in charge of hygiene/cleansing issues	2	16.7%	1	8.3%	13	65.0%	9	50.0%			25	35.2%
<b>Total</b>	<b>12</b>	<b>100.0%</b>	<b>12</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>18</b>	<b>100.0%</b>	<b>9</b>	<b>100.0%</b>	<b>71</b>	<b>100.0%</b>

**Q8 How much waste is generated in your office/shop daily?**

		Type of Business										Total	
		Shop		Restaurant		Office		Hotel		Market		Count	Col %
		Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
Organics	0	5	22.7%	1	5.0%	3	15.0%	3	15.0%	8	40.0%	20	19.6%
	1	13	59.1%	7	35.0%	11	55.0%	5	25.0%	11	55.0%	47	46.1%
	2	2	9.1%	4	20.0%	1	5.0%	7	35.0%			14	13.7%
	3	1	4.5%	2	10.0%	5	25.0%	1	5.0%	1	5.0%	10	9.8%
	4			3	15.0%			2	10.0%			5	4.9%
	5	1	4.5%	1	5.0%			1	5.0%			3	2.9%
	6			1	5.0%							1	1.0%
	10			1	5.0%							1	1.0%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>	
Cans	0	13	59.1%	6	30.0%	15	75.0%	3	15.0%	20	100.0%	57	55.9%
	1	1	4.5%	2	10.0%			1	5.0%			4	3.9%
	2	5	22.7%	3	15.0%	1	5.0%	2	10.0%			11	10.8%
	3	1	4.5%			1	5.0%	2	10.0%			4	3.9%
	4	1	4.5%	2	10.0%	1	5.0%					4	3.9%
	5			1	5.0%	1	5.0%	4	20.0%			6	5.9%
	6							1	5.0%			1	1.0%
	10	1	4.5%	2	10.0%	1	5.0%	4	20.0%			8	7.8%
	14			1	5.0%							1	1.0%
	15			1	5.0%							1	1.0%
20			1	5.0%			2	10.0%			3	2.9%	

		Type of Business										Total		
		Shop		Restaurant		Office		Hotel		Market		Count	Col %	
		Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %			
	30							1	5.0%			1	1.0%	
	120			1	5.0%							1	1.0%	
<b>Total</b>		<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>	
Glass bottles	0	18	81.8%	14	70.0%	19	95.0%	20	100.0%	20	100.0%	91	89.2%	
	1	4	18.2%	4	20.0%							8	7.8%	
	2			1	5.0%							1	1.0%	
	5			1	5.0%	1	5.0%					2	2.0%	
	<b>Total</b>		<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>
PET bottles	0	15	68.2%	13	65.0%	15	75.0%	3	15.0%	19	95.0%	65	63.7%	
	1	1	4.5%					1	5.0%			2	2.0%	
	2	2	9.1%					1	5.0%	1	5.0%	4	3.9%	
	3	1	4.5%	3	15.0%	1	5.0%	2	10.0%			7	6.9%	
	4	2	9.1%	2	10.0%							4	3.9%	
	5	1	4.5%			1	5.0%	2	10.0%			4	3.9%	
	6							1	5.0%			1	1.0%	
	7							1	5.0%			1	1.0%	
	10					3	15.0%	6	30.0%			9	8.8%	
	12							1	5.0%			1	1.0%	
	15							1	5.0%			1	1.0%	
	20			2	10.0%			1	5.0%			3	2.9%	
	<b>Total</b>		<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>
	Paper/cardboard	0	16	72.7%	18	90.0%	7	35.0%	16	80.0%	11	55.0%	68	66.7%
1										2	10.0%	2	2.0%	
2		3	13.6%	1	5.0%	1	5.0%			1	5.0%	6	5.9%	
3		1	4.5%	1	5.0%					1	5.0%	3	2.9%	
4						1	5.0%	1	5.0%	3	15.0%	5	4.9%	
5						1	5.0%					1	1.0%	
10		1	4.5%			3	15.0%	2	10.0%	1	5.0%	7	6.9%	
15						1	5.0%					1	1.0%	
20		1	4.5%			2	10.0%	1	5.0%	1	5.0%	5	4.9%	
30						1	5.0%					1	1.0%	
40						1	5.0%					1	1.0%	
50						2	10.0%					2	2.0%	
<b>Total</b>			<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>
Plastic bags		0	1	4.5%					1	5.0%			2	2.0%
	1									1	5.0%	1	1.0%	
	2	3	13.6%	3	15.0%	1	5.0%	4	20.0%	5	25.0%	16	15.7%	
	3	3	13.6%	2	10.0%	1	5.0%	1	5.0%			7	6.9%	
	4	1	4.5%	3	15.0%	4	20.0%	1	5.0%	3	15.0%	12	11.8%	
	5	7	31.8%	2	10.0%	5	25.0%	2	10.0%	3	15.0%	19	18.6%	
	6	1	4.5%			1	5.0%	1	5.0%			3	2.9%	
	7							2	10.0%	1	5.0%	3	2.9%	
	10	3	13.6%	5	25.0%	7	35.0%	3	15.0%	4	20.0%	22	21.6%	
	14							1	5.0%			1	1.0%	
	15	1	4.5%							1	5.0%	2	2.0%	
	20	2	9.1%	3	15.0%	1	5.0%	3	15.0%	2	10.0%	11	10.8%	
	30							1	5.0%			1	1.0%	
	40			1	5.0%							1	1.0%	
	50			1	5.0%							1	1.0%	
	<b>Total</b>		<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>
Hard plastic	0	20	90.9%	17	85.0%	20	100.0%	20	100.0%	19	95.0%	96	94.1%	
	1	2	9.1%	1	5.0%							3	2.9%	
	2			1	5.0%							1	1.0%	
	3			1	5.0%							1	1.0%	
	6									1	5.0%	1	1.0%	
<b>Total</b>		<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>	
Metal	0	20	90.9%	20	100.0%	20	100.0%	20	100.0%	20	100.0%	100	98.0%	
	1	1	4.5%									1	1.0%	
	3	1	4.5%									1	1.0%	
<b>Total</b>		<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>	

Q9.1 How do you store waste at your office/shops?

		Type of Business										Total	
		Shop		Restaurant		Office		Hotel		Market		Count	Col %
		Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
1	In a plastic/paper bag	15	68.2%	10	50.0%	12	60.0%	4	20.0%	14	70.0%	55	53.9%
2	In a rice/cement bag	2	9.1%									2	2.0%
3	In a carton Box					1	5.0%	1	5.0%			2	2.0%
4	In a basket	4	18.2%	4	20.0%	2	10.0%	9	45.0%			19	18.6%
5	In a metal/plastic/wood container	1	4.5%	6	30.0%	5	25.0%	6	30.0%	1	5.0%	19	18.6%
6	On the ground									5	25.0%	5	4.9%
<b>Total</b>		<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

**Q9.2 Why do you store waste at your office/shops?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 It keeps the place clean after the collection work	14	63.6%	10	50.0%	10	50.0%	13	65.0%	10	66.7%	57	58.8%
2 It prevents foul odors	16	72.7%	13	65.0%	15	75.0%	13	65.0%	13	86.7%	70	72.2%
3 It is easy to handle	15	68.2%	18	90.0%	18	90.0%	14	70.0%	12	80.0%	77	79.4%
4 Keeps away pests such as flies	6	27.3%	5	25.0%	4	20.0%	4	20.0%	4	26.7%	23	23.7%
5 Low cost or available free	6	27.3%	2	10.0%	2	10.0%	4	20.0%	1	6.7%	15	15.5%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>15</b>	<b>100.0%</b>	<b>97</b>	<b>100.0%</b>

**Q10 Who handles and discharges your waste in your office/shop?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 owner/general manager	10	45.5%	7	35.0%			2	10.0%	11	55.0%	30	29.4%
2 family member/employee who has other main tasks	10	45.5%	6	30.0%	8	40.0%	5	25.0%	1	5.0%	30	29.4%
3 a cleaning worker or janitor employed by your office/shop	2	9.1%	7	35.0%	12	60.0%	13	65.0%	8	40.0%	42	41.2%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

**Q11 Do you receive waste collection service at present?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Yes	22	100.0%	20	100.0%	20	100.0%	20	100.0%	20	100.0%	102	100.0%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

**Q12 What kind of collection service is provided for your district?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Block (bell) collection	2	9.1%	2	10.0%			2	10.0%			6	5.9%
2 Curbside collection	20	90.9%	18	90.0%	20	100.0%	18	90.0%	3	15.0%	79	77.5%
3 Communal collection									13	65.0%	13	12.7%
371 Individual market store owner collected									4	20.0%	4	3.9%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

**Q13 What is the frequency of the waste collection service in your area? (per week)**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Everyday	17	77.3%	15	75.0%	18	90.0%	19	95.0%	20	100.0%	89	87.3%
2 6 times			2	10.0%							2	2.0%
4 4 times					1	5.0%					1	1.0%
5 3 times	2	9.1%	3	15.0%	1	5.0%	1	5.0%			7	6.9%
8 Irregular	3	13.6%									3	2.9%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

**Q14 How often do you discharge your waste? (per week)**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Everyday	19	86.4%	17	85.0%	16	80.0%	19	95.0%	20	100.0%	91	89.2%
2 6 times	2	9.1%									2	2.0%
3 5 times					1	5.0%					1	1.0%
4 4 times					1	5.0%					1	1.0%
5 3 times	1	4.5%	1	5.0%	2	10.0%	1	5.0%			5	4.9%
8 Irregular			2	10.0%							2	2.0%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

**Q15.1 Where is your waste discharged?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 In a bin or on ground at a collection point	5	22.7%	7	35.0%	1	5.0%	3	15.0%	7	35.0%	23	22.5%
2 In a bin or on ground along the street, where a collection vehicle passes	17	77.3%	13	65.0%	19	95.0%	17	85.0%	5	25.0%	71	69.6%
4 Any place I want									6	30.0%	6	5.9%
5 I do not know									1	5.0%	1	1.0%
391 leave the garbage at the corner of market store									1	5.0%	1	1.0%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

**Q15.2 Why do you discharge your waste there?**

	Type of Business										Total		
	Shop		Restaurant		Office		Hotel		Market				
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	
1 I do not know where I have to discharge my waste										3	42.9%		
2 The waste collection point is far away from my house										3	42.9%		
3 I do not understand why I have to bring my waste to a collection point										1	14.3%		
<b>Total</b>										<b>7</b>	<b>100.0%</b>		

**Q16 How do you transport your waste to the collection point and dump it?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Bring waste in a bag or box and put the bag or box on the ground or in a collection bin	15	68.2%	11	55.0%	11	55.0%	4	20.0%	19	95.0%	60	58.8%
2 Bring waste in a bag, box, basket or container and put the waste inside on the ground or in a bin directly	7	31.8%	9	45.0%	9	45.0%	16	80.0%	1	5.0%	42	41.2%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

**Q17 What time is your waste collected by collector?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 In the morning	4	18.2%	4	20.0%	2	10.0%	7	35.0%	1	5.0%	18	17.6%
2 In the afternoon			2	10.0%	1	5.0%	2	10.0%			5	4.9%
3 In the evening	9	40.9%	5	25.0%	6	30.0%	2	10.0%	4	20.0%	26	25.5%
4 At night	8	36.4%	8	40.0%	6	30.0%	7	35.0%	13	65.0%	42	41.2%
5 Irregular	1	4.5%	1	5.0%	5	25.0%	2	10.0%	2	10.0%	11	10.8%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

**Q18.1 When (what time) is your waste discharged?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Just before the collection service/ After the collection vehicle gives a signal	9	40.9%	7	35.0%	7	35.0%	6	30.0%			29	28.4%
2 Before the office/shop is opened (in the morning) regardless of the collection time	6	27.3%	8	40.0%	7	35.0%	5	25.0%			26	25.5%
3 After the office/shop is closed (in the evening or at night) regardless or collection time	7	31.8%	3	15.0%	4	20.0%	5	25.0%	16	80.0%	35	34.3%
4 In the afternoon regardless of the collection time			1	5.0%	1	5.0%	1	5.0%	3	15.0%	6	5.9%
5 Whenever wastes are generated			1	5.0%	1	5.0%	3	15.0%	1	5.0%	6	5.9%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

**Q18.2 Why do you discharge your waste regardless of the collection service time?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 The frequency of collection service is too few									1	5.0%	1	1.4%
2 The collection time is inappropriate, e.g. during the business hour	6	46.2%	1	7.7%	4	30.8%	3	21.4%	7	35.0%	21	28.8%
3 A collection vehicle does not come regularly and I do not know when it comes	5	38.5%	7	53.8%	3	23.1%	3	21.4%	3	15.0%	21	28.8%
4 I do not want to keep the waste long at office/shop and want to discharge the waste as early as possible	2	15.4%	5	38.5%	6	46.2%	8	57.1%	9	45.0%	30	41.1%
<b>Total</b>	<b>13</b>	<b>100.0%</b>	<b>13</b>	<b>100.0%</b>	<b>13</b>	<b>100.0%</b>	<b>14</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>73</b>	<b>100.0%</b>

**Q25.1 Do you pay collection fee?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market		Count	Col %
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
1 Yes, I pay collection fee directly	1	4.5%	3	15.0%			2	10.0%	20	100.0%	26	25.5%
2 Yes, I pay collection fee with electricity bill	20	90.9%	17	85.0%	20	100.0%	18	90.0%			75	73.5%
3 I am charged but I don't pay	1	4.5%									1	1.0%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

**Q25.2 How much are you charged for collection service every month?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market		Count	Col %
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
3,000									9	45.0%	9	8.8%
3,200			1	5.0%							1	1.0%
4,000	11	50.0%	8	40.0%	7	35.0%	2	10.0%			28	27.5%
6,000			1	5.0%					11	55.0%	12	11.8%
20,000	8	36.4%	7	35.0%	6	30.0%	2	10.0%			23	22.5%
40,000					1	5.0%					1	1.0%
50,000	1	4.5%			1	5.0%					2	2.0%
60,000			1	5.0%			1	5.0%			2	2.0%
80,000	2	9.1%	1	5.0%	4	20.0%	6	30.0%			13	12.7%
120,000					1	5.0%					1	1.0%
160,000			1	5.0%							1	1.0%
200,000							6	30.0%			6	5.9%
320,000							2	10.0%			2	2.0%
1,800,000							1	5.0%			1	1.0%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

**Q26 How is the bill collected?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market		Count	Col %
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
1 A bill collector of a waste collection company/electricity comes to my office/shop every month	6	27.3%	4	20.0%			7	35.0%	1	5.0%	18	17.6%
2 A bill collector of the Phnom Penh government comes to my office/shop every month									1	5.0%	1	1.0%
3 I go to the office to pay the bill.	16	72.7%	16	80.0%	20	100.0%	13	65.0%			65	63.7%
4 I do not know									1	5.0%	1	1.0%
351 Daily pay									17	85.0%	17	16.7%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

**Q27.1 Do you know who is in charge of waste collection?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market		Count	Col %
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
1 Yes	20	90.9%	17	85.0%	19	95.0%	18	90.0%	7	35.0%	81	79.4%
2 No	2	9.1%	3	15.0%	1	5.0%	2	10.0%	13	65.0%	21	20.6%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

**Q27.2 Who is it?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market		Count	Col %
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
1 Private company (CINTRI)	20	100.0%	16	94.1%	19	100.0%	18	100.0%	1	14.3%	74	91.4%
2 Phnom Penh government (PPWM)			1	5.9%							1	1.2%
361 Market Manager									6	85.7%	6	7.4%
<b>Total</b>	<b>20</b>	<b>100.0%</b>	<b>17</b>	<b>100.0%</b>	<b>19</b>	<b>100.0%</b>	<b>18</b>	<b>100.0%</b>	<b>7</b>	<b>100.0%</b>	<b>81</b>	<b>100.0%</b>

**Q28 What do you think about collection fee?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market		Count	Col %
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
1 Too expensive	3	13.6%			3	15.0%	2	10.0%			8	7.8%
2 Expensive	9	40.9%	10	50.0%	6	30.0%	10	50.0%	5	25.0%	40	39.2%
3 Appropriate	10	45.5%	10	50.0%	11	55.0%	8	40.0%	15	75.0%	54	52.9%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>



**Q29 Are you satisfied with the collection service?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Yes very much	5	22.7%	7	35.0%	5	25.0%	5	25.0%	11	55.0%	33	32.4%
2 Yes to some extent	7	31.8%	6	30.0%	8	40.0%	7	35.0%	7	35.0%	35	34.3%
3 Not much	9	40.9%	7	35.0%	7	35.0%	8	40.0%	2	10.0%	33	32.4%
4 Not at all	1	4.5%									1	1.0%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

**Q30.1 Why are you unsatisfied with the service?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Frequency of collection is too few			1	14.3%	2	28.6%	1	12.5%			4	11.8%
2 Frequency of collection is irregular	3	30.0%	1	14.3%			1	12.5%			5	14.7%
3 Collection time is not appropriate			2	28.6%			3	37.5%			5	14.7%
4 A lot of wastes are left on the streets	1	10.0%	1	14.3%	5	71.4%	2	25.0%	1	50.0%	10	29.4%
5 Collection point is far away from my house									1	50.0%	1	2.9%
6 Collection points are full of waste and dirty	2	20.0%	2	28.6%							4	11.8%
7 Collection fee is too expensive	4	40.0%					1	12.5%			5	14.7%
<b>Total</b>	<b>10</b>	<b>100.0%</b>	<b>7</b>	<b>100.0%</b>	<b>7</b>	<b>100.0%</b>	<b>8</b>	<b>100.0%</b>	<b>2</b>	<b>100.0%</b>	<b>34</b>	<b>100.0%</b>

**Q30.2 And another you unsatisfied with the service?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Frequency of collection is too few	2	20.0%	2	28.6%	3	42.9%	5	62.5%	1	50.0%	13	38.2%
2 Frequency of collection is irregular	3	30.0%	4	57.1%	5	71.4%	2	25.0%			14	41.2%
3 Collection time is not appropriate	1	10.0%	4	57.1%	3	42.9%	1	12.5%	1	50.0%	10	29.4%
4 A lot of wastes are left on the streets	4	40.0%	2	28.6%	2	28.6%	2	25.0%			10	29.4%
5 Collection point is far away from my house	1	10.0%	1	14.3%							2	5.9%
6 Collection points are full of waste and dirty			1	14.3%	2	28.6%	3	37.5%			6	17.6%
7 Collection fee is too expensive	2	20.0%	4	57.1%	3	42.9%	2	25.0%	1	50.0%	12	35.3%
100 None	3	30.0%					1	12.5%			4	11.8%
<b>Total</b>	<b>10</b>	<b>100.0%</b>	<b>7</b>	<b>100.0%</b>	<b>7</b>	<b>100.0%</b>	<b>8</b>	<b>100.0%</b>	<b>2</b>	<b>100.0%</b>	<b>34</b>	<b>100.0%</b>

**Q31.1 To improve the quality of service, do you agree with the increase in collection fee?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Yes, I agree with the increase in the collection fee	2	9.1%	2	10.0%	1	5.0%	3	15.0%	1	5.0%	9	8.8%
2 Collection service company should take an effort to improve their service without increasing the fee	19	86.4%	17	85.0%	19	95.0%	16	80.0%	19	95.0%	90	88.2%
3 I can change the way to discharge wastes, discharging my waste on designated time and designate place, so that it is possible to improve the collection service without increase in the collection fee	1	4.5%	1	5.0%							2	2.0%
4 I do not know							1	5.0%			1	1.0%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

**Q31.2 If collection service is improved, e.g. increase in collection frequency and fixed collection time, how much are you willing to pay?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1,000			1	5.0%							1	1.0%
2,000	1	4.5%			1	5.0%					2	2.0%
3,000									6	30.0%	6	5.9%
3,200			1	5.0%							1	1.0%
3,500								1	5.0%		1	1.0%
4,000	8	36.4%	5	25.0%	5	25.0%	2	10.0%	2	10.0%	22	21.6%
4,500			1	5.0%							1	1.0%
6,000	3	13.6%	1	5.0%					10	50.0%	14	13.7%
6,500			1	5.0%					1	5.0%	2	2.0%
12,000					1	5.0%					1	1.0%
16,000			1	5.0%							1	1.0%
20,000	6	27.3%	4	20.0%	5	25.0%	2	10.0%			17	16.7%

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market		Count	Col %
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
22,000	1	4.5%			1	5.0%					2	2.0%
24,000	1	4.5%	1	5.0%			1	5.0%			3	2.9%
28,000							1	5.0%			1	1.0%
40,000					1	5.0%	1	5.0%			2	2.0%
50,000					1	5.0%					1	1.0%
52,000			1	5.0%							1	1.0%
60,000	1	4.5%	1	5.0%			1	5.0%			3	2.9%
80,000	1	4.5%	1	5.0%	4	20.0%	5	25.0%			11	10.8%
90,000			1	5.0%							1	1.0%
120,000					1	5.0%					1	1.0%
200,000							2	10.0%			2	2.0%
204,000							1	5.0%			1	1.0%
212,000							1	5.0%			1	1.0%
320,000							1	5.0%			1	1.0%
328,000							1	5.0%			1	1.0%
1,800,000							1	5.0%			1	1.0%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

**Q32 What kinds of collection method do you prefer?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market		Count	Col %
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
1 Block (bell) collection	1	4.5%	2	10.0%			2	10.0%			5	4.9%
2 Curbside collection	16	72.7%	14	70.0%	19	95.0%	13	65.0%	5	25.0%	67	65.7%
3 Communal collection			1	5.0%					10	50.0%	11	10.8%
4 Door to door collection	5	22.7%	3	15.0%	1	5.0%	5	25.0%	1	5.0%	15	14.7%
221 To collect in place									4	20.0%	4	3.9%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

**Q38.1 Do you consider that recycling of non-hazardous waste such as paper, plastic, glass and metals is necessary?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market		Count	Col %
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
1 Yes	14	63.6%	18	90.0%	8	40.0%	13	65.0%	10	50.0%	63	61.8%
2 No	8	36.4%	2	10.0%	12	60.0%	7	35.0%	10	50.0%	39	38.2%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

**Q38.2 Why do you think that it is necessary?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market		Count	Col %
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
1 Recycling would reduce the amount of waste to landfill	6	42.9%	5	27.8%	7	87.5%	6	46.2%	4	40.0%	28	44.4%
2 Recycling would help to protect the environment	4	28.6%	4	22.2%	6	75.0%	8	61.5%	4	40.0%	13	20.6%
3 Recycling would earn you some extra money	8	57.1%	13	72.2%	4	50.0%	6	46.2%	8	80.0%	22	34.9%
<b>Total</b>	<b>14</b>	<b>100.0%</b>	<b>18</b>	<b>100.0%</b>	<b>8</b>	<b>100.0%</b>	<b>13</b>	<b>100.0%</b>	<b>10</b>	<b>100.0%</b>	<b>63</b>	<b>100.0%</b>

**Q39 Do you separate recyclable goods and sell them?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market		Count	Col %
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
1 Yes	5	22.7%	9	45.0%			6	30.0%	2	10.0%	22	21.6%
2 No	17	77.3%	11	55.0%	20	100.0%	14	70.0%	18	90.0%	80	78.4%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

**Q40.2 Cardboard**

		Type of Business										Total	
		Shop		Restaurant		Office		Hotel		Market		Count	Col %
		Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
Cardboard	1 Yes	1	20.0%	1	11.1%					2	100.0%	4	18.2%
	2 No	4	80.0%	8	88.9%			6	100.0%			18	81.8%
<b>Total</b>		<b>5</b>	<b>100.0%</b>	<b>9</b>	<b>100.0%</b>			<b>6</b>	<b>100.0%</b>	<b>2</b>	<b>100.0%</b>	<b>22</b>	<b>100.0%</b>
Kilogram	10									1	50.0%	1	25.0%
	15									1	50.0%	1	25.0%
	20			1	100.0%							1	25.0%
	30	1	100.0%									1	25.0%
<b>Total</b>		<b>1</b>	<b>100.0%</b>	<b>1</b>	<b>100.0%</b>					<b>2</b>	<b>100.0%</b>	<b>4</b>	<b>100.0%</b>
How much?	1500	1	100.0%							1	50.0%	2	50.0%
	3000									1	50.0%	1	25.0%
	5000			1	100.0%							1	25.0%

		Type of Business										Total	
		Shop		Restaurant		Office		Hotel		Market		Count	Col %
		Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
<b>Total</b>		1	100.0%	1	100.0%					2	100.0%	4	100.0%
To whom you sell?	1 Those who come to my house	1	100.0%	1	100.0%					2	100.0%	4	100.0%
<b>Total</b>		1	100.0%	1	100.0%					2	100.0%	4	100.0%

Q40.3 Glass bottles

		Type of Business										Total	
		Shop		Restaurant		Office		Hotel		Market		Count	Col %
		Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
Glass bottles	1 Yes	1	20.0%	4	44.4%			1	16.7%			6	27.3%
	2 No	4	80.0%	5	55.6%			5	83.3%	2	100.0%	16	72.7%
<b>Total</b>		5	100.0%	9	100.0%			6	100.0%	2	100.0%	22	100.0%
Bottles	2							1	16.7%			1	16.7%
	5	1	100.0%									1	16.7%
	6			1	25.0%							1	16.7%
	10			1	25.0%							1	16.7%
	20			1	25.0%							1	16.7%
	50			1	25.0%							1	16.7%
<b>Total</b>		1	100.0%	4	100.0%			1	100.0%			6	100.0%
How much?	200							1	100.0%			1	16.7%
	500	1	100.0%									1	16.7%
	600			1	25.0%							1	16.7%
	1000			1	25.0%							1	16.7%
	1300			1	25.0%							1	16.7%
	5000			1	25.0%							1	16.7%
<b>Total</b>		1	100.0%	4	100.0%			1	100.0%			6	100.0%
To whom you sell?	1 Those who come to my house	1	100.0%	4	100.0%			1	100.0%			6	100.0%
<b>Total</b>		1	100.0%	4	100.0%			1	100.0%			6	100.0%

Q40.4 Aluminum cans

		Type of Business										Total	
		Shop		Restaurant		Office		Hotel		Market		Count	Col %
		Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
Aluminum cans	1 Yes	4	80.0%	7	77.8%			6	100.0%			17	77.3%
	2 No	1	20.0%	2	22.2%					2	100.0%	5	22.7%
<b>Total</b>		5	100.0%	9	100.0%			6	100.0%	2	100.0%	22	100.0%
Can	12	1	25.0%									1	5.9%
	20			1	14.3%			2	33.3%			3	17.6%
	24			1	14.3%							1	5.9%
	30			1	14.3%			2	33.3%			3	17.6%
	40	1	25.0%					2	33.3%			3	17.6%
	50			1	14.3%							1	5.9%
	120			1	14.3%							1	5.9%
	150	1	25.0%									1	5.9%
	300	1	25.0%	1	14.3%							2	11.8%
	360			1	14.3%							1	5.9%
<b>Total</b>		4	100.0%	7	100.0%			6	100.0%			17	100.0%
How much?	400	1	25.0%									1	5.9%
	800			1	14.3%			1	16.7%			2	11.8%
	900			1	14.3%			1	16.7%			2	11.8%
	1000							1	16.7%			1	5.9%
	1200	2	50.0%	1	14.3%			1	16.7%			4	23.5%
	1600							1	16.7%			1	5.9%
	2000			2	28.6%			1	16.7%			3	17.6%
	2800	1	25.0%									1	5.9%
	4800			1	14.3%							1	5.9%
14400			1	14.3%							1	5.9%	
<b>Total</b>		4	100.0%	7	100.0%			6	100.0%			17	100.0%
To whom you sell?	1 Those who come to my house	4	100.0%	6	85.7%			6	100.0%			16	94.1%
	2 Shop			1	14.3%							1	5.9%
<b>Total</b>		4	100.0%	7	100.0%			6	100.0%			17	100.0%

Q40.5 Metal cans

		Type of Business										Total	
		Shop		Restaurant		Office		Hotel		Market		Count	Col %
		Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
Metal cans	1 Yes	1	20.0%	1	11.1%							2	9.1%
	2 No	4	80.0%	8	88.9%			6	100.0%	2	100.0%	20	90.9%
<b>Total</b>		5	100.0%	9	100.0%			6	100.0%	2	100.0%	22	100.0%
Can		5	100.0%									1	50.0%

		Type of Business										Total	
		Shop		Restaurant		Office		Hotel		Market		Count	Col %
		Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
	100			1	100.0%							1	50.0%
<b>Total</b>		<b>1</b>	<b>100.0%</b>	<b>1</b>	<b>100.0%</b>							<b>2</b>	<b>100.0%</b>
How much?	600	1	100.0%									1	50.0%
	4000			1	100.0%							1	50.0%
<b>Total</b>		<b>1</b>	<b>100.0%</b>	<b>1</b>	<b>100.0%</b>							<b>2</b>	<b>100.0%</b>
To whom you sell?	1 Those who come to my house	1	100.0%	1	100.0%							2	100.0%
<b>Total</b>		<b>1</b>	<b>100.0%</b>	<b>1</b>	<b>100.0%</b>							<b>2</b>	<b>100.0%</b>

**Q40.6 Plastic bottles**

		Type of Business										Total	
		Shop		Restaurant		Office		Hotel		Market		Count	Col %
		Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
Plastic bottles	1 Yes	1	20.0%	3	33.3%			3	50.0%			7	31.8%
	2 No	4	80.0%	6	66.7%			3	50.0%	2	100.0%	15	68.2%
<b>Total</b>		<b>5</b>	<b>100.0%</b>	<b>9</b>	<b>100.0%</b>			<b>6</b>	<b>100.0%</b>	<b>2</b>	<b>100.0%</b>	<b>22</b>	<b>100.0%</b>
Bottle	6	1	100.0%									1	14.3%
	15							1	33.3%			1	14.3%
	20							1	33.3%			1	14.3%
	30			2	66.7%			1	33.3%			3	42.9%
	50			1	33.3%							1	14.3%
<b>Total</b>		<b>1</b>	<b>100.0%</b>	<b>3</b>	<b>100.0%</b>			<b>3</b>	<b>100.0%</b>			<b>7</b>	<b>100.0%</b>
How much?	600	1	100.0%					2	66.7%			3	42.9%
	1000			1	33.3%							1	14.3%
	2000			1	33.3%			1	33.3%			2	28.6%
	3000			1	33.3%							1	14.3%
<b>Total</b>		<b>1</b>	<b>100.0%</b>	<b>3</b>	<b>100.0%</b>			<b>3</b>	<b>100.0%</b>			<b>7</b>	<b>100.0%</b>
To whom you sell?	1 Those who come to my house	1	100.0%	3	100.0%			3	100.0%			7	100.0%
<b>Total</b>		<b>1</b>	<b>100.0%</b>	<b>3</b>	<b>100.0%</b>			<b>3</b>	<b>100.0%</b>			<b>7</b>	<b>100.0%</b>

**Q40.8 Hard bottles**

		Type of Business										Total	
		Shop		Restaurant		Office		Hotel		Market		Count	Col %
		Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
Hard Plastic	1 Yes	1	20.0%									1	4.5%
	2 No	4	80.0%	9	100.0%			6	100.0%	2	100.0%	21	95.5%
<b>Total</b>		<b>5</b>	<b>100.0%</b>	<b>9</b>	<b>100.0%</b>			<b>6</b>	<b>100.0%</b>	<b>2</b>	<b>100.0%</b>	<b>22</b>	<b>100.0%</b>
Kilogram	5	1	100.0%									1	100.0%
<b>Total</b>		<b>1</b>	<b>100.0%</b>									<b>1</b>	<b>100.0%</b>
How much?	1000	1	100.0%									1	100.0%
<b>Total</b>		<b>1</b>	<b>100.0%</b>									<b>1</b>	<b>100.0%</b>
To whom you sell?	1 Those who come to my house	1	100.0%									1	100.0%
<b>Total</b>		<b>1</b>	<b>100.0%</b>									<b>1</b>	<b>100.0%</b>

**Q41 Why don't you separate recyclable waste such as paper, bottles, and metals from other waste?**

		Type of Business										Total	
		Shop		Restaurant		Office		Hotel		Market		Count	Col %
		Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
1	It is inconvenient or difficult	1	5.9%	1	9.1%	1	5.0%	1	7.1%	1	5.6%	5	6.3%
2	It would take too much time	12	70.6%	4	36.4%	14	70.0%	7	50.0%	13	72.2%	50	62.5%
3	The need/benefit of recycling are not clear	3	17.6%	6	54.5%	4	20.0%	6	42.9%	4	22.2%	23	28.8%
211	Small House	1	5.9%			1	5.0%					2	2.5%
<b>Total</b>		<b>17</b>	<b>100.0%</b>	<b>11</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>14</b>	<b>100.0%</b>	<b>18</b>	<b>100.0%</b>	<b>80</b>	<b>100.0%</b>

**Q42.1 Do you use wrappings in your business?**

		Type of Business										Total	
		Shop		Restaurant		Office		Hotel		Market		Count	Col %
		Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
1	Yes	14	63.6%	16	80.0%	3	15.0%	4	20.0%	20	100.0%	57	55.9%
2	No	8	36.4%	4	20.0%	17	85.0%	16	80.0%			45	44.1%
<b>Total</b>		<b>17</b>	<b>100.0%</b>	<b>11</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>14</b>	<b>100.0%</b>	<b>18</b>	<b>100.0%</b>	<b>80</b>	<b>100.0%</b>

**Q42.2 Do you use wrappings in your business?**

		Type of Business										Total	
		Shop		Restaurant		Office		Hotel		Market		Count	Col %
		Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
1	new paper/paper bag/ paper box	8	57.1%	9	56.3%	2	66.7%	3	75.0%	12	60.0%	34	59.6%
2	used paper or paper bag/box made from used paper	2	14.3%	1	6.3%	3	100.0%			4	20.0%	10	17.5%
3	New plastic bag	11	78.6%	15	93.8%	3	100.0%	4	100.0%	20	100.0%	53	93.0%

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market		Count	Col %
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
4 used plastic bag	2	14.3%	5	31.3%			1	25.0%	7	35.0%	15	26.3%
<b>Total</b>	<b>14</b>	<b>100.0%</b>	<b>16</b>	<b>100.0%</b>	<b>3</b>	<b>100.0%</b>	<b>4</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>57</b>	<b>100.0%</b>

Q43 If the school or community groups in your area were to raise funds through the sale of reusable or recyclable materials, would you cooperate by donating those materials or participating in collection activities?

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market		Count	Col %
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
1 Yes, I would	18	81.8%	19	95.0%	20	100.0%	18	90.0%	20	100.0%	95	93.1%
2 No, I would not	4	18.2%	1	5.0%			2	10.0%			7	6.9%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

Q44.1 Have you ever heard the term "Compost"?

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market		Count	Col %
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
1 Yes	10	45.5%	7	35.0%	12	60.0%	8	40.0%	5	25.0%	42	41.2%
2 No	12	54.5%	13	65.0%	8	40.0%	12	60.0%	15	75.0%	60	58.8%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

Q44.2 Have you ever composted your kitchen and garden at your premise?

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market		Count	Col %
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
1 Yes					1	8.3%					1	2.4%
2 No	10	100.0%	7	100.0%	11	91.7%	8	100.0%	5	100.0%	41	97.6%
<b>Total</b>	<b>10</b>	<b>100.0%</b>	<b>7</b>	<b>100.0%</b>	<b>12</b>	<b>100.0%</b>	<b>8</b>	<b>100.0%</b>	<b>5</b>	<b>100.0%</b>	<b>42</b>	<b>100.0%</b>

Q44.3 If organic waste were to be collected separately for large scale composting at another place, would you be willing to compost kitchen, garden, and possible paper waste?

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market		Count	Col %
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
2 No	10	100.0%	7	100.0%	12	100.0%	8	100.0%	5	100.0%	42	100.0%
<b>Total</b>	<b>10</b>	<b>100.0%</b>	<b>7</b>	<b>100.0%</b>	<b>12</b>	<b>100.0%</b>	<b>8</b>	<b>100.0%</b>	<b>5</b>	<b>100.0%</b>	<b>42</b>	<b>100.0%</b>

Q45.1 Do you think that cleanness and hygiene are the matters of customer preference?

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market		Count	Col %
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
1 Yes	22	100.0%	20	100.0%	20	100.0%	20	100.0%	17	85.0%	99	97.1%
2 No									3	15.0%	3	2.9%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

Q45.2 What kinds of activities does your office/shop do in order to keep clean and hygienic your office/shop and its surrounding environment?

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market		Count	Col %
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
1 clean the sidewalk or adjacent public area near the office/shop every day	12	54.5%	13	65.0%	7	35.0%	7	35.0%	13	76.5%	52	52.5%
2 clean the waste collection place near the office/shop every day	15	68.2%	13	65.0%	14	70.0%	16	80.0%	13	76.5%	71	71.7%
3 prepare dust boxes and ask customers and employees to put garbage in these boxes	8	36.4%	12	60.0%	10	50.0%	15	75.0%	2	11.8%	47	47.5%
4 keep waste in a closed bin like a container with a cover	9	40.9%	5	25.0%	12	60.0%	10	50.0%	4	23.5%	40	40.4%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>17</b>	<b>100.0%</b>	<b>99</b>	<b>100.0%</b>

Q46.1 Has your office/shop ever received instruction from the local government, NGO or neighbors how to discharge wastes?

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market		Count	Col %
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
1 Yes	3	13.6%	5	25.0%	5	25.0%	4	20.0%	3	15.0%	20	19.6%
2 No	19	86.4%	15	75.0%	15	75.0%	16	80.0%	17	85.0%	82	80.4%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

**Q46.2 Who taught your office/shop such methods?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Family members/Office staff			1	20.0%							1	5.0%
2 School teacher	1	33.3%	1	20.0%	1	20.0%					3	15.0%
4 NGO member	1	33.3%	2	40.0%	4	80.0%	1	25.0%			8	40.0%
5 Municipality	1	33.3%	5	100.0%	4	80.0%	4	100.0%	3	100.0%	17	85.0%
<b>Total</b>	<b>3</b>	<b>100.0%</b>	<b>5</b>	<b>100.0%</b>	<b>5</b>	<b>100.0%</b>	<b>4</b>	<b>100.0%</b>	<b>3</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>

**Q46.3 Has your office/shop changed the way to discharge wastes after the instruction?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Yes	3	100.0%	3	60.0%	4	80.0%	4	100.0%	1	33.3%	15	75.0%
2 No			2	40.0%	1	20.0%			2	66.7%	5	25.0%
<b>Total</b>	<b>3</b>	<b>100.0%</b>	<b>5</b>	<b>100.0%</b>	<b>5</b>	<b>100.0%</b>	<b>4</b>	<b>100.0%</b>	<b>3</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>

**Q47 To solve problems of scattered wastes on the street, which measure do you think most effective?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 To enact an anti-littering law and regulation and control it strictly	12	54.5%	9	45.0%	3	15.0%	11	55.0%	13	65.0%	48	47.1%
2 The number of collection vehicles and workers should be increased	2	9.1%	5	25.0%	5	25.0%	2	10.0%	2	10.0%	16	15.7%
3 To instruct people how to discharge waste in order to improve the manner	6	27.3%	5	25.0%	5	25.0%	3	15.0%	4	20.0%	23	22.5%
4 More street side waste containers have to be installed	2	9.1%	1	5.0%	7	35.0%	4	20.0%	1	5.0%	15	14.7%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

**Q48 If waste-discharge rules are established in order to improve people's manner to discharge waste and you are required to discharge your wastes on designated time and at designated place, do you agree with these rules?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 To establish rules is good and I follow the rules	14	63.6%	13	65.0%	9	45.0%	10	50.0%	13	65.0%	59	57.8%
2 To establish rules is good and if waste collection vehicle/worker come on time, I will follow th rules	7	31.8%	7	35.0%	11	55.0%	10	50.0%	7	35.0%	42	41.2%
3 To establish rules is good, but I do not want to follow the rules	1	4.5%									1	1.0%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

**Q49.1 Do you think a campaign to raise awareness of people for maintaining a cleaner city and environment is necessary?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Yes it is necessary	22	100.0%	20	100.0%	20	100.0%	20	100.0%	20	100.0%	102	100.0%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

**Q49.2 Who should organize the campaign?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Central government	6	27.3%	4	20.0%	7	35.0%	7	35.0%	5	25.0%	29	28.4%
2 Municipality	13	59.1%	13	65.0%	10	50.0%	13	65.0%	14	70.0%	63	61.8%
3 Community leaders	1	4.5%	2	10.0%							3	2.9%
4 School					1	5.0%					1	1.0%
5 NGO	2	9.1%			2	10.0%					4	3.9%
6 Private enterprise			1	5.0%							1	1.0%
381 Market manager									1	5.0%	1	1.0%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

**Q51.1 How many people are working at your office/shop?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1	1	4.5%	2	10.0%					7	35.0%	10	9.8%
2	7	31.8%	5	25.0%					11	55.0%	23	22.5%
3	6	27.3%	1	5.0%	1	5.0%	1	5.0%	2	10.0%	11	10.8%
4	2	9.1%	1	5.0%	1	5.0%	2	10.0%			6	5.9%
5	3	13.6%	3	15.0%	1	5.0%	2	10.0%			9	8.8%
6	1	4.5%	3	15.0%	1	5.0%	3	15.0%			8	7.8%

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market		Count	Col %
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
7			2	10.0%	1	5.0%	1	5.0%			4	3.9%
8							2	10.0%			2	2.0%
10					3	15.0%					3	2.9%
12	1	4.5%					1	5.0%			2	2.0%
13					2	10.0%					2	2.0%
15			1	5.0%	1	5.0%	1	5.0%			3	2.9%
17			1	5.0%							1	1.0%
19							1	5.0%			1	1.0%
20			1	5.0%	2	10.0%	1	5.0%			4	3.9%
23							1	5.0%			1	1.0%
24					1	5.0%					1	1.0%
25							1	5.0%			1	1.0%
35	1	4.5%									1	1.0%
40					1	5.0%	1	5.0%			2	2.0%
45					1	5.0%					1	1.0%
60					1	5.0%					1	1.0%
80					1	5.0%					1	1.0%
110					1	5.0%					1	1.0%
115							1	5.0%			1	1.0%
200							1	5.0%			1	1.0%
300					1	5.0%					1	1.0%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

Q51.2 How many tables are there at your restaurant? (in the case of restaurant)

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market		Count	Col %
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %		
0			1	5.0%							1	4.5%
1			4	20.0%							4	18.2%
2			1	5.0%							1	4.5%
3			1	5.0%							1	4.5%
4			1	5.0%							1	4.5%
5			2	10.0%							2	9.1%
6	1	100.0%									1	4.5%
7			1	5.0%							1	4.5%
8			1	5.0%							1	4.5%
9			1	5.0%							1	4.5%
10			2	10.0%							2	9.1%
15			1	5.0%							1	4.5%
16			1	5.0%							1	4.5%
18							1	100.0%			1	4.5%
24			1	5.0%							1	4.5%
35			1	5.0%							1	4.5%
50			1	5.0%							1	4.5%
<b>Total</b>	<b>1</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>			<b>1</b>	<b>100.0%</b>			<b>22</b>	<b>100.0%</b>

Q51.3 How many rooms are there? (in the case of hotels)

	Type of Business	
	Hotel	
	Count	Col %
5	1	5.0%
8	1	5.0%
12	1	5.0%
14	1	5.0%
17	1	5.0%
20	2	10.0%
30	3	15.0%
32	1	5.0%
38	1	5.0%
39	1	5.0%
40	2	10.0%
48	1	5.0%
72	1	5.0%
90	1	5.0%
108	1	5.0%
138	1	5.0%
<b>Total</b>	<b>20</b>	<b>100.0%</b>

Q52 How long has your office/shop been doing business in Phnom Penh?

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1	3	13.6%	2	10.0%	3	15.0%	3	15.0%	4	20.0%	15	14.7%
2	7	31.8%	4	20.0%	3	15.0%	2	10.0%	2	10.0%	18	17.6%
3	4	18.2%	3	15.0%	2	10.0%	5	25.0%	1	5.0%	15	14.7%
4	1	4.5%	2	10.0%	1	5.0%	1	5.0%	1	5.0%	6	5.9%
5			1	5.0%			3	15.0%	1	5.0%	5	4.9%
6	3	13.6%	1	5.0%							4	3.9%
7					1	5.0%			2	10.0%	3	2.9%
8	1	4.5%					1	5.0%	1	5.0%	3	2.9%
9			1	5.0%							1	1.0%
10	3	13.6%	5	25.0%	4	20.0%	4	20.0%	6	30.0%	22	21.6%
11							1	5.0%	2	10.0%	3	2.9%
15			1	5.0%							1	1.0%
17					2	10.0%					2	2.0%
20					1	5.0%					1	1.0%
22					1	5.0%					1	1.0%
24					2	10.0%					2	2.0%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

Q53 What is the sales amount per month? (Dollar)

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
50	1	4.5%									1	1.0%
67.5			1	5.0%							1	1.0%
75	1	4.5%	2	10.0%					1	5.0%	4	3.9%
80			2	10.0%							2	2.0%
100	1	4.5%									1	1.0%
150	1	4.5%	1	5.0%					1	5.0%	3	2.9%
175									1	5.0%	1	1.0%
180			1	5.0%							1	1.0%
200	1	4.5%									1	1.0%
250	1	4.5%									1	1.0%
300									2	10.0%	2	2.0%
350			1	5.0%							1	1.0%
375	1	4.5%							1	5.0%	2	2.0%
400	2	9.1%	1	5.0%					2	10.0%	5	4.9%
450							1	5.0%			1	1.0%
500	1	4.5%							1	5.0%	2	2.0%
550									1	5.0%	1	1.0%
560									1	5.0%	1	1.0%
600	1	4.5%	1	5.0%	1	5.0%			2	10.0%	5	4.9%
650									1	5.0%	1	1.0%
700									1	5.0%	1	1.0%
750	2	9.1%							2	10.0%	4	3.9%
800			1	5.0%	1	5.0%					2	2.0%
900			1	5.0%							1	1.0%
1,200							2	10.0%			2	2.0%
1,500	1	4.5%					2	10.0%	1	5.0%	4	3.9%
1,875			1	5.0%							1	1.0%
1,925									1	5.0%	1	1.0%
2,100	1	4.5%					1	5.0%			2	2.0%
2,400			1	5.0%							1	1.0%
3,000			3	15.0%	1	5.0%	3	15.0%			7	6.9%
3,750									1	5.0%	1	1.0%
4,000					1	5.0%					1	1.0%
4,500	1	4.5%			1	5.0%	1	5.0%			3	2.9%
5,000	2	9.1%									2	2.0%
5,600							1	5.0%			1	1.0%
6,000							1	5.0%			1	1.0%
7,500							2	10.0%			2	2.0%
9,000	2	9.1%									2	2.0%
10,000					2	10.0%					2	2.0%
21,000							1	5.0%			1	1.0%
Don't know			1	5.0%							1	1.0%
Refused	2	9.1%	2	10.0%	5	25.0%	5	25.0%			14	13.7%
None					8	40.0%					8	7.8%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>



**Q54.1 Does your office/shop belong to any associations such as industries association and the chamber of commerce?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Yes							1	5.0%			1	1.0%
2 No	22	100.0%	20	100.0%	20	100.0%	19	95.0%	20	100.0%	101	99.0%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

**Q54.2 What kinds of association is it?**

	Type of Business	
	Hotel	
	Count	Col %
3 Association which is organized by the offices/shops of the s	1	100.00%
<b>Total</b>	<b>1</b>	<b>100.00%</b>

**Q54.3 What kinds of activities the association do?**

	Type of Business	
	Hotel	
	Count	Col %
3 Organizing a meeting	1	100.00%
<b>Total</b>	<b>1</b>	<b>100.00%</b>

**Q55.1 Does your office/shop participate in any activities or programs, which is organized by the district/commune committee?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Yes	3	13.6%	7	35.0%	9	45.0%	9	45.0%	2	10.0%	30	29.4%
2 No	19	86.4%	13	65.0%	11	55.0%	11	55.0%	18	90.0%	72	70.6%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

**Q55.2 In the past, what kinds of activities/programs has your office/shop ever participated in ?**

	Type of Business										Total	
	Shop		Restaurant		Office		Hotel		Market			
	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %	Count	Col %
1 Festival	3	13.6%	5	25.0%	2	10.0%	5	25.0%	3	15.0%	18	17.6%
2 Community development program	1	4.5%			8	40.0%	4	20.0%	2	10.0%	15	14.7%
3 Environmental/hygiene education program	3	13.6%	5	25.0%	3	15.0%	6	30.0%	2	10.0%	19	18.6%
100 None	16	72.7%	10	50.0%	10	50.0%	7	35.0%	13	65.0%	56	54.9%
<b>Total</b>	<b>22</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>20</b>	<b>100.0%</b>	<b>102</b>	<b>100.0%</b>

# Data 4

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*Social Environment Survey in and  
around the Disposal Site*

## Data 4 Social Environment Survey in and around the Final Disposal Site

### 4.1 Questionnaire and Data

#### 4.1.1 Local Resident Survey

Q1-1 and Q1-2 Before asking about waste issues, I have a question what do you think the most serious problems in Phnom Penh at present?(Single answer) What do you think the second most serious problems?(Multiple answers)

	Q1-1	Q1-2
01. Inadequate supply of safe water	9	7
02. High crime rate	1	6
03. Poverty problems	12	6
04. Economic issues such as Inflation	0	3
05. Social unrest	1	1
06. Political instability	0	1
07. Pollution problems (air, water, noise and waste)	8	12
08. Flood	2	6
09. Drug problems	5	3
10. Unemployment	1	6
11. Land dispute	0	0
12. I do not know	1	1
13. Others		
Bad road conditon		2
Sewage system problem		1

Q2 Thinking about daily life, please specify the priority in which the following aspects should be solved or improved.

##### Q2-1 Water Supply

1. Very important	35
2. Important	4
3. Little important	0
4. Not important	1
Mean	1.18

##### Q2-2 Sewer Pipe Network

1. Very important	31
2. Important	9
3. Little important	0
4. Not important	0
Mean	1.23

##### Q2-3 Storm water drainage

1. Very important	18
2. Important	17
3. Little important	2
4. Not important	3
Mean	1.75

##### Q2-4 Septic Tank Water collection

1. Very important	11
2. Important	22
3. Little important	4
4. Not important	3
Mean	1.98

##### Q2-5 Solid Waste Collection

1. Very important	16
2. Important	17
3. Little important	5
4. Not important	2
Mean	1.83

##### Q2-6 Electricity Supply

1. Very important	14
2. Important	20
3. Little important	5

4. Not important	1
Mean	1.83

Q2-7 Access road to the house

1. Very important	17
2. Important	18
3. Little important	5
4. Not important	0
Mean	1.7

Q2-8 Telephone

1. Very important	5
2. Important	15
3. Little important	8
4. Not important	12
Mean	2.68

Q3-1 Are you interested in Environmental Issues?

1. Yes	36
2. Yes, but a little	3
3. No	0
9. No response	1

Q3-2 What kind of environmental problems do you think most serious now in Phnom Penh?

1. Water Pollution	6
2. Air Pollution	10
3. Noise problems	4
4. Solid (garbage) waste problems	9
5. Flooding	8
6. Others	
Bad smell	1
Bad road condition	1

(total)

39

Q3-3 How much do you feel environmental degradation affect your life?

1. It does not affect at all.	1
2. It affects to some degree.	6
3. It caused serious problems.	32
4. I do not know.	1

Q4-1 In general, do you think that improper waste management causes problems?

1. Yes	38
2. No	1
3. I do not know	1

Q4-2 What kinds of problems are caused by bad waste management? Please check all answers you agree.

1. Scattered waste on the street causes offensive odor	18
2. Scattered waste on the street attracts rats and flies.	11
3. Rats and flies attracted by waste bring about some kinds of diseases.	11
4. Dumped wastes in canal block drainage systems and result in Flooding.	9
5. Dumped wastes in canal pollute water and this causes skin diseases and diarrhea.	8
6. Open burning of waste result in emission of harmful gases.	7
7. Improper treatment of wastes at the final disposal site contaminates river and ground water.	5
8. Others	0

Base: 38

Q5-1 In Phnom Penh, are there any problems caused by wastes?

1. Yes	37
2. No	2
3. I do not know	1

Q5-2 In Phnom Penh, what kinds of problems are there now? (Check all answers you observe.)

1. A lot of wastes are scattered on the street.	9
2. Wastes on the street are scavenged by animals.	4
3. Wastes left on the street cause offensive odor.	12
4. Wastes left on the street attract rats and flies.	6
5. Dumped wastes in canal block drainage systems and cause flood in rainy season.	9

6. Dumped wastes in canal pollute water and cause skin diseases and diarrhea.	7
7. Fires at the final disposal site cause emission of polluted gases.	5
8. Waste at the final disposal site pollutes ground water.	4
9. The current dumpsite is almost full.	2
10. Others	0

Base: 37

Q6-1 Do you know where waste from households are brought for final disposal?

1. Yes	40
2. No	0

Q6-2 Name of place

Stung Mean Chey dumpsite	40
--------------------------	----

Q7-1 How do you store waste at your house?

1. In a plastic/paper bag	28
2. In a rice/cement bag	2
3. In a carton Box	0
4. In a basket	0
5. In a metal/plastic/wood container	6
6. On the ground	3
7. Others : put in the hole	1

Q7-2 Why do you use such containers?

1. It keeps the place clean after the collection work	18
2. It prevents foul odors	27
3. It is easy to handle	19
4. Keeps away pests such as flies	16
5. Low cost or available free	5
6. Others	
Make the land fertilized	1
Afraid of diseases from the waste	1
Scavenged by animals	1

Q8 How is your waste disposed of? (Select all that you do in your daily life)

1. It is collected by waste collection workers.	20
2. It is dumped on the street, in the canal or open land.	3
3. It is burned outside.	15
4. It is buried.	2
5. It is composted.	0
6. It is transported to a collection point in other areas.	17
7. I do not know.	0

Q9 Who handles and discharges your waste in your household?

1. anyone who is available	7
2. female adult	11
3. male adult	0
4. female children	4
5. male children	4
6. maid or house staff	9
7. pay someone to discharge	0
8. Others	
House wife	4
By him self	1

Q10-1 Do you consider that recycling of non-hazardous waste such as paper, plastic, glass and metals is necessary?

1. Yes	26
2. No	14

Q10-2 Why do you think that it is necessary?

1. Recycling would reduce the amount of waste to landfill	1
2. Recycling would help to protect the environment	7

3. Recycling would earn you some extra money	18
4. Others (Please specify:	0

Base: 26

Q11 Do you separate recyclable goods and sell them?

1. Yes	31
2. No	9

Q12 What kinds of wastes do you sell? Do you know how much (weight or value) do you sell per month? If you know, please tell us the amount. Finally, to whom do you sell your recyclable waste?

Q12-1 Paper

Number of those who collect paper	19
Average collected amount (kg)	63.9
average earned money ( R )	6,752
To whom you sell collect items	
Those who come to my house	8
Shop	11
Others	0

Q12-2 Cardboard

Number of those who collect paper	14
Average collected amount (kg)	97.2
average earned money ( R )	12,550
To whom you sell collect items	
Those who come to my house	5
Shop	9
Others	0

Q12-3 Glass bottle

Number of those who collect paper	22
Average collected amount (kg)	
average earned money ( R )	3,672
To whom you sell collect items	
Those who come to my house	12
Shop	10
Others	0

Q12-4 Aluminum Can

Number of those who collect paper	22
Average collected amount (kg)	255
average earned money ( R )	5,872
To whom you sell collect items	
Those who come to my house	11
Shop	11
Others	0

Q12-5 Metal Can

Number of those who collect paper	7
Average collected amount (kg)	
average earned money ( R )	4,714
To whom you sell collect items	
Those who come to my house	2
Shop	5
Others	0

Q12-6 Plastic bottles

Number of those who collect paper	10
Average collected amount (kg)	
average earned money ( R )	4,530
To whom you sell collect items	
Those who come to my house	4
Shop	6

Others	0
--------	---

Q12-7 Soft plastic

Number of those who collect paper	7
Average collected amount (kg)	73.3
average earned money ( R )	6,729
To whom you sell collect items	
Those who come to my house	3
Shop	4
Others	0

Q12-8 Hard plastic

Number of those who collect paper	17
Average collected amount (kg)	16.4
average earned money ( R )	2,565
To whom you sell collect items	
Those who come to my house	7
Shop	10
Others	0

Q12-9 Cloth/textile

Number of those who collect paper	5
Average collected amount (kg)	48.2
average earned money ( R )	14,000
To whom you sell collect items	
Those who come to my house	3
Shop	2
Others	0

Q12-10 Metal

Number of those who collect paper	6
Average collected amount (kg)	59.8
average earned money ( R )	10,533
To whom you sell collect items	
Those who come to my house	1
Shop	5
Others	0

Q12-11 Organic waste

Number of those who collect paper	4
Average collected amount (kg)	150
average earned money ( R )	17,500
To whom you sell collect items	
Those who come to my house	2
Shop	2
Others	0

Total Earning

0 - 1000	15
1001 - 5000	5
5,001 - 10,000	3
10,001 - 50,000	8
50,001 - 100,000	8
more than 100,000	1

Q13 Why don't you separate recyclable waste such as paper, bottles, and metals from other waste?

1. It is inconvenient or difficult	2
2. It would take too much time	1
3. The need/benefit of recycling are not clear	5
4. Others: little recycle waste	1

Base: 31

Q14 Are you concerned about the situations at the Stung Mean Chey dumpsite?

1. Yes, very much	32
2. Yes, to some extent	6
3. No, not much	0
4. Not at all	1
5. I do not know	1

Q15-1 Why are you concerned about the dumpsite?

1. It affects surrounding environment.	27
2. It attracts more waste pickers in this area.	8
3. It affects the land price and asset value.	2
4. Others	1

Base: 38

Q15-2 Compared to 5 years ago, what do you think the current situation is like?

1. It is worsened than 5 years ago.	10
2. It is the same as 5 years ago.	8
3. It is better than 5 years ago.	19
4. I do not know.	1

Base: 38

Q15-3 What is the most serious impact the disposal site have?

	first	second
1. Air pollution caused by fires at the dumpsite	25	8
2. Air pollution caused by collection vehicles	0	2
3. Water Pollution caused by leachate from the dumpsite	6	22
4. Traffic jam caused by collection vehicles	1	3
5. Spread of fires from the dumpsite to surrounding areas	5	1
6. Others		
Very bad smell from dumpsite	1	1
Injuring with broken bottle, glass		1

Base: 38

Q15-4 Have you ever consult anyone else about the situations of the dumpsite?

1. Yes	27
2. No	11

Base: 38

Q15-5 Whom did you consult most?

1. an officer of Municipality of Phnom Penh	0
2. Khan chief or a Khan officer	0
3. Sangkat chief or a Sangkat officer	1
4. phum chief	3
5. a phum development committee member	2
6. a commune council member	0
7. a monk	0
8. neighbors	17
9. NGO	2
10. Others	
Relative	1
Waste collector	1

Base: 27

Q16 To solve problems of scattered wastes on the street, which measure do you think most effective?

1. To enact an anti-littering law and regulation and control it strictly.	19
2. The number of collection vehicles and workers should be increased.	2
3. To instruct people how to discharge waste in order to improve the manner.	8
4. More street side waste containers have to be installed.	11
5. I do not know	0
6. Others	0

Q17 If waste-discharge rules are established in order to improve people's manner to discharge waste and you are required to discharge your wastes on designated time and at designated place, do you agree with these rules?



1. To establish rules is good and I follow the rules.	33
2. To establish rules is good and if waste collection vehicle/worker come on time, I will follow the rules.	7
3. To establish rules is good, but I do not want to follow the rules.	0
4. To impose rule is not good, and I do not want to follow the rules.	0
5. I do not know.	0

Q18-1 Do you think a campaign to raise awareness of people for maintaining a cleaner city and environment is necessary?

1. Yes it is necessary	40
2. No it is not necessary	0
3. I do not know	0

Q18-2 Who should organize the campaign?

1. Central government	2
2. Municipality	16
3. Community leaders	12
4. School	0
5. NGO	9
6. Private enterprise	0
7. I do not know	1
8. Others	0

Q19 To improve the situations at the dumpsite, which measure do you think most effective?

1. The central government establishes strict regulations to control operation/management of the dumpsite	22
2. Municipality of Phnom Penh increases waste collection fee to finance the operation/management cost of the dumpsite	4
3. Ordinal people and business take an effort to reduce the volume of waste by further reuse/recycling of waste.	12
4. Others	2
5. I do not know	0

Q20-1 and Q20-2 How do you usually get information from the Municipality of Phnom Penh? Check one you get information most frequently. What is you most preferable way to get information from the Municipality of Phnom Penh?

	Q20-1	Q20-2
1. through radio or TV	31	29
2. through newspaper	0	1
3. government bulletin or news letter	0	0
4. phum chief	4	7
5. Sangkat officer	0	1
6. Khan officer	0	0
7. phum development committee member	0	1
8. neighbors	0	0
9. through NGO	1	0
10. through associations such as residents' association and a supporter group of Buddhist temple	0	0
11. others	2	0
99. No response	2	1

Q21 When you face social problems such as crimes and environment problems in your community, whom do you usually consult?

1. neighbors	4
2. phum chief	29
3. Sangkat chief or officer	2
4. Khan chief or officer	0
5. monk	0
6. temple committee	0
7. NGO	0
8. others	
Group leader	1
VDC	1
9. I do not consult anybody	3

Q22-1 Do you participate in any activities in your community?

1. Yes	31
2. No	9

Q22-2 What kinds of activities do you participate in?

1. religious activities at a temple in the community	3
2. activities organized by the government	2
3. activities of phum development projects	11
4. mutual help such as a funeral ceremony	14
5. charitable events	1
6. others	0

Base: 31

Q23 Do you feel that the dumpsite affect your health conditions?

1. Yes	38
2. No	2

Q24 What kinds of diseases have you suffered in the past and at present? Please check all symptoms that you suffered in the last 6 months and that you are suffering at present.

	past	present
24-1 fever	26	22
24-2 cough	21	21
24-3 dizzy	26	30
24-4 body pains	29	30
24-5 head aches	32	32
24-6 typhoid	7	3
24-7 fatigue	27	26
24-8 injury	13	7
24-9 diarrhea	17	14
24-10 malaria	5	2
24-11 infection	11	8
24-12 heart problems	15	17
24-13 mental problems	16	16
24-14 pain in abdomen	21	16
24-15 skin/eye disease	14	16
24-16 others		
calculi choledoch		1
diabetes	1	2
HIV/AIDS	1	1
kidney problem	1	1

Q25-1 When you get sick or injured, how do you treat it?

1. go to see doctor	11
2. consult with health worker	6
3. buy medicines	18
4. traditional healer	0
5. Go to NGO	4
6. others: doctor come to my house	1

Q25-2 How much do you usually spend for the health care for the whole family per month? ( R )

0 – 5000	9
5001 – 10,000	4
10,001 – 30,000	11
30,001 – 50,000	6
50,001 – 100,000	5
100,001 – 200,000	2
more than 200,000	3

Q26 How old are you?

30 - 39	13
40 - 49	9
50 - 59	14
60 - 69	2
70 - 79	2

Q27-1 What is the last grade of formal education you completed?

1. No formal schooling	10
2. Some primary	17
3. Completed primary school	1
4. Some secondary school	7
5. Completed secondary school	2

6. Technical/Vocational	0
7. Some/completed pre-university (A-Llevel)	0
8. Some/completed diploma degree	0
9. University	0
10. Post graduate	0
11. Do not know	0
99. Refused	3

Q27-2 Are you literacy?

1. Yes	29
2. No	11

Q28 Are you ...?

1. Male	8
2. Female	32

Q29 What is your ethnicity?

1. Khmer	38
2. Cham	0
3. Vietnamese	0
4. Chinese	0
5. Others: Khmer Kampuchea Krom	2

Q30-1 What type of housing do you live now? (Interviewer's observation + question about ownership)

Type

Concrete house	3
Concrete (bottom) +wooden (upstairs)	12
Brick house high from land	0
Wooden with zinc roof	6
High floor wooden house with zinc roof	4
Leaf house with zinc roof	5
High-floor leaf house	2
Leaf house built on land	1
Others	
Tent house	5
Leaf house with tant roof	2

New or Old

1. New	9
2. Old	17
3. Average	9
4. Very old	5

Ownership

1. Owned	24
2. Rent	12
3. Ask somebody to use	0
4. Temporarily living	4

Q30-2 How many rooms are there?

1	25
2	9
3	3
4	2
5 and more	1

Q31 What is your occupation? (Let the interviewee answer his/her occupation freely and select the number from the following table)

01. To engage in agriculture, forestry or fishery.	0
02. Self employed or working for family business	14
03. Employee of service industry	0
04. Skilled worker;	4
05. General labor	2
06. Office clerk or employee with technical skills;	1
07. Manager or executive.	0
08. Professional.	0

09. Housewife	10
10. Student	0
11. Unemployed	4
12. Others: waste picker	5

How frequently do you...

Q32-1 listen to the news on the radio?

1. Never	10
2. Rarely	4
3. One or two times per week	5
4. Every day	21

Q32-2. watch the news on T.V ?

1. Never	6
2. Rarely	5
3. One or two times per week	7
4. Every day	22

Q32-3. read the news on newspaper?

1. Never	29
2. Rarely	4
3. One or two times per week	4
4. Every day	3

Q33 How many people are living permanently in your house including relatives and servants and how many persons are making money? I am sorry to ask you about personal issues, but how much is the total income of your family per month?

33-1 Number of people living in your house in total

1	1
2	1
3	4
4	2
5	8
6	10
7	5
8	4
9	1
10	2
11	1
12	1

Average

6.05

33-2 Number of family who are working

1	11
2	20
3	4
4	4
5	1

33-3 Total income

1. Less than \$50./month	18
2. \$50 - \$100	17
3. \$101 - \$150	2
4. \$150 - \$200	2
5. \$201 - \$250	0
6. \$251 - \$300	1
7. \$301 - \$350	0
8. \$351 - \$400	0
9. More than \$400	0
10. Do not know	0

Q 34 How many years have you dwelled in present premises? If you moved to the current place less than 5 years ago, where are you from?

1. Less than 5 years	5
2. 5 - 9 years	14
3. 10 - 19 years	8
4. 20 years or more	13

From where did you move ?

Boeng Tumpun, PP	1
Chamka Mon, PP	2
Prey Veng	1
Sihanouk Ville	1

Base: 5

Q35 Where do you get water?

1. Piped water connected in house	5
2. Shared piped water	1
3. Public well	3
4. Water vendor	29
5. Rain water	2
6. Others	0

Q36 What type of toilet facility do you use?

1. Toilet in my house, connected to drainage system	6
2. Toilet in my house, not connected to drainage system	20
3. Public toilet	5
4. Toilet of other houses	0
5. I do not use toilet.	9
6. Others	0

Q37 Do you have electricity in your house?

1. Yes, I have my own connection	11
2. Yes, I buy from someone	16
3. No	13

Q38-1 Are there any community organization such as residents' association and supporting group of Buddhist temple in your Pum or Krom?

1. Yes	31
2. No	9

Q38-2 What kinds of functions does the community organization have?

1. I get information from the government through the organization.	5
2. The organization conducts a public campaign.	16
3. There is a meeting organized by the committee.	13
4. I can submit a request to the government through the committee.	2
5. Others	
Train to people	1
Credit	3
Don't know	2

Base:31

SES

Below 11	29
11.1 to 17	10
17.1 to 25	1
25.1 to 35	0

#### 4.1.2 Waste Picker Survey

Residences of respondents

Damnak Thom (Stung Mean Chey)	11
Prek Tall phum (Stung Mean Chey)	5
Chamroeun Phol (Beung Tompum)	4
Total	20

Head of households

Male	9
Female	11

Q2 From where did your family moved to here? (16 respondents)

Kandal	2
Kompong Cham	4
Porsat	1
Kompong Thom	1
Battambang	1
Takeo	4
Kompot	1
Prey Veng	2
Total	16

For 4 respondents, Stung Mean Chey is homeland and they have live in there long.

Q3 How long have you been here?

1. less than 1 year	0
2. 1 year – less than 5 years	4
3. 3 years – less than 10 years	10
4. 10 years – less than 20 years	2
5. 20 years or more	4
Total	20

Q4 Reasons to move to the current residence

Poverty	7
There were no job	5
To change jobs	1
War	1
Old house was burned	1
Stung Mean Chey is Homeland	1
Total	16

Q5-1 and Q5-2: What is the most serious problem (single answer) and second most serious problems (multiple answer) in Phnom Penh

	Most serious	Second most	Total
Inadequate supply of safe water	5	3	8
High crime rate	2	0	2
Poverty problems	6	10	16
Economic issues such as Inflation	0	0	0
Social unrest	0	2	2
Political instability	0	0	0
Pollution problems (air, water, noise and waste)	4	5	9
Flood	0	0	0
Drug problems	1	2	3
Unemployment	0	3	3
Land Dispute	2	1	3
Others			
Almost all children in poor family have no education		1	1
Have no shelter		1	1

Q6 Priority to be solved or improves (mean is compared to the result of POS)

	Water supply	Sewer pipe network	Storm water drainage	Septic Tank Water collection	Solid waste collection	Electricity Supply	Access road to the house	Telephone
1. Very important	19	14	7	10	5	7	9	2
2. Important	1	5	12	6	11	7	10	6
3. Little important	0	0	1	3	3	3	1	6
4. Not important at all	0	1	0	1	1	3	0	6
Mean	1.05	1.40	1.70	1.75	2.00	2.10	1.60	2.80

Q7-1 Are you interested in environment issues?

1. Yes	18
2. Yes, but a little	2
3. No	0

Q7-2 What kind of environmental problems do you think most serious now in Phnom Penh?

1. Water pollution	7
2. Air pollution	6
3. Noise problems	1
4. Solid waste problems	2
5. Flooding	4

Base: All

Q7-3 How much do you feel environment degradation affect your life?

1. It does not affect at all.	0
2. It affects to some degree.	1
3. It caused serious problems.	19

Q8-1 How long have you been working at the disposal site?

1 year	0
2 years	5
3 years	1
4 years	3
5 years	1
6 years	0
7 years	2
8 years	2
9 years	1
10 years	4
more than 10 years	1
Average	6.7

Q8-2 Do you have any experience of doing other jobs?

1. Yeas	12
2. No	8

Q8-3 What is the previous job?

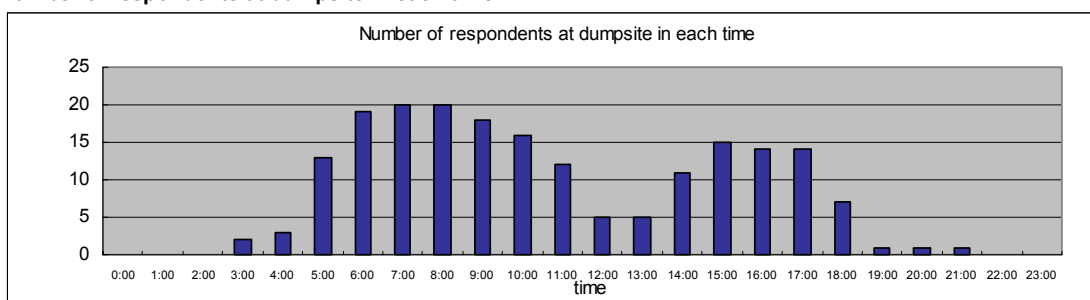
Waste collector	3
Farmer	3
Selling cloth	2
Armed force	1
Carpenter	1
Construction worker	1
Tailor	1

Q9 How long do usually you work every day at the dumpsite?

**Total working hours**

5 hours	0	0
6 hours	0	1
7 hours	1	1
8 hours	1	2
9 hours	0	1
10 hours	1	4
11 hours	1	3
12 hours	0	2
13 hours	2	0
average	10.3	9.6

**Number of respondents at dumpsite in each time**



Q10 What kinds of materials do you usually collect? How much volume do you collect these materials daily? How much do you earn by selling these kinds of waste? To whom do you sell these kinds of waste?

Items	# collector	Average earning	To whom you sell?			
			1. Depo,	2. to those who come to the disposal site		
paper	18	580	1	5	2	13
cardboard	18	743	1	5	2	13
glass bottles	18	355	1	5	2	13
aluminum cans	18	510	1	5	2	13

metal cans	18	720	1	5	2	13
plastic bottles	14	855	1	5	2	9
soft plastics	17	800	1	5	2	12
hard plastics	17	1,071	1	5	2	12
cloth/textile	5	350	1	1	2	4
metal (such as metal parts)	18	400	1	5	2	13
organic waste (such as kitchen waste)	13	1,350	1	2	2	11

Sum of Earnings

	Count
1000 - 3000	2
3001 - 6000	9
6,001 - 10,000	4
10,001 - 13,000	3
13,001 - 18,000	0
more than 18,000	2
Average	7,734

Q11-1 Have you ever taken a hygiene training program?

1. Yes	8
2. No	12

Q11-2 Who provided the training program?

Pour Souriere de Enfants	3
World Vision	2
Phum chief	1
I do not know	2

Q12-1 Do you use protective clothes or equipments such as gloves and mask during your work?

1. Yes	18
2. No	2

Q12-2 What kinds of protective clothes or equipments do you use? Please check all you use.

1. Shoes	4
2. Boots	12
3. Gloves	7
4. Thick clothes	3
5. Mask	3
6. Others: hat and scarf	5

Q12-3 How to get these protective clothes or equipments? Please check all.

1. NGO provided	0
2. I bought	14
3. I picked up	5
4. Someone gave me	1
5. Others: exchange with wastes	1

Q13 What is the most serious problem during the work at the dumpsite? How about second serious problem? (single answer question)

	most	second	total
1. there are not enough protective clothes and equipment	0	2	2
2. possibility to be infected by disease	4	3	7
3. bad smell	3	2	5
4. fires at dumpsite and emission of polluted gas	0	2	2
5. competition with other waste pickers	6	2	8
6. possibility to be hit or run over by the collection vehicle or bulldozer at the dumpsite	3	0	3
7. there is not enough water to wash hands and feet	0	2	2
8. A hooligan group	2	4	6
9. others			4
Waste is stolen by others	1		
Afraid of injury by broken bottles, glass and needles	1	2	
99. No response	0	1	1

Q14-1 Have you ever had any experiences of being injured at the dumpsite?

1. Yes	17
2. No	3

Q14-2 Have you ever had an experience of being hit by a collection vehicle or bulldozer at the dumpsite?

1. Yes	7
2. No	13

Q14-3 Have you ever had a narrow escape from a collision with a collection vehicle or bulldozer at the dumpsite?



1. Yes	14
2. No	6

Q15-1 Is your child (children) also working at the dumpsite?

1. Yes	8
2. No	12

Q15-2 How many children working at the dumpsite?

1child	1
2 children	5
3 children	1
4 children	1
(total)	8

Q15-3 What are you concerned most about your child or children working at the dumpsite? How about the second concern? (single answer)

1. a cut of fingers or feet by waste such as broken glass	1	2	3
2. possibility to be infected by disease	1	1	2
3. possibility to be sick by polluted gas emitted from fires	0	2	2
4. possibility to be hit or run over by the collection vehicle or bulldozer at the dumpsite	6	2	8
5. Others: Afraid of play boy (a hooligan group)	0	1	1
(total)	8	8	

Q16 At the dumpsite, a lot of children are working. They are not only working but also playing at the dumpsite. They often jump onto a collection vehicle. How do you think about this?

1. They enjoy and this is not a bad thing.	0
2. It is dangerous but acceptable.	2
3. It is dangerous and children are not allowed to do this kind of play.	18
4. I do not care.	0

Q17 If the bad smell and fires at the dumpsite are mitigated, how do you think about it?

1. it is very good	19
2. it is good to some extent	1
3. it does not matter much	0
4. it does not matter at all.	0

Q18 Do you think that a measure to protect you and your children from accidents is needed?

1. Yes, it is necessary very much	20
2. Yes, it is necessary to some extent	0
3. No, it is not necessary very much	0
4. No, it is not necessary at all	0

Q19 In order to make the dumpsite more safe place for you and your children, to decrease fires and to mitigate smell, it is necessary to introduce some rules of working. For example, a special area for waste picking is created and you are allowed to enter only this area. Or you are allowed to enter a designated area of the dumpsite only after collection vehicles unload waste and you can pick up waste for a certain period. But you have to leave the area while the bulldozers are leveling the ground. How do you think about the introduction of such rule?

1. If I can work more safely at the dumpsite and the environment of the dumpsite is improved, I agree with the introduction of rules.	19
2. It is good that the dumpsite becomes safer during the work, but if this reduces the working time and revenue, I am against the introduction of rules.	0
3. I do not care the accidents and I am against the introduction of any rules.	1

Q20 What is the most serious problem concerning the living conditions? How about the second serious problem?

	Most	Second	Total
1. there is not enough safe water	7	6	13
2. there is not toilet at/near the house	0	1	1
3. air pollution from the dumpsite	5	3	8
4. there is not electricity at home	0	0	0
5. flooding during the rainy season	0	0	0
6. fires at the dumpsite	1	8	9
7. others			8
have a lot of disease	3		
poverty	2		
very bad smell	1		
have no shelter	1		
fear of collapse of the house		1	
9. No response	0	1	1

Q21-1 Do you think that the dumpsite affect your living conditions?

1. Yes	20
2. No	0

Q21-2 Which impact does the dumpsite have on your living conditions? Please check all you agree with. (multiple answer)

1. Air pollution caused by fires at the dumpsite	16
2. Air pollution caused by collection vehicles	4
3. Spread of fires from the dumpsite to surrounding areas	11
4. Water Pollution caused by leachate from the dumpsite	10
5. Traffic jam caused by collection vehicles	3
6. Others	
(Very) bad smell	3

Q22 Are you concerned about your health?

1. Yes	20
2. No	0

Q23 What kinds of diseases and injuries have you suffered in the past and at present? Please check all symptoms that you suffered in the last 6 months.

	Past	Present
23-1 fever	13	10
23-2 cough	12	11
23-3 dizzy	12	17
23-4 body pains	13	17
23-5 head aches	17	18
23-6 typhoid	5	4
23-7 fatigue	16	19
23-8 injury	14	11
23-9 diarrhea	11	11
23-10 malaria	3	0
23-11 infection	6	5
23-12 heart problems	6	6
23-13 mental problems	13	11
23-14 pain in abdomen	13	11
23-15 skin/eye disease	14	12
23-16 others: kidney problem	1	1

Q24-1 When you get sick or injured, how do you treat it?

1. go to see doctor	0
2. consult with health worker	3
3. buy medicines	12
4. traditional healer	1
5. go to NGO	4

Q24-2 How much do you usually spend for the health car for the whole family?

less than R 5,000	2
R 5,000 - 19,999	0
R 20,000 - 39,999	6
R 40,000 - 59,999	7
R 60,000 - 79,999	5

Q25 Why did you start waste picking at the dumpsite?

1. My parent(s) works (worked) as a waste picker.	0
2. Brother(s) or sister(s) works (worked) as a waste picker.	1
3. I did not need skills and educations to start waste picking.	4
4. I did not need starting capital to start waste picking.	9
5. Others	
Poverty	5
It is possible to take a rest many times	1

Q26-1 Do you want to start new job?

1. Yes	20
2. No	0

Q26-2 What kinds of job is it?

Vendor	10
(Factory) worker	3
NGO staff	1
Car repairer	1
Sewing	1
Environment agency	1
Electrician	1
Farmer	1
Moto taxi driver	1

Q26-3 What is the main obstacle to start the new job?

No capital (money)	15
No place to work	2
No education	1
Health problem	1
Nothing	1

Q27 if the dumpsite is moved to another place, far away from the center of the city, what are you going to do?

1. I want to move to the new dumpsite to continue to work at the dumpsite	1
2. I do not want to move to the new dumpsite, but want to continue waste picking work on the street.	6
3. I want to start new job such as vender seller or motorbike taxi driver.	12
4. Others: Pig feeder	1

Q28-1 Number of people living in your house in total

Q28-2 Number of family who are working

Q28-3 Total daily family income

Daily Income (Riel)	Count
1000 - 3000	4
3001 - 6000	7
6,001 - 10,000	5
10,001 - 13,000	2
13,001 - 18,000	1
more than 18,000	1

Number of household member							
3	4	5	6	7	8	9	10/more
1	0	2	0	1	0	0	0
2	1	2	0	0	0	1	1
0	2	1	1	0	0	0	1
1	0	0	1	0	0	0	0
0	0	0	0	0	0	0	1
0	0	0	0	0	1	0	0

Number of family who are working

1 person	7
2 person	10
3 person	2
4 person	1

Q29 How old are you?

1. 20 - 29	6
2. 30 - 39	3
3. 40 - 49	7
4. 50 - 59	3
5. 60 - 69	1

average

40.4

Q30-1 What is the last grade of formal education you completed?

1. No formal schooling	5
2. Some primary	9
3. Completed primary school	0
4. Some secondary school	4
5. Completed secondary school	1
6. Technical/Vocational	0
7. Some/completed pre-university (A-Level)	0
8. Some/completed diploma degree	0
9. University	0
99. Refused	1

Q30-2 Are you literate?

1. Yes	12
2. No	8

Q31 Are you ...?

1. Male	6
2. Female	14

Q33-1 What type of house do you live now?

Type

1. Concrete house	0
2. Concrete (bottom) +wooden (upstairs)	1
3. Brick house high from land	1
4. Wooden with zinc roof	8
5. High floor wooden house with zinc roof	0
6. Leaf house with zinc roof	2
7. High-floor leaf house	0
8. Leaf house built on land	3
9. Others	
Wooden frame and plastic roof	3
Tent + Zn roof	1
Tent	1

New or Old	
1. New	1
2. Old	11
3. Average	5
4. Very old	3

Ownership	
1. Owned	12
2. Rent	7
3. Ask somebody to use	0
4. Temporarily living	1

Q33-2 How many rooms are there?	
1. 1	17
2. 2	0
3. 3	1
4. 4	0
5. 5 and more	2

Q34 Where do you get water?	
1. Piped water connected in house	2
2. Shared piped water	0
3. Public well	0
4. Water vendor	17
5. Rain water	0
6. Other: from pumping well owner	1

Q35 What type of toilet facility do you use?	
1. Toilet in my house, connected to drainage system	0
2. Toilet in my house, not connected to drainage system	9
3. Public toilet	1
4. Toilet of other houses	1
5. I do not use toilet.	9

Q36 Do you have electricity in your house?	
1. Yes, I have my own connection	3
2. Yes, I buy from someone	8
3. No	9

Q37 Where do you dispose of your waste?	
1. collected by waste collection worker	1
2. burn	4
3. scatter around house	1
4. bring to the dumpsite	10
5. bury in the backyard	3
6. dump in a canal, on the street or open land	1

Q38 When you face problems such as crimes and violence in your phum, whom do you usually consult?	
1. NGO	0
2. Khan chief or officer	0
3. Sangkat chief or officer	1
4. Phum chief	11
5. monk	0
6. neighbors	1
7. groups such as self-help group and supporter group of a temple	0
8. Self solution	0
9. Others: Group leader	7

# Data 5

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*Cleansing Worker Survey*

## Data 5 Cleansing Worker Survey

### 5.1 Questionnaire

#### 5.1.1 Cleansing Worker Survey

Name of interviewee	Sample Number
Organization the interviewee belong to	Date of Interview
Position	Name of Interviewer
Starting Time:	Finishing Time:
Checked by:	Date Checked:

<p><b>1. About your current work</b> (since you started to work for the current employer or cooperative group)</p> <p><b>Q1-1</b> What type of work are you involved in?          1. garbage collection          3. driving a collection vehicle          4. cleaning road, park or drainage.          5. maintaining equipment          6. supervising worker          7. Others (Please specify: _____)</p> <p><b>Q1-2</b> How long have you been doing this work? (if you work for several companies, please sum up the whole years)          _____ Years</p> <p><b>Q1-3</b> Are you a full-time and formally employed worker?          1. Yes Go to Question 2          2. No Go to Question 1-4</p> <p><b>Q1-4</b> What type of employment status?          1. contract base (long term)          2. contract base (short tem)          2. on probation          3. employed by subcontractor          4. member of cooperative group          5. others (Please specify: _____)</p>
<p><b>Q2</b> Before doing this work, what kind of job did you do?          1. waste picking (self-employed)          2. other types of self-employed work such as shoes polishing, street vending, ect....          3. engaged in agriculture/fishery in a rural area          4. this is the first job for me.          5. others (Please specify: _____)</p> <p><b>Q3</b> Why did you choose to work as cleansing worker?          1. A family member does/did this work.          2. A friend does/did this work.          3. Heard that the company was recruiting.          4. No other job available.          5. No skill or capital to do other work.          6. others (Please specify: _____)</p> <p><b>Q4-1</b> How many hours do you usually work per day? _____ hours</p> <p><b>Q4-2</b> When is your main working time?          Starting time _____ Finish time _____ Hours per day          _____</p>

<b>Q4-3</b>	Is this a fixed work schedule or does it change sometimes? Fixed _____ (explain) _____	Changes
<b>Q5-1</b>	Where do you work most of the time? _____ Sangkat	
<b>Q5-2</b>	Is this a fixed area or does it change sometimes? Fixed _____ (Explain) _____	Changes

**Q6**  
Did you receive any formal training for your job? Yes \_\_\_ No \_\_\_ If yes, please what kind of training  
\_\_\_\_\_

**Q7**  
Have you ever had training about hygiene and how to handle waste?  
 1. Yes, once  
 2. Yes, I receive it periodically  
 3. No

**Q8-1**  
What are the three biggest problems you face at work? 1) \_\_\_\_\_ 2) \_\_\_\_\_  
3) \_\_\_\_\_

**Q8-2**  
When you face problems or troubles arose from your work, whom do you consult?  
 1. co-worker  
 2. team leader  
 3. supervisor  
 4. others (Please specify: \_\_\_\_\_)

**Q9-1**  
Are you concerned that your work maybe hazardous for your health? 1. Yes 2. No

**Q9-2**  
What kinds of diseases and injuries have you suffered in the past and at present? Please check all symptoms that you suffered in the last 6 months.

		In the past 6 month	At present
14-1	fever		
14-2	cough		
14-3	dizzy		
14-4	body pains		
14-5	head aches		
14-6	typhoid		
14-7	fatigue		
14-8	injury		
14-9	diarrhea		
14-10	malaria		
14-11	infection		
14-12	heart problems		
14-13	mental problems		
14-14	pain in abdomen		
14-15	skin/eye disease		
14-14	cut by glass or metal in garbage		
14-17	broken leg/arm in the accident		
14-18	others (please specify _____)		
14-19	No response		

<p><b>Q9-3</b>                  When you get sick or injured, how do you treat it?                  1. go to see doctor                  2. go to clinic                  3. buy medicines                  4. traditional healer                  5. go to NGO                  6. others (please specify: _____ )</p>
<p><b>Q9-4</b>                  Does your company or cooperative group provide health care or pay health care costs?                  1. Yes                  2. No                  3. I do not know                  4. No response</p>
<p><b>Q9-5</b>                  Approximately how much did you spend for health care in the last six months?                  For your self: _____ Riels/Dollars                  For the rest of your family: _____ Riels/Dollars</p>
<p><b>Q10-1</b>                  Do you use protective clothes or equipments during your work?                  1. Yes      Go to Question 10-2                  2. No        Go to Question 11-1</p>
<p><b>Q10-2</b>                  What kinds of protective clothes or equipments do you use? Please check all you use.                  1. shoes    2. boots    3. gloves    4. thick clothes    5. mask    6. others (Please specify _____)</p>
<p><b>Q10-3</b>                  Does your employer require you to use protective clothes or equipment during work?                  1. Yes        2.No</p>
<p><b>Q10-4</b>                  Does your employer supply the clothes or protective equipment?                  1. Yes, once at the start      Go to Question 10-5                  2. Yes, I receive them periodically      Go to Question 10.5                  3. No                                      Q11</p>
<p><b>Q10-5</b>                  What kinds of protective clothes or equipments does your employer provide?                  1. shoes        2. boots        3. gloves        4. thick clothes        5. mask        6. others (Please specify _____ )</p>



<b>2. Recycling issues</b>
<b>Q11-1</b> Do you collect recyclable materials during your collection/cleaning work and sell them? 1. Yes, always                      Go to question 11.2 2. Yes, sometimes                Go to question 11.2 3. Yes, once in a while         Go to question 11.2 4. No, I do not.                    Go to question 12 5. No response                    Go to question 12
<b>Q11-2</b> What are the main materials you sell? Paper, cardboard, glass bottles, aluminum cans, metal cans, plastic bottles, soft plastics, hard plastics, cloth/textile, metal (such as metal parts), others (Please specify: _____)
<b>Q11-3</b> Where do you normally sell recyclable materials?                      Sangkat _____
<b>Q11-4</b> Who gets the income from the sale of materials?                      Only you _____ Share with co-workers _____
<b>Q11-5</b> How much income do you personally get from selling recyclable materials?                      _____ per day or _____ per month

<b>3. Personal Information</b>	
<b>Q12</b> How old are you? _____ years	<b>Q13</b> Are man or women?    1 Man        2 Woman _____
<b>Q14</b> Can you read and write? 1. Yes                      2. No	<b>Q15</b> What is your ethnicity? 1. Khmer 2. Cham 3. Vietnamese 4. Chinese 5. Others (Please specify: _____)
<b>Q15</b> What is the highest level of education you have achieved? 1. 3rd grade or less 2. 6th grade (Primary School) 3. 9th grade 4. 12th grade (Secondary School or Technical/Vocational School) 5. University/College 6. Others (please specify: _____)	
<b>Q16-1</b> What type of house do you live in now? 1. wood 2. palm leaf / bamboo 3. brick 4. plastic or cardboard 5. others (Please specify: _____)	
<b>Q16-2</b> What's is ownership? 1. owned by you or your family. 2. rented. 3. shared 4. occupied 5. others (Please specify: _____)	
<b>Q16-3</b> How many rooms are there? 1. One 2. Two 3. Three 4. Four 5. more than 4 rooms	
<b>Q17</b> How many people live with you? How many people earn income in your household?	

<b>Q18</b> How much is your salary per month?
<b>Q19</b> What is the total income for your family per month?
<b>Q20</b> How long have you lived in your present house? _____ years
<b>Q21</b> If you lived in the countryside before, how long have you lived in Phnom Penh? _____ years _____ Always in Phnom Penh
<b>Q22</b> Where do you get water at your house? 1. Piped water connected in house 2. Shared piped water 3. Well 4. Water vendor 5. Others (Please specify: _____ )
<b>Q23</b> What type of toilet facility do you use? 1. Toilet in my house, connected to drainage system 2. Toilet in my house, not connected to drainage system 3. Public toilet 4. Toilet of others with a charge 5. No facilities 6. Others (Please specify: _____ )
<b>Q24</b> Do you have electricity in your house? 1. Yes, I have my own connection 2. Yes, I buy from someone 3. No
<b>Other remarks / observations</b>

### 5.1.2 Questionnaire of SHG Member Survey

កាលបរិច្ឆេទ នៃសំណួរ = Date		លេខរៀង ក្រដាស = Number	
អ្នកធ្វើសំណួរ = Interviewer	ពិនិត្យដោយ = Checked by:		ការបរិច្ឆេទពិនិត្យ= Date Checked
ពេលចាប់ផ្តើម = Starting Time:		ពេលបញ្ចប់ = Finishing Time:	

GENERAL INFORMATION			
1	Name	2	Sex
3	Age	4	Position
5	How many people in your family		

SITUATION BEFORE			
6	What was your job before you joined SHG		
7	How much was your average income then		
8	How many people were working in your family		
9	How much was the combined income of all family members		
10	Type of house you live in then		
11	Family debt		
12	Family savings		
13	Ownership of major items		
14	How many school age children (6 – 16 yrs.) live in your home?		
	_____ In school	_____ Out of school	
15	Other indicators of wealth/poverty		
16	How long have you worked in the SHG		
17	What is your job		
18	How much is your salary		
19	How many people working in your family		
20	How much is the combined income of all family members		
21	Type of house you live in now		
22	Family debt		
23	Family savings		
24	Ownership of major items		
25	How many children attending school		
26	Other indicators of wealth/poverty		
27	Do you feel your family's economic situation has changed since you started working for SGH?		
	_____ Better	_____ Worse	_____ Same
28	If situation has changed, what do you feel is the main reason for the change		
	_____ more income from SHG	_____ more income from other source	
	_____ change in family situation (death or serious illness, divorce, wage earner left home, etc....)		
	_____ Other		

# Data 6

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*Medical Institution Survey*

## Data 6 Medical Institutions Survey

### 6.1 Questionnaire and Data

#### 6.1.1 General Information

Q.1. What is your position within this medical institution? [ \_\_\_\_\_ ]

**Base: Population =**

Position	Answer	%
1. Director	9	22
2. Doctor	4	10
3. Chief Office	6	15
4. Vice-Chief Office	3	7
5. Administrator	17	41
6. Manager	2	5
<b>Grand Total</b>	<b>41</b>	<b>100</b>

Q.2. What is the number of employee (all staffs including doctors, nurses, etc. who work in the institution)?

full-time [4,393] persons

Part-time [292] persons

**Base: Population =**

Category of the institution	Full time		Part time	
	Total	Average	Total	Average
1. Hospital	3,792	430	190	16
2. Poly-clinic	311	23	74	4
3. Clinic	86	10	18	3
4. Health center	204	34	10	2
4. Others	0	0	0	0
<b>Grand Total</b>	<b>4,393</b>	<b>497</b>	<b>292</b>	<b>25</b>

Q.3. Category of the institution.

Q.4. Type of institution:

**Base: Population =**

Category of the Institution	Type of Institution			Grand Total	%
	Public	Private	Others		
1. Hospital	12	0	0	12	29
2. Poly-clinic	0	14	0	14	34
3. Clinic	0	9	0	9	22
4. Health center	6	0	0	6	15
5. Others	0	0	0	0	0
<b>Grand Total</b>	<b>18</b>	<b>23</b>	<b>0</b>	<b>41</b>	<b>100</b>

Q.5. Outline of institution:

1. Number of beds : [3,114] beds

**Base: Population =**

Category of The Institution	Fr.	Number of Beds			
		Total	Average	Maximum	Minimum
1. Hospital	12	2,593	216	550	24
2. Poly-clinic	14	329	23	50	8
3. Clinic	9	100	11	18	4
4. Health center	6	92	15	30	3
5. Others	0	0	0	0	0
<b>Grand Total</b>	<b>41</b>	<b>3,114</b>	<b>265</b>	<b>648</b>	<b>39</b>

2. Average bed occupation rate : [1,149] beds/day and

: [ ] beds/year

<b>Base: Population =</b>							
<b>Category of The Institution</b>	<b>Fr.</b>	<b>Average bed occupation rate</b>					
		<b>beds/day</b>			<b>beds/year</b>		
		<b>Average</b>	<b>Maximum</b>	<b>Minimum</b>	<b>Average</b>	<b>Max</b>	<b>Min</b>
1. Hospital	12	1,033	300	10			
2. Poly-clinic	14	64	12	1			
3. Clinic	9	23	8	1			
4. Health center	6	29	10	1			
5. Others	0	0	0	0			
<b>Grand Total</b>	<b>41</b>	<b>1,149</b>	<b>330</b>	<b>13</b>			

3. Average number of in-patients : [937] patients /day

<b>Base: Population =</b>						
<b>Category of The Institution</b>	<b>Fr.</b>	<b>Number of in-patients/day</b>				
		<b>Total</b>	<b>Average</b>	<b>Maximum</b>	<b>Minimum</b>	
1. Hospital	12	877	68	350	5	
2. Poly-clinic	14	28	2	6	1	
3. Clinic	9	15	2	5	1	
4. Health center	6	17	3	5	1	
5. Others	0	0	0	0	0	
<b>Grand Total</b>	<b>41</b>	<b>937</b>	<b>75</b>	<b>366</b>	<b>8</b>	

4. Average number of out-patients : [8,538] patients /day

<b>Base: Population =</b>						
<b>Category of The Institution</b>	<b>Fr.</b>	<b>Number of out-patients/day</b>				
		<b>Total</b>	<b>Average</b>	<b>Maximum</b>	<b>Minimum</b>	
1. Hospital	12	7,962	663	5,500	15	
2. Poly-clinic	14	257	18	55	5	
3. Clinic	9	130	17	40	2	
4. Health center	6	189	31	50	9	
5. Others	0	0	0	0	0	
<b>Grand Total</b>	<b>41</b>	<b>8,538</b>	<b>729</b>	<b>5,645</b>	<b>31</b>	

5. Season of high occupancy : [41]

6. Season of low occupancy : [41]

<b>Base: Population =</b>					
<b>Season</b>	<b>Occupancy</b>				
	<b>High</b>	<b>%</b>	<b>Low</b>	<b>%</b>	
1. Dry	33	80	8	20	
2. Wet	8	20	33	80	

7. Total floor area : [96,527] m<sup>2</sup>

<b>Base: Population =</b>					
<b>Category of The Institution</b>	<b>Fr.</b>	<b>Total floor area (m<sup>2</sup>)</b>			
		<b>Average</b>	<b>Maximum</b>	<b>Minimum</b>	
1. Hospital	12	90,411	86,790	6,720	
2. Poly-clinic	14	3,655	1,680	150	
3. Clinic	9	1,390	720	120	
4. Health center	6	1,071	960	120	
5. Others	0	0	0	0	
<b>Grand Total</b>	<b>41</b>	<b>96,527</b>	<b>90,150</b>	<b>7,110</b>	

## 6.1.2 Waste Management

a. Definition of waste generated in medical institutions

a.1 Generation

**The interviewer should get enough information to estimate generation amount of each waste!!** For this purpose in case the answer is bags/week, please specify the volume of a bag.

[\_\_\_\_\_] liters/bag

If you are not sure of the weight or volume, please estimate the number of garbage loads (e.g. handcarts, containers) collected from your institution per week: [ ]

**Q.6. How many kilograms of each waste generated per week?**

Category of The Institution		Fr.	Waste Generation Amount (kg/week)		
			Average	Maximum	Minimum
1. General waste	1. Hospital	12	3,115	8,400	33
	2. Poly-clinic	14	34	70	8
	3. Clinic	9	23	75	3
	4. Health center	6	171	350	20
	5. Others	0	0	0	0
<b>Total</b>		<b>41</b>	<b>3,343</b>	<b>8,895</b>	<b>64</b>
2. Medical waste	1. Hospital	12	154	333	6
	2. Poly-clinic	14	9	25	2
	3. Clinic	9	5	10	1
	4. Health center	6	29	70	5
	5. Others	0	0	0	0
<b>Total</b>		<b>41</b>	<b>197</b>	<b>438</b>	<b>14</b>

**Q.7. Which of the following types of general waste do you produce?**

(Tick all that apply and estimate the approximate percentages of the five main types. If you do not know this, just rank the five main types, 1 = highest, 2 = 2nd highest, etc.)

General Waste		Fr.	%			Rank
			Average	Maximum	Minimum	Average
1. Food/kitchen waste		41				1
2. Paper		39				2
3. Textile		11				2
4. Grass and wood (garden waste)		16				2
5. Plastics		39				3
6. Leather and rubber		0				0
7. Metals		0				0
8. Glass and bottle		18				4
9. Ceramics and stone		0				0
10. Other (soil, etc.)		2				5

**Q.8. Please describe what types of medical waste you produce and the approximate quantities of such wastes.**

Types	Fr.		Quantity (units)					
	Yes	No	kg/week			liter/week		
			Ave.	Max.	Min.	Ave.	Max.	Min.
1. Infectious waste	31	10	24	280	1			
2. Pathological waste	35	6	24	230	1	9	9	9
3. Sharps	41	0	5	50	1			
4. Pharmaceutical waste	5	36	2	1	1			
5. Genotoxic waste	1	40	95	95	95			
6. Chemical waste	6	35	2	2	2	7	11	4
7. Wastes with high content of heavy metals	0	41						
8. Pressurized containers	0	41						
9. Radioactive waste	21	20				15	140	1
<b>Total</b>	<b>109</b>	<b>219</b>						

**b. Storage, Discharge, Collection**

**b.1 In house collection system**

- Q.9. Specify the present waste collection system in your institution.
- We use a standard system with containers or colored bags with labels
  - We use different types of labeled containers
  - Others

<b>Waste Category / Types</b>		<b>Waste collection system</b>		
		<b>Main method</b>		<b>Other method</b>
		<b>Fr.</b>		
		<b>a.</b>	<b>b.</b>	<b>c.</b>
<b>Base: Population =</b>				
a. General waste		5	1	35
b. Medical waste	1. Infectious waste	3	7	27
	2. Pathological waste	3	6	27
	3. Sharps	4	6	30
	4. Pharmaceutical waste		1	
	5. Genotoxic waste		1	
	6. Chemical waste			
	7. Wastes with high content of heavy metals			
	8. Pressurized containers			
	9. Radioactive waste		3	20
	10. Mixed waste			

- Q.10. Describe the present container for collection of general/medical waste in your institution.(fill in the following table)

- |                           |                                      |
|---------------------------|--------------------------------------|
| a. Plastic bag            | b. Paper bag                         |
| c. Open container         | d. Container with lid                |
| e. Cardboard box          | f. Direct disposal (i.e. no storage) |
| g. Own large concrete bin | h. Others                            |

<b>Waste Category / Types</b>		<b>Waste collection system</b>							
		<b>Main method</b>				<b>Other method</b>			
		<b>Fr.</b>							
		<b>a.</b>	<b>b.</b>	<b>c.</b>	<b>d.</b>	<b>e.</b>	<b>f.</b>	<b>g.</b>	<b>h.</b>
<b>Base: Population =</b>									
a. General waste		32		5	4				
b. Medical waste	1. Infectious waste	28	1		6				
	2. Pathological waste	30	1		5				
	3. Sharps	12	3	2	7	6			7
	4. Pharmaceutical waste	3							
	5. Genotoxic waste								
	6. Chemical waste						1		
	7. Wastes with high content of heavy metals								
	8. Pressurized containers								
	9. Radioactive waste	1		4	4				16
	10. Mixed waste								

- Q.11. Specify the collection frequency of the general/medical waste (of the department) in your institution. (tick in the following table)

<b>Collection frequency</b>		<b>a. General</b>		<b>b. Medical</b>	
		<b>Fr.</b>	<b>%</b>	<b>Fr.</b>	<b>%</b>
<b>Base: Population =</b>					
1.	More than once daily	5	12	2	5
2.	Once daily	33	80	34	82.5
3.	Every 2-3 days	3	8	2	5
4.	Every 4-5 days			1	2.5
5.	Weekly			1	2.5
6.	Other			1	2.5



Q.12. Are there cool storage points for pathological wastes in your institution?  
[2] 1. Yes, [39] 2. No.

<b>Base: Population =</b>			
<b>Category of The Institution</b>	<b>Fr.</b>	<b>Cool Storage</b>	
		<b>Yes</b>	<b>No</b>
1. Hospital	12	1	11
2. Poly-clinic	14	1	13
3. Clinic	9	0	9
4. Health center	6	0	6
5. Others	0	0	0
<b>Grand Total</b>	<b>41</b>	<b>2</b>	<b>39</b>

## b.2 Storage

Q.13. How do you store general waste and medical waste?  
[4] 1. We mix them all together. (Go to Q.14)  
[37] 2. We store them separately. (Go to Q.15)

<b>Base: Population =</b>			
<b>Category of The Institution</b>	<b>Fr.</b>	<b>Storage general waste and medical waste</b>	
		<b>1. we mix them all together.</b>	<b>2. We store them separately.</b>
1. Hospital	12	0	12
2. Poly-clinic	14	0	14
3. Clinic	9	4	5
4. Health center	6	0	6
5. Others	0	0	0
<b>Grand Total</b>	<b>41</b>	<b>4</b>	<b>37</b>

Q.14. Why don't you separate medical waste?

- [ ] 1. There is no reason to separate them.  
[ ] 2. It is troublesome to separate them.  
[ ] 3. The waste collectors separate them.  
[ ] 4. Others(specify : )

<b>Base: Population =</b>					
<b>Category of The Institution</b>	<b>Fr.</b>	<b>Storage general waste and medical waste</b>			
		<b>1. There is no reason to separate them.</b>	<b>2. It is troublesome to separate them.</b>	<b>3. The waste collectors separate them.</b>	
				<b>4. Others</b>	
1. Hospital	12	0	0	0	0
2. Poly-clinic	14	0	0	0	0
3. Clinic	9	0	0	0	4
4. Health center	6	0	0	0	0
5. Others	0	0	0	0	0
<b>Grand Total</b>	<b>41</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>

Q.15. How do you store your waste within your institution? (fill in the following table)

- |                           |                                      |
|---------------------------|--------------------------------------|
| a. Plastic bag            | b. Paper bag                         |
| c. Open container         | d. Container with lid                |
| e. Cardboard box          | f. Direct disposal (i.e. no storage) |
| g. Own large concrete bin | h. Others                            |

<b>Base: Population =</b>									
<b>Waste Category / Types</b>	<b>Fr.</b>	<b>Storage method</b>							
		<b>Main method</b>						<b>Other method</b>	
		<b>a.</b>	<b>b.</b>	<b>c.</b>	<b>d.</b>	<b>e.</b>	<b>f.</b>	<b>g.</b>	<b>h.</b>
		a. General waste	22		6	6			
b. Medical waste									
1. Infectious waste	20	1	1	8				3	
2. Pathological waste	19	1	1	9				2	
3. Sharps	9	2	3	6				11	
4. Pharmaceutical waste	1		1						
5. Genotoxic waste	1								
6. Chemical waste								1	

7. Wastes with high content of heavy metals					
8. Pressurized containers					
9. Radioactive waste	1	2	2		15
10. Mixed waste					

### b.3 Disposal (Intermediate treatment and final disposal)

Q.16. What do you do with your waste? (fill in first two columns of following table)

- Place outside for collection by CINTRI or other collectors
- Directly carry garbage to a waste collection vehicle
- Take the waste to waste collection point of CINTRI or other collectors
- CINTRI or other collectors collects from institution (including own bin)
- Bury on site
- Burn on site
- Recycle
- Compost on site
- Incinerate on site
- Autoclave disinfection on site
- Open dumping outside property
- Other (specify : \_\_\_\_\_)

Base: Population =		Main method for General waste											
		Fr.											
Waste Category / Types		a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.
a. General waste	1. Food/kitchen waste	19	9	11	2								
	2. Paper	19	3	8	2								
	3. Textile	5		1	2								
	4. Grass and wood (Garden waste)	3	1	5									
	5. Plastics	16	3	7	2								
	6. Leather and rubber												
	7. Metals			1									
	8. Glass and bottle	3		5									
	9. Ceramics and stone												
	10. Other (soil, etc.)												

Base: Population =		Main method for Medical waste												
		Fr.												
Waste Category / Types		a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	
b. Medical waste	1. Infectious waste	4	5	5	2					12			7	
	2. Pathological waste	4	5	5	2	1	1			11			7	
	3. Sharps	3	4	6	2		1			18			7	
	4. Pharmaceutical waste			1						3			1	
	5. Genotoxic waste													
	6. Chemical waste									2				
	7. Wastes with high content of heavy metals													
	8. Pressurized containers													
	9. Radioactive waste				1		1							11
	10. Mixed waste													

Q.17. For the medical waste collection by CINTRI or other collectors, how are they disposed of?

- Disposed of to the Stung Mean Chey landfill together with other waste
- Buried in a special pit at the landfill
- Burned at the landfill
- Incinerated at an incinerator
- Buried at the town/city crematorium
- Other (specify : \_\_\_\_\_).

<b>Base: Population =</b>		<b>Main method for General waste</b>					
		<b>Fr.</b>					
<b>Waste Category / Types</b>		<b>a.</b>	<b>b.</b>	<b>c.</b>	<b>d.</b>	<b>e.</b>	<b>f.</b>
a. General waste	1. Food/kitchen waste	30					
	2. Paper	21					
	3. Textile	2					
	4. Grass and wood (Garden waste)	6					
	5. Plastics	19					
	6. Leather and rubber						
	7. Metals	1					
	8. Glass and bottle	4					
	9. Ceramics and stone						
	10. Other (soil, etc.)						

<b>Base: Population =</b>		<b>Main method for Medical waste</b>					
		<b>Fr.</b>					
<b>Waste Category / Types</b>		<b>a.</b>	<b>b.</b>	<b>c.</b>	<b>d.</b>	<b>e.</b>	<b>f.</b>
b. Medical waste	1. Infectious waste	14	1		9	2	2
	2. Pathological waste	15	1		9	2	1
	3. Sharps	13	2		13	1	3
	4. Pharmaceutical waste	3			2		
	5. Genotoxic waste						1
	6. Chemical waste						
	7. Wastes with high content of heavy metals				1		
	8. Pressurized containers						
	9. Radioactive waste					1	3
	10. Mixed waste						

Q.18. If you chose **g.** in Q.16, go to “Additional Sheet A”.

Q.19. If you chose **i.** in Q.16, please provide the following information for the incinerator.

<b>Information</b>	<b>Description</b>
1. Location:	At hospital, and health center
2. Capacity (furnace volume (m <sup>3</sup> ) and waste burning capacity (kg/h):	- From 0.97 m <sup>3</sup> /h to 2 m <sup>3</sup> /h - From 10 kg/h to 100 kg/h
3. Description (e.g. no of chambers, operating principle):	2
4. Combustion fuel:	Diesel, wood, charcoal, petroleum, rice hulls
5. Height of chimney	Average 6 m.
6. Proximity of living/working spaces to incinerator:	Average 7m.
7. Scrubbing/filtering of exhaust gases: Yes/No	Yes = 4          No = 7
8. Normal operating hours:	Average 3 hours
9. Ash disposal (amount and frequency):	Average 5 kg/week
10. Age:	Average 7 years
11. Reliability (no of days out of service per year; average outage time):	Average 176 days
12. Problems:	

Q.20. If you chose **j.** in Q.16, please provide the following information for the autoclave.

<b>Information</b>	<b>Description</b>
1. Location:	
2. Type	
3. Capacity (Treatment volume (m <sup>3</sup> ) and waste capacity (kg/h):	
4. Description (e.g. no of autoclave, operating principle):	

5. Normal operating hours:	
6. Average daily treatment amount (kg/day):	
7. Disposal method of treated waste	
8. Reliability (no of days out of service per yr; average outage time):	
10. Problems:	

- Q.21. If you ticked **k.** in Q.16, where do you dump your waste outside your institution?  
 [        ] 1. On banks of stream/river, or in stream/river  
 [        ] 2. On vacant land  
 [        ] 3. In a gully  
 [        ] 4. Other (specify : \_\_\_\_\_).

**Base: Population =**

Category of The Institution	Fr.	Where do you dump your waste outside your institution?			
		1. On banks of stream/river, or in stream/river	2. On vacant land	3. In a gully	4. Other
1. Hospital					
2. Poly-clinic					
3. Clinic					
4. Health center					
5. Others					
<b>Grand Total</b>					

#### b.4 Discharge

- Q.22. How do you discharge medical wastes?  
 [28] 1. We separate store but mix discharge.  
 [6] 2. We separate store and separate discharge.  
 [7] 3. We mix store and mix discharge.

**Base: Population =**

Category of The Institution	Fr.	How do you discharge medical wastes?		
		1. We separate store but mix discharge.	2. We separate store and separate discharge.	3. We mix store and mix discharge.
1. Hospital	12	8	3	1
2. Poly-clinic	14	13	0	1
3. Clinic	9	3	2	4
4. Health center	6	4	1	1
5. Others	0	0	0	0
<b>Grand Total</b>	<b>41</b>	<b>28</b>	<b>6</b>	<b>7</b>

- Q.23. In case of “separate store but mix discharge”, who mixes them?  
 [8] 1. Collector  
 [20] 2. Our employee  
 [0] 3. Others (specify: \_\_\_\_\_ )

**Base: Population =**

Category of The Institution	Fr.	In case of “separate store but mix discharge”, who mixes them?		
		1. Collector	2. Our employee	3. Others
1. Hospital	8	1	7	0
2. Poly-clinic	13	6	7	0
3. Clinic	3	1	2	0
4. Health center	4	0	4	0
5. Others	0	0	0	0
<b>Grand Total</b>	<b>28</b>	<b>8</b>	<b>20</b>	<b>0</b>

- Q.24. Referring to an example given below, please tick appropriate boxes on the answer table to indicate your discharge manner of medical wastes.

<b>Base: Population =</b>		<b>Your discharge manner of medical waste</b>		
		<b>Fr.</b>		
<b>Waste Category / Types</b>		<b>1. separated discharge</b>	<b>2. mixed discharge</b>	<b>3. not generated</b>
Medical waste	1. Infectious waste	3	33	
	2. Pathological waste	1	35	
	3. Sharps	10	29	
	4. Pharmaceutical waste	1	1	
	5. Genotoxic waste			
	6. Chemical waste			
	7. Wastes with high content of heavy metals			
	8. Pressurized containers			
	9. Radioactive waste	10	7	
	10. Mixed waste			

### b.5 Collection

Q.25. Are you provided with a garbage collection service? (either direct collection or nearby waste collection points or direct pickup from institution – items **a, b, c or d** in Q.16)

[41 ] 1. Yes

[ ] 2. No – Do you want to receive a waste collection service?

– Answer: [ ] 1. Yes / [ ] 2. No – then go to Next Section (0)

<b>Base: Population =</b>		<b>Are you provided with a garbage collection service?</b>		
<b>Category of The Institution</b>		<b>Fr.</b>	<b>Yes</b>	<b>No</b>
1. Hospital		12	12	0
2. Poly-clinic		14	14	0
3. Clinic		9	9	0
4. Health center		6	6	0
5. Others		0	0	0
<b>Grand Total</b>		<b>41</b>	<b>41</b>	<b>0</b>

<b>Base: Population =</b>		<b>Do you want to receive a waste collection service?</b>		
<b>Category of The Institution</b>		<b>Fr.</b>	<b>Yes</b>	<b>No</b>
1. Hospital				
2. Poly-clinic				
3. Clinic				
4. Health center				
5. Others				
<b>Grand Total</b>				

Q.26. Who collects your waste?

[1] 1. PPWM (Phnom Penh Waste Management)

[0] 2. CINTRI

[0] 3. Private company other than CINTRI

[0] 4. Don't know

<b>Base: Population =</b>		<b>Who collects your waste?</b>				
<b>Category of The Institution</b>		<b>Fr.</b>	<b>1. PPWM</b>	<b>2. CINTRI</b>	<b>3. Private company other than CINTRI</b>	<b>4. Don't know</b>
1. Hospital		12	1	11	0	0
2. Poly-clinic		14	0	14	0	0
3. Clinic		9	0	9	0	0
4. Health center		6	0	6	0	0
5. Others		0	0	0	0	0
<b>Grand Total</b>		<b>41</b>	<b>1</b>	<b>40</b>	<b>0</b>	<b>0</b>

Q.27. Do you use this waste collection service?

[41] 1. Yes  
[0] 2. No

<b>Base: Population =</b>			
<b>Category of The Institution</b>	<b>Fr.</b>	<b>Do you use this waste collection service?</b>	
		<b>Yes</b>	<b>No</b>
1. Hospital	12	12	0
2. Poly-clinic	14	14	0
3. Clinic	9	9	0
4. Health center	6	6	0
5. Others	0	0	0
<b>Grand Total</b>	<b>41</b>	<b>41</b>	<b>0</b>

If you answered no, please explain why below – then go to Next Section (0).

( \_\_\_\_\_ )

Q.28. How often do you discharge your garbage and how often is it collected? (Tick one)

<b>Base: Population =</b>					
<b>Frequency</b>	<b>a. General waste</b>		<b>b. Medical waste</b>		
	<b>Discharge</b>	<b>Collection</b>	<b>Discharge</b>	<b>Collection</b>	
1. More than once daily	0	1	3	2	
2. Once daily	28	32	25	27	
3. Every 2-3 days	10	6	9	7	
4. Every 4-5 days	1	1	1	1	
5. Weekly	1	1	3	2	
6. Less than weekly				0	
7. Irregularly				0	
8. Other				1	

Q.29. Do you pay the CINTRI or a private collector an official waste collection fee?

[41] 1. Yes  
[0] 2. No

<b>Base: Population =</b>			
<b>Category of The Institution</b>	<b>Fr.</b>	<b>Do you pay the CINTRI or a private collector an official waste collection fee?</b>	
		<b>Yes</b>	<b>No</b>
1. Hospital	12	12	0
2. Poly-clinic	14	14	0
3. Clinic	9	9	0
4. Health center	6	6	0
5. Others	0	0	0
<b>Grand Total</b>	<b>41</b>	<b>41</b>	<b>0</b>

If yes, how much is this fee? And what type of wastes does it cover?

<b>Category of The Institution</b>	<b>Waste Type</b>	<b>Payment (US\$/month)</b>
Hospital	General and Medical wastes	10 - 100
Poly-clinic	General and Medical wastes	5 - 50
Clinic	General and Medical wastes	5 - 20
Health center	General and Medical wastes	5 - 20

If necessary, calculate as [\_\_\_\_\_] US\$/vehicle x [\_\_\_\_\_] loads per month

Q.30. Have you ever given a direct unofficial payment to waste collection workers for collection your waste?

[7] 1. Yes  
[34] 2. No

<b>Base: Population =</b>			
<b>Category of The Institution</b>	<b>Fr.</b>	<b>Have you ever given a direct unofficial payment to waste collection workers for collection your waste?</b>	
		<b>Yes</b>	<b>No</b>
1. Hospital	12	0	12
2. Poly-clinic	14	7	7

3. Clinic	9	0	9
4. Health center	6	0	6
5. Others	0	0	0
<b>Grand Total</b>	<b>41</b>	<b>7</b>	<b>34</b>

Q.31. What is the total amount of the unofficial payment you have given to waste collection worker over the last 12 months?

Answer: [ ] US\$

Category of The Institution	Waste Type	Payment (US\$/month)
Hospital		
Poly-clinic	Medical wastes	3 – 15
Clinic		
Health center		

Q.32. Are you satisfied with the existing waste collection and disposal service?

[37] 1. Yes

[4] 2. No

**Base: Population =**

Category of The Institution	Fr.	Are you satisfied with the existing waste collection and disposal service?	
		Yes	No
1. Hospital	12	11	1
2. Poly-clinic	14	12	2
3. Clinic	9	8	1
4. Health center	6	6	0
5. Others	0	0	0
<b>Grand Total</b>	<b>41</b>	<b>37</b>	<b>4</b>

If No, Why? (tick one or more)

	Category of The Institution	Why?
1. Discharge system is poor (e.g. no bins, bins are broken or too small)	- Hospital - Poly-clinic	Not separate in the different bins
2. Waste collection point is too far away		
3. Waste collection/sweeping is not properly done		
4. Waste collection service/sweeping is irregular		
5. Waste collection/sweeping frequency is too low		
6. Collection time is too early or too late		
7. Waste collection workers behave badly	Poly-clinic	Do not keep the wastes
8. Waste collection workers demand payment for waste collection		
9. Waste collection fee of the CINTRI or a private collector is too high	Poly-clinic	The fee is expensive
10. Lack of recycling		
11. Problems with handling medical waste		
12. Other		

Q.33. How many times have you complained about the waste collection service in the last year?

[35] 1. None

[4] 2. Once only

[2] 3. Several times

[0] 4. More than five times

**Base: Population =**

Category of The Institution	Fr.	How many times have you complained about the waste collection service in the last year?			
		1. None	2. Once only	3. Several times	4. More than five times
1. Hospital	12	10	1	1	0
2. Poly-clinic	14	12	1	1	0

3. Clinic	9	8	1	0	0
4. Health center	6	5	1	0	0
5. Others	0	0	0	0	0
<b>Grand Total</b>	<b>41</b>	<b>35</b>	<b>4</b>	<b>2</b>	<b>0</b>

Q.34. Is any staff member of your institution responsible for ensuring that medical waste is collected and disposed of properly?

[41] 1. Yes

[0] 2. No

**Base: Population =**

Category of The Institution	Fr.	Is any staff member of your institution responsible for ensuring that medical waste is collected and disposed of properly?	
		Yes	No
1. Hospital	12	12	0
2. Poly-clinic	14	14	0
3. Clinic	9	9	0
4. Health center	6	6	0
5. Others	0	0	0
<b>Grand Total</b>	<b>41</b>	<b>41</b>	<b>0</b>

If you answered Yes, please explain position of persons and their duties below

Name and position of person: [ \_\_\_\_\_ ]

Please describe their duties: [ \_\_\_\_\_ ]

Category of The Institution	Position of Person	Their duties
Hospital	Worker	Cleaner, waste collection
Poly-clinic	Worker	Cleaner
Clinic	Worker	Cleaner
Health center	Worker	Cleaner

### c. Improvements to waste collection and disposal

#### c.1 General

Q.35. What improvements would you like to see to waste collection and disposal? (Please tick one or more and priorities the top three improvements you would like to see (1 = first priority, 2 = second priority, 3 = third priority))

	Fr.	Priority		
		first	second	third
1. Improved waste discharge system	36	18	14	4
2. Shorter distance to waste collection point	2	0	0	2
3. More reliable waste collection service	1	1	0	0
4. Improved collection frequency	9	1	8	0
5. Greater recycling of waste	4	1	2	1
6. Improved collection and disposal of medical waste	22	11	8	3
7. Improvement of landfill operation	4	3	1	0
8. Education to change people's bad habits	23	6	7	10
9. Other	2	2	0	0

Q.36. Improved waste collection and disposal will cost additional money. Who do you think should pay these costs? (tick one or more)

[30] 1. Central Government (e.g. Ministry of Health)

[31] 2. Municipality of Phnom Penh (MPP)

[34] 3. Individual medical institutions

[10] 4. Other (specify : \_\_\_\_\_)



**Base: Population =**

**Improved waste collection and disposal will cost additional money. Who do you think should pal these costs?**

Category of The Institution	Fr.	Improved waste collection and disposal will cost additional money. Who do you think should pal these costs?			
		1. Central Government	2. Municipality of Phnom Penh (MPP)	3. Individual medical institutions	4. Other
1. Hospital	12	10	7	8	1
2. Poly-clinic	14	10	11	12	8
3. Clinic	9	5	9	9	1
4. Health center	6	5	4	5	0
5. Others	0	0	0	0	0
<b>Grand Total</b>	<b>41</b>	<b>30</b>	<b>31</b>	<b>34</b>	<b>10</b>

Q.37. Suppose that you are satisfied with the municipal solid waste management service, either as is or as a result of improvement. Think for a moment about the largest amount of money that your medical institution would be willing to pay each month as a garbage collection fee.

Amount of money: [ ] US\$/month

Category of The Institution	Waste Type	Garbage collection fee (US\$/month)
Hospital	Mix wastes	10 – 80
Poly-clinic	Mix wastes	5 – 50
Clinic	Mix wastes	5 – 20
Health center	Mix wastes	– 20

Q.38. If the current waste collection fee is more than this amount, your medical institution will not be able to afford to pay and will not be able to use the waste collection service. If you are still not willing to pay the current waste collection fee, explain why below:

Reasons:.....

Nos. of The Institution	Reasons	Memo
Hospital	Military hospital	
Poly-clinic	High cost, low economic	
Clinic	A little waste	
Health center	Depend by Government	

## c.2 Training and Instructions

Q.39. Is there some written instruction to separate and manage medical solid wastes in the institution?

[25] 1.Yes

[16] 2.No (Go to 0)

**Base: Population =**

**Is there some written instruction to separate and manage medical solid wastes in the institution?**

Category of The Institution	Fr.	Is there some written instruction to separate and manage medical solid wastes in the institution?	
		Yes	No
1. Hospital	12	9	3
2. Poly-clinic	14	6	8
3. Clinic	9	7	2
4. Health center	6	3	3
5. Others	0	0	0
<b>Grand Total</b>	<b>41</b>	<b>25</b>	<b>16</b>

Q.40. How often the staff of waste management is trained as a caution against contaminated or hazardous waste?

[20] 1.Only at the start of the job

[4] 2.Once a year

- [11] 3. Very often, please explain how often \_\_\_\_\_  
[2] 4. Never

<b>Base: Population =</b>					
<b>How often the staff of waste management is trained as a caution against contaminated or hazardous waste?</b>					
<b>Category of The Institution</b>	<b>Fr.</b>	<b>1. Only at the start of the job</b>	<b>2. Once a year</b>	<b>3. Very often, please explain how often</b>	<b>4. Never</b>
1. Hospital	12	6	3	6	1
2. Poly-clinic	14	5	0	3	0
3. Clinic	9	6	1	1	1
4. Health center	6	3	0	1	0
5. Others	0	0	0	0	0
<b>Grand Total</b>	<b>41</b>	<b>20</b>	<b>4</b>	<b>11</b>	<b>2</b>

### c.3 Environmental education and general cleanliness

Q.41. Has anyone of this institution received any health and environmental education or information relating to solid waste? Yes/No, If YES, no of people: [\_\_\_\_\_]

<b>Base: Population =</b>			
<b>Has anyone of this institution received any health and environmental education or information relating to solid waste?</b>			
<b>Category of The Institution</b>	<b>Fr.</b>	<b>Yes</b>	<b>No</b>
1. Hospital	12	11	1
2. Poly-clinic	14	12	2
3. Clinic	9	7	2
4. Health center	6	3	3
5. Others	0	0	0
<b>Grand Total</b>	<b>41</b>	<b>33</b>	<b>8</b>

And where did this information come from?

- [ ] 1. School  
[ ] 2. Leaflets/posters, etc.  
[ ] 3. Medical worker/centre/hospital  
[ ] 4. Community organization/NGO [name:\_\_\_\_\_]  
[ ] 5. Newspaper  
[ ] 6. Radio program  
[ ] 7. TV program  
[ ] 8. MPP  
[ ] 9. CINTRI  
[ ] 10. Central government (e.g. Ministry of Health, Ministry of Environment, etc.)  
[ ] 11. Other (specify :\_\_\_\_\_)

<b>Base: Population =</b>		
<b>Information source</b>	<b>Fr.</b>	<b>Remark</b>
1. School	20	-
2. Leaflets/posters, etc.	22	-
3. Medical worker/centre/hospital	1	-
4. Community organization/NGO	5	Name:
5. Newspaper	1	-
6. Radio program	0	-
7. TV program	6	-
8. MPP	1	-
9. CINTRI	0	-
10. Central government	23	- MoH and MoE
11. Other	1	Specify: Weekly meeting

Q.42. Do you think that a campaign to raise the awareness of people for maintaining a cleaner city and environment is necessary? (tick one)

- [40] 1. Very necessary  
[1] 2. Somewhat necessary  
[ ] 3. Not very necessary  
[ ] 4. Not necessary at all

**Base: Population =**

Category of The Institution	Fr.	Do you think that a campaign to raise the awareness of people for maintaining a cleaner city and environment is necessary?			
		1. Very necessary	2. Somewhat necessary	3. Not very necessary	4. Not necessary at all
1. Hospital	12	12	0	0	0
2. Poly-clinic	14	14	0	0	0
3. Clinic	9	8	1	0	0
4. Health center	6	6	0	0	0
5. Others	0	0	0	0	0
<b>Grand Total</b>	<b>41</b>	<b>40</b>	<b>1</b>	<b>0</b>	<b>0</b>

#### c.4 Sewerage

Q.43. Where does the toilet waste from your institution go? (Tick one)

- [25] 1. Into septic tank  
[0] 2. Into pit  
[6] 3. Into pond, river, canal directly  
[7] 4. Into storm water drain or sewerage pipe directly  
[1] 5. Into wastewater treatment plant of the institution  
[2] 6. Don't know

**Base: Population =**

Category of The Institution	Fr.	Where does the toilet waste from your institution go?					
		1. Into septic tank	2. Into pit	3. Into pond, river, canal directly	4. Into storm water drain or sewerage pipe directly	5. Into wastewater treatment plant of the institution	6. Don't know
1. Hospital	12	8	0	1	1	1	1
2. Poly-clinic	14	8	0	2	3	0	1
3. Clinic	9	4	0	2	3	0	0
4. Health center	6	5	0	1	0	0	0
5. Others	0	0	0	0	0	0	0
<b>Grand Total</b>	<b>41</b>	<b>25</b>	<b>0</b>	<b>6</b>	<b>7</b>	<b>1</b>	<b>2</b>

Q.44. If you chose 1. or 2. in Q.43, is wastewater and/or sludge removed from your institution by vacuum truck?

- [22] 1. Yes  
[2] 2. No  
[1] 3. Don't know

**Base: Population =**

Category of The Institution	Fr.	Is wastewater and/or sludge removed from your institution by vacuum truck?		
		1. Yes	2. No	3. Don't know
1. Hospital	8	7	0	1
2. Poly-clinic	8	7	1	0
3. Clinic	4	3	1	0
4. Health center	5	5	0	0
5. Others	0	0	0	0
<b>Grand Total</b>	<b>25</b>	<b>22</b>	<b>2</b>	<b>1</b>

Q.45. How many cubic meters of your septic tank or pit?

Capacity of septic tank or pit: [ \_\_\_\_\_ ] m<sup>3</sup>

Nos. of The Institution	Type (tank or pit)	Capacity of septic tank or pit (m3)
Hospital	Tank	39
Poly-clinic	Tank	61
Clinic	Tank	12
Health center	Tank	15

Q.46. How often is septic tank or pit clean-up?

- [6] 1. Once a half year  
[9] 2. Once a year  
[2] 3. Less than once a year  
[8] 4. Don't know

**Base: Population =**

Category of The Institution	Fr.	Do you think that a campaign to raise the awareness of people for maintaining a cleaner city and environment is necessary?			
		1. Very necessary	2. Somewhat necessary	3. Not very necessary	4. Not necessary at all
1. Hospital	8	4	2	1	1
2. Poly-clinic	8	0	3	0	5
3. Clinic	4	1	2	0	1
4. Health center	5	1	2	1	1
5. Others	0	0	0	0	0
<b>Grand Total</b>	<b>25</b>	<b>6</b>	<b>9</b>	<b>2</b>	<b>8</b>

Q.47. Who clean-up septic tank or pit?

- [18] 1. PPWM (Phnom Penh Waste Management)  
[5] 2. Private company  
[2] 3. Don't know

**Base: Population =**

Category of The Institution	Fr.	Who clean-up septic tank or pit?		
		1. PPWM	2. Private company	3. Don't know
1. Hospital	8	7	1	0
2. Poly-clinic	8	6	1	1
3. Clinic	4	2	1	1
4. Health center	5	3	2	0
5. Others	0	0	0	0
<b>Grand Total</b>	<b>25</b>	<b>18</b>	<b>5</b>	<b>2</b>

### 6.1.3 Financial Matter

Q.48. How much do you pay for medical waste collection services per month?

**Base: Population =**

Type of waste	Fr.	Collection fee (US\$/month)		
		Ave.	Max.	Min.
1. Infectious waste				
2. Pathological waste				
3. Sharps				
4. Pharmaceutical waste				
5. Genotoxic waste				
6. Chemical waste				
7. Wastes with high content of heavy metals				
8. Pressurized containers				
9. Radioactive waste				
10. Ash (if the waste burned or incinerated)				
11. Mixed waste				

Q.49. How much do you pay for general waste collection services per month?  
Amount of money: [ \_\_\_\_\_ ] US\$/month

<b>Nos. of The Institution</b>	<b>US\$/month</b>	<b>Memo</b>
Hospital	10 – 100	
Poly-clinic	15 – 50	
Clinic	10 – 20	
Health center	– 20	

Q.50. If the market price of waste collection rose, how much, at maximum, could you afford to pay per month?

**Base: Population =**

<b>Type of waste</b>	<b>Fr.</b>	<b>US\$/month</b>		
		<b>Ave.</b>	<b>Max.</b>	<b>Min.</b>
1. Infectious waste				
2. Pathological waste				
3. Sharps				
4. Pharmaceutical waste				
5. Genotoxic waste				
6. Chemical waste				
7. Wastes with high content of heavy metals				
8. Pressurized containers				
9. Radioactive waste				
10. Ash (if the waste burned or incinerated)				
11. Mixed waste				

Q.51. Is there someone who comes around to collect or buy your reusable or recyclable materials?

- [17] 1. Yes.  
[24] 2. No. (Go to 0)

**Base: Population =**

<b>Category of The Institution</b>	<b>Fr.</b>	<b>Is there someone who comes around to collect or buy your reusable or recyclable materials?</b>	
		<b>Yes</b>	<b>No</b>
1. Hospital	12	3	9
2. Poly-clinic	14	8	6
3. Clinic	9	3	6
4. Health center	6	3	3
5. Others	0	0	0
<b>Grand Total</b>	<b>41</b>	<b>17</b>	<b>24</b>

Q.52. Which materials do they collect or buy from you?

- [ ] 1. Bottle  
[ ] 2. Glass  
[ ] 3. Cardboard  
[ ] 4. Paper  
[ ] 5. Aluminum can  
[ ] 6. Steel can  
[ ] 7. Metal  
[ ] 8. Kitchen waste  
[ ] 9. Garden waste  
[ ] 10. Plastic  
[ ] 11. Textile  
[ ] 12. Leathers  
[ ] 13. Wood/timber  
[ ] 14. Tire  
[ ] 15. Others  
(specify : \_\_\_\_\_ )

<b>Base: Population =</b>	
<b>Type of Material</b>	<b>Answer Fr.</b>
1. Bottle	18
2. Glass	7
3. Cardboard	3
4. Paper	5
5. Aluminum can	0
6. Steel can	0
7. Metal	0
8. Kitchen waste	8
9. Garden waste	0
10. Plastic	15
11. Textile	1
12. Leathers	0
13. Wood/timber	0
14. Tire	0
15. Others	0

#### 6.1.4 Cooperation for Waste Management

- Q.53. Coping with wastes requires efforts of not only the municipality but also the general public. Do you think there is something which your institution can do for good waste management?
- [41 ] 1. Yes.  
[0] 2. No.  
[0] 3. I don't know.  
[0] 4. Others (specify: \_\_\_\_\_)

<b>Base: Population =</b>					
<b>Do you think that a campaign to raise the awareness of people for maintaining a cleaner city and environment is necessary?</b>					
<b>Category of The Institution</b>	<b>Fr.</b>	<b>1. Very necessary</b>	<b>2. Somewhat necessary</b>	<b>3. Not very necessary</b>	<b>4. Not necessary at all</b>
1. Hospital	12	12	0	0	0
2. Poly-clinic	14	14	0	0	0
3. Clinic	9	9	0	0	0
4. Health center	6	6	0	0	0
5. Others	0	0	0	0	0
<b>Grand Total</b>	<b>41</b>	<b>41</b>	<b>0</b>	<b>0</b>	<b>0</b>

- Q.54. What do you think your institution can do? (plural answer question)
- [36] 1. Discharging wastes neatly.  
[3] 2. Minimizing waste generation.  
[9] 3. Reusing wastes.  
[6] 4. Recycling wastes.  
[0] 5. Treating toxic/infectious wastes appropriately.  
[8] 6. Raising the environmental awareness of the public.  
[18] 7. Providing information to the public.  
[2] 8. Researching activities.  
[0] 9. Others (specify: \_\_\_\_\_)

<b>Base: Population =</b>	
<b>Type of Material</b>	<b>Answer Fr.</b>
1. Discharging wastes neatly.	36
2. Minimizing waste generation.	3
3. Reusing wastes.	9
4. Recycling wastes.	6
5. Treating toxic/infectious wastes appropriately.	0

6. Raising the environmental awareness of the public.	8
7. Providing information to the public.	18
8. Researching activities.	2
9. Others	0

- Q.55. Do you think the medical institutions should cooperate with the country and/or municipality in managing wastes?  
 [41] 1. Yes.  
 [0] 2. No.  
 [0] 3. I don't know.  
 [0] 4. Others (specify: \_\_\_\_\_)

**Base: Population =**

Category of The Institution	Fr.	Do you think the medical institutions should cooperate with the country and/or municipality in managing wastes?			
		1. Yes	2. No	3. I don't know	4. Others
1. Hospital	12	12	0	0	0
2. Poly-clinic	14	14	0	0	0
3. Clinic	9	9	0	0	0
4. Health center	6	6	0	0	0
5. Others	0	0	0	0	0
<b>Grand Total</b>	<b>41</b>	<b>41</b>	<b>0</b>	<b>0</b>	<b>0</b>

- Q.56. How is the trend of your cost for waste management?  
 [32] 1. It is getting significantly higher.  
 [8] 2. It is getting higher.  
 [1] 3. It is relatively stable.  
 [0] 4. It is getting lower.  
 [0] 5. Others (specify: \_\_\_\_\_)

**Base: Population =**

Category of The Institution	Fr.	How is the trend of your cost for waste management?				
		1. It is getting significantly higher.	2. It is getting higher.	3. It is relatively stable.	4. It is getting lower.	5. Others
1. Hospital	12	12	0	0	0	0
2. Poly-clinic	14	10	3	1	0	0
3. Clinic	9	5	4	0	0	0
4. Health center	6	5	1	0	0	0
5. Others	0	0	0	0	0	0
<b>Grand Total</b>	<b>41</b>	<b>32</b>	<b>8</b>	<b>1</b>	<b>0</b>	<b>0</b>

- Q.57. How do you give the priority on the management of your wastes?  
 [40] 1. We give very high priority.  
 [1] 2. We give moderate priority.  
 [0] 3. We give little priority.  
 [0] 4. Others (specify: \_\_\_\_\_)

**Base: Population =**

Category of The Institution	Fr.	How do you give the priority on the management of your wastes?			
		1. We give very high priority.	2. We give moderate priority.	3. We give little priority.	4. Others
1. Hospital	12	12	0	0	0
2. Poly-clinic	14	14	0	0	0
3. Clinic	9	9	0	0	0
4. Health center	6	5	1	0	0
5. Others	0	0	0	0	0
<b>Grand Total</b>	<b>41</b>	<b>40</b>	<b>1</b>	<b>0</b>	<b>0</b>

- Q.58. Do you feel you need a support from the government or municipality or any other relevant organizations for the management of your waste? (plural answer question)
- [20] 1. Yes, we need financial support.  
[34] 2. Yes, we need technical support.  
[5] 3. Yes, we need support of other kinds (specify: \_\_\_\_\_)  
[4] 4. No, we don't.  
[3] 5. Others (specify: \_\_\_\_\_)

**Base: Population =**

<i>Information source</i>	<i>Fr.</i>	<i>Remark</i>
1. Yes, we need financial support.	20	-
2. Yes, we need technical support.	34	-
3. Yes, we need support of other kinds	5	Specify:
4. No, we don't.	4	-
5. Other	3	Specify:

### 6.1.5 Other

- Q.59. If there any additional comments you would like to make about solid waste management provision and your needs, please comment below:

<i>Nos. of The Institution</i>	<i>Additional comments</i>	<i>Memo</i>
Hospital	<ul style="list-style-type: none"> <li>- Should have guidelines and measurements of waste management from MoE, MPP, CINTRI</li> <li>- Should be informed by CINTRI to people about the effectiveness of wastes when it's discharged</li> <li>- Waste must be separated the wastes neatly into infectious pathological and other wastes</li> <li>- Should have landfill</li> <li>- Regulation of collection waste</li> </ul>	
Poly-clinic	<ul style="list-style-type: none"> <li>- Should be separated between general and medical wastes</li> <li>- Request to the company to transport wastes separately</li> <li>- Should have landfill for medical waste</li> <li>- Need technical support for medical waste management</li> </ul>	
Clinic	<ul style="list-style-type: none"> <li>- Should have landfill</li> <li>- CINTRI must be separated between general and medical wastes</li> <li>- CINTRI must have trucks to transport neatly</li> <li>- Medical wastes should be had other service in order to avoid infection</li> </ul>	
Health center	<ul style="list-style-type: none"> <li>- Train support for health center staff about hygiene</li> <li>- Material support as waste bin</li> <li>- Separated neatly between general and medical wastes</li> <li>- Waste management should be cooperated with all institutions and public.</li> </ul>	

*Thank-you very much for your co-operation*



**“Additional Sheet A”**

**Recycling: ONLY answer this section if you ticked Q.16 (g).**

Write your answers to the following questions in the table below:

- What items do you recycle? (specify any other materials in the blank cells)
- How much do you recycle per month?
- What price do you sell these items for?
- Who do you sell/give these materials to? (e.g. individual collector, shop, middleman, industry)
- How does this recycling system work? (put 1, 2, etc. in method column)
  1. Take directly to shop for refund
  2. Give to collector who comes to premises
  3. Take directly to middlemen for sale
  4. Take directly to community group/NGO for sale
  5. Take directly to industry for sale
  6. Other – specify in table
- How often are these materials collected/taken for recycling? (daily, 2-3 times per week, weekly, monthly, other, irregularly)

Item	Quantity (kg/mth)	Price (Reil/kg)	Buyer	Method	Collection frequency
Paper					
Cardboard					
Glass bottles					
Polythene bags					
Saline bottles					
Other plastic					
Metal					
Organic waste for animal feed					

Additional space for answers:

[\_\_\_\_\_].

Nos. of The Institution	Additional Answer	Memo

- Are there any problems with this recycling system? Answer: Yes/No  
If YES, please explain why below: [\_\_\_\_\_].

Nos. of The Institution	Answer	Memo

**Contact details (address/telephone numbers for buyers):**

[\_\_\_\_\_].

Nos. of The Institution	Contact details	Memo

# Data 7

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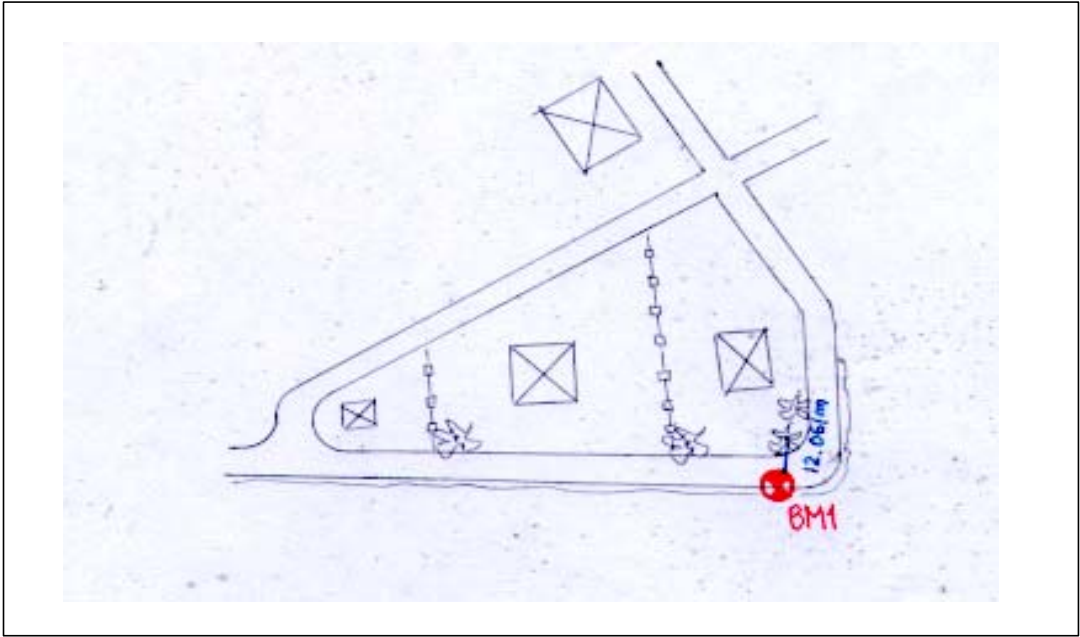
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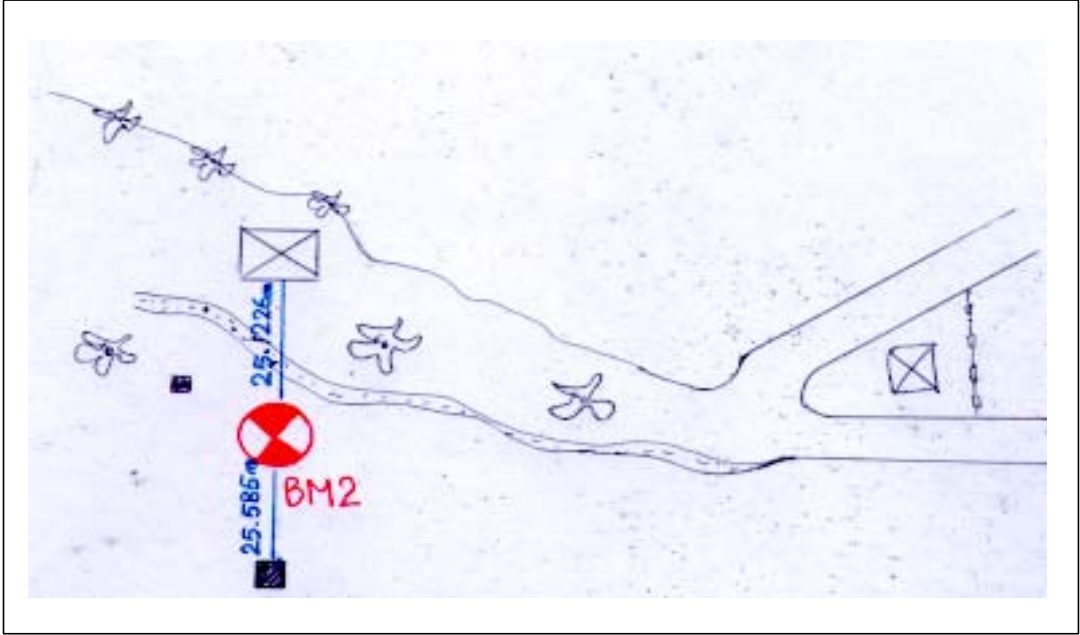
*Topographic Survey*


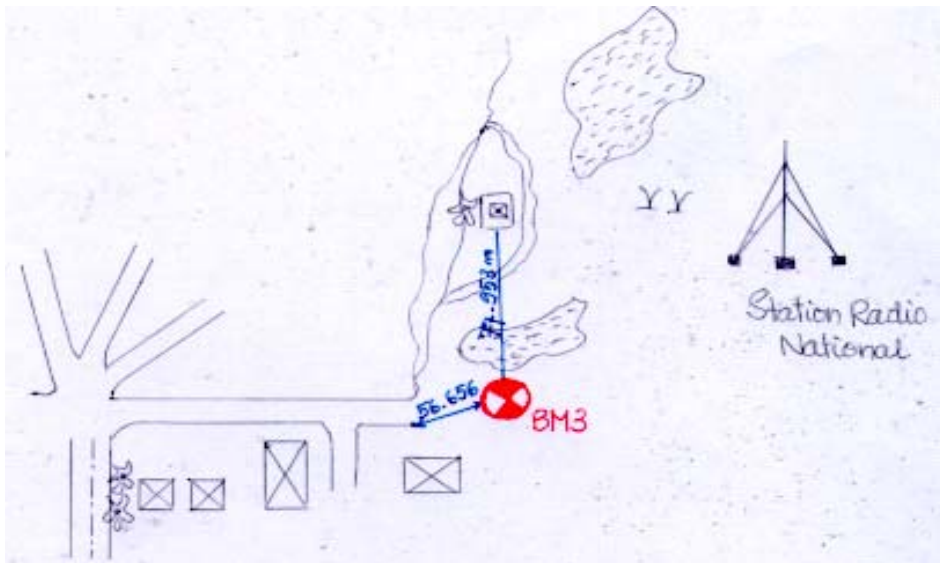
# Data 7 Topographic Survey

## 7.1 Stun Mean Chey Disposal Site


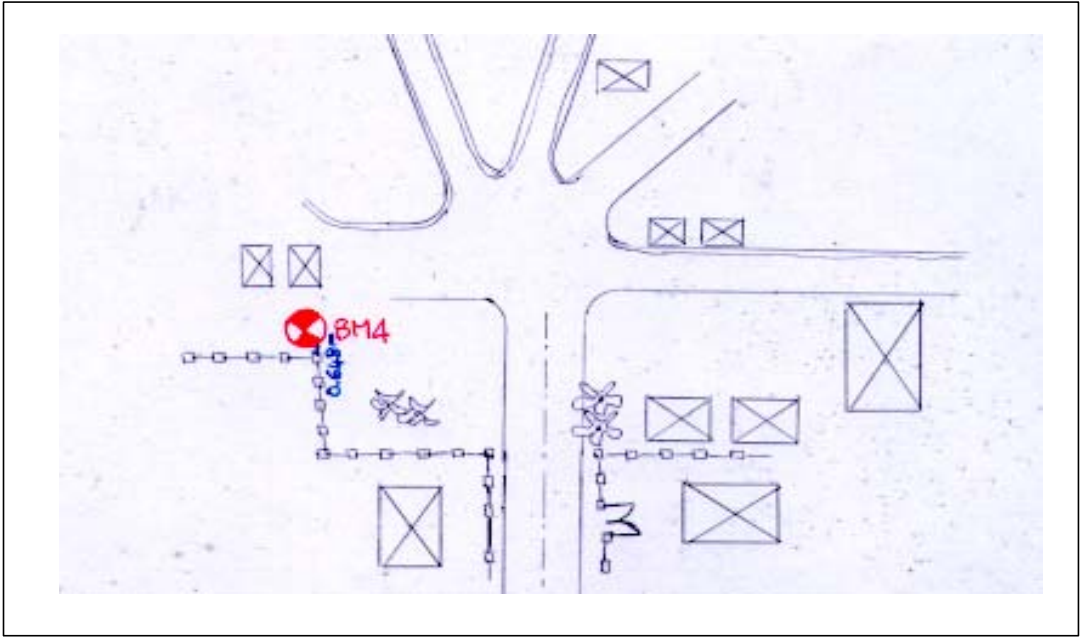
<b>BM - DESCRIPTION</b>  <b>TBM No.3b</b>	
<b>ELEVATION : 10.468</b>  <b>NATIONAL / LOCAL</b>	<b>COORDINATION</b> N = 1273934.984 E = 488565.355
<b>LOCATION : TOMPUN DIKE ROAD</b>	
	
	


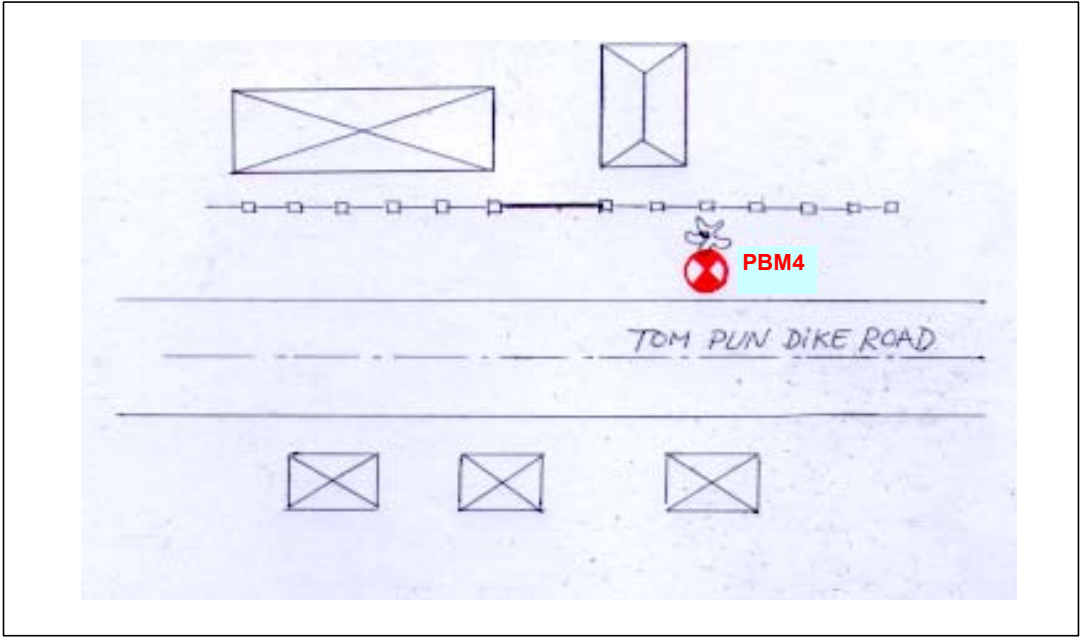
<b>BM - DESCRIPTION</b>	
<b>BM No.1</b>	
<b>ELEVATION : 8.713</b>	<b>COORDINATION</b>
<b>NATIONAL / LOCAL</b>	N = 1274863.548 E = 488731.393
<b>LOCATION : STUNG MEAN CHEY FINAL DISPOSAL SITE</b>	
	
	

<b>BM - DESCRIPTION</b>	
<b>BM No.2</b>	
<b>ELEVATION : 6.843</b> <b>NATIONAL / LOCAL</b>	<b>COORDINATION</b> N = 1274983.839 E = 488853.673
<b>LOCATION : STUNG MEAN CHEY FINAL DISPOSAL SITE</b>	
	
	

<b>BM - DESCRIPTION</b>	
<b>BM No.3</b>	
<b>ELEVATION : 8.667</b>  NATIONAL / LOCAL	<b>COORDINATION</b> N = 1275058.025 E = 488386.091
<b>LOCATION : STUNG MEAN CHEY FINAL DISPOSAL SITE</b>	
	
	



<b>BM - DESCRIPTION</b>	
<b>BM No.4</b>	
<b>ELEVATION : 8.883</b>	<b>COORDINATION</b>
<b>NATIONAL / LOCAL</b>	N = 1275269.263 E = 488536.294
<b>LOCATION : STUNG MEAN CHEY FINAL DISPOSAL SITE</b>	
	
	

<b>BM - DESCRIPTION</b>	
<b>PBM No.4</b>	
<b>ELEVATION : 10.915</b>	<b>COORDINATION</b>
<b>NATIONAL / LOCAL</b>	N = 1274098.458 E = 487995.456
<b>LOCATION : TOMPUN DIKE ROAD</b>	
	
	



**BM2 / Loop-Leveling From BM2 of Disposal Site**

Description	Distance	Elevation	Correction Level	Corrected Level
BM2(FIRST)	0	6.843		
BM1	171.4971447	8.716	-0.002969009	8.713
ST1	27.36132521	13.143	-0.003442697	13.140
ST2	295.3101796	8.11	-0.008555194	8.101
BM3	187.8979457	8.679	-0.011808139	8.667
TBM4	43.84990878	9.917	-0.012567281	9.904
ST3	65.69883445	10.076	-0.013704679	10.062
BM4	75.53307928	8.898	-0.01501233	8.883
ST4	116.5047979	13.856	-0.017029296	13.839
ST5	78.44494587	9.421	-0.018387358	9.403
ST6	125.7203938	14.219	-0.020563867	14.198
ST7	129.0891512	10.971	-0.022798696	10.948
ST8	96.09767939	11.492	-0.024462368	11.468
BM2	31.05493871	6.868	-0.025	6.843

1444.060325

Error -0.025  
Adj. -1.73123E-05

**BM2 / Traverse-Closing from BM2 For Disposal Site Project**

From/To	Northing	Easting	Distance	N	E	N	E
BM2(FIRST)	1274983.783	488853.676					
BM1	1274863.541	488731.393	171.497	0.006651	-0.000356	1274863.548	488731.393
ST1	1274886.66	488716.759	27.361	0.007712	-0.000413	1274886.668	488716.759
ST2	1274960.904	488430.934	295.310	0.019164	-0.001027	1274960.923	488430.933
BM3	1275058.001	488386.092	106.952	0.023311	-0.001249	1275058.024	488386.091
STX	1275123.443	488433.733	80.946	0.02645	-0.001417	1275123.469	488433.732
TBM4	1275161.097	488456.205	43.850	0.028151	-0.001508	1275161.125	488456.203
ST3	1275223.745	488475.993	65.699	0.030698	-0.001645	1275223.776	488475.991
BM4	1275269.229	488536.296	75.533	0.033628	-0.001801	1275269.263	488536.294
ST4	1275164.908	488588.166	116.505	0.038146	-0.002044	1275164.946	488588.164
ST5	1275089.79	488610.769	78.445	0.041188	-0.002206	1275089.831	488610.767
ST6	1275001.526	488700.296	125.720	0.046063	-0.002468	1275001.572	488700.294
ST7	1275092.566	488791.815	129.089	0.051069	-0.002736	1275092.617	488791.812
ST8	1275014.206	488847.443	96.098	0.054796	-0.002935	1275014.261	488847.440
BM2	1274983.783	488853.676	31.055	0.056	-0.003	1274983.839	488853.673
BM2(NEW)	1274983.839	488853.673					

Error 0.056 -0.003  
Adj. 3.87795E-05 -2.07748E-06

Pt.No	Eastings	Northings	Height	Code
102	488501.856	1275210.927	8.653	NS
103	488504.313	1275209.942	8.693	NS
104	488505.325	1275209.747	10.175	NS
105	488503.533	1275209.354	8.619	NS
106	488509.178	1275211.229	13.261	NS
107	488517.658	1275227.029	8.479	NS
108	488515.903	1275227.230	9.709	NS
109	488520.452	1275227.289	8.026	NS
110	488521.336	1275227.106	10.085	NS
111	488538.609	1275251.685	8.159	NS
112	488523.539	1275224.088	12.167	NS
113	488537.381	1275251.574	8.750	NS
114	488534.086	1275215.666	12.773	NS
115	488539.947	1275210.079	14.165	NS
116	488541.713	1275256.228	8.715	NS
117	488542.092	1275206.970	15.240	NS
118	488548.950	1275264.249	8.757	NS
119	488540.475	1275250.127	8.193	NS
120	488540.588	1275249.436	9.554	NS
121	488541.236	1275244.757	10.666	NS
122	488511.908	1275238.619	9.219	NS
123	488541.133	1275235.255	10.100	NS
124	488544.754	1275228.011	12.692	NS
125	488548.677	1275218.733	14.056	NS
126	488512.736	1275190.067	12.002	NS
127	488565.183	1275218.843	14.548	NS
128	488525.101	1275184.945	14.721	NS
129	488537.996	1275180.867	14.546	NS
130	488546.279	1275245.986	9.314	NS
131	488547.694	1275178.976	15.417	NS
132	488549.524	1275244.447	9.602	NS
133	488540.717	1275188.213	11.173	NS
134	488540.226	1275189.479	12.271	NS
135	488553.324	1275248.218	9.868	NS
136	488551.774	1275223.031	12.298	NS
137	488558.385	1275181.756	11.990	NS
138	488558.809	1275181.601	12.660	NS
139	488556.664	1275184.217	11.954	NS
140	488555.888	1275185.971	12.993	NS
141	488542.281	1275236.733	10.939	NS
142	488546.263	1275234.299	10.918	NS
143	488512.571	1275186.788	10.015	NS
144	488512.327	1275186.529	8.783	NS
145	488510.664	1275183.869	8.820	NS
146	488510.173	1275183.590	9.189	NS
147	488507.582	1275177.342	9.156	NS
148	488504.652	1275174.697	11.192	NS
149	488500.738	1275171.674	11.171	NS
150	488494.244	1275170.864	11.100	NS
151	488504.199	1275140.072	12.843	NS

Pt.No	Eastings	Northings	Height	Code
51	488496.236	1275187.712	9.973	NS
52	488500.275	1275192.074	10.080	NS
53	488502.925	1275194.023	10.414	NS
54	488503.204	1275206.494	10.420	NS
55	488381.819	1275291.464	10.572	NS
56	488378.636	1275288.061	10.736	NS
57	488377.380	1275286.645	10.503	NS
58	488399.622	1275270.544	10.532	NS
59	488396.562	1275268.334	10.249	NS
60	488396.749	1275260.769	10.035	NS
61	488407.314	1275274.740	10.271	NS
62	488405.195	1275277.757	10.159	NS
63	488405.443	1275277.858	9.999	NS
64	488408.221	1275276.150	10.123	NS
65	488437.044	1275237.900	10.536	NS
66	488438.607	1275235.151	9.973	NS
67	488438.727	1275235.466	9.568	NS
68	488441.229	1275236.056	9.659	NS
69	488441.432	1275236.407	9.977	NS
70	488443.324	1275237.886	10.188	NS
71	488440.288	1275247.153	10.067	NS
72	488448.111	1275244.644	10.318	NS
73	488435.721	1275228.957	10.018	NS
74	488456.226	1275242.571	10.136	NS
75	488448.590	1275224.894	10.122	NS
76	488450.712	1275224.616	9.813	NS
77	488451.270	1275224.772	9.602	NS
78	488454.879	1275223.905	9.656	NS
79	488454.097	1275225.716	9.894	NS
80	488457.303	1275226.218	10.126	NS
81	488462.788	1275229.753	9.960	NS
82	488474.848	1275227.176	10.163	NS
83	488473.512	1275226.649	10.288	NS
84	488471.322	1275224.730	10.229	NS
85	488459.504	1275214.722	10.010	NS
86	488460.546	1275215.309	9.625	NS
87	488460.982	1275215.061	9.886	NS
88	488462.728	1275216.833	9.616	NS
89	488463.170	1275216.914	9.910	NS
90	488458.545	1275275.546	8.758	NS
91	488483.023	1275237.178	9.804	NS
92	488535.661	1275269.101	8.719	NS
93	488536.294	1275269.224	7.614	NS
95	488588.166	1275164.908	13.841	NS
96	488588.150	1275164.916	13.868	NS
97	488484.745	1275214.532	9.629	NS
98	488484.275	1275215.127	8.948	NS
99	488485.256	1275215.955	8.971	NS
100	488485.669	1275216.970	10.271	NS
101	488501.652	1275213.731	10.361	NS

Pt.No	Eastings	Northings	Height	Code
1	488442.152	1275127.559	9.292	NS
2	488441.530	1275128.186	10.223	NS
3	488445.132	1275126.340	10.870	NS
4	488446.136	1275125.493	11.873	NS
5	488456.954	1275119.701	12.104	NS
6	488460.511	1275118.544	13.815	NS
7	488466.363	1275117.746	13.784	NS
8	488469.455	1275115.693	14.763	NS
9	488436.380	1275130.593	10.335	NS
10	488474.824	1275147.230	10.139	NS
11	488454.056	1275143.158	10.021	NS
12	488454.493	1275142.924	9.183	NS
13	488461.690	1275147.731	9.313	NS
14	488462.275	1275147.720	10.664	NS
15	488474.599	1275127.333	12.807	NS
16	488476.268	1275123.668	14.167	NS
17	488481.349	1275116.582	14.575	NS
18	488484.345	1275109.629	14.986	NS
19	488485.442	1275105.707	17.052	NS
20	488493.253	1275102.747	16.241	NS
21	488450.433	1275154.267	9.929	NS
22	488435.659	1275175.568	9.854	NS
23	488434.052	1275175.618	9.814	NS
24	488444.243	1275185.078	9.818	NS
25	488441.617	1275186.425	9.695	NS
26	488459.350	1275203.883	10.019	NS
27	488495.554	1275109.452	16.084	NS
28	488497.540	1275117.039	14.400	NS
29	488483.170	1275129.664	13.776	NS
30	488481.319	1275131.287	11.927	NS
31	488478.147	1275133.316	11.222	NS
32	488465.894	1275152.136	10.759	NS
33	488465.736	1275153.290	9.380	NS
34	488464.047	1275155.848	9.191	NS
35	488462.397	1275156.195	10.205	NS
36	488463.191	1275161.227	10.303	NS
37	488461.866	1275163.283	10.265	NS
38	488461.662	1275165.091	9.811	NS
39	488492.969	1275139.749	12.869	NS
40	488492.229	1275140.220	12.085	NS
41	488486.096	1275189.431	10.040	NS
42	488495.872	1275153.563	11.683	NS
43	488495.111	1275154.060	11.385	NS
44	488499.313	1275155.719	11.878	NS
45	488505.319	1275158.808	11.775	NS
46	488494.893	1275165.467	11.132	NS
47	488481.481	1275164.236	10.771	NS
48	488476.189	1275166.883	10.486	NS
49	488484.341	1275196.659	9.985	NS
50	488481.425	1275177.705	10.285	NS

Pt.No	Eastings	Northings	Height	Code
253	488646.333	1275131.342	13.182	NS
254	488649.565	1275129.646	14.792	NS
255	488658.825	1275139.404	15.093	NS
256	488660.220	1275144.739	11.081	NS
257	488673.631	1275141.861	10.521	NS
258	488689.076	1275152.548	11.159	NS
259	488667.796	1275138.553	14.270	NS
260	488672.095	1275129.554	14.412	NS
261	488668.404	1275107.671	15.312	NS
262	488680.557	1275080.688	16.236	NS
263	488697.478	1275070.876	15.727	NS
264	488686.591	1275061.938	15.511	NS
265	488675.687	1275062.198	15.742	NS
266	488602.129	1275048.004	14.995	NS
267	488590.826	1275005.236	15.661	NS
268	488576.313	1274967.333	15.629	NS
269	488644.151	1275093.954	14.428	NS
270	488621.246	1275027.676	15.206	NS
271	488625.979	1275103.587	14.142	NS
272	488624.767	1275104.226	12.662	NS
273	488621.409	1274996.032	15.594	NS
274	488610.637	1274970.450	15.124	NS
275	488652.410	1274972.735	16.185	NS
276	488661.593	1274985.849	16.660	NS
277	488669.808	1275005.297	14.885	NS
278	488516.636	1274949.284	6.825	NS
279	488603.613	1274961.356	6.582	NS
280	488505.686	1274940.608	6.745	NS
281	488679.210	1275224.748	8.189	NS
282	488712.700	1275195.370	8.241	NS
283	488751.237	1275168.746	8.109	NS
284	488541.128	1275197.665	12.208	NS
285	488560.832	1275191.542	12.859	NS
287	488537.985	1275171.067	15.248	NS
288	488633.166	1275174.659	12.925	NS
289	489129.615	1274984.650	-3.413	NS
290	489023.491	1275006.348	-3.045	NS
291	489017.375	1274981.870	-2.412	NS
292	489055.739	1274967.406	-3.242	NS
293	489095.214	1274903.987	-1.890	NS
294	489057.963	1274926.239	-2.412	NS
295	489031.275	1274949.048	-2.589	NS
296	489003.107	1274880.405	4.533	NS
297	489040.793	1274853.684	4.687	NS
298	489117.368	1274842.184	4.552	NS
299	489087.647	1275100.084	-7.551	NS
300	488601.800	1275105.774	8.801	NS
301	488601.364	1275105.358	9.021	NS
302	488597.332	1275096.875	9.472	NS
303	488637.032	1275078.817	9.477	NS

Pt.No	Eastings	Northings	Height	Code
202	488619.166	1275110.003	13.264	NS
203	488619.179	1275111.705	12.813	NS
204	488618.532	1275103.805	13.266	NS
205	488629.179	1275121.318	13.583	NS
206	488627.947	1275120.942	13.020	NS
207	488616.749	1275231.962	14.909	NS
208	488618.538	1275237.275	13.889	NS
209	488597.615	1275227.673	14.928	NS
210	488681.459	1275218.535	14.471	NS
211	488587.692	1275089.610	14.784	NS
212	488593.940	1275090.996	11.816	NS
213	488614.137	1275174.143	13.740	NS
214	488612.170	1275174.506	12.932	NS
215	488576.518	1275066.012	14.722	NS
216	488602.789	1275162.474	13.522	NS
217	488602.410	1275164.035	12.729	NS
218	488569.825	1275084.448	17.287	NS
219	488608.282	1275157.516	13.469	NS
220	488609.267	1275157.141	12.796	NS
221	488600.184	1275060.839	14.712	NS
222	488619.523	1275169.005	13.599	NS
223	488620.273	1275167.342	12.783	NS
224	488632.200	1275045.585	14.765	NS
225	488630.158	1275171.716	12.826	NS
227	488648.441	1275032.118	15.957	NS
228	488648.431	1275032.031	15.963	NS
229	488660.742	1275033.828	12.073	NS
230	488667.728	1275023.717	12.562	NS
231	488637.744	1275174.416	14.838	NS
232	488673.777	1275021.658	13.596	NS
233	488640.816	1275177.346	13.609	NS
234	488681.256	1275017.607	14.768	NS
235	488689.973	1275004.315	15.050	NS
236	488660.992	1275197.969	13.842	NS
237	488692.216	1275010.978	13.484	NS
238	488647.373	1275142.149	12.915	NS
239	488646.556	1275142.286	12.731	NS
240	488716.430	1274980.942	14.500	NS
241	488652.461	1275145.846	12.716	NS
242	488655.049	1275146.875	11.082	NS
243	488655.551	1275148.877	11.141	NS
244	488656.735	1275149.953	11.794	NS
245	488664.886	1275155.976	12.150	NS
246	488667.994	1275162.482	13.014	NS
247	488679.947	1275172.210	11.882	NS
248	488734.496	1274961.029	14.301	NS
249	488735.979	1274966.673	13.522	NS
250	488749.830	1274950.839	15.000	NS
251	488637.809	1275131.524	13.134	NS
252	488637.461	1275132.433	12.785	NS

Pt.No	Eastings	Northings	Height	Code
152	488509.243	1275144.425	12.580	NS
153	488520.615	1275150.467	13.413	NS
154	488536.786	1275163.190	8.756	NS
155	488536.459	1275162.694	9.076	NS
156	488529.753	1275156.871	9.094	NS
157	488528.626	1275155.232	8.723	NS
158	488513.053	1275114.526	14.728	NS
159	488517.468	1275118.567	14.512	NS
160	488524.382	1275154.605	8.721	NS
161	488519.790	1275069.299	18.134	NS
162	488555.549	1275089.082	17.862	NS
163	488531.851	1275136.997	12.268	NS
164	488525.744	1275142.444	12.419	NS
165	488517.985	1275134.248	13.981	NS
166	488544.865	1275126.149	13.248	NS
167	488549.641	1275130.075	10.506	NS
168	488555.487	1275129.926	9.663	NS
169	488557.970	1275131.808	9.453	NS
170	488562.692	1275138.215	9.329	NS
171	488610.769	1275089.790	8.132	NS
172	488610.773	1275089.786	9.362	NS
173	488495.552	1274983.425	7.488	NS
174	488528.682	1274924.543	6.977	NS
175	488537.903	1275189.891	12.135	NS
176	488566.312	1275179.455	13.369	NS
177	488565.891	1275178.233	12.496	NS
178	488555.359	1275167.631	13.032	NS
179	488556.590	1275168.221	12.413	NS
180	488549.241	1275165.687	12.971	NS
181	488576.473	1275185.545	13.508	NS
182	488577.203	1275185.912	12.793	NS
183	488579.773	1275193.822	13.810	NS
184	488580.110	1275193.038	12.847	NS
185	488584.546	1275140.728	13.122	NS
186	488584.472	1275142.146	12.618	NS
187	488581.076	1275136.672	13.097	NS
188	488595.415	1275152.653	13.466	NS
189	488593.312	1275152.234	12.779	NS
190	488587.837	1275198.432	14.381	NS
191	488588.491	1275194.971	12.764	NS
192	488607.939	1275202.457	13.855	NS
193	488607.976	1275204.026	14.867	NS
194	488623.584	1275212.738	13.622	NS
195	488621.779	1275213.420	14.758	NS
196	488598.578	1275147.382	13.163	NS
197	488598.310	1275146.611	12.778	NS
198	488588.756	1275137.190	13.101	NS
199	488589.702	1275137.179	12.782	NS
200	488602.826	1275123.965	13.077	NS
201	488602.820	1275124.528	12.806	NS

Pt.No	Eastings	Northings	Height	Code
405	488745.718	1275119.579	7.634	NS
406	488745.373	1275117.347	7.874	NS
407	488741.220	1275112.033	8.319	NS
408	488733.955	1275112.967	9.099	NS
409	488732.488	1275114.000	9.172	NS
410	488731.943	1275110.858	8.992	NS
411	488724.185	1275110.459	9.136	NS
412	488722.470	1275106.578	9.118	NS
413	488738.702	1275101.850	8.772	NS
414	488737.216	1275098.744	8.853	NS
415	488728.759	1275090.116	9.242	NS
416	488698.896	1275146.959	8.556	NS
417	488758.782	1275069.184	8.955	NS
418	488762.843	1275064.966	11.873	NS
419	488765.247	1275062.558	11.897	NS
420	488766.977	1275058.681	14.336	NS
421	488780.904	1275065.347	15.108	NS
422	488789.054	1275068.647	10.718	NS
423	488798.475	1275056.294	9.982	NS
424	488807.156	1275059.634	9.710	NS
425	488826.938	1275044.705	10.098	NS
426	488830.271	1275047.925	9.005	NS
427	488842.152	1275045.443	10.030	NS
428	488835.008	1275038.548	11.225	NS
429	488827.956	1275030.269	11.001	NS
430	488837.118	1275016.284	12.975	NS
431	488833.030	1275015.403	12.508	NS
432	488841.967	1275020.474	11.704	NS
433	488855.396	1275017.685	9.461	NS
434	488847.145	1275008.241	10.831	NS
435	488874.747	1275014.229	8.152	NS
436	488858.769	1275029.213	8.816	NS
437	488856.865	1275047.863	7.585	NS
438	488839.695	1275051.103	7.300	NS
439	488835.771	1275056.271	5.123	NS
440	488828.738	1275066.997	5.211	NS
441	488837.578	1275079.342	5.161	NS
442	488858.301	1275078.225	8.274	NS
443	488863.351	1275075.096	4.430	NS
444	488859.026	1275099.257	5.715	NS
445	488845.395	1275098.499	5.730	NS
446	488820.026	1275097.635	8.547	NS
447	488805.138	1275095.663	9.115	NS
448	488788.409	1275075.812	9.615	NS
449	488788.991	1275080.076	10.435	NS
450	488790.455	1275086.989	10.422	NS
451	488792.535	1275087.244	10.053	NS
452	488796.370	1275086.345	9.058	NS
453	488799.019	1275098.491	9.087	NS
454	488794.221	1275098.550	10.618	NS

Pt.No	Eastings	Northings	Height	Code
354	488745.037	1274922.691	13.249	NS
355	488748.132	1275030.727	13.441	NS
356	488750.053	1274934.147	14.348	NS
357	488744.567	1275034.845	14.192	NS
358	488754.713	1274938.282	14.766	NS
359	488737.656	1275044.355	9.993	NS
360	488771.785	1274931.251	13.214	NS
361	488750.541	1275060.457	9.419	NS
362	488778.671	1274940.287	11.293	NS
363	488763.498	1275053.878	14.549	NS
364	488758.109	1274957.000	13.306	NS
365	488766.092	1275050.054	15.342	NS
366	488777.911	1275042.907	14.940	NS
367	488814.758	1274979.084	15.758	NS
368	488791.756	1275021.953	14.788	NS
370	488847.436	1275014.188	10.342	NS
371	488847.443	1275014.206	10.318	NS
372	488847.451	1275014.194	11.623	NS
373	488770.075	1275079.327	8.417	NS
374	488731.147	1275080.225	9.525	NS
375	488783.557	1275123.602	8.117	NS
376	488790.455	1275121.025	7.726	NS
377	488716.667	1275084.424	9.523	NS
378	488793.273	1275158.695	7.580	NS
379	488797.617	1275155.520	7.296	NS
380	488801.681	1275159.313	6.768	NS
381	488691.982	1275095.725	10.009	NS
382	488699.444	1275092.795	9.818	NS
383	488816.568	1275209.464	6.017	NS
384	488816.101	1275210.821	6.909	NS
385	488685.691	1275100.025	10.392	NS
386	488811.192	1275222.499	7.564	NS
387	488841.345	1275220.583	7.518	NS
388	488836.968	1275213.029	6.706	NS
389	488836.775	1275211.286	5.654	NS
390	488680.272	1275104.138	10.326	NS
391	488674.789	1275111.194	10.276	NS
392	488777.196	1275126.806	7.313	NS
393	488777.071	1275126.942	7.764	NS
394	488765.904	1275137.939	7.735	NS
395	488687.749	1275141.785	8.630	NS
396	488761.308	1275138.114	7.773	NS
397	488761.724	1275136.843	7.749	NS
398	488760.695	1275133.299	7.914	NS
399	488754.410	1275134.625	7.951	NS
400	488754.295	1275129.785	7.400	NS
401	488749.453	1275131.240	7.719	NS
402	488747.603	1275129.303	7.581	NS
403	488747.319	1275127.388	7.437	NS
404	488746.098	1275122.915	7.452	NS

Pt.No	Eastings	Northings	Height	Code
304	488631.196	1275071.769	9.377	NS
305	488667.936	1275053.236	9.832	NS
306	488664.891	1275045.345	9.724	NS
307	488703.822	1275024.179	9.879	NS
308	488702.058	1275016.943	10.005	NS
309	488716.027	1275019.566	10.614	NS
310	488700.296	1275001.526	12.895	NS
311	488700.314	1275001.508	14.183	NS
312	489080.786	1275090.297	7.624	NS
313	489199.203	1275050.747	4.322	NS
314	489199.898	1275011.201	4.218	NS
315	488650.999	1275074.467	12.852	NS
316	488674.259	1275055.748	12.555	NS
317	488686.100	1275056.890	13.769	NS
318	488696.424	1275059.742	12.376	NS
319	488701.492	1275070.893	13.011	NS
320	488691.258	1275001.753	14.747	NS
321	488691.163	1274997.258	13.310	NS
322	488698.325	1275033.800	12.761	NS
323	488791.815	1275092.566	9.807	NS
324	488677.995	1274994.315	15.381	NS
325	488679.255	1274989.124	14.105	NS
326	488701.314	1275035.472	14.723	NS
327	488707.282	1275031.933	14.244	NS
328	488665.500	1274979.206	16.561	NS
329	488667.611	1274975.394	14.965	NS
330	488716.388	1275039.807	13.647	NS
331	488711.187	1275045.417	14.913	NS
332	488704.489	1275048.352	13.650	NS
333	488659.035	1274970.085	15.238	NS
334	488741.330	1275069.095	9.327	NS
335	488687.020	1274955.141	12.835	NS
336	488688.997	1274965.795	14.649	NS
337	488693.450	1274980.022	13.535	NS
338	488698.058	1274990.991	13.348	NS
339	488702.245	1274994.855	14.558	NS
340	488707.648	1275001.767	12.373	NS
341	488709.321	1275003.112	11.197	NS
342	488727.797	1275092.634	8.319	NS
343	488729.906	1274987.205	12.868	NS
344	488725.343	1274978.322	13.376	NS
345	488721.904	1274967.097	13.885	NS
346	488717.392	1274950.877	14.714	NS
347	488714.737	1274933.866	13.539	NS
348	488716.631	1275031.100	9.730	NS
349	488715.969	1275021.270	10.188	NS
350	488722.912	1275026.057	9.957	NS
351	488740.419	1274910.585	14.127	NS
352	488729.292	1275023.711	13.620	NS
353	488730.895	1275020.304	12.234	NS

Pt.No	Eastings	Northings	Height	Code
559	488578.573	1274955.715	9.900	NS
560	488694.030	1274942.355	11.145	NS
561	488610.569	1274959.268	12.037	NS
562	488712.790	1274926.660	11.759	NS
563	488630.435	1274968.448	12.854	NS
564	488684.688	1274925.542	10.864	NS
565	488635.085	1274982.685	13.289	NS
566	488623.329	1274944.487	11.196	NS
567	488637.156	1274942.341	10.995	NS
568	488655.814	1274917.804	11.464	NS
569	488650.127	1274887.569	9.457	NS
570	488655.889	1274874.709	9.980	NS
571	488647.439	1274869.952	8.880	NS
572	488657.091	1274861.659	9.500	NS
573	488648.880	1274856.931	8.285	NS
574	488716.823	1274886.599	13.215	NS
575	488483.727	1274950.862	7.793	NS
576	488484.889	1274903.978	7.577	NS
577	488651.345	1274836.382	7.804	NS
578	488602.497	1274922.620	7.843	NS
579	488502.625	1274922.923	7.392	NS
580	488629.554	1274848.288	7.869	NS
581	488511.908	1274903.978	8.574	NS
582	488512.477	1274905.183	7.849	NS
583	488633.401	1274875.441	8.797	NS
584	488630.263	1274876.640	7.972	NS
585	488558.396	1274905.449	8.477	NS
586	488556.800	1274906.515	7.637	NS
587	488636.501	1274892.258	9.050	NS
588	488632.525	1274892.913	8.252	NS
589	488647.085	1274903.084	9.704	NS
590	488531.674	1274960.565	7.900	NS
591	488529.628	1274956.043	7.618	NS
592	488522.474	1274973.213	8.447	NS
593	488516.775	1274992.753	8.265	NS
594	488573.147	1274966.618	15.658	NS
595	488494.537	1275013.590	8.458	NS
596	488558.145	1274965.193	15.430	NS
597	488499.267	1275017.854	12.012	NS
598	488559.344	1274978.132	15.509	NS
599	488511.954	1275031.409	13.337	NS
600	488537.312	1274971.203	15.577	NS
601	488543.706	1274990.587	15.526	NS
602	488494.312	1275042.217	12.964	NS
603	488498.597	1275047.031	12.873	NS
604	488528.809	1274988.413	15.226	NS
605	488492.176	1275032.006	10.940	NS
606	488526.632	1275001.341	15.315	NS
607	488486.973	1275031.689	8.356	NS
608	488535.110	1275010.415	15.691	NS

Pt.No	Eastings	Northings	Height	Code
509	488764.277	1274891.472	8.486	NS
510	488775.299	1274906.138	8.639	NS
511	488765.692	1274832.112	7.744	NS
512	488762.744	1274826.447	7.634	NS
513	488798.148	1274904.117	7.814	NS
514	488792.337	1274826.358	7.306	NS
515	488794.427	1274824.734	7.225	NS
516	488801.923	1274825.650	7.134	NS
517	488798.242	1274883.482	7.365	NS
518	488805.274	1274883.147	7.275	NS
519	488795.717	1274923.788	7.878	NS
520	488800.376	1274927.404	7.935	NS
521	488777.793	1274915.574	8.945	NS
522	488773.852	1274919.482	9.238	NS
523	488794.944	1274907.084	8.707	NS
524	488711.065	1274818.263	7.977	NS
525	488687.212	1274821.016	8.203	NS
526	488708.940	1274849.646	9.171	NS
527	488688.855	1274868.698	9.207	NS
528	488687.937	1274860.306	9.150	NS
529	488669.603	1274879.530	9.944	NS
530	488648.782	1274895.174	9.634	NS
531	488699.416	1274876.546	9.959	NS
532	488702.207	1274881.466	11.513	NS
533	488627.062	1274927.996	9.493	NS
534	488624.527	1274922.734	9.487	NS
535	488618.982	1274912.639	9.063	NS
536	488719.521	1274876.109	10.476	NS
537	488718.661	1274882.128	12.785	NS
538	488605.746	1274941.919	9.488	NS
539	488741.023	1274894.067	10.457	NS
540	488734.775	1274904.335	13.619	NS
541	488591.005	1274959.938	10.886	NS
542	488570.798	1274956.051	10.282	NS
543	488750.735	1274910.616	10.570	NS
544	488741.480	1274912.388	14.042	NS
545	488726.239	1274919.265	12.869	NS
546	488722.329	1274918.119	12.633	NS
547	488704.754	1274894.930	11.820	NS
548	488693.665	1274898.128	10.467	NS
549	488670.362	1274898.080	12.016	NS
550	488653.852	1274921.805	11.208	NS
551	488685.777	1274929.621	10.716	NS
552	488430.933	1274960.971	8.156	NS
553	488640.130	1274945.013	11.823	NS
554	488653.074	1274961.596	12.285	NS
555	488652.628	1274972.448	16.033	NS
556	488672.823	1274968.902	14.934	NS
557	488667.014	1274960.176	11.903	NS
558	488667.123	1274948.175	11.215	NS

Pt.No	Eastings	Northings	Height	Code
455	488796.462	1275110.148	9.426	NS
456	488799.975	1275109.173	8.590	NS
457	488800.866	1275127.267	8.800	NS
458	488804.924	1275129.882	7.626	NS
459	488774.027	1275053.366	15.249	NS
460	488852.167	1275062.924	7.244	NS
461	488856.304	1275065.307	7.137	NS
462	488863.622	1275073.101	4.883	NS
463	488791.814	1275092.568	8.566	NS
464	488881.849	1275033.519	7.235	NS
465	488895.937	1275060.180	5.725	NS
466	488899.388	1275070.820	3.396	NS
467	488816.758	1274979.332	14.350	NS
468	488913.952	1275085.921	3.298	NS
469	488823.755	1274967.991	12.563	NS
470	488913.370	1275051.941	3.589	NS
471	488930.244	1275055.471	3.606	NS
472	488847.846	1275000.822	8.004	NS
473	488940.537	1275023.222	3.278	NS
474	488922.608	1275013.193	3.645	NS
475	488918.071	1275009.291	5.023	NS
476	488847.846	1275000.822	8.004	NS
477	488906.279	1275039.298	5.612	NS
478	488850.280	1274991.241	5.453	NS
479	488838.113	1274983.802	6.278	NS
480	488894.537	1274992.436	5.770	NS
481	488833.322	1274973.883	5.931	NS
482	488900.607	1274987.778	4.087	NS
483	488826.425	1274963.876	6.238	NS
484	48879.949	1274964.666	4.926	NS
485	488815.863	1274956.315	7.032	NS
486	488896.885	1274949.594	5.259	NS
487	488861.966	1274959.757	5.432	NS
488	488861.153	1274956.014	5.401	NS
489	488857.700	1274963.682	5.472	NS
490	488842.915	1274963.635	5.696	NS
491	488792.744	1274898.205	6.401	NS
492	488856.602	1274966.308	5.671	NS
493	488784.933	1274998.474	6.646	NS
494	488795.385	1274903.556	6.387	NS
496	489175.315	1275038.495	6.123	NS
497	489196.400	1275052.756	6.211	NS
499	489200.809	1275007.765	6.788	NS
500	488735.985	1274852.035	8.041	NS
501	488730.275	1274849.183	7.757	NS
502	488729.691	1274848.682	7.347	NS
503	488728.870	1274847.195	7.395	NS
505	488758.014	1274838.353	8.007	NS
506	488759.022	1274847.662	7.861	NS
507	488736.989	1274852.773	8.069	NS
508	488765.942	1274846.701	7.986	NS

Pt.No	Eastings	Northings	Height	Code
1059	488841.271	1275220.623	6.446	NS
1060	488803.177	1275222.883	8.457	NS
1061	488772.896	1275231.784	8.172	NS
1062	488775.451	1275218.794	8.121	NS
1063	488792.350	1275205.098	8.234	NS
1064	488792.350	1275167.559	7.952	NS
1065	488865.629	1275219.583	7.048	NS
1066	488798.813	1275168.996	7.293	NS
1067	488858.054	1275235.352	7.374	NS
1068	488800.764	1275169.206	6.756	NS
1069	488856.496	1275214.113	6.594	NS
1070	488854.962	1275211.694	5.441	NS
1071	488802.418	1275168.873	6.665	NS
1072	488868.164	1275219.045	6.728	NS
1073	488803.312	1275157.913	7.049	NS
1074	488815.656	1275151.707	7.302	NS
1075	488879.082	1275242.465	6.669	NS
1076	488827.691	1275146.516	5.835	NS
1077	488838.164	1275134.140	7.228	NS
1078	488845.591	1275128.721	6.309	NS
1079	488846.638	1275125.222	5.228	NS
1080	488900.150	1275250.923	6.443	NS
1081	488860.249	1275114.195	5.690	NS
1082	488861.931	1275112.636	4.723	NS
1083	488916.437	1275249.554	6.452	NS
1084	488918.693	1275265.533	6.588	NS
1085	488877.017	1275141.222	4.043	NS
1086	488870.955	1275145.085	5.778	NS
1087	488952.437	1275261.858	6.464	NS
1088	488861.364	1275147.437	7.463	NS
1089	488914.413	1275236.782	6.434	NS
1090	488836.759	1275165.193	6.144	NS
1091	488816.715	1275175.433	6.720	NS
1092	488903.548	1275211.131	6.125	NS
1093	488907.148	1275202.263	5.737	NS
1094	488807.034	1275183.406	6.812	NS
1095	488918.832	1275177.178	5.133	NS
1096	488806.206	1275183.935	6.198	NS
1097	488805.275	1275184.348	6.240	NS
1098	488918.836	1275177.123	5.148	NS
1099	488803.416	1275186.075	7.116	NS
1100	488911.751	1275178.453	7.819	NS
1101	488820.115	1275209.475	5.956	NS
1102	488820.390	1275205.648	6.658	NS
1103	488907.281	1275175.610	5.001	NS
1104	488830.720	1275190.886	6.104	NS
1105	488897.604	1275193.025	5.567	NS
1106	488853.990	1275180.852	6.069	NS
1107	488894.151	1275190.921	4.037	NS
1108	488876.269	1275172.806	6.264	NS

Pt.No	Eastings	Northings	Height	Code
659	488473.291	1274987.992	8.065	NS
660	488392.318	1275114.221	8.625	NS
661	488400.726	1275112.972	9.071	NS
662	488494.989	1274985.203	7.987	NS
663	488402.551	1275126.057	9.100	NS
664	488465.497	1274965.167	8.048	NS
665	488403.180	1275134.969	9.083	NS
666	488404.154	1275140.100	9.000	NS
667	488456.478	1274921.766	8.125	NS
668	488435.690	1275130.348	10.362	NS
670	488427.465	1275125.910	10.024	NS
671	488410.406	1275101.209	8.372	NS
672	488433.113	1275000.978	8.116	NS
673	488415.793	1275015.297	7.951	NS
675	488384.974	1275022.964	7.961	NS
676	488406.441	1275045.507	7.877	NS
677	489192.579	1275003.547	6.812	NS
678	489189.969	1275010.577	6.589	NS
679	489192.579	1275012.786	4.321	NS
680	489178.154	1275114.848	6.412	NS
681	489181.413	1275115.954	6.345	NS
682	488613.105	1275250.363	8.462	NS
700	488476.003	1275223.753	10.102	NS
701	488566.701	1275308.554	8.894	NS
702	488547.089	1275511.963	8.771	NS
703	488556.593	1275284.361	8.657	NS
704	488562.749	1275292.401	8.896	NS
705	488587.908	1275279.226	8.794	NS
706	488584.473	1275272.530	8.777	NS
707	488572.615	1275274.558	8.705	NS
708	488566.178	1275229.088	8.910	NS
709	488570.969	1275264.894	8.834	NS
710	488565.940	1275256.209	8.836	NS
711	488577.324	1275225.117	9.777	NS
712	488570.131	1275253.049	8.719	NS
713	488572.354	1275251.897	8.631	NS
714	488594.259	1275235.726	9.583	NS
715	488566.418	1275246.026	8.562	NS
716	488634.412	1275243.287	8.121	NS
717	488642.479	1275253.517	8.390	NS
1000	488716.748	1274886.619	13.142	NS
1050	488791.841	1275092.573	11.015	NS
1051	488772.949	1275092.838	8.378	NS
1052	488784.802	1275124.542	7.925	NS
1053	488790.420	1275120.342	7.681	NS
1054	488816.566	1275209.574	6.089	NS
1055	488816.217	1275210.860	6.838	NS
1056	488813.953	1275217.816	7.154	NS
1057	488811.208	1275222.537	7.613	NS
1058	488701.916	1275154.889	8.905	NS

Pt.No	Eastings	Northings	Height	Code
609	488478.353	1275029.047	8.628	NS
610	488533.509	1275010.570	14.638	NS
611	488531.812	1275024.076	14.536	NS
612	488466.369	1275030.764	8.359	NS
613	488470.865	1275038.458	9.904	NS
614	488465.562	1275037.327	9.681	NS
615	488465.964	1275041.202	9.873	NS
616	488460.497	1275041.727	9.645	NS
617	488457.829	1275042.230	8.606	NS
618	488549.317	1275024.684	15.012	NS
619	488461.152	1275048.262	9.461	NS
620	488524.765	1275004.583	13.508	NS
621	488460.405	1275051.286	8.930	NS
622	488521.468	1275014.716	13.918	NS
623	488468.904	1275047.875	9.536	NS
624	488518.163	1275028.555	14.522	NS
625	488475.884	1275046.034	9.517	NS
626	488488.214	1275045.124	9.631	NS
627	488466.397	1275063.059	9.140	NS
628	488472.525	1275072.532	13.772	NS
629	488475.617	1275078.705	14.325	NS
630	488473.423	1275090.245	13.907	NS
631	488465.160	1275101.495	14.031	NS
632	488540.924	1275040.463	19.942	NS
633	488522.871	1275049.745	19.219	NS
634	488512.973	1275050.216	19.419	NS
635	488507.622	1275059.402	18.736	NS
636	488479.685	1275104.755	15.062	NS
637	488468.343	1275103.653	15.137	NS
638	488492.828	1275069.510	17.854	NS
639	488467.803	1275114.494	14.673	NS
640	488487.126	1275084.272	17.399	NS
641	488461.773	1275119.607	13.711	NS
642	488478.593	1275092.609	17.475	NS
643	488448.085	1275102.994	13.733	NS
644	488458.231	1275088.008	13.749	NS
645	488454.398	1275080.801	10.905	NS
646	488451.355	1275074.318	8.455	NS
647	488444.058	1275088.826	11.284	NS
648	488451.689	1275054.399	8.871	NS
649	488436.664	1275099.316	11.445	NS
650	488449.000	1275028.719	8.452	NS
651	488437.745	1275087.248	8.398	NS
652	488442.669	1275000.862	7.896	NS
653	488437.406	1274982.048	8.067	NS
654	488428.636	1275098.308	9.501	NS
655	488429.208	1275097.117	9.501	NS
656	488429.614	1275096.548	9.137	NS
657	488432.189	1275096.285	9.111	NS
658	488432.217	1275096.105	9.326	NS

Pt.No	Eastings	Northings	Height	Code
1210	488921.523	1274985.773	4.360	NS
1211	488935.118	1274979.542	4.231	NS
1212	488933.936	1274976.088	6.224	NS
1213	489109.499	1275185.699	6.225	NS
1214	488933.531	1274976.064	6.294	NS
1215	488953.293	1274974.674	6.098	NS
1216	488953.314	1274975.634	4.690	NS
1217	488971.766	1274972.929	4.736	NS
1218	488973.779	1274971.047	6.318	NS
1219	488972.281	1274945.709	6.420	NS
1220	488977.302	1274945.932	6.378	NS
1221	488978.889	1274971.179	6.352	NS
1222	488960.970	1274952.040	5.681	NS
1223	488948.546	1274954.895	5.653	NS
1224	488929.892	1274962.002	5.849	NS
1225	488908.570	1274967.985	5.774	NS
1226	488955.492	1274964.581	5.794	NS
1227	488879.732	1274964.895	6.114	NS
1228	488866.682	1274938.007	6.439	NS
1229	488857.276	1274840.960	7.075	NS
1230	488854.566	1274826.642	7.307	NS
1231	488891.971	1274940.741	6.103	NS
1232	488892.168	1274941.581	5.202	NS
1233	488836.809	1274861.119	6.948	NS
1234	488900.787	1274942.902	6.104	NS
1235	488900.303	1274943.674	5.256	NS
1236	488834.246	1274816.399	7.039	NS
1237	488833.811	1274813.176	6.980	NS
1238	488919.445	1274939.085	5.871	NS
1239	488898.807	1274817.619	6.808	NS
1240	488894.176	1274833.769	6.763	NS
1241	488887.765	1274959.153	6.182	NS
1242	488888.723	1274958.370	5.360	NS
1243	488944.162	1274843.747	6.238	NS
1244	488932.601	1274869.474	6.419	NS
1245	488931.623	1274939.229	6.013	NS
1246	488902.940	1274802.829	6.626	NS
1247	488904.277	1274795.992	6.756	NS
1248	488959.183	1274930.410	5.429	NS
1249	488967.074	1274918.387	5.555	NS
1250	488966.970	1274854.034	6.314	NS
1252	488965.805	1274854.483	5.977	NS
1253	488970.457	1274884.619	6.560	NS
1254	488966.581	1274888.189	5.769	NS
1255	488938.154	1274858.382	6.214	NS
1256	488938.944	1274881.381	5.925	NS
1257	488928.282	1274894.544	5.875	NS
1258	488941.538	1274916.894	5.636	NS
1259	488903.466	1274930.247	6.091	NS
1260	488847.454	1275014.206	11.623	NS

Pt.No	Eastings	Northings	Height	Code
1159	489035.989	1275167.015	6.010	NS
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1161	488943.194	1275025.795	4.240	NS
1162	489032.992	1275163.118	4.007	NS
1163	488961.162	1275032.522	4.237	NS
1164	489032.583	1275145.306	4.193	NS
1165	488973.729	1275034.747	4.128	NS
1166	489035.118	1275144.010	5.543	NS
1167	488984.686	1275034.326	6.823	NS
1168	488991.273	1275032.361	6.735	NS
1169	489075.506	1275139.038	5.745	NS
1170	488993.484	1275047.907	4.099	NS
1171	489072.471	1275135.955	3.569	NS
1172	488998.892	1275038.186	6.507	NS
1173	488996.682	1275062.385	5.677	NS
1174	488993.558	1275060.811	4.169	NS
1175	489100.594	1275127.092	5.030	NS
1176	488993.198	1275069.642	5.608	NS
1177	489100.404	1275124.546	2.686	NS
1178	488982.625	1275070.484	4.367	NS
1179	489118.079	1275129.246	5.645	NS
1180	489118.713	1275128.400	4.905	NS
1181	489120.939	1275121.877	4.899	NS
1182	489120.587	1275120.654	5.782	NS
1183	489001.219	1275044.801	7.059	NS
1184	489030.791	1275038.737	6.629	NS
1185	489112.143	1275093.948	5.421	NS
1186	489098.929	1275031.087	6.027	NS
1187	489101.979	1275053.610	5.794	NS
1188	489105.740	1275078.267	5.609	NS
1189	489028.320	1275207.721	6.347	NS
1190	489024.014	1275202.940	6.302	NS
1191	489028.246	1275200.301	6.398	NS
1192	489027.714	1275192.030	6.041	NS
1193	489120.794	1275019.361	6.682	NS
1194	489031.326	1275181.055	6.034	NS
1195	489049.212	1275168.091	5.963	NS
1196	489047.366	1275188.952	6.072	NS
1197	489043.136	1275189.535	6.066	NS
1198	489045.011	1275201.536	6.429	NS
1199	488977.747	1275017.643	6.735	NS
1200	488973.967	1275021.359	4.175	NS
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1202	489067.543	1275181.793	6.055	NS
1203	488958.680	1275000.043	4.038	NS
1204	489085.101	1275169.766	5.758	NS
1205	488944.325	1275002.298	4.910	NS
1206	489094.821	1275215.195	6.211	NS
1207	489094.230	1275211.233	6.063	NS
1209	489089.692	1275186.743	5.988	NS

Pt.No	Eastings	Northings	Height	Code
1109	488894.682	1275169.919	4.368	NS
1110	488880.158	1275171.510	5.009	NS
1111	488881.524	1275146.903	4.889	NS
1112	488921.557	1275155.940	6.472	NS
1113	488982.454	1275135.506	4.115	NS
1114	488900.341	1275132.917	5.015	NS
1115	488926.581	1275162.818	4.956	NS
1116	488993.392	1275112.323	4.099	NS
1117	488930.534	1275170.588	4.627	NS
1118	488911.984	1275122.254	4.292	NS
1119	488936.706	1275183.512	5.410	NS
1120	488904.815	1275110.576	4.266	NS
1121	488947.258	1275208.033	5.600	NS
1122	488915.415	1275130.980	4.425	NS
1123	488998.332	1275246.531	6.283	NS
1124	488927.607	1275147.256	4.226	NS
1125	488930.368	1275149.344	6.065	NS
1126	489042.862	1275236.234	6.496	NS
1127	489030.987	1275228.172	5.872	NS
1128	488959.788	1275128.762	5.706	NS
1129	489009.486	1275228.552	6.613	NS
1130	488977.397	1275241.925	6.152	NS
1131	488956.081	1275123.982	4.092	NS
1132	488993.172	1275213.674	6.030	NS
1133	488956.736	1275104.118	5.259	NS
1134	489008.912	1275217.930	6.427	NS
1135	489008.247	1275214.177	6.355	NS
1136	489012.753	1275213.785	6.271	NS
1137	488943.915	1275102.306	5.498	NS
1138	488991.409	1275206.922	5.937	NS
1139	488943.927	1275097.061	4.231	NS
1140	488929.444	1275099.587	4.473	NS
1141	488962.848	1275197.851	4.854	NS
1142	488963.541	1275193.428	3.679	NS
1143	488915.207	1275105.728	4.565	NS
1144	488962.719	1275162.115	4.162	NS
1145	488961.976	1275154.478	5.706	NS
1146	488901.908	1275088.593	4.564	NS
1147	488994.564	1275078.246	4.362	NS
1148	488983.326	1275176.944	3.310	NS
1149	488957.090	1275074.139	4.294	NS
1150	488988.054	1275199.110	5.575	NS
1151	488989.430	1275197.686	4.490	NS
1152	488976.470	1275088.365	4.699	NS
1153	489013.475	1275191.813	5.760	NS
1154	489011.341	1275188.376	4.145	NS
1155	489018.711	1275171.871	6.055	NS
1156	488943.563	1275054.720	4.334	NS
1157	489014.759	1275167.688	3.951	NS
1158	488923.701	1275047.054	4.381	NS

Pt.No	Eastings	Northings	Height	Code
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1363	488990.400	1275136.067	0.834	NS
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1365	489001.015	1275143.095	1.206	NS
1366	489016.945	1275080.272	-6.756	NS
1367	489007.379	1275144.257	1.003	NS
1368	489010.443	1275136.022	-0.431	NS
1369	489006.443	1275050.129	0.684	NS
1370	489014.382	1275132.107	-0.921	NS
1371	489005.939	1275059.964	-1.541	NS
1372	489012.094	1275064.804	-4.041	NS
1373	489024.015	1275135.504	-1.325	NS
1374	489018.992	1275061.462	-4.422	NS
1375	489016.018	1275126.278	-2.675	NS
1376	489006.030	1275120.991	-1.659	NS
1377	489015.920	1275070.677	-6.283	NS
1378	489019.828	1275064.333	-6.885	NS
1379	488993.509	1275113.013	0.401	NS
1380	489006.343	1275113.955	0.080	NS
1381	489019.789	1275044.602	1.430	NS
1382	489017.379	1275114.184	0.906	NS
1383	489029.140	1275046.444	-0.517	NS
1384	489022.793	1275114.387	-1.679	NS
1386	489026.691	1275121.736	0.686	NS
1387	489065.536	1275042.819	-1.199	NS
1388	489031.460	1275132.549	1.384	NS
1389	489076.130	1275039.674	-0.827	NS
1390	489036.506	1275134.064	2.281	NS
1391	489039.958	1275134.139	0.531	NS
1392	489078.604	1275053.052	-4.884	NS
1393	489051.319	1275133.623	1.694	NS
1394	489084.360	1275066.845	-4.890	NS
1395	489052.907	1275133.996	0.202	NS
1396	489083.595	1275071.720	-6.966	NS
1397	489061.914	1275130.425	-2.078	NS
1398	489089.425	1275078.879	-5.553	NS
1399	489068.541	1275125.884	-2.927	NS
1400	489086.722	1275081.541	-6.897	NS
1401	489069.883	1275122.319	-3.472	NS
1402	489096.450	1275090.721	-4.954	NS
1403	489087.470	1275122.640	-2.753	NS
1404	489094.569	1275094.284	-6.818	NS
1405	489084.289	1275119.608	-3.858	NS
1406	489100.477	1275102.533	-3.945	NS
1407	489086.961	1275107.117	-6.069	NS
1408	489084.748	1275109.531	-6.678	NS
1409	489079.758	1275107.245	-7.964	NS
1410	489080.122	1275105.520	-6.382	NS
1411	489080.639	1275104.281	-6.876	NS
1412	489075.920	1275118.454	-5.543	NS

Pt.No	Eastings	Northings	Height	Code
1312	489173.841	1274889.354	5.709	NS
1313	489191.431	1274996.818	2.838	NS
1314	489168.190	1274988.060	-1.146	NS
1315	489149.522	1275007.710	3.100	NS
1316	489147.261	1275001.665	2.991	NS
1317	489144.933	1274926.945	-1.117	NS
1318	489203.194	1274990.923	6.915	NS
1319	489197.982	1274992.215	6.868	NS
1320	489121.826	1275013.926	4.198	NS
1321	489116.748	1275009.080	4.023	NS
1322	489098.255	1275024.597	5.862	NS
1323	489090.566	1275020.984	3.794	NS
1324	489089.496	1275016.188	3.250	NS
1325	489083.095	1274991.285	-1.159	NS
1326	489057.050	1275010.373	-1.004	NS
1327	489057.023	1275021.047	3.448	NS
1328	489174.631	1275053.562	6.448	NS
1329	489209.687	1275051.943	6.225	NS
1330	489207.136	1275049.694	4.491	NS
1331	489210.602	1275069.436	6.215	NS
1332	489174.233	1275072.923	6.527	NS
1333	489169.742	1275068.469	6.575	NS
1334	489178.014	1275077.315	6.617	NS
1335	489172.465	1275079.461	6.490	NS
1336	489167.274	1275080.704	6.435	NS
1337	489157.104	1275084.062	6.491	NS
1338	489150.977	1275084.390	6.315	NS
1339	489134.522	1275080.326	6.554	NS
1340	489134.474	1275075.954	6.384	NS
1341	489123.927	1275081.327	6.443	NS
1342	489117.920	1275120.318	5.955	NS
1343	489122.667	1275023.186	6.581	NS
1344	489123.281	1275024.457	6.042	NS
1345	489120.769	1275019.363	6.738	NS
1346	488959.865	1275134.359	3.840	NS
1347	488966.567	1275133.849	3.657	NS
1348	488974.396	1275133.440	1.409	NS
1349	488978.518	1275131.096	0.188	NS
1350	488942.110	1275127.634	4.016	NS
1351	488985.942	1275124.219	-2.291	NS
1352	488971.366	1275118.674	-0.134	NS
1353	488974.565	1275119.599	-1.463	NS
1354	488961.393	1275103.222	0.959	NS
1355	488981.522	1275117.187	-2.073	NS
1356	488978.261	1275110.243	-0.023	NS
1357	488986.772	1275117.733	-1.065	NS
1358	488973.658	1275100.557	-0.015	NS
1359	488992.819	1275120.704	-2.746	NS
1360	488985.668	1275084.083	-2.973	NS
1361	488996.884	1275129.723	-0.438	NS

Pt.No	Eastings	Northings	Height	Code
1261	488968.171	1274801.753	5.838	NS
1262	488968.153	1274801.817	5.754	NS
1264	488966.987	1274819.178	6.298	NS
1265	488967.762	1274825.580	6.388	NS
1266	488963.137	1274827.607	6.858	NS
1267	488994.449	1275036.282	6.754	NS
1268	488930.542	1274837.057	6.871	NS
1269	488946.767	1274833.735	6.846	NS
1270	488996.831	1275029.629	3.644	NS
1271	489000.761	1275025.191	3.254	NS
1272	488970.053	1274827.757	6.494	NS
1273	488974.271	1274830.844	6.450	NS
1274	488975.530	1274832.575	5.508	NS
1275	488982.957	1275003.836	6.785	NS
1276	488987.860	1275001.990	3.740	NS
1277	488993.278	1275001.364	3.690	NS
1278	489063.116	1274811.813	6.731	NS
1279	489064.169	1274816.593	6.722	NS
1280	488977.226	1274930.032	6.810	NS
1281	488985.630	1274931.738	4.487	NS
1282	489065.673	1274820.528	4.569	NS
1283	488975.132	1274875.252	6.593	NS
1284	488978.672	1274873.936	5.284	NS
1285	489160.654	1274803.564	6.845	NS
1286	489151.351	1274809.148	6.901	NS
1287	489011.730	1274914.626	4.729	NS
1288	489158.127	1274810.742	6.817	NS
1289	489006.439	1274932.176	5.010	NS
1290	489169.243	1274822.832	6.894	NS
1291	489164.532	1274825.368	6.908	NS
1292	489042.948	1274895.698	4.446	NS
1293	489066.774	1274889.383	4.676	NS
1294	489164.545	1274825.374	6.922	NS
1295	489071.088	1274877.611	4.765	NS
1296	489086.874	1274873.214	4.676	NS
1297	489162.059	1274826.467	5.698	NS
1298	489108.972	1274877.168	4.584	NS
1299	489186.339	1274894.934	6.989	NS
1300	489181.224	1274896.281	6.773	NS
1301	489173.855	1274897.691	5.694	NS
1302	489165.931	1274899.479	5.620	NS
1303	489163.812	1274890.502	5.636	NS
1304	489130.095	1274877.666	4.379	NS
1305	489158.384	1274870.957	4.404	NS
1306	489100.755	1274956.412	-3.356	NS
1307	489128.343	1274926.474	-3.514	NS
1308	489162.026	1274926.474	2.112	NS
1309	489147.112	1274908.207	2.282	NS
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1311	489155.673	1274926.362	-0.680	NS


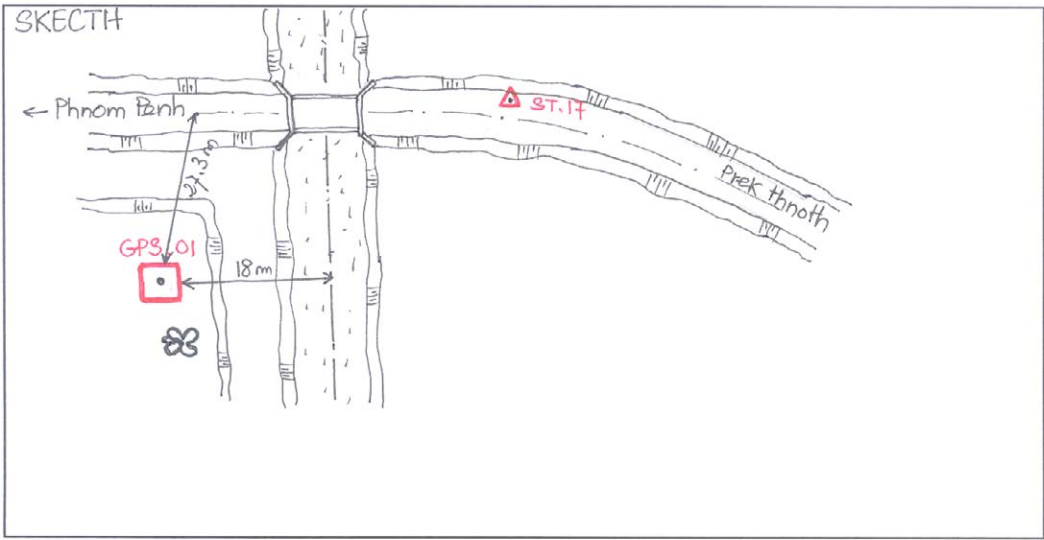



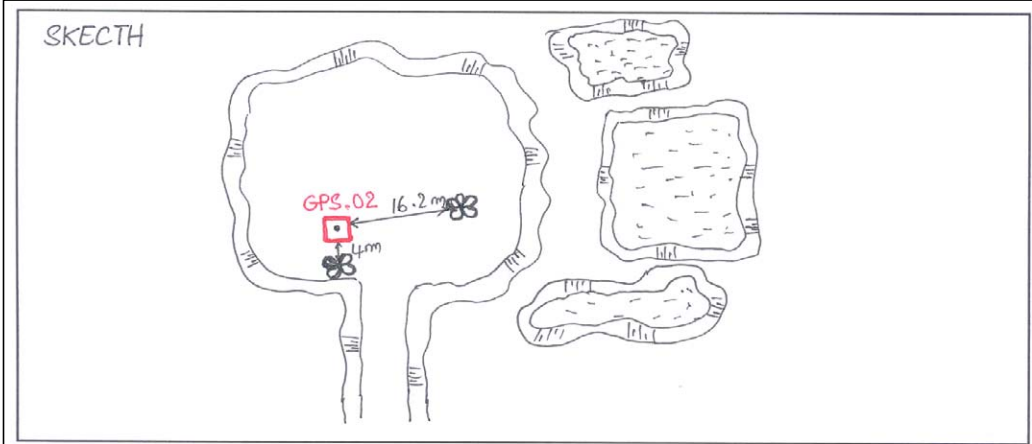
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10009	489117.920	1275120.318	5.955	ST10
10010	488731.393	1274864.548	8.716	BM1
10011	488853.673	1274983.839	6.843	BM2
10012	488386.091	1275058.025	8.671	BM3
10013	488536.294	1275269.263	8.886	BM4
10014	488456.204	1275161.125	9.907	TBM4


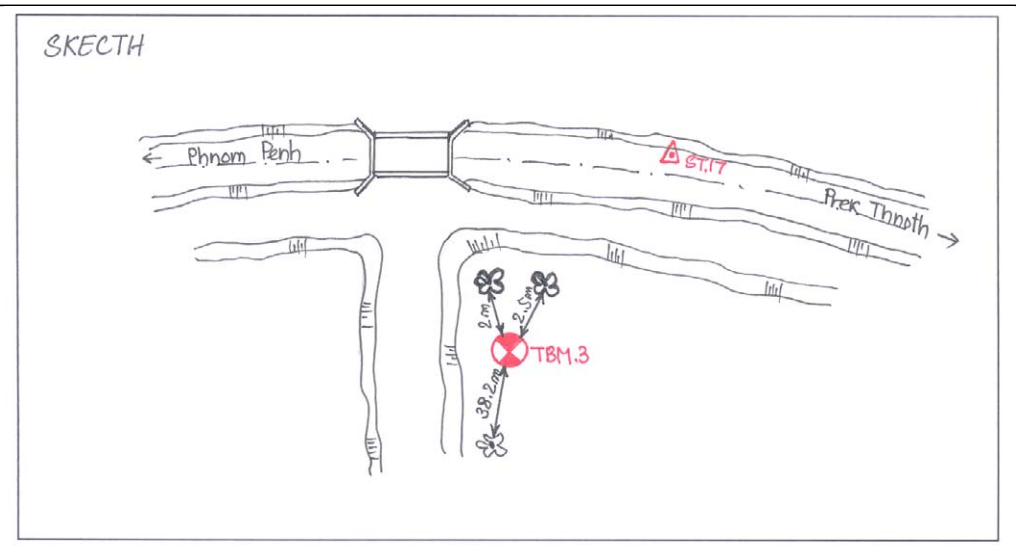
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1465	488998.891	1275106.014	-4.376	NS
1466	489002.352	1275106.498	-6.282	NS
1467	489017.419	1275103.480	-7.378	NS
1468	489018.374	1275103.352	-8.270	NS
1469	489026.255	1275093.052	-7.416	NS
1470	489026.903	1275093.926	-8.378	NS
1471	489035.596	1275085.658	-8.263	NS
1472	489118.372	1275125.199	4.532	NS
1473	489133.571	1275126.915	5.842	NS
1474	489133.293	1275126.063	4.836	NS
1475	489132.341	1275122.129	4.363	NS
1476	489132.308	1275120.914	4.887	NS
1477	489133.400	1275119.098	5.933	NS
1478	489151.925	1275117.916	4.811	NS
1479	489145.316	1275117.315	5.824	NS
1480	489173.869	1275121.151	5.828	NS
1481	489173.909	1275120.713	4.938	NS
1482	489173.257	1275119.222	4.758	NS
1483	489172.455	1275118.230	4.843	NS
1484	489171.627	1275114.753	5.664	NS
1485	489180.394	1275120.800	6.235	NS
1486	489175.372	1275120.846	6.401	NS
1487	489182.597	1275119.580	4.963	NS
1488	489183.510	1275122.300	5.587	NS
1489	489181.862	1275116.984	4.990	NS
1490	489197.323	1275119.498	5.405	NS
1491	489197.728	1275117.305	4.728	NS
1492	489217.269	1275121.535	5.561	NS
1493	489216.952	1275120.362	5.451	NS
1494	489220.144	1275119.057	4.663	NS
1495	489221.411	1275118.018	4.543	NS
1496	489250.160	1275115.421	4.302	NS
1497	489250.280	1275114.141	5.225	NS
1498	489252.200	1275118.870	4.194	NS
1499	489251.502	1275121.552	4.341	NS
1500	489259.900	1275119.362	4.188	NS
1501	489283.491	1275118.938	4.272	NS
1502	489283.562	1275118.222	5.255	NS
1503	489186.717	1275109.970	6.521	NS
1504	489190.778	1275109.495	6.461	NS
1505	489132.535	1275106.969	6.075	NS
10000	488716.759	1274886.666	13.142	ST1
10001	488430.933	1274960.924	8.104	ST2
10002	488475.991	1275223.776	10.065	ST3
10003	488588.164	1275164.946	13.841	ST4
10004	488610.767	1275089.831	9.404	ST5
10005	488700.294	1275001.572	14.199	ST6
10006	488791.812	1275092.617	10.949	ST7

Pt.No	Eastings	Northings	Height	Code
1413	489068.124	1275106.866	-8.301	NS
1414	489075.377	1275115.140	-6.200	NS
1415	489068.224	1275103.617	-6.351	NS
1416	489069.178	1275100.230	-7.430	NS
1417	489070.945	1275113.497	-8.490	NS
1418	489066.482	1275099.747	-8.282	NS
1419	489057.650	1275098.445	-6.447	NS
1420	489059.029	1275096.596	-6.985	NS
1421	489058.579	1275120.701	-6.351	NS
1422	489056.650	1275120.581	-7.759	NS
1423	489059.887	1275082.055	-6.657	NS
1424	489060.252	1275081.865	-7.098	NS
1425	489057.664	1275123.046	-6.669	NS
1426	489057.254	1275066.443	-8.245	NS
1427	489059.128	1275065.513	-6.705	NS
1428	489060.136	1275065.356	-7.083	NS
1429	489033.701	1275123.278	-6.459	NS
1430	489035.124	1275122.472	-6.147	NS
1431	489052.183	1275063.286	-8.043	NS
1432	489031.986	1275115.424	-5.950	NS
1433	489030.472	1275116.679	-5.793	NS
1434	489049.895	1275085.575	-8.269	NS
1435	489026.704	1275112.376	-5.638	NS
1436	489027.452	1275110.672	-5.712	NS
1437	489052.206	1275061.492	-6.651	NS
1438	489052.196	1275060.348	-7.177	NS
1439	489023.441	1275110.226	-5.168	NS
1440	489036.550	1275057.658	-6.987	NS
1441	489036.676	1275059.559	-6.228	NS
1442	489035.947	1275062.261	-7.807	NS
1443	489025.028	1275108.169	-7.426	NS
1444	489031.459	1275074.872	-7.620	NS
1445	489033.124	1275112.220	-7.982	NS
1446	489025.967	1275065.802	-7.213	NS
1447	489036.652	1275121.260	-7.873	NS
1448	489046.702	1275116.609	-8.284	NS
1449	489046.716	1275115.653	-8.570	NS
1450	489026.561	1275069.374	-6.884	NS
1451	489041.023	1275104.887	-8.061	NS
1452	489025.242	1275056.185	-3.351	NS
1453	489028.656	1275100.138	-8.198	NS
1454	489029.005	1275099.480	-8.613	NS
1455	489039.935	1275050.459	-2.643	NS
1456	489041.429	1275053.284	-5.806	NS
1457	489024.442	1275108.233	-7.329	NS
1458	489023.861	1275106.566	-8.337	NS
1459	489042.669	1275056.098	-6.868	NS
1460	489054.317	1275053.373	-5.166	NS
1461	489054.828	1275057.424	-6.440	NS
1462	489067.203	1275064.164	-5.706	NS



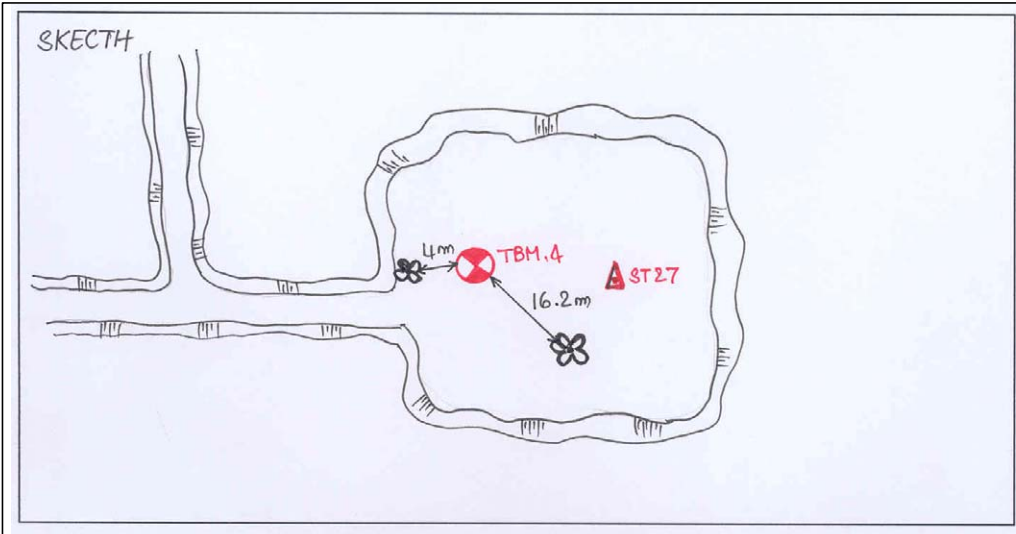
## 7.2 Dang Kor Disposal Site


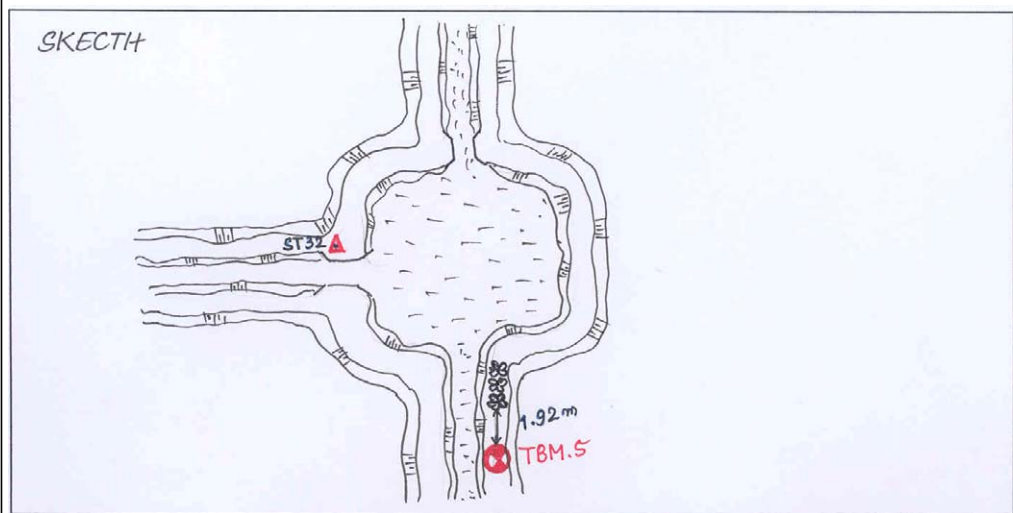
<b>BM - DESCRIPTION</b>	
<b>GPS=01</b>	
<b>ELEVATION : 9.959m</b> <b>NATIONAL / LOCAL</b>	<b>GEODETC-COORDINATE</b> <b>N = 1269369.7877</b> <b>E = 488586.6391</b>
<b>LOCATION : EMBANKMENT CANAL</b>	
	
	



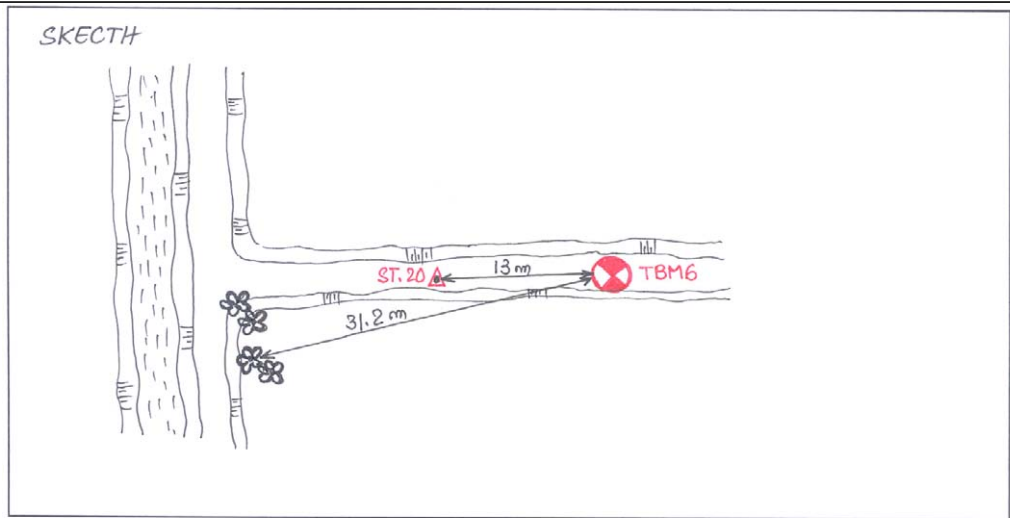
<b>BM - DESCRIPTION</b>	
<b>GPS = 02 (TBM4)</b>	
<b>ELEVATION : 9.921m</b> <b>NATIONAL / LOCAL</b>	<b>GEODETC-COORDINATE</b> <b>N = 1269222.7754</b> <b>E = 487590.5149</b>
<b>LOCATION : ON HILL TAMARIND TREE</b>	
	
	

<b>TBM -DESCRIPTION</b>	
<b>TBM = 03</b>	
<b>ELEVATION : 9.475m</b> <b>NATIONAL / LOCAL</b>	<b>COORDINATE</b> <b>N = 1269340.359</b> <b>E = 488597.341</b>
<b>LOCATION : On Embankment Neer Steel Bridge</b>	
	
<b>SKECTH</b>	
	



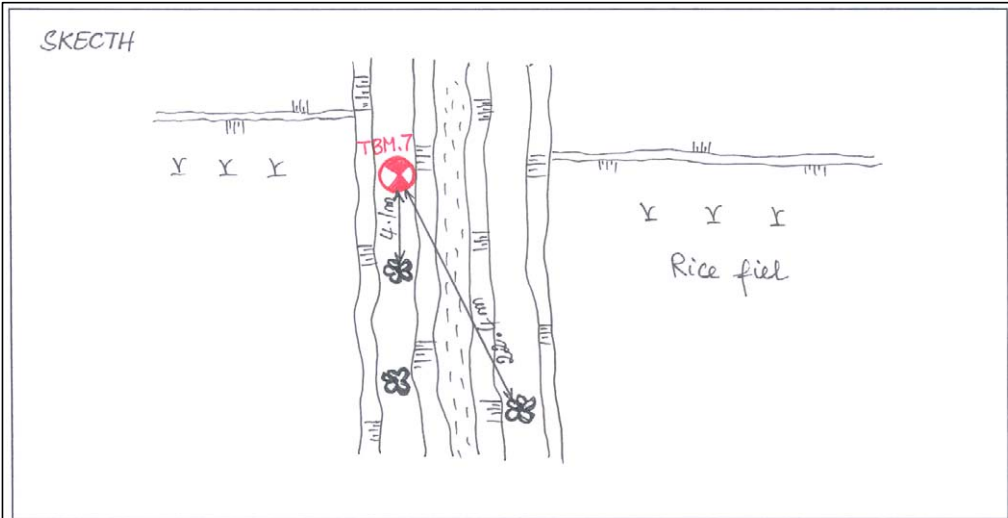


<b>TBM - DESCRIPTION</b>	
<b>TBM =04</b>	
<b>ELEVATION : 9.921m</b>	<b>COORDINATE</b>
<b>NATIONAL / LOCAL</b>	<b>N = 1269222.775</b> <b>E = 487590.515</b>
<b>LOCATION : HILL OF TAMARIND TREE</b>	
	
<b>SKECTH</b>	
	



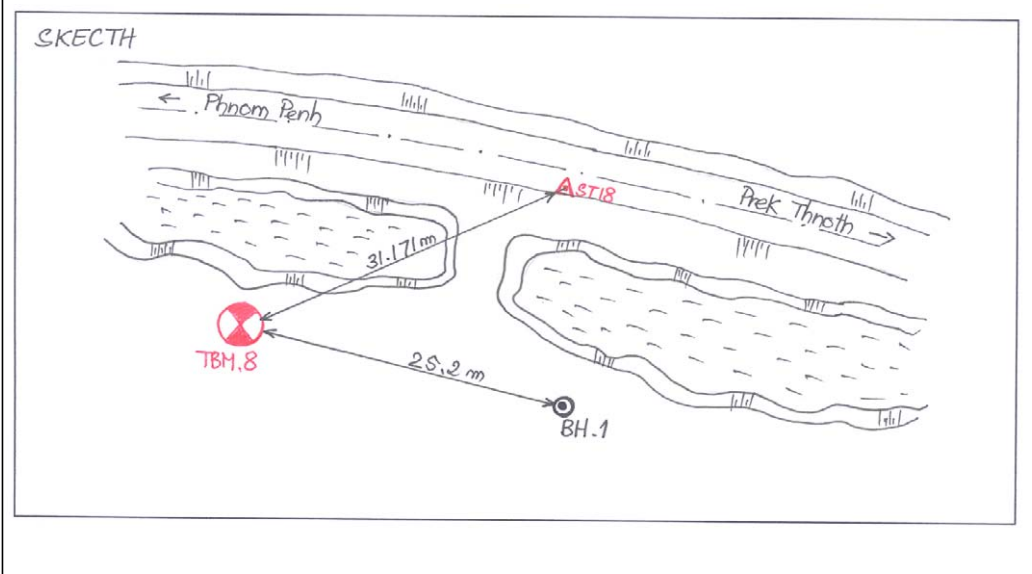
<b>TBM - DESCRIPTION</b>	
<b>TBM =05</b>	
<b>ELEVATION : 9.178m</b> <b>NATIONAL / LOCAL</b>	<b>COORDINATE</b> <b>N = 1269385.476</b> <b>E = 487533.879</b>
<b>LOCATION : ON EMBANKMENT CANAL</b>	
	
<b>SKECTH</b>	
	



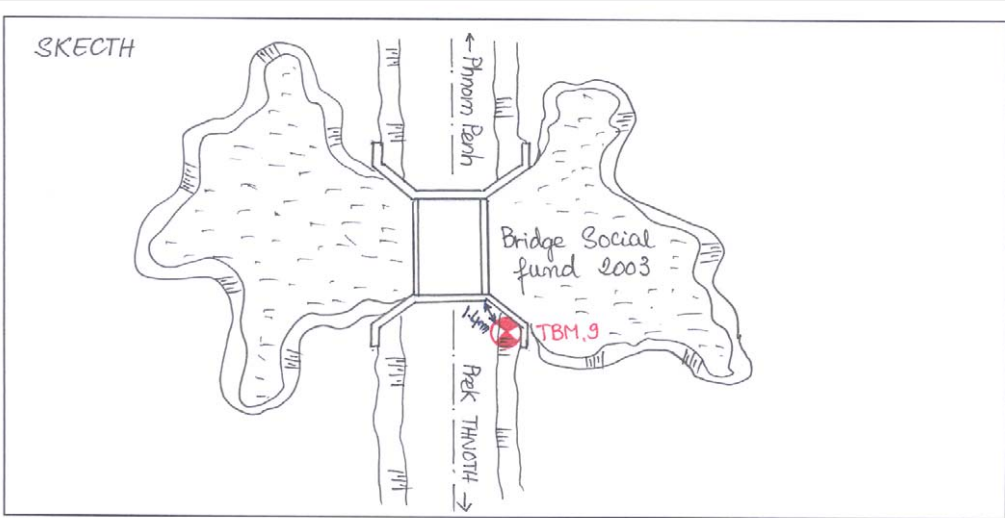
<b>TBM - DESCRIPTION</b>	
<b>TBM = 06</b>	
<b>ELEVATION : 9.019m</b> <b>NATIONAL / LOCAL</b>	<b>COORDINATE</b> <b>N = 1269325.757</b> <b>E = 488208.233</b>
<b>LOCATION : ON EMBANKMENT NEER PALM TREE</b>	
	
<b>SKECTH</b>	
	



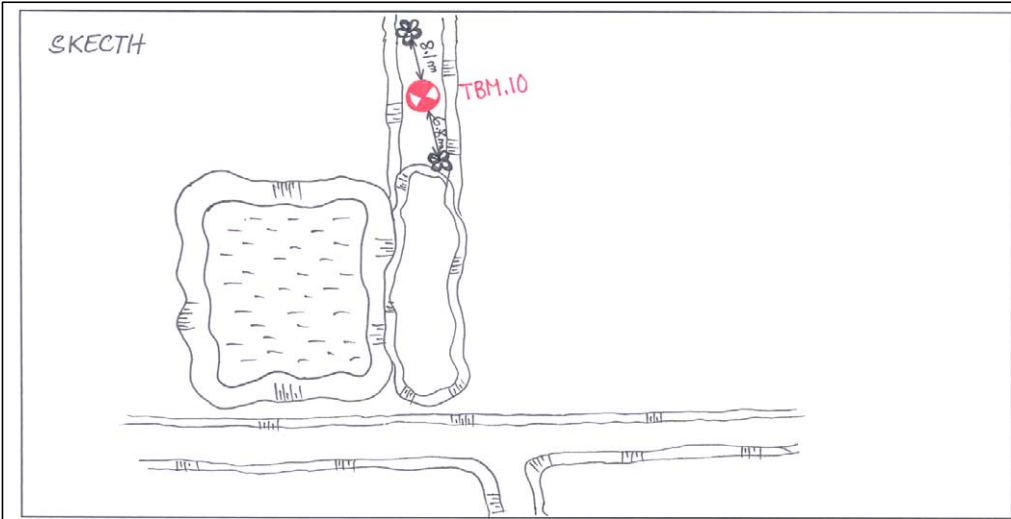


<b>TBM - DESCRIPTION</b>	
<b>TBM = 07</b>	
<b>ELEVATION : 9.679m</b> <b>NATIONAL / LOCAL</b>	<b>COORDINATE</b> <b>N = 1269371.505</b> <b>E = 488316.041</b>
<b>LOCATION : ON EMBANKMENT CHANEL</b>	
	
<b>SKETCH</b>	
	



<b>TBM - DESCRIPTION</b>	
<b>TBM = 08</b>	
<b>ELEVATION : 9.003m</b> <b>NATIONAL / LOCAL</b>	<b>COORDINATE</b> <b>N = 1269000.827</b> <b>E = 488479.517</b>
<b>LOCATION : ON THE BANK CANAL</b>	
	
<b>SKETCH</b>	
	

<b>TBM - DESCRIPTION</b>	
<b>TBM =09</b>	
<b>ELEVATION : 10.294m</b> <b>NATIONAL / LOCAL</b>	<b>COORDINATE</b> <b>N = 1268744.782</b> <b>E = 488338.730</b>
<b>LOCATION : ON ABUTMENT CONCRETE BRIDGE</b>	
	
<b>SKECTH</b>	
	

<b>TBM - DESCRIPTION</b>	
<b>TBM =10</b>	
<b>ELEVATION : 9.006m</b> <b>NATIONAL / LOCAL</b>	<b>COORDINATE</b> <b>N = 1269049.301</b> <b>E = 487648.189</b>
<b>LOCATION : ON EMBANKMENT NEER POND</b>	
	
<b>SKECTH</b>	
	



**TBM - DESCRIPTION**

**TBM =11**

**ELEVATION : 9.447m**

**NATIONAL / LOCAL**

**COORDINATE**

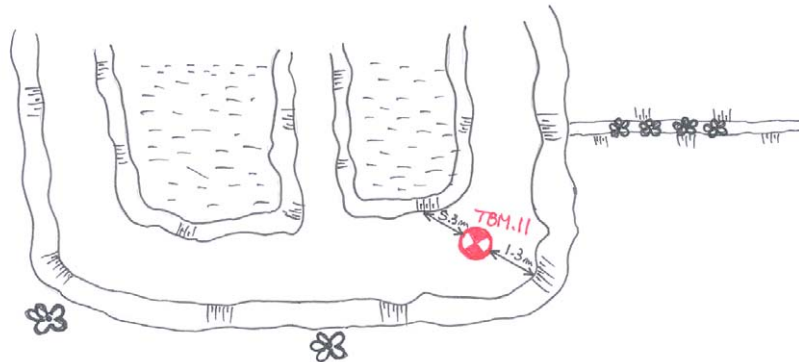
**N = 1269763.193**

**E = 488314.041**

**LOCATION : ON BANK OF LOTUS POND**



*SKETCH*



**TBM -DESCRIPTION**

**TBM =12**

**ELEVATION : 9.149m**

**NATIONAL / LOCAL**

**COORDINATE**

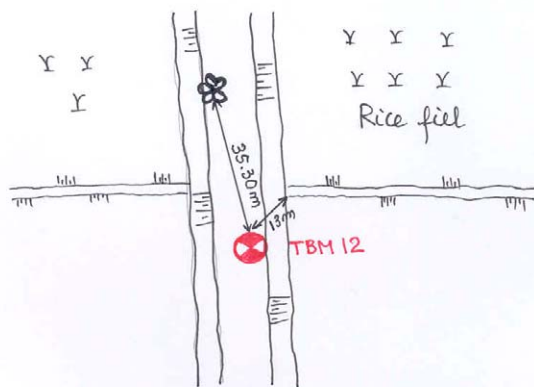
**N = 1269824.613**

**E = 487613.603**

**LOCATION : ON DOUBLE DIKE**



SKECTH



**TBM3b / Loop-Leveling From TBM3b of Disposal Site**

Number	Back Sight	Inter Sight	Fore Sight	Elevation
TBM3b	1.4897			10.468
1	1.3778		1.4304	10.5273
2	1.4365		1.4874	10.6177
3	1.4608		1.4669	10.5873
4	1.4607		1.4587	10.5894
5	1.1699		1.148	10.9021
6	1.412		1.6571	10.4149
7	0.8722		1.5316	10.2953
8	1.4508		1.6536	9.5139
9	1.4879		1.6174	9.3473
10	1.5158		1.3165	9.5187
11	1.4755		1.3454	9.6891
12	1.3033		1.5645	9.6001
13	1.1543		1.1006	9.8028
14	1.5954		1.4865	9.4706
15	1.2355		1.523	9.543
16	1.5571		1.3114	9.4671
17	1.0877		1.421	9.6032
18	1.5042		1.2126	9.4783
19	1.3774		1.3749	9.6076
20	1.448		1.2916	9.6934
21	1.4376		1.3887	9.7527
22	1.3976		1.5195	9.6708
23	1.5621		1.4964	9.572
24	1.5583		1.3966	9.7375
25	1.4307		1.71	9.5858
26	1.4749		1.5082	9.5083
27	1.5009		1.4713	9.5119
28	1.1697		1.3682	9.6446
29	1.472		1.1887	9.6256
30	1.4902		1.7012	9.3964
<b>Number</b>	<b>Back Sight</b>	<b>Inter Sight</b>	<b>Fore Sight</b>	<b>Elevation</b>
31	1.4211		1.5585	9.3281
32	1.3119		1.3032	9.446
33	1.2146		1.4503	9.3076
34	1.2022		0.9629	9.5593
35	1.5141		1.3286	9.4329
36	1.5734		1.5154	9.4316
37	1.5344		1.3576	9.6474
38	1.4063		1.1039	10.0779
39	1.3841		1.5641	9.9191
40	1.5907		1.5463	9.7569
41	1.3881		1.4502	9.8974
42	2.122		2.1215	9.164
ST18			1.4001	9.886

**STN18 / Loop-Leveling From STN18 of Disposal Site**

Number	Back Sight	Inter Sight	Fore Sight	Elevation
STN18	1.4			9.886
2	2.121		2.122	9.164
3	1.45		1.388	9.897
4	1.546		1.59	9.757
5	1.564		1.384	9.919
6	1.103		1.405	10.078
7	1.357		1.534	9.647
8	1.515		1.573	9.431
9	1.328		1.514	9.432
10	0.962		1.202	9.556
11	1.45		1.214	9.306
12	1.303		1.311	9.445
13	1.558		1.421	9.327
14	1.701		1.49	9.395
15	1.188		1.472	9.624
16	1.368		1.169	9.643
17	1.471		1.5	9.511
18	1.508		1.474	9.508
19	1.71		1.43	9.586
20	1.396		1.558	9.738
21	1.496		1.562	9.572
22	1.519		1.397	9.671
23	1.388		1.437	9.753
24	1.291		1.448	9.693
25	1.374		1.377	9.607
26	1.212		1.504	9.477
27	1.421		1.087	9.602
28	1.311		1.557	9.466
29	1.523		1.235	9.542
30	1.486		1.597	9.468
31	1.1		1.154	9.8
<b>Number</b>	<b>Back Sight</b>	<b>Inter Sight</b>	<b>Fore Sight</b>	<b>Elevation</b>
32	1.564		1.305	9.595
33	1.345		1.475	9.684
34	1.316		1.515	9.514
35	1.617		1.487	9.343
36	1.653		1.45	9.51
37	1.531		0.872	10.291
38	1.657		1.412	10.41
39	1.148		1.169	10.898
40	1.458		1.46	10.586
41	1.486		1.46	10.584
42	1.487		1.436	10.614
43	1.43		1.577	10.524
TBM3B			1.489	10.465

Turn Back Level from Stn 18 to TBM 36 has Error 0.003m

(10.468 - 10.465 )

Error Tolerance 5±k, for Distance 7km 5±k = 13mm

That mean 0.003 < 13mm is ok

Level for Stn18 = 9.885

STN16 / Traverse-Crossing from STN16 For Disposal Site Project

From/To	Easting	Northing	Distance	E	N	E	N
STN16	488555.149	1269729.418	0	0	0	488555.149	1269729.418
STN17	488626.244	1269308.256	427.120	-0.000133	-0.003186	488626.244	1269308.253
STN18	488479.837	1268969.664	796.010	-0.000249	-0.005938	488479.837	1268969.658
STN19	488198.235	1268525.273	1322.112	-0.000413	-0.009863	488198.235	1268525.263
STN23	487984.827	1268514.558	1535.789	-0.00048	-0.011457	487984.827	1268514.547
STN24	487676.116	1268532.384	1845.014	-0.000576	-0.013764	487676.115	1268532.370
STN27	487592.923	1269234.285	2551.828	-0.000797	-0.019037	487592.922	1269234.266
STN33	487355.626	1269124.580	2813.257	-0.000879	-0.020988	487355.625	1269124.559
STN32	487597.921	1269427.382	3201.066	-0.001	-0.023881	487597.920	1269427.358
STN31	488140.241	1269378.014	3745.629	-0.00117	-0.027944	488140.240	1269377.986
STN16(NEW)	488555.150	1269729.450	4289.372	-0.00134	-0.032	488555.149	1269729.418

Disclosur =  $\sqrt{(0.001)^2 + (0.032)^2}$  =

Scale Tolerance =  $0.032 / 4289 = 1 / 134031 < 1 / 10000$

Pt.No	Northings	Eastings	Height	Code
101	1269361.510	488213.838	9.201	NS
102	1269357.991	488214.475	9.192	NS
103	1269355.386	488214.604	8.559	NS
104	1269354.969	488212.921	9.070	NS
105	1269354.093	488208.988	8.984	NS
106	1269356.009	488207.599	8.585	NS
107	1269356.202	488206.575	8.858	NS
108	1269337.856	488209.014	8.936	NS
109	1269305.222	488206.592	8.689	NS
110	1269305.226	488207.216	8.904	NS
111	1269305.236	488208.586	8.916	NS
112	1269305.240	488209.084	8.775	NS
113	1269305.356	488209.856	8.756	NS
114	1269305.360	488210.460	8.939	NS
115	1269305.336	488211.375	8.950	NS
116	1269305.431	488211.942	8.600	NS
117	1269259.814	488205.004	8.630	NS
118	1269259.812	488205.801	8.898	NS
119	1269259.870	488206.837	8.910	NS
120	1269259.844	488207.414	8.665	NS
121	1269259.879	488208.164	8.728	NS
122	1269259.880	488208.879	8.933	NS
123	1269259.881	488209.769	8.985	NS
124	1269259.955	488210.402	8.570	NS
125	1269209.020	488202.748	8.491	NS
126	1269209.311	488203.942	8.725	NS
127	1269209.419	488204.867	8.853	NS
128	1269209.526	488205.458	8.686	NS
129	1269209.745	488206.209	8.761	NS
130	1269209.892	488206.832	9.002	NS
131	1269210.194	488207.712	8.992	NS
132	1269210.337	488208.236	8.442	NS
133	1269306.839	488257.152	8.583	NS
134	1269259.056	488256.161	8.572	NS
135	1269208.903	488254.999	8.451	NS
136	1269306.808	488312.507	8.624	NS
137	1269254.831	488300.856	8.562	NS
138	1269216.547	488302.702	8.462	NS
139	1269301.555	488332.973	8.760	NS
140	1269305.798	488344.196	8.666	NS
141	1269253.305	488347.855	8.578	NS
142	1269214.467	488348.076	8.467	NS
143	1269246.432	488378.037	8.571	NS
144	1269303.807	488395.048	8.561	NS
145	1269250.505	488394.656	8.547	NS
146	1269208.423	488394.071	8.607	NS
147	1269240.202	488406.313	8.838	NS
148	1269347.881	488416.153	8.824	NS
149	1269347.539	488417.186	8.931	NS
150	1269347.351	488417.659	8.865	NS

Pt.No	Northings	Eastings	Height	Code
51	1269326.590	488497.287	8.184	NS
52	1269344.882	488497.678	9.261	NS
53	1269340.588	488501.487	8.351	NS
54	1269343.084	488520.363	8.989	NS
55	1269341.151	488520.166	8.181	NS
56	1269343.468	488545.230	9.248	NS
57	1269340.651	488541.129	8.388	NS
58	1269327.280	488533.789	7.175	NS
59	1269328.954	488515.193	9.016	NS
60	1269367.409	488492.524	9.007	NS
61	1269365.301	488496.395	9.751	NS
62	1269360.016	488500.726	9.573	NS
63	1269357.103	488479.879	7.311	NS
64	1269356.023	488479.887	7.238	NS
65	1269355.273	488470.872	7.273	NS
66	1269350.609	488474.923	9.117	NS
67	1269348.234	488475.660	9.298	NS
68	1269344.732	488474.381	8.552	NS
69	1269369.774	488412.533	8.791	NS
70	1269368.198	488412.841	9.273	NS
71	1269363.720	488412.773	9.391	NS
72	1269359.984	488412.729	7.363	NS
73	1269358.876	488412.350	7.300	NS
74	1269357.617	488411.899	7.311	NS
75	1269353.063	488411.642	9.290	NS
76	1269350.606	488411.496	9.200	NS
77	1269348.755	488411.148	8.585	NS
78	1269372.666	488359.479	8.862	NS
79	1269370.711	488359.598	9.719	NS
80	1269366.821	488359.894	9.540	NS
81	1269362.601	488355.182	7.530	NS
82	1269361.348	488360.258	7.317	NS
83	1269359.741	488360.015	7.463	NS
84	1269355.079	488360.449	9.468	NS
85	1269352.422	488360.478	9.429	NS
86	1269351.007	488360.473	8.646	NS
87	1269374.459	488297.322	8.765	NS
88	1269372.583	488295.633	9.497	NS
89	1269368.990	488297.826	9.449	NS
90	1269364.705	488289.001	7.508	NS
91	1269363.231	488291.218	7.247	NS
92	1269361.842	488290.949	7.287	NS
93	1269357.387	488294.399	9.278	NS
94	1269355.224	488294.244	9.156	NS
95	1269353.789	488294.359	8.612	NS
96	1269378.706	488208.403	8.815	NS
97	1269376.555	488208.703	9.626	NS
98	1269372.843	488208.880	9.554	NS
99	1269367.968	488212.913	7.570	NS
100	1269367.334	488217.161	7.379	NS

Pt.No	Northings	Eastings	Height	Code
1	1269362.728	488616.786	10.345	NS
2	1269372.334	488667.715	10.244	NS
3	1269363.290	488621.062	9.662	NS
4	1269361.281	488636.422	9.262	NS
5	1269362.679	488614.852	10.316	NS
6	1269363.226	488612.028	9.553	NS
7	1269368.435	488603.245	8.523	NS
8	1269355.619	488613.961	10.901	NS
9	1269353.321	488615.656	10.738	NS
10	1269353.740	488620.050	10.722	NS
11	1269347.504	488616.260	10.759	NS
12	1269347.316	488620.852	10.650	NS
13	1269345.154	488615.024	10.746	NS
14	1269337.183	488620.307	10.265	NS
15	1269337.476	488622.273	10.239	NS
16	1269337.350	488624.254	9.567	NS
17	1269337.483	488631.609	9.228	NS
18	1269337.209	488618.162	10.233	NS
19	1269337.316	488614.906	9.154	NS
20	1269350.382	488615.948	6.626	NS
21	1269361.823	488588.782	8.094	NS
22	1269360.213	488588.780	8.657	NS
23	1269356.988	488589.058	8.711	NS
24	1269355.858	488589.188	8.001	NS
25	1269354.339	488590.304	7.763	NS
26	1269353.882	488590.437	7.298	NS
27	1269352.218	488590.952	5.932	NS
28	1269350.297	488593.208	6.134	NS
29	1269349.731	488593.962	7.719	NS
30	1269348.156	488594.686	7.905	NS
31	1269346.571	488595.917	8.839	NS
32	1269340.565	488595.326	9.409	NS
33	1269335.440	488593.386	8.788	NS
34	1269340.454	488599.468	9.329	NS
35	1269370.282	488589.704	9.423	NS
36	1269362.953	488560.772	9.886	NS
37	1269357.969	488555.003	9.722	NS
38	1269354.193	488556.403	7.450	NS
39	1269353.981	488556.426	7.418	NS
40	1269352.647	488559.259	7.271	NS
41	1269351.576	488558.729	7.261	NS
42	1269347.937	488558.632	9.382	NS
43	1269345.346	488558.404	9.641	NS
44	1269322.828	488557.869	9.549	NS
45	1269322.828	488557.260	9.406	NS
46	1269319.841	488547.821	9.317	NS
47	1269320.627	488541.903	8.284	NS
48	1269311.959	488497.031	9.213	NS
49	1269316.988	488499.418	8.145	NS
50	1269326.669	488492.618	8.882	NS



Pt.No	Northings	Eastings	Height	Code
251	1269137.750	488601.383	8.551	NS
252	1269137.535	488596.018	9.026	NS
253	1269138.427	488594.231	9.555	NS
254	1269138.958	488593.378	9.748	NS
255	1269139.945	488591.690	9.780	NS
256	1269144.029	488591.652	9.733	NS
257	1269146.789	488592.214	9.537	NS
258	1269145.818	488587.850	8.785	NS
259	1269148.110	488585.208	8.552	NS
260	1269148.489	488584.541	7.600	NS
261	1269149.165	488581.155	5.858	NS
262	1269153.954	488579.833	7.149	NS
263	1269156.676	488580.797	8.789	NS
264	1269159.332	488575.748	8.793	NS
265	1269099.079	488579.562	8.672	NS
266	1269101.425	488575.819	8.827	NS
267	1269099.367	488569.751	9.356	NS
268	1269099.510	488567.895	9.787	NS
269	1269099.179	488565.557	9.835	NS
270	1269099.107	488563.265	9.773	NS
271	1269106.380	488565.535	9.462	NS
272	1269107.075	488561.098	8.519	NS
273	1269107.606	488559.671	8.058	NS
274	1269115.679	488562.261	7.544	NS
275	1269113.508	488559.926	7.726	NS
276	1269114.224	488557.466	8.718	NS
277	1269117.421	488549.148	8.481	NS
278	1269176.813	488534.446	8.791	NS
279	1269135.767	488516.511	8.428	NS
280	1269097.554	488494.314	8.730	NS
281	1269171.159	488489.436	8.481	NS
282	1269151.899	488524.517	8.627	NS
283	1269131.649	488476.068	8.581	NS
284	1269078.903	488467.311	8.797	NS
285	1269075.227	488453.745	8.558	NS
286	1269167.638	488446.866	8.381	NS
287	1269156.230	488409.199	8.633	NS
288	1269069.556	488409.247	8.395	NS
289	1269168.799	488413.857	8.590	NS
290	1269168.850	488412.943	8.846	NS
291	1269169.017	488411.690	8.875	NS
292	1269168.924	488411.034	8.650	NS
293	1269168.825	488410.595	8.611	NS
294	1269168.622	488410.120	8.859	NS
295	1269168.333	488408.876	8.824	NS
296	1269168.194	488408.150	8.521	NS
297	1269137.212	488411.675	8.908	NS
298	1269136.832	488410.910	8.906	NS
299	1269136.362	488410.082	8.724	NS
300	1269136.485	488409.441	8.682	NS

Pt.No	Northings	Eastings	Height	Code
201	1269299.345	488632.315	8.764	NS
202	1269297.074	488638.993	8.563	NS
203	1269256.737	488608.101	8.743	NS
204	1269256.562	488609.339	9.168	NS
205	1269257.005	488610.431	9.096	NS
206	1269257.236	488613.389	7.858	NS
207	1269256.594	488614.479	7.447	NS
208	1269256.611	488613.913	7.656	NS
209	1269256.217	488618.433	8.562	NS
210	1269256.235	488620.674	8.956	NS
211	1269256.638	488622.998	9.618	NS
212	1269256.588	488624.293	9.783	NS
213	1269256.412	488626.658	9.884	NS
214	1269256.054	488628.854	9.862	NS
215	1269255.913	488630.058	9.670	NS
216	1269256.597	488632.786	8.834	NS
217	1269256.661	488638.878	8.624	NS
218	1269217.971	488603.175	8.447	NS
219	1269218.600	488604.451	8.936	NS
220	1269218.193	488605.787	8.972	NS
221	1269216.978	488608.219	7.711	NS
222	1269215.480	488608.561	7.636	NS
223	1269214.022	488609.069	7.959	NS
224	1269214.283	488612.195	8.518	NS
225	1269213.558	488616.994	8.668	NS
226	1269213.349	488618.325	8.841	NS
227	1269212.762	488620.338	8.901	NS
228	1269212.933	488622.580	8.963	NS
229	1269213.062	488623.980	8.657	NS
230	1269211.570	488628.444	7.763	NS
231	1269210.250	488634.057	7.436	NS
232	1269211.106	488595.494	8.318	NS
233	1269210.040	488597.968	7.948	NS
234	1269207.412	488602.452	7.537	NS
235	1269207.218	488605.106	7.704	NS
236	1269207.005	488606.038	8.172	NS
237	1269173.980	488628.277	8.625	NS
238	1269179.584	488618.974	8.623	NS
239	1269179.571	488614.702	9.604	NS
240	1269179.905	488612.920	9.864	NS
241	1269180.345	488610.797	9.910	NS
242	1269178.494	488608.164	9.860	NS
243	1269178.647	488606.591	9.552	NS
244	1269174.945	488601.553	8.647	NS
245	1269175.307	488598.903	8.474	NS
246	1269175.687	488598.318	7.727	NS
247	1269176.472	488594.613	6.231	NS
248	1269180.580	488592.779	7.379	NS
249	1269180.813	488592.007	9.334	NS
250	1269181.611	488587.532	8.647	NS

Pt.No	Northings	Eastings	Height	Code
151	1269352.266	488448.068	8.873	NS
152	1269347.347	488418.925	8.920	NS
153	1269347.358	488419.668	8.943	NS
154	1269347.338	488420.215	8.720	NS
155	1269308.402	488414.035	8.639	NS
156	1269308.560	488414.592	8.985	NS
157	1269308.498	488415.326	8.992	NS
158	1269308.166	488415.916	8.840	NS
159	1269308.106	488418.861	8.783	NS
160	1269308.066	488417.370	8.916	NS
161	1269307.985	488418.304	8.899	NS
162	1269307.986	488418.937	8.654	NS
163	1269251.168	488409.284	8.694	NS
164	1269251.476	488412.340	9.020	NS
165	1269251.556	488413.411	9.022	NS
166	1269251.595	488413.889	8.816	NS
167	1269251.687	488414.664	8.813	NS
168	1269251.708	488415.378	9.069	NS
169	1269251.880	488416.265	9.087	NS
170	1269251.870	488417.084	8.710	NS
171	1269206.351	488401.791	8.547	NS
172	1269207.742	488410.466	8.977	NS
173	1269207.798	488411.280	8.979	NS
174	1269207.907	488412.028	8.682	NS
175	1269207.959	488412.678	8.604	NS
176	1269208.025	488413.315	8.875	NS
177	1269208.068	488414.407	8.911	NS
178	1269198.388	488416.760	8.568	NS
179	1269300.031	488468.273	8.551	NS
180	1269253.380	488464.516	8.694	NS
181	1269208.097	488462.430	8.457	NS
182	1269300.453	488519.264	9.113	NS
183	1269255.385	488517.928	8.695	NS
184	1269219.735	488513.449	8.700	NS
185	1269301.893	488562.793	8.702	NS
186	1269250.675	488556.939	8.618	NS
187	1269214.937	488563.222	8.741	NS
188	1269301.589	488603.568	8.753	NS
189	1269301.703	488603.747	8.898	NS
190	1269302.759	488608.493	8.844	NS
191	1269276.083	488616.286	7.665	NS
192	1269303.282	488612.544	7.581	NS
193	1269303.188	488613.953	7.770	NS
194	1269304.181	488616.307	8.579	NS
195	1269304.930	488619.943	8.788	NS
196	1269305.196	488621.583	9.533	NS
197	1269301.132	488623.461	9.732	NS
198	1269300.744	488625.991	9.823	NS
199	1269300.362	488627.987	9.758	NS
200	1269299.005	488629.302	9.587	NS

Pt.No	Northings	Eastings	Height	Code
301	1269136.722	488408.908	8.869	NS
302	1269137.110	488408.097	8.996	NS
303	1269135.663	488407.403	8.737	NS
304	1269068.444	488408.862	8.668	NS
305	1269068.312	488408.170	8.688	NS
306	1269067.982	488407.657	8.521	NS
307	1269067.645	488406.443	8.487	NS
308	1269067.745	488406.094	8.620	NS
309	1269067.422	488405.047	8.570	NS
310	1269066.297	488404.844	8.369	NS
311	1269134.428	488404.922	8.572	NS
312	1269135.305	488404.526	7.953	NS
313	1269136.317	488373.735	8.605	NS
314	1269136.816	488374.089	8.098	NS
315	1269148.017	488375.235	8.662	NS
316	1269147.623	488375.890	8.203	NS
317	1269145.665	488399.897	8.660	NS
318	1269144.800	488399.588	7.948	NS
319	1269142.260	488384.283	6.725	NS
320	1269166.748	488389.892	8.625	NS
321	1269040.957	488384.276	8.465	NS
322	1269043.212	488356.196	8.771	NS
323	1269128.324	488366.930	8.185	NS
324	1269167.063	488344.605	8.064	NS
325	1269127.911	488323.784	8.105	NS
326	1269069.561	488321.220	8.199	NS
327	1269159.664	488304.852	8.166	NS
328	1269121.261	488286.828	10.556	NS
329	1269058.444	488307.985	8.386	NS
330	1269155.302	488258.400	8.297	NS
331	1269148.980	488243.196	8.669	NS
332	1269125.069	488228.076	8.317	NS
333	1269075.731	488258.470	9.208	NS
334	1269174.366	488221.472	8.583	NS
335	1269170.295	488206.796	8.411	NS
336	1269170.326	488206.082	8.795	NS
337	1269170.259	488205.122	8.762	NS
338	1269170.023	488204.400	8.567	NS
339	1269169.836	488204.005	8.598	NS
340	1269169.852	488203.347	8.801	NS
341	1269169.211	488202.446	8.832	NS
342	1269169.193	488201.381	8.441	NS
343	1269116.786	488205.488	8.357	NS
344	1269116.512	488204.993	8.682	NS
345	1269116.002	488204.117	8.693	NS
346	1269115.242	488202.911	8.435	NS
347	1269114.589	488202.023	8.299	NS
348	1269114.603	488201.208	8.627	NS
349	1269114.429	488200.635	8.536	NS
350	1269113.865	488199.918	8.241	NS

Pt.No	Northings	Eastings	Height	Code
351	1269340.363	488597.340	9.485	NS
355	1269029.768	488529.956	8.643	NS
356	1269029.506	488526.537	8.763	NS
357	1269029.525	488523.328	9.932	NS
358	1269029.719	488520.878	9.908	NS
359	1269029.005	488517.514	9.956	NS
360	1269027.193	488512.052	8.348	NS
361	1269028.951	488511.585	7.854	NS
362	1269025.240	488504.887	7.668	NS
363	1268991.068	488504.069	8.621	NS
364	1268992.656	488502.089	8.913	NS
365	1268993.900	488500.793	9.707	NS
366	1268994.272	488499.808	9.924	NS
367	1268995.205	488498.026	9.936	NS
368	1268996.153	488496.392	9.933	NS
369	1268996.448	488495.414	9.758	NS
370	1268998.159	488492.306	9.282	NS
371	1268998.728	488491.044	7.424	NS
372	1268980.169	488479.263	9.258	NS
373	1268983.953	488474.060	9.022	NS
374	1268982.421	488476.353	7.578	NS
375	1268977.441	488476.198	9.094	NS
377	1268979.049	488473.802	7.613	NS
376	1268980.779	488471.432	9.036	NS
378	1268979.008	488480.175	8.348	NS
379	1268953.168	488473.459	9.858	NS
380	1268953.503	488472.896	9.930	NS
381	1268953.721	488470.770	9.953	NS
382	1268953.575	488468.788	9.957	NS
383	1268953.667	488467.983	9.837	NS
384	1268954.034	488463.421	8.450	NS
385	1268953.988	488462.005	8.139	NS
386	1268953.709	488461.126	7.364	NS
387	1268953.135	488455.632	5.856	NS
388	1268954.257	488452.457	7.003	NS
389	1268954.645	488451.730	8.424	NS
390	1268955.321	488448.874	9.119	NS
391	1268956.199	488447.642	8.575	NS
392	1269024.830	488499.899	7.917	NS
393	1269025.366	488493.455	8.572	NS
394	1269027.030	488496.029	8.563	NS
395	1269029.327	488495.474	8.423	NS
396	1268995.608	488481.825	5.118	NS
397	1268996.434	488480.488	6.154	NS
398	1268996.160	488478.646	8.962	NS
399	1268997.475	488476.982	8.968	NS
400	1268998.155	488475.952	8.666	NS
401	1269029.319	488437.987	8.587	NS
402	1269028.999	488437.771	8.367	NS
403	1268999.509	488442.947	8.571	NS

Pt.No	Northings	Eastings	Height	Code
404	1268999.588	488442.542	8.413	NS
405	1268998.508	488434.143	8.622	NS
406	1268998.444	488434.868	8.455	NS
407	1269040.769	488431.551	8.190	NS
408	1269018.639	488430.428	8.618	NS
409	1269018.514	488431.041	8.200	NS
410	1268996.177	488428.417	8.550	NS
411	1268994.465	488436.309	8.734	NS
412	1269013.837	488419.950	8.604	NS
413	1268977.547	488389.608	8.569	NS
414	1268997.786	488409.663	8.848	NS
415	1268954.603	488405.030	8.505	NS
416	1268969.687	488390.807	8.496	NS
417	1269017.571	488407.476	8.403	NS
418	1268982.962	488463.130	8.828	NS
419	1268988.123	488464.987	8.626	NS
420	1268977.221	488460.368	8.622	NS
421	1268993.456	488439.193	8.550	NS
422	1268997.178	488439.410	8.486	NS
423	1268976.443	488438.454	8.627	NS
424	1268944.197	488433.376	8.506	NS
425	1268995.012	488407.153	8.569	NS
426	1269091.157	488389.468	8.791	NS
427	1268992.029	488405.148	8.947	NS
428	1268991.817	488404.959	8.617	NS
429	1268991.865	488404.964	8.605	NS
430	1268991.795	488403.125	8.610	NS
431	1268991.791	488402.875	8.959	NS
432	1268992.120	488402.089	8.860	NS
433	1268994.171	488401.150	8.489	NS
434	1268998.401	488400.520	8.559	NS
435	1268982.973	488434.766	8.595	NS
436	1268996.182	488405.061	8.532	NS
437	1268947.716	488386.522	8.677	NS
438	1268999.072	488385.604	8.440	NS
439	1268990.786	488385.663	8.581	NS
440	1268993.825	488384.408	8.576	NS
441	1269039.095	488388.155	8.405	NS
500	1269124.559	487355.626	8.707	STN33
501	1269222.775	487590.515	9.921	TBM4
503	1269385.476	487533.870	8.840	TBM5
504	1269049.302	487648.211	8.658	TBM10
505	1269152.163	487260.902	8.431	NS
506	1269146.603	487259.620	8.361	NS
507	1269154.736	487234.383	8.544	NS
508	1269149.128	487235.023	8.513	NS
509	1269146.851	487212.354	8.583	NS
510	1269147.079	487213.293	8.603	NS
511	1269098.170	487124.919	8.756	NS
512	1269094.183	487127.332	8.764	NS

Pt.No	Northings	Eastings	Height	Code
634	1268887.944	48771.981	7.973	NS
635	1268939.928	487806.676	8.014	NS
636	1268927.932	487849.377	7.969	NS
637	1268914.603	487847.731	7.955	NS
638	1268901.274	487902.087	7.997	NS
639	1268874.441	487950.803	8.020	NS
640	1268865.777	487976.824	8.021	NS
641	1268844.450	487972.821	8.030	NS
642	1268865.777	487930.119	7.964	NS
643	1268874.441	487894.090	8.070	NS
644	1268892.435	487864.066	8.046	NS
645	1268895.768	487829.371	8.050	NS
646	1268907.097	487806.018	7.911	NS
647	1268858.446	487860.062	8.010	NS
648	1268858.446	487808.020	7.970	NS
649	1268828.261	487805.350	7.874	NS
650	1268824.928	487856.725	8.022	NS
651	1268794.271	487846.717	7.976	NS
652	1268777.610	487802.681	7.860	NS
653	1268775.611	487756.644	7.912	NS
654	1268798.270	487757.311	7.910	NS
655	1268833.592	487765.985	7.956	NS
656	1268861.584	48771.990	7.974	NS
657	1268760.179	487878.745	7.953	NS
658	1268761.509	487896.760	8.055	NS
659	1268781.503	487877.411	8.084	NS
660	1268776.827	487898.094	8.007	NS
661	1268808.837	487881.414	8.024	NS
662	1268809.494	487907.435	8.048	NS
663	1268844.816	487885.417	8.120	NS
664	1268850.148	487904.099	7.994	NS
665	1268846.816	487928.786	8.170	NS
666	1268834.153	487940.796	8.149	NS
667	1268818.158	487924.783	8.099	NS
668	1268816.158	487945.466	8.161	NS
669	1268805.495	487941.463	8.149	NS
670	1268785.501	487929.453	8.191	NS
671	1268760.176	487926.784	8.328	NS
672	1268756.844	487945.466	8.181	NS
673	1268820.157	487977.492	8.365	NS
674	1268870.839	487975.491	8.121	NS
675	1268770.839	487978.159	8.295	NS
676	1268748.846	487977.492	8.406	NS
677	1268718.856	487976.158	8.482	NS
678	1268706.726	488014.864	8.452	NS
679	1268696.729	488047.557	8.351	NS
680	1268746.714	488017.533	8.345	NS
681	1268734.051	488076.247	8.026	NS
682	1268772.705	488024.872	8.341	NS
683	1268804.029	488026.874	8.397	NS

Pt.No	Northings	Eastings	Height	Code
563	1268803.535	487257.970	11.218	NS
564	1268649.131	487391.403	11.136	NS
565	1268651.886	487393.464	11.125	NS
566	1268630.056	487408.737	11.192	NS
567	1268632.788	487410.806	11.154	NS
568	1268614.594	487430.758	11.185	NS
569	1268611.498	487429.180	11.230	NS
570	1268596.630	487452.123	11.067	NS
571	1268593.424	487450.931	11.137	NS
572	1268578.330	487466.330	11.019	NS
573	1268580.798	487468.341	11.015	NS
574	1268558.065	487488.678	11.179	NS
575	1268547.242	487500.726	11.132	NS
576	1268537.340	487506.907	11.140	NS
577	1268539.340	487508.087	11.143	NS
578	1269170.875	487797.177	8.170	NS
600	1268970.297	487830.737	8.044	NS
601	1268961.589	487844.474	8.068	NS
602	1268976.639	487864.025	8.031	NS
603	1269004.549	487823.389	8.038	NS
604	1268978.499	487885.415	7.902	NS
605	1269005.824	487855.391	8.072	NS
606	1269037.814	487813.357	8.018	NS
608	1269077.218	487845.383	8.088	NS
609	126912.541	487814.015	8.054	NS
610	1269120.538	487846.374	8.113	NS
611	1269133.201	487893.413	8.094	NS
612	1269102.544	487882.738	8.108	NS
613	1269126.536	487967.474	8.173	NS
614	1269053.892	487949.459	8.149	NS
615	1269054.559	487873.397	8.168	NS
616	1269053.226	487910.094	8.015	NS
617	1269036.565	487876.066	8.153	NS
618	1269035.232	487905.423	7.994	NS
619	1269017.237	487882.738	8.068	NS
620	1269013.239	487908.092	8.098	NS
621	1269011.239	487946.790	8.012	NS
622	1268993.911	487944.788	8.162	NS
623	1268972.585	487942.787	8.174	NS
624	1268945.260	487941.452	8.270	NS
625	1268916.602	487938.116	7.892	NS
626	1268903.939	487967.474	7.914	NS
627	1268935.929	487937.479	7.992	NS
628	1269082.550	487952.795	8.184	NS
629	1268969.919	487759.304	7.983	NS
630	1268947.259	487757.302	8.035	NS
631	1268945.260	487776.651	7.995	NS
632	1268916.602	487775.984	7.990	NS
633	1268901.274	487776.651	7.952	NS

Pt.No	Northings	Eastings	Height	Code
513	1269087.751	487107.547	8.797	NS
514	1269084.108	487111.160	8.767	NS
515	1269078.418	487094.995	8.570	NS
516	1269075.292	487098.079	8.609	NS
517	1269026.321	487032.571	9.071	NS
518	1269012.881	487036.261	9.101	NS
519	1269018.515	487032.566	8.979	NS
520	1269018.968	487013.121	8.676	NS
521	1269013.993	487013.647	8.751	NS
522	1269015.572	486997.533	9.113	NS
523	1269008.784	486996.480	9.579	NS
524	1269005.304	486996.118	10.101	NS
525	1269005.357	486996.114	10.106	NS
526	1268985.923	487029.683	11.083	STN34
527	1269000.252	487001.939	10.967	NS
528	1269017.446	486999.684	8.934	NS
529	1269012.904	486993.082	9.392	NS
530	1269008.819	486989.136	10.085	NS
531	1269007.256	486977.395	11.033	NS
532	1269018.186	486938.458	11.157	NS
533	1269013.812	486937.411	11.124	NS
534	1268999.748	486986.134	11.072	NS
535	1268994.153	487008.474	11.021	NS
536	1268998.058	487010.599	11.048	NS
537	1268994.380	487020.224	11.039	NS
538	1268990.289	487020.252	11.001	NS
539	1268984.156	487039.484	11.150	NS
540	1268981.441	487037.927	11.148	NS
541	1268955.918	487084.095	11.142	NS
542	1268959.265	487085.761	11.141	NS
543	1268948.989	487102.403	11.134	NS
544	1268945.977	487100.236	11.105	NS
545	1268930.754	487123.675	11.110	NS
546	1268933.669	487125.969	11.125	NS
547	1268914.697	487145.518	11.116	NS
548	1268917.113	487147.512	11.089	NS
549	1268900.439	487166.570	11.154	NS
550	1268900.094	487162.501	11.111	NS
551	1268893.085	487174.551	11.159	STN35
552	1269009.297	487043.425	9.307	NS
553	1269007.510	487049.149	9.342	NS
554	1269001.268	487038.114	9.100	NS
555	1268999.702	487036.494	7.726	NS
556	1268996.955	487033.820	7.915	NS
557	1269216.752	487638.418	9.537	NS
558	1268847.930	487221.647	11.125	NS
559	1268845.423	487219.340	11.107	NS
560	1268825.796	487238.263	11.224	NS
561	1268827.951	487240.535	11.188	NS
562	1268806.248	487260.834	11.192	NS

Pt.No	Northings	Eastings	Height	Code
1326	1269040.070	487996.245	8.604	NS
1328	1268960.882	487993.018	8.460	NS
1329	1268962.905	487961.525	8.589	NS
1330	1269142.523	487590.036	8.444	NS
1331	1269074.467	487586.171	8.606	NS
1332	1268911.003	487914.388	8.589	NS
1333	1269057.342	487640.814	8.675	NS
1334	1268949.467	487836.867	8.587	NS
1335	1268978.949	487878.802	8.290	NS
1336	1268990.345	487768.529	8.281	NS
1337	1268986.797	487770.071	8.869	NS
1338	1268987.994	487763.757	8.903	NS
1339	1268987.535	487759.527	8.225	NS
1340	1269006.434	487720.892	8.190	NS
1341	1269008.715	487719.227	8.767	NS
1342	1269012.127	487720.164	8.678	NS
1343	1269013.256	487720.305	8.165	NS
1344	1269027.848	487682.750	8.420	NS
1345	1269029.175	487683.330	8.952	NS
1346	1269031.881	487682.901	8.722	NS
1347	1269031.887	487727.759	8.114	NS
1348	1269038.048	487711.050	8.511	NS
1349	1269038.089	487711.024	8.513	NS
1350	1269067.084	487692.052	7.975	NS
1351	1269052.533	487727.626	8.127	NS
1352	1269035.488	487756.276	8.500	NS
1353	1269068.877	48750.576	8.006	NS
1354	1269067.417	487727.178	8.063	NS
1355	1269070.747	487778.673	8.324	NS
1356	1269066.255	487713.928	8.346	NS
1357	1269073.977	487704.116	8.301	NS
1358	1269083.354	487776.968	8.046	NS
1359	1269091.668	487699.938	8.326	NS
1360	1269084.716	487734.890	7.929	NS
1361	1269099.960	487773.878	8.485	NS
1362	1269119.160	487703.567	8.252	NS
1363	1269127.155	487731.421	8.336	NS
1364	1269130.830	487755.178	8.547	NS
1365	1269135.855	487761.168	9.397	NS
1366	1269165.205	487702.428	8.798	NS
1367	1269166.107	487732.374	8.138	NS
1368	1269166.886	487732.201	7.441	NS
1369	1269167.705	487676.786	8.051	NS
1370	1269168.241	487677.358	7.592	NS
1371	1269173.532	487768.385	8.277	NS
1372	1269173.628	487767.519	7.195	NS
1373	1269170.201	487784.932	8.115	NS
1374	1269173.719	487784.194	7.628	NS
1375	1269203.435	487676.654	8.075	NS
1376	1269202.976	487678.553	7.834	NS

Pt.No	Northings	Eastings	Height	Code
1007	1269729.418	488555.149	0.000	STN16
1013	1269000.827	488479.517	9.003	TBM8
1014	1268979.199	488473.935	9.164	TBM1
1015	1268749.558	488335.652	10.438	TBM2
1280	1269207.713	487597.670	8.276	NS
1281	1269211.260	487595.323	9.083	NS
1282	1269216.984	487591.726	9.313	NS
1283	1269218.977	487590.601	9.529	NS
1284	1269220.147	487585.400	8.728	NS
1285	1269224.262	487586.290	9.844	NS
1286	1269222.366	487574.517	9.323	NS
1287	1269222.630	487573.616	8.588	NS
1288	1269246.110	487571.006	9.331	NS
1289	1269264.120	487573.882	9.694	NS
1290	1269270.182	487580.541	9.176	NS
1291	1269271.849	487579.083	8.937	NS
1292	1269274.322	487596.962	9.163	NS
1293	1269274.799	487596.202	8.709	NS
1294	1269295.740	487594.871	8.978	NS
1295	1269296.700	487591.765	8.143	NS
1296	1269324.001	487599.199	9.167	NS
1297	1269321.283	487597.939	8.503	NS
1298	1269335.571	487615.432	9.643	NS
1299	1269353.018	487620.194	8.544	NS
1300	1269331.398	487620.152	9.652	NS
1301	1269349.664	487623.954	8.802	NS
1302	1269369.182	487621.042	9.992	NS
1303	1269381.990	487635.194	9.348	NS
1304	1269378.959	487637.984	8.805	NS
1305	1269381.630	487659.554	9.214	NS
1306	1269378.950	487659.815	8.726	NS
1307	1269381.186	487692.990	9.064	NS
1308	1269377.217	487693.230	8.687	NS
1309	1269379.563	487718.495	9.159	NS
1310	1269376.932	487717.938	8.758	NS
1311	1269380.161	487724.552	9.061	NS
1312	1269375.922	487722.965	8.651	NS
1313	1269345.291	487725.277	8.903	NS
1314	1269344.902	487724.029	8.587	NS
1315	1269344.774	487735.715	8.645	NS
1316	1269276.584	487744.310	8.570	NS
1317	1269286.037	487798.734	8.531	NS
1318	1269240.973	487797.500	8.523	NS
1319	1269185.053	487795.788	8.581	NS
1320	1269171.038	487797.219	8.212	NS
1321	1269170.049	487832.468	8.499	NS
1322	1269168.884	487873.119	8.405	NS
1323	1269166.889	487934.102	8.638	NS
1324	1269163.542	488000.749	8.848	NS
1325	1269112.601	487998.964	8.882	NS

Pt.No	Northings	Eastings	Height	Code
684	1268840.028	488023.537	8.045	NS
685	1268804.019	488058.900	8.202	NS
686	1268771.373	488062.236	8.413	NS
687	1268764.708	488039.550	8.290	NS
688	1268802.030	488090.258	8.052	NS
689	1268774.672	488105.724	9.643	NS
690	1268774.006	488163.771	7.978	NS
691	1268748.681	488127.742	8.276	NS
692	1268757.344	488141.086	8.109	NS
693	1268748.681	488159.768	8.138	NS
694	1268750.013	488174.446	8.202	NS
695	1268710.026	488125.740	8.460	NS
696	1268725.355	488137.750	8.492	NS
697	1268725.355	488166.440	8.401	NS
698	1268710.692	488169.109	8.370	NS
699	1268728.316	488214.732	8.019	NS
700	1268712.321	488264.106	8.068	NS
701	1268677.665	488216.067	8.023	NS
702	1268645.675	488198.719	8.034	NS
703	1268649.008	488239.419	8.074	NS
704	1268631.013	488195.383	7.996	NS
705	1268611.686	488212.731	7.919	NS
706	1268634.345	488232.080	8.072	NS
707	1268578.363	488180.705	7.886	NS
708	1268563.701	488141.339	7.977	NS
709	1268545.040	488140.672	8.084	NS
710	1268585.694	488140.005	8.028	NS
711	1268608.354	488129.329	8.025	NS
712	1268635.012	488125.326	8.041	NS
713	1268647.675	488156.018	8.040	NS
714	1268547.706	488087.295	9.038	NS
715	1268579.029	488012.568	8.558	NS
716	1268544.374	488006.563	9.035	NS
717	1268542.265	487964.287	8.556	NS
718	1268567.590	487944.270	8.496	NS
719	1268560.259	487898.233	9.029	NS
720	1268538.266	487840.853	9.040	NS
721	1268582.919	487860.202	9.047	NS
722	1268581.586	487830.177	9.051	NS
723	1268586.918	487796.150	9.030	NS
724	1268645.580	487798.686	9.019	NS
725	1268645.580	487838.051	9.068	NS
726	1268644.247	487871.411	9.079	NS
727	1268572.936	487759.987	9.013	NS
728	1268638.915	487761.322	9.000	NS
729	1268567.616	487701.786	8.921	NS
730	1268603.605	487691.111	8.620	NS
731	1268604.938	487661.754	8.193	NS
732	1268566.283	487666.424	8.086	NS
733	1268576.946	487627.726	8.271	NS

Pt.No	Northings	Eastings	Height	Code
1477	1269383.503	487791.351	7.651	NS
1478	1269386.347	487792.690	8.008	NS
1479	1269388.282	487795.442	8.995	NS
1480	1269393.920	487791.868	9.228	NS
1481	1269395.796	487787.835	8.571	NS
1482	1269376.328	487711.716	8.637	NS
1483	1269378.931	487711.574	8.969	NS
1484	1269381.648	487711.495	8.947	NS
1485	1269385.316	487712.278	7.376	NS
1486	1269386.492	487712.436	6.881	NS
1487	1269388.667	487712.770	7.324	NS
1488	1269393.365	487713.812	9.481	NS
1489	1269396.458	487714.513	9.545	NS
1490	1269398.179	487715.669	8.539	NS
1491	1269377.672	487656.872	8.616	NS
1492	1269380.716	487656.240	8.998	NS
1493	1269383.556	487657.284	8.879	NS
1494	1269387.179	487658.166	7.161	NS
1495	1269388.410	487658.510	6.982	NS
1496	1269389.997	487659.306	7.413	NS
1497	1269394.229	487660.090	9.453	NS
1498	1269398.401	487661.739	9.462	NS
1499	1269400.027	487663.710	8.724	NS
1500	1269371.069	487817.624	6.681	NS
1501	1269343.046	487800.975	8.308	NS
1502	1269343.150	487801.536	8.569	NS
1503	1269343.261	487802.002	8.624	NS
1504	1269343.405	487802.646	8.322	NS
1505	1269343.513	487803.286	8.251	NS
1506	1269343.144	487803.918	8.518	NS
1507	1269342.972	487804.557	8.557	NS
1508	1269342.923	487804.923	8.427	NS
1509	1269343.492	487826.318	8.435	NS
1510	1269301.641	487834.138	8.712	NS
1511	1269303.027	487852.838	8.398	NS
1512	1269294.494	487856.421	8.868	NS
1513	1269277.051	487862.874	8.386	NS
1514	1269259.257	487836.270	8.428	NS
1515	1269276.225	487797.893	8.206	NS
1516	1269276.438	487798.622	8.614	NS
1517	1269276.388	487799.149	8.636	NS
1518	1269276.430	487800.096	8.113	NS
1519	1269276.244	487800.805	8.080	NS
1520	1269276.341	487801.394	8.604	NS
1521	1269276.218	487802.196	8.602	NS
1522	1269276.288	487802.740	8.228	NS
1523	1269247.259	487837.131	8.802	NS
1524	1269249.546	487857.971	8.385	NS
1525	1269228.637	487801.027	8.142	NS
1526	1269228.200	487836.957	8.315	NS

Pt.No	Northings	Eastings	Height	Code
1427	1269184.522	487624.416	5.473	NS
1428	1269175.865	487619.062	8.425	NS
1429	1269176.321	487618.760	7.449	NS
1430	1269193.483	487609.584	8.627	NS
1431	1269180.828	487618.443	5.477	NS
1432	1269212.377	487617.159	9.000	NS
1433	1269219.189	487604.588	9.340	NS
1434	1269219.546	487612.878	9.523	NS
1435	1269222.211	487603.485	10.050	NS
1436	1269220.597	487612.406	9.772	NS
1437	1269227.894	487606.552	10.448	NS
1438	1269237.115	487617.161	9.683	NS
1439	1269238.303	487610.596	10.185	NS
1440	1269263.026	487609.406	9.162	NS
1441	1269246.995	487598.854	10.082	NS
1442	1269246.583	487564.919	8.571	NS
1443	1269261.520	487569.510	8.864	NS
1444	1269274.350	487665.181	4.019	NS
1445	1269286.850	487672.599	4.275	NS
1446	1269289.754	487662.610	4.323	NS
1447	1269273.876	487673.908	4.191	NS
1448	1269271.944	487657.709	4.511	NS
1449	1269292.621	487618.753	5.719	NS
1450	1269279.152	487617.545	6.386	NS
1451	1269273.181	487624.724	7.597	NS
1452	1269259.513	487634.139	5.301	NS
1453	1269280.410	487639.368	6.484	NS
1454	1269280.556	487652.579	6.764	NS
1455	1269263.662	487659.588	8.078	NS
1456	1269278.546	487655.479	7.044	NS
1457	1269282.368	487653.202	6.836	NS
1458	1269287.180	487640.410	6.183	NS
1459	1269278.017	487637.645	6.546	NS
1460	1269278.217	487622.041	7.239	NS
1461	1269271.068	487626.069	7.710	NS
1462	1269300.057	487687.009	7.865	NS
1463	1269315.796	487726.786	8.518	NS
1464	1269286.023	487788.085	8.472	NS
1465	1269315.416	487735.989	8.808	NS
1466	1269315.451	487735.975	8.810	NS
1467	1269329.461	487786.686	8.321	NS
1468	1269342.892	487781.279	8.600	NS
1469	1269344.228	487667.079	8.017	NS
1470	1269351.492	487706.625	8.442	NS
1471	1269342.355	487801.445	8.621	NS
1472	1269364.125	487779.480	8.244	NS
1473	1269374.476	487787.859	8.421	NS
1474	1269375.310	487788.162	8.985	NS
1475	1269380.013	487788.557	8.702	NS
1476	1269381.880	487790.915	7.881	NS

Pt.No	Northings	Eastings	Height	Code
1377	1269220.259	487782.705	7.929	NS
1378	1269220.276	487782.025	7.375	NS
1379	1269251.507	487670.146	8.407	NS
1380	1269251.494	487671.285	7.758	NS
1381	1269275.604	487778.556	7.987	NS
1382	1269274.711	487778.234	7.523	NS
1383	1269245.068	487693.427	4.280	NS
1384	1269268.914	487732.493	8.025	NS
1385	1269268.149	487732.664	7.362	NS
1386	1269291.834	487674.228	8.764	NS
1387	1269254.348	487737.360	0.678	NS
1388	1269291.849	487647.793	9.023	NS
1389	1269233.639	487748.152	5.328	NS
1390	1269294.983	487618.634	8.783	NS
1391	1269275.995	487613.768	8.693	NS
1392	1269277.128	487620.914	7.289	NS
1393	1269257.292	487631.783	8.462	NS
1394	1269225.527	487709.679	3.629	NS
1395	1269235.649	487655.805	9.205	NS
1396	1269246.904	487650.224	9.046	NS
1397	1269242.691	487658.215	8.941	NS
1398	1269241.757	487669.505	8.189	NS
1399	1269254.444	487670.174	8.715	NS
1400	1269207.485	487707.473	4.110	NS
1401	1269213.367	487664.945	8.645	NS
1402	1269205.542	487746.771	5.392	NS
1403	1269212.396	487664.619	7.993	NS
1404	1269214.537	487633.337	9.624	NS
1405	1269211.046	487634.612	8.341	NS
1406	1269178.070	487747.431	5.083	NS
1407	1269188.659	487664.494	8.609	NS
1408	1269189.615	487664.208	7.995	NS
1409	1269201.681	487631.491	9.373	NS
1410	1269200.843	487632.917	7.806	NS
1411	1269200.629	487618.980	8.942	NS
1412	1269199.187	487620.785	7.848	NS
1413	1269178.229	487704.140	5.507	NS
1414	1269186.949	487637.771	9.085	NS
1415	1269187.648	487637.802	8.098	NS
1416	1269191.982	487616.929	9.140	NS
1417	1269193.736	487619.073	7.688	NS
1418	1269195.784	487657.241	7.229	NS
1419	1269189.634	487605.062	8.314	NS
1420	1269188.959	487605.474	7.634	NS
1421	1269195.242	487642.429	7.294	NS
1422	1269194.800	487630.267	7.370	NS
1423	1269180.766	487605.504	8.532	NS
1424	1269180.806	487606.156	7.614	NS
1425	1269186.080	487628.031	8.909	NS
1426	1269185.209	487627.082	7.387	NS

Pt.No	Northings	Eastings	Height	Code
1628	1269223.553	487486.338	8.105	NS
1629	1269234.904	487488.274	8.044	NS
1630	1269217.061	487549.021	8.860	NS
1631	1269244.668	487488.383	8.468	NS
1632	1269231.472	487545.745	9.413	NS
1633	1269252.367	487528.410	8.940	NS
1634	1269238.620	487552.830	9.046	NS
1635	1269252.284	487490.578	8.686	NS
1636	1269241.134	487539.958	9.195	NS
1637	1269262.343	487507.044	8.132	NS
1638	1269263.867	487531.419	9.132	NS
1639	1269247.198	487449.187	8.479	NS
1640	1269265.765	487448.363	8.883	NS
1641	1269268.392	487486.527	8.926	NS
1642	1269287.051	487486.986	9.002	NS
1643	1269256.038	487568.693	9.538	NS
1644	1269270.267	487433.676	8.444	NS
1645	1269261.312	487555.259	9.122	NS
1646	1269264.208	487530.834	9.046	NS
1647	1269270.215	487530.538	9.206	NS
1648	1269287.102	487508.519	8.657	NS
1649	1269308.663	487441.408	8.083	NS
1650	1269286.400	487535.419	9.208	NS
1651	1269298.222	487536.619	8.819	NS
1652	1269306.081	487514.251	8.916	NS
1653	1269344.517	487447.621	8.089	NS
1654	1269294.238	487548.361	9.222	NS
1655	1269309.813	487504.568	8.867	NS
1656	1269317.031	487487.772	8.822	NS
1657	1269326.925	487471.959	8.431	NS
1658	1269296.992	487568.611	9.291	NS
1659	1269307.587	487560.825	8.809	NS
1660	1269294.511	487582.582	9.095	NS
1661	1269295.891	487595.060	9.029	NS
1662	1269310.364	487534.813	8.959	NS
1663	1269329.002	487510.925	8.660	NS
1664	1269346.458	487513.620	8.202	NS
1665	1269345.326	487524.937	8.432	NS
1666	1269345.110	487476.108	8.349	NS
1667	1269357.988	487527.718	8.570	NS
1668	1269351.156	487491.024	8.301	NS
1669	1269375.103	487530.522	8.539	NS
1670	1269376.333	487520.065	8.443	NS
1671	1269378.468	487494.626	8.347	NS
1672	1269383.418	487531.563	8.588	NS
1673	1269325.359	487566.430	8.628	NS
1674	1269323.123	487587.704	8.095	NS
1675	1269325.645	487587.733	9.394	NS
1676	1269328.660	487588.308	9.553	NS
1677	1269326.015	487612.208	7.984	NS

Pt.No	Northings	Eastings	Height	Code
1577	1269076.790	487588.702	8.117	NS
1578	1269109.051	487619.535	8.010	NS
1579	1269104.941	487617.775	6.382	NS
1580	1269121.418	487616.488	7.947	NS
1581	1269119.924	487614.833	6.760	NS
1582	1269121.694	487607.339	8.530	NS
1583	1269121.682	487607.367	8.822	NS
1584	1269113.746	487595.487	7.898	NS
1585	1269108.751	487597.142	7.773	NS
1586	1269078.453	487591.633	7.754	NS
1587	1269080.204	487597.257	6.863	NS
1588	1269081.159	487611.771	6.112	NS
1589	1269088.864	487613.557	6.472	NS
1590	1269086.626	487605.569	6.500	NS
1591	1269069.299	487623.507	4.387	NS
1592	1269074.993	487625.847	4.894	NS
1593	1269083.378	487625.508	4.864	NS
1594	1269095.711	487620.101	4.266	NS
1596	1269068.656	487582.470	8.191	NS
1597	1269074.768	487583.786	8.666	NS
1598	1269083.357	487579.625	8.341	NS
1599	1269082.554	487531.979	8.163	NS
1600	1269083.347	487532.149	8.542	NS
1601	1269087.828	487533.369	8.568	NS
1602	1269088.938	487533.573	8.010	NS
1603	1269091.337	487492.174	7.870	NS
1604	1269093.956	487490.658	8.752	NS
1605	1269095.870	487491.431	8.838	NS
1606	1269097.957	487492.377	8.691	NS
1607	1269099.559	487493.412	7.920	NS
1608	1269100.403	487456.690	7.964	NS
1609	1269101.991	487457.483	8.902	NS
1610	1269103.575	487459.393	9.038	NS
1611	1269106.071	487462.182	8.949	NS
1612	1269109.435	487461.089	7.997	NS
1613	1269128.924	487465.571	8.140	NS
1614	1269119.945	487515.687	8.330	NS
1615	1269122.211	487548.970	7.878	NS
1616	1269156.812	487471.329	8.073	NS
1617	1269149.726	487522.486	8.222	NS
1618	1269174.360	487533.425	8.345	NS
1619	1269200.774	487482.296	8.391	NS
1620	1269170.088	487562.979	8.186	NS
1621	1269181.488	487537.217	8.612	NS
1622	1269181.081	487566.450	8.382	NS
1623	1269198.091	487493.569	8.325	NS
1624	1269186.869	487540.603	8.635	NS
1625	1269190.607	487569.797	8.552	NS
1626	1269200.546	487546.050	8.634	NS
1627	1269211.834	487516.022	8.094	NS

Pt.No	Northings	Eastings	Height	Code
1527	1269214.422	487860.301	8.298	NS
1528	1269220.988	487870.973	9.858	NS
1529	1269205.694	487837.622	8.681	NS
1530	1269206.169	487878.168	8.263	NS
1531	1269184.022	487833.142	8.584	NS
1532	1269186.048	487877.621	8.294	NS
1533	1269169.928	487832.270	8.591	NS
1534	1269188.069	487913.394	8.122	NS
1535	1269168.844	487873.429	8.464	NS
1536	1269178.218	487937.649	8.767	NS
1537	1269167.056	487934.009	8.648	NS
1538	1269228.083	487941.916	9.803	NS
1539	1269209.840	487946.976	8.486	NS
1540	1269234.439	487950.405	8.232	NS
1541	1269232.269	487936.036	8.169	NS
1542	1269233.759	487935.151	8.346	NS
1543	1269145.638	487828.299	8.384	NS
1544	1269140.840	487927.042	8.203	NS
1545	1269160.067	487869.620	8.373	NS
1546	1269107.432	487860.679	8.329	NS
1547	1269065.192	487929.331	8.684	NS
1548	1269102.924	487794.748	8.434	NS
1549	1269065.263	487921.797	8.587	NS
1550	1269070.004	487793.909	8.326	NS
1551	1269058.773	487792.631	8.204	NS
1552	1269010.714	487790.753	8.058	NS
1553	1268979.726	487787.862	8.044	NS
1554	1268979.460	487788.098	8.075	NS
1555	1268978.427	487788.398	8.124	NS
1556	1268978.240	487788.647	8.055	NS
1557	1268979.687	487790.397	8.032	NS
1558	1268979.457	487790.576	8.099	NS
1559	1268978.734	487791.311	7.980	NS
1560	1268978.601	487791.678	8.029	NS
1561	1269050.520	487636.806	8.247	NS
1562	1269053.019	487637.574	9.488	NS
1563	1269055.870	487637.840	9.567	NS
1564	1269058.759	487636.413	8.106	NS
1565	1269061.490	487635.581	5.378	NS
1566	1269088.865	487637.287	8.392	NS
1567	1269058.346	487618.481	8.188	NS
1568	1269060.362	487618.665	9.267	NS
1569	1269067.046	487615.333	8.386	NS
1570	1269087.189	487636.528	5.435	NS
1571	1269092.866	487630.250	8.820	NS
1572	1269091.732	487628.078	4.689	NS
1573	1269106.567	487628.438	8.500	NS
1574	1269066.884	487588.938	8.264	NS
1575	1269069.301	487589.176	8.852	NS
1576	1269073.619	487588.910	8.545	NS

Pt.No	Northings	Eastings	Height	Code
1780	1268942.649	487297.289	8.408	NS
1781	1268945.918	487340.681	8.457	NS
1782	1268930.409	487333.493	8.228	NS
1783	1268914.488	487379.431	8.300	NS
1784	1268933.865	487258.840	8.108	NS
1785	1268900.379	487379.078	8.494	NS
1786	1268905.562	487327.932	8.276	NS
1787	1268898.378	487237.932	8.655	NS
1788	1268898.878	487353.224	8.327	NS
1789	1268873.451	487227.764	8.437	NS
1790	1268872.601	487226.154	8.614	NS
1791	1268871.319	487220.316	9.216	NS
1792	1268896.961	487272.176	7.807	NS
1793	1268881.808	487378.419	8.213	NS
1794	1268870.624	487358.927	8.252	NS
1795	1268870.078	487377.191	8.165	NS
1796	1268863.834	487260.664	8.153	NS
1797	1268861.634	487259.956	8.849	NS
1798	1268839.982	487251.681	8.716	NS
1799	1268838.999	487251.493	8.127	NS
1800	1268845.488	487376.583	8.411	NS
1801	1268844.484	487360.080	8.396	NS
1802	1268877.748	487316.419	8.278	NS
1803	1268800.942	487368.201	8.542	NS
1804	1268769.691	487372.498	8.542	NS
1805	1268800.634	487283.687	8.676	NS
1806	1268798.814	487283.191	7.238	NS
1807	1268794.164	487282.218	8.663	NS
1808	1268787.340	487279.839	11.389	NS
1809	1268783.390	487279.044	11.661	NS
1810	1268780.603	487278.418	11.581	NS
1811	1268830.774	487249.973	7.886	NS
1812	1268829.429	487248.495	8.220	NS
1813	1268821.327	487247.248	11.426	NS
1814	1268818.756	487246.685	11.662	NS
1815	1268816.888	487245.887	11.549	NS
1816	1268833.812	487250.513	7.738	NS
1817	1268853.117	487216.110	11.392	NS
1818	1268850.417	487214.659	11.450	NS
1819	1268885.132	487183.583	11.468	NS
1820	1268882.772	487181.196	11.452	NS
1821	1268910.408	487181.685	9.053	NS
1822	1268908.643	487180.123	7.719	NS
1823	1268906.566	487178.436	7.495	NS
1824	1268903.893	487176.263	8.154	NS
1825	1269062.157	487447.653	7.865	NS
1826	1269036.371	487500.349	7.839	NS
1827	1269009.679	487494.792	7.906	NS
1828	1269020.826	487425.713	8.396	NS
1829	1269023.970	487476.192	8.422	NS

Pt.No	Northings	Eastings	Height	Code
1728	1269139.322	487287.347	8.736	NS
1729	1269137.968	487287.006	8.149	NS
1730	1269162.991	487296.391	7.632	NS
1731	1269159.510	487310.941	7.599	NS
1732	1269154.108	487328.989	7.612	NS
1733	1269153.483	487359.534	8.219	NS
1734	1269152.645	487358.232	7.703	NS
1735	1269136.901	487366.997	7.599	NS
1736	1269144.078	487387.908	7.697	NS
1737	1269144.220	487388.937	7.912	NS
1738	1269125.612	487381.377	7.846	NS
1739	1269123.275	487380.736	8.868	NS
1740	1269121.098	487377.321	9.055	NS
1741	1269119.068	487371.976	8.863	NS
1742	1269118.285	487368.650	8.093	NS
1745	1269118.860	487361.186	7.936	NS
1746	1269116.475	487363.035	6.531	NS
1747	1269102.932	487358.609	8.186	NS
1748	1269097.585	487355.257	8.424	NS
1749	1269089.772	487391.066	8.311	NS
1750	1269085.595	487409.653	8.123	NS
1751	1269106.305	487413.273	8.101	NS
1752	1269105.222	487362.999	4.973	NS
1753	1269107.982	487368.826	4.533	NS
1754	1269105.091	487378.390	4.785	NS
1755	1269108.061	487385.305	5.702	NS
1756	1269101.509	487382.973	5.571	NS
1757	1269096.913	487398.072	4.474	NS
1758	1269096.277	487403.608	4.187	NS
1759	1269090.147	487405.946	4.442	NS
1760	1269103.783	487408.405	5.224	NS
1761	1269130.401	487319.631	8.362	NS
1762	1269119.431	487318.320	7.822	NS
1763	1269104.388	487320.278	7.561	NS
1764	1269087.850	487318.462	7.625	NS
1765	1269094.250	487388.711	7.922	NS
1766	1269089.956	487275.693	7.777	NS
1767	1269058.088	487384.970	7.702	NS
1768	1269067.132	487273.384	7.675	NS
1769	1269062.071	487314.522	7.599	NS
1770	1269026.536	487269.855	7.739	NS
1771	1269009.759	487382.906	7.703	NS
1772	1268997.405	487276.931	7.986	NS
1773	1268955.462	487380.668	7.772	NS
1774	1268956.830	487320.156	7.765	NS
1775	1268930.149	487380.467	8.384	NS
1776	1268933.999	487370.417	8.174	NS
1777	1268951.159	487302.394	8.001	NS
1778	1268944.515	487350.015	8.496	NS
1779	1268942.663	487270.045	8.001	NS

Pt.No	Northings	Eastings	Height	Code
1678	1269330.669	487611.006	9.741	NS
1679	1269333.775	487612.258	9.760	NS
1680	1269326.338	487563.989	8.123	NS
1681	1269331.374	487562.860	9.313	NS
1682	1269333.402	487567.344	9.428	NS
1683	1269348.128	487616.635	9.687	NS
1684	1269347.616	487619.984	9.686	NS
1685	1269388.142	487398.098	7.956	NS
1686	1269388.322	487399.476	8.436	NS
1687	1269387.972	487401.174	8.503	NS
1688	1269387.044	487403.033	8.451	NS
1689	1269386.473	487404.030	8.037	NS
1690	1269385.460	487349.190	8.417	NS
1691	1269379.353	487365.049	8.406	NS
1692	1269390.517	487277.476	8.193	NS
1693	1269353.780	487401.672	8.171	NS
1694	1269362.226	487360.223	8.196	NS
1695	1269348.496	487275.619	8.127	NS
1696	1269342.882	487335.737	7.994	NS
1697	1269329.443	487398.044	8.179	NS
1698	1269310.237	487386.562	8.106	NS
1699	1269279.815	487398.607	8.196	NS
1700	1269279.655	487396.902	8.687	NS
1701	1269279.885	487395.912	8.674	NS
1702	1269279.533	487394.899	8.514	NS
1703	1269279.892	487391.992	8.165	NS
1704	1269297.522	487341.904	8.457	NS
1705	1269296.610	487273.110	7.967	NS
1706	1269302.000	487295.341	8.063	NS
1707	1269238.442	487417.725	8.213	NS
1708	1269245.321	487290.658	8.137	NS
1709	1269240.171	487329.111	8.083	NS
1710	1269219.362	487392.883	8.247	NS
1711	1269219.041	487289.053	8.276	NS
1712	1269217.175	487326.713	8.341	NS
1713	1269217.500	487364.479	8.423	NS
1714	1269187.437	487286.510	8.033	NS
1715	1269171.587	487359.275	8.265	NS
1716	1269170.037	487388.938	8.063	NS
1717	1269169.996	487389.763	8.245	NS
1718	1269170.024	487391.168	8.293	NS
1719	1269170.163	487392.705	8.420	NS
1720	1269170.190	487393.782	8.086	NS
1721	1269170.158	487357.537	7.806	NS
1722	1269176.542	487323.420	8.131	NS
1723	1269175.729	487323.403	7.829	NS
1724	1269181.336	487286.292	7.872	NS
1725	1269177.230	487287.306	7.722	NS
1726	1269149.821	487281.372	7.866	NS
1727	1269147.336	487283.544	8.679	NS

Pt.No	Northings	Eastings	Height	Code
1931	1269331.483	487560.097	8.457	NS
1932	1269374.879	487586.110	6.719	NS
1933	1269334.736	487561.104	9.549	NS
1934	1269337.314	487563.551	9.611	NS
1935	1269375.857	487601.408	6.817	NS
1936	1269352.794	487560.333	9.839	NS
1937	1269390.267	487609.035	7.471	NS
1938	1269376.463	487554.547	9.580	NS
1939	1269380.455	487550.137	8.365	NS
1940	1269382.175	487553.133	9.689	NS
1941	1269384.042	487559.913	9.857	NS
1942	1269388.164	487560.467	7.799	NS
1943	1269346.293	487608.729	6.984	NS
1944	1269422.788	487588.917	8.489	NS
1945	1269424.076	487591.302	8.191	NS
1946	1269428.203	487591.254	8.399	NS
1947	1269430.255	487589.665	8.612	NS
1948	1269430.327	487598.289	8.938	NS
1949	1269428.361	487596.519	8.449	NS
1950	1269424.062	487596.209	8.396	NS
1951	1269421.981	487598.001	8.784	NS
1952	1269344.048	487587.707	6.934	NS
1953	1269382.957	487534.785	8.336	NS
1954	1269384.680	487535.822	9.052	NS
1955	1269387.493	487536.875	9.083	NS
1956	1269390.724	487536.168	7.866	NS
1957	1269337.761	487568.573	7.410	NS
1958	1269391.753	487537.973	7.242	NS
1959	1269394.645	487540.823	7.410	NS
1960	1269399.489	487537.665	9.348	NS
1961	1269403.495	487536.391	9.473	NS
1962	1269406.612	487535.215	8.413	NS
1963	1269385.185	487485.675	8.319	NS
1964	1269386.853	487484.944	9.130	NS
1965	1269389.590	487485.380	9.255	NS
1966	1269392.827	487485.920	7.827	NS
1967	1269395.065	487488.358	6.867	NS
1968	1269397.124	487488.413	7.722	NS
1969	1269401.484	487488.259	9.632	NS
1970	1269404.269	487486.839	9.413	NS
1971	1269406.890	487485.718	8.421	NS
1972	1269386.638	487422.597	8.232	NS
1973	1269390.778	487404.267	9.089	NS
1974	1269393.010	487404.719	9.012	NS
1975	1269395.778	487417.568	7.848	NS
1976	1269398.787	487402.657	7.616	NS
1977	1269401.053	487418.746	8.037	NS
1978	1269403.076	487416.345	9.102	NS
1979	1269406.548	487419.532	9.362	NS
1980	1269410.378	487419.189	8.082	NS

Pt.No	Northings	Eastings	Height	Code
1880	1268901.604	487629.765	7.778	NS
1881	1268893.779	487689.074	7.828	NS
1882	1268884.760	487732.444	8.094	NS
1883	1268949.399	487630.513	8.093	NS
1884	1268936.678	487694.041	7.875	NS
1885	1268929.458	487732.037	7.885	NS
1886	1268992.215	487636.064	7.895	NS
1887	1268977.433	487706.836	8.547	NS
1888	1268978.458	487743.943	8.888	NS
1889	1268990.630	487751.217	8.221	NS
1890	1268992.057	487753.355	8.594	NS
1891	1268991.735	487755.371	8.685	NS
1892	1268998.257	487756.611	8.140	NS
1893	1269014.214	487705.588	7.985	NS
1894	1269015.666	487706.347	8.482	NS
1895	1269018.883	487708.381	8.560	NS
1896	1269020.249	487708.951	7.896	NS
1897	1269043.532	487648.086	8.082	NS
1898	1269045.785	487648.939	8.821	NS
1899	1269047.892	487650.736	8.989	NS
1900	1269051.064	487650.446	8.070	NS
1902	1269395.795	487621.780	10.115	NS
1903	1269393.667	487619.190	10.117	NS
1904	1269393.886	487615.009	10.149	NS
1905	1269395.550	487612.605	10.034	NS
1906	1269393.822	487614.802	7.511	NS
1907	1269393.290	487619.199	7.808	NS
1908	1269406.694	487614.918	9.956	NS
1909	1269406.991	487610.773	10.112	NS
1910	1269403.903	487606.347	7.792	NS
1911	1269401.864	487621.456	9.690	NS
1912	1269422.215	487613.175	8.537	NS
1913	1269418.465	487609.885	9.827	NS
1914	1269416.418	487605.991	9.553	NS
1915	1269415.469	487601.662	7.707	NS
1916	1269403.345	487599.814	6.883	NS
1917	1269400.456	487587.379	6.828	NS
1918	1269398.676	487571.713	6.806	NS
1919	1269416.910	487570.417	7.779	NS
1920	1269397.087	487564.025	7.736	NS
1921	1269420.242	487567.067	9.209	NS
1922	1269392.213	487563.766	7.161	NS
1923	1269420.591	487564.178	9.466	NS
1924	1269419.576	487557.564	8.468	NS
1925	1269387.211	487563.167	7.576	NS
1926	1269398.647	487561.266	9.268	NS
1927	1269398.803	487550.703	9.135	NS
1928	1269405.723	487551.474	9.329	NS
1929	1269408.766	487549.453	8.504	NS
1930	1269377.086	487567.947	6.953	NS

Pt.No	Northings	Eastings	Height	Code
1830	1269001.543	487474.484	8.357	NS
1831	1269044.971	487582.661	8.112	NS
1832	1269044.601	487583.519	8.371	NS
1833	1269043.946	487586.726	8.310	NS
1834	1269043.898	487587.258	7.972	NS
1835	1268959.311	487486.338	7.677	NS
1836	1268986.613	487423.036	8.405	NS
1837	1268933.524	487482.777	7.877	NS
1838	1268974.769	487579.654	8.113	NS
1839	1268974.191	487580.781	8.281	NS
1840	1268973.312	487582.431	8.326	NS
1841	1268972.662	487583.782	8.300	NS
1842	1268971.649	487584.891	8.008	NS
1843	1268905.124	487479.647	7.785	NS
1844	1268976.752	487434.787	7.688	NS
1845	1268930.492	487580.987	8.053	NS
1846	1268927.671	487431.685	7.775	NS
1847	1268878.327	487483.470	7.812	NS
1848	1268876.198	487439.346	8.068	NS
1849	1268867.133	487578.718	9.150	NS
1850	1268834.417	487416.053	8.188	NS
1851	1268840.798	487576.346	8.132	NS
1852	126875.786	487515.827	8.158	NS
1853	1268788.793	487418.014	8.462	NS
1854	1268762.915	487573.842	8.361	NS
1855	1268578.926	487574.377	8.311	NS
1856	1268541.444	487565.857	9.921	NS
1857	1268537.319	487565.278	8.623	NS
1858	1268541.098	487566.418	9.926	NS
1859	1268542.245	487566.170	9.944	NS
1860	1268543.552	487567.320	9.931	NS
1861	1268551.507	487570.026	8.577	NS
1862	1268552.836	487565.076	8.499	NS
1863	1268751.639	487577.245	8.117	NS
1864	1268751.750	487575.658	8.325	NS
1865	1268752.220	487573.991	8.350	NS
1866	1268752.227	487572.032	8.305	NS
1867	1268752.548	487571.072	8.155	NS
1868	1268728.922	487618.421	8.037	NS
1869	1268718.339	487658.134	7.888	NS
1870	1268706.092	487695.369	8.306	NS
1871	1268770.139	487627.783	7.791	NS
1872	1268757.430	487663.689	7.748	NS
1873	1268755.079	487710.641	7.869	NS
1874	1268814.880	487629.404	7.808	NS
1875	1268809.558	487674.376	7.729	NS
1876	1268796.668	487724.986	8.186	NS
1877	1268857.974	487627.974	7.893	NS
1878	1268853.069	487681.995	7.737	NS
1879	1268840.774	487738.997	8.048	NS



Pt.No	Northings	Eastings	Height	Code
2081	1269914.898	487616.979	8.403	NS
2082	1269915.630	487617.420	8.764	NS
2083	1269915.835	487620.922	8.772	NS
2084	1269960.453	487618.959	8.804	NS
2085	1269960.000	487625.141	8.595	NS
2086	1270018.281	487626.567	8.748	NS
2087	1270027.823	487626.097	9.004	NS
2088	1270054.457	487623.500	8.889	NS
2089	1270116.920	487630.965	8.416	NS
2090	1270116.923	487630.966	8.422	NS
2091	1270117.415	487630.970	8.734	NS
2092	1270117.900	487630.993	8.728	NS
2093	1270118.682	487631.082	8.518	NS
2094	1270119.523	487631.241	8.523	NS
2095	1270120.286	487631.404	8.759	NS
2096	1270120.843	487631.501	8.760	NS
2097	1270121.253	487631.623	8.446	NS
2098	1270117.566	487629.107	8.890	NS
2099	1270117.289	487626.242	8.917	NS
2100	1270119.422	487624.515	8.516	NS
2101	1270115.480	487684.051	8.552	NS
2102	1270114.419	487699.512	8.497	NS
2103	1270113.899	487709.518	8.604	NS
2104	1270113.506	487729.534	8.672	NS
2105	1270057.867	487697.196	8.751	NS
2106	1270081.357	487728.384	8.748	NS
2107	1270058.835	487677.222	8.802	NS
2108	1270064.414	487727.807	8.602	NS
2109	1270016.019	487675.139	8.846	NS
2110	1270055.446	487727.223	8.690	NS
2111	1270015.428	487690.339	8.897	NS
2112	1270015.612	487695.424	8.929	NS
2113	1270014.624	487725.299	8.607	NS
2114	1269997.138	487680.639	8.423	NS
2115	1269996.933	487721.816	8.401	NS
2116	1269974.865	487689.497	8.858	NS
2117	1269972.616	487723.786	8.898	NS
2118	1269977.009	487656.722	8.744	NS
2119	1269928.788	487721.159	8.498	NS
2120	1269913.438	487721.091	8.573	NS
2121	1269913.005	487720.947	8.935	NS
2122	1269911.782	487720.457	8.940	NS
2123	1269911.029	487720.443	8.508	NS
2124	1269910.641	487720.345	8.532	NS
2125	1269910.052	487718.970	9.011	NS
2126	1269908.893	487721.765	8.968	NS
2127	1269907.817	487720.847	8.623	NS
2128	1269931.164	487685.250	8.460	NS
2129	1269911.043	487680.515	8.684	NS
2130	1269882.577	487716.633	8.489	NS

Pt.No	Northings	Eastings	Height	Code
2031	1269573.091	487607.465	9.083	NS
2032	1269604.956	487609.468	8.951	NS
2033	1269605.012	487608.005	9.143	NS
2034	1269605.540	487604.334	9.066	NS
2035	1269604.946	487601.548	7.965	NS
2036	1269605.004	487599.615	7.965	NS
2037	1269605.153	487598.326	7.989	NS
2038	1269604.532	487598.826	8.954	NS
2039	1269604.671	487595.893	8.953	NS
2040	1269604.282	487594.924	8.791	NS
2041	1269623.784	487610.061	8.677	NS
2042	1269620.518	487596.275	8.937	NS
2043	1269687.308	487612.378	8.839	NS
2044	1269705.523	487612.793	8.400	NS
2045	1269704.897	487611.239	9.075	NS
2046	1269704.818	487608.417	9.063	NS
2047	1269704.891	487604.254	8.434	NS
2048	1269704.404	487603.331	8.373	NS
2049	1269704.925	487599.001	8.744	NS
2050	1269705.944	487597.883	8.746	NS
2051	1269705.993	487596.435	8.496	NS
2052	1269706.384	487614.523	8.681	NS
2053	1269707.040	487615.127	8.832	NS
2054	1269707.688	487615.069	8.427	NS
2055	1269710.086	487616.936	8.526	NS
2056	1269709.263	487615.142	8.890	NS
2057	1269709.698	487615.238	8.963	NS
2058	1269710.329	487615.191	8.479	NS
2059	1269708.661	487596.327	8.437	NS
2060	1269710.086	487587.853	8.869	NS
2061	1269730.246	487596.536	9.030	NS
2062	1269787.446	487615.849	8.564	NS
2063	1269811.659	487616.847	8.772	NS
2064	1269811.682	487615.604	9.031	NS
2065	1269811.934	487613.309	9.063	NS
2066	1269811.030	487609.480	8.437	NS
2067	1269811.116	487607.697	7.929	NS
2068	1269811.207	487606.218	8.376	NS
2069	1269811.574	487604.195	8.760	NS
2070	1269811.269	487603.108	8.768	NS
2071	1269870.540	487619.649	7.653	NS
2072	1269886.273	487615.691	8.599	NS
2073	1269912.679	487625.910	8.516	NS
2074	1269912.994	487626.281	8.735	NS
2075	1269913.322	487626.351	8.868	NS
2076	1269913.693	487626.373	8.444	NS
2077	1269915.572	487626.484	8.440	NS
2078	1269916.053	487626.551	8.677	NS
2079	1269916.526	487626.599	8.735	NS
2080	1269917.090	487626.718	8.434	NS

Pt.No	Northings	Eastings	Height	Code
1981	1269391.648	487354.351	8.813	NS
1982	1269393.965	487357.036	8.979	NS
1983	1269397.538	487364.512	7.825	NS
1984	1269399.794	487364.734	7.422	NS
1985	1269401.411	487369.494	7.795	NS
1986	1269406.701	487348.801	9.247	NS
1987	1269409.554	487348.177	9.080	NS
1988	1269411.573	487348.123	8.251	NS
1989	1269412.294	487326.710	8.399	NS
1990	1269394.943	487311.935	8.797	NS
1991	1269407.807	487304.111	9.023	NS
1992	1269414.299	487289.394	8.236	NS
1993	1269412.147	487289.930	8.890	NS
1994	1269407.593	487288.152	8.893	NS
1995	1269397.448	487271.191	8.713	NS
1996	1269392.379	487286.178	8.486	NS
1997	1269400.264	487628.635	9.883	NS
1998	1269396.850	487628.239	9.991	NS
1999	1269400.317	487621.735	9.694	NS
2000	1269451.435	487604.104	8.865	NS
2001	1269451.380	487602.489	9.295	NS
2002	1269451.351	487598.432	9.256	NS
2003	1269451.217	487595.531	8.201	NS
2004	1269451.395	487594.300	8.098	NS
2005	1269451.611	487592.920	8.214	NS
2006	1269451.667	487591.225	9.174	NS
2007	1269451.847	487589.211	9.159	NS
2008	1269451.357	487587.757	8.784	NS
2009	1269487.517	487591.822	9.183	NS
2010	1269490.172	487589.712	8.921	NS
2011	1269501.295	487605.099	8.396	NS
2012	1269502.082	487605.156	8.944	NS
2013	1269502.774	487605.182	9.025	NS
2014	1269503.257	487605.248	8.886	NS
2015	1269504.642	487605.704	8.884	NS
2016	1269505.240	487605.585	8.973	NS
2017	1269505.780	487605.644	9.010	NS
2018	1269506.827	487605.756	8.584	NS
2019	1269502.138	487603.784	9.245	NS
2020	1269502.704	487600.693	9.285	NS
2021	1269502.803	487597.628	8.121	NS
2022	1269503.051	487596.199	8.037	NS
2023	1269503.008	487594.741	8.278	NS
2024	1269503.547	487592.806	9.302	NS
2025	1269503.169	487591.127	9.341	NS
2026	1269502.992	487589.485	8.542	NS
2027	1269535.412	487592.078	8.800	NS
2028	1269549.377	487606.715	8.707	NS
2029	1269567.521	487602.684	9.180	NS
2030	1269553.340	487592.061	8.901	NS

Pt.No	Northings	Eastings	Height	Code
2231	1269598.670	487775.022	8.779	NS
2232	1269621.254	487745.418	8.645	NS
2233	1269620.467	487811.605	8.832	NS
2234	1269652.950	487745.824	8.452	NS
2235	1269646.445	487811.314	8.454	NS
2236	1269701.013	487748.092	8.610	NS
2237	1269698.403	487814.547	8.432	NS
2238	1269698.943	487814.649	8.643	NS
2239	1269693.541	487814.783	8.679	NS
2240	1269700.039	487814.915	8.310	NS
2241	1269701.298	487815.510	8.321	NS
2242	1269702.671	487815.467	8.655	NS
2243	1269702.833	487815.214	8.612	NS
2244	1269702.950	487815.306	8.445	NS
2245	1269699.683	487822.084	8.717	NS
2246	1269702.837	487795.164	8.543	NS
2247	1269702.590	487756.421	8.324	NS
2248	1269752.693	487818.646	8.409	NS
2249	1269735.993	487756.385	8.561	NS
2250	1269758.057	487756.626	8.361	NS
2251	1269803.889	487819.788	8.568	NS
2252	1269804.397	487800.006	8.652	NS
2253	1269805.707	487759.448	8.511	NS
2254	1269806.244	487767.606	8.572	NS
2255	1269854.956	487819.745	8.494	NS
2256	1269854.863	487776.173	8.447	NS
2257	1269904.735	487822.232	8.598	NS
2258	1269905.450	487821.680	8.889	NS
2259	1269906.209	487821.636	8.834	NS
2260	1269906.660	487821.876	8.634	NS
2261	1269907.304	487821.875	8.625	NS
2262	1269907.903	487822.045	8.833	NS
2263	1269908.647	487822.132	8.862	NS
2264	1269909.528	487822.337	8.539	NS
2265	1269908.904	487814.527	8.842	NS
2266	1269909.123	487774.557	8.632	NS
2267	1269909.265	487789.884	8.861	NS
2268	1269911.829	487753.559	8.532	NS
2269	1269948.831	487756.849	8.591	NS
2270	1269958.792	487824.074	8.424	NS
2271	1269945.960	487790.588	8.758	NS
2272	1269967.535	487757.092	8.670	NS
2273	1269982.965	487826.882	8.666	NS
2274	1270012.599	487761.381	8.650	NS
2275	1270010.656	487828.779	8.863	NS
2276	1270011.638	487794.024	8.675	NS
2277	1270050.775	487826.857	8.561	NS
2278	1270082.540	487776.866	8.599	NS
2279	1270066.476	487778.100	8.529	NS
2280	1270061.443	487829.405	8.655	NS

Pt.No	Northings	Eastings	Height	Code
2181	1269497.855	487702.478	8.762	NS
2182	1269497.183	487702.235	8.420	NS
2183	1269497.848	487686.596	8.873	NS
2184	1269499.992	487634.436	8.460	NS
2185	1269489.352	487704.696	8.333	NS
2186	1269456.184	487636.023	8.987	NS
2187	1269467.067	487683.403	8.715	NS
2188	1269462.645	487654.118	8.824	NS
2189	1269445.078	487703.408	8.396	NS
2190	1269449.107	487702.891	8.571	NS
2191	1269441.210	487661.994	8.777	NS
2192	1269399.741	487701.275	8.475	NS
2193	1269401.374	487668.637	8.586	NS
2194	1269401.483	487645.780	8.642	NS
2195	1269406.777	487624.637	9.523	NS
2196	1269422.618	487597.660	10.221	NS
2197	1269398.121	487721.123	8.481	NS
2198	1269398.874	487751.467	8.538	NS
2199	1269395.215	487767.320	9.204	NS
2200	1269395.414	487801.743	8.632	NS
2201	1269393.187	487806.136	9.169	NS
2202	1269444.348	487753.212	8.681	NS
2203	1269435.840	487803.640	8.437	NS
2204	1269443.335	487723.391	8.504	NS
2205	1269443.640	487785.302	8.610	NS
2206	1269465.568	487805.420	8.916	NS
2207	1269495.364	487756.182	8.847	NS
2208	1269497.300	487756.147	8.419	NS
2209	1269493.067	487805.694	8.503	NS
2210	1269493.537	487805.604	8.814	NS
2211	1269494.024	487805.450	8.834	NS
2212	1269495.277	487805.503	8.372	NS
2213	1269495.987	487805.254	8.545	NS
2214	1269496.234	487804.684	8.806	NS
2215	1269496.795	487804.663	8.846	NS
2216	1269497.757	487806.027	8.466	NS
2217	1269500.184	487740.280	8.659	NS
2218	1269513.181	487790.385	8.513	NS
2219	1269499.190	487772.593	8.586	NS
2220	1269493.930	487788.527	8.644	NS
2221	1269532.460	487808.157	8.689	NS
2222	1269528.402	487772.918	8.723	NS
2223	1269531.283	487741.265	8.688	NS
2224	1269537.535	487741.221	8.635	NS
2225	1269545.595	487807.458	8.378	NS
2226	1269548.369	487742.639	8.407	NS
2227	1269580.565	487810.028	8.795	NS
2228	1269598.571	487743.227	8.687	NS
2229	1269597.346	487810.726	8.784	NS
2230	1269601.276	487746.386	8.722	NS

Pt.No	Northings	Eastings	Height	Code
2131	1269914.322	487687.447	8.826	NS
2132	1269912.786	487671.298	8.572	NS
2133	1269910.169	487681.191	8.680	NS
2134	1269866.149	487675.176	8.501	NS
2135	1269867.761	487658.805	8.630	NS
2136	1269807.351	487717.733	8.929	NS
2137	1269809.224	487677.167	8.664	NS
2138	1269809.362	487667.339	8.845	NS
2139	1269761.057	487721.479	8.466	NS
2140	1269760.947	487664.523	8.507	NS
2141	1269734.540	487667.039	8.748	NS
2142	1269736.846	487715.074	8.804	NS
2143	1269743.747	487635.493	8.741	NS
2144	1269706.091	487716.628	8.387	NS
2145	1269705.666	487716.668	8.713	NS
2146	1269705.144	487716.640	8.690	NS
2147	1269704.672	487716.493	8.336	NS
2148	1269703.487	487715.778	8.439	NS
2149	1269703.107	487715.739	8.791	NS
2150	1269702.559	487715.729	8.752	NS
2151	1269702.086	487715.659	8.380	NS
2152	1269735.803	487636.248	8.729	NS
2153	1269705.585	487700.291	8.846	NS
2154	1269734.420	487666.973	8.802	NS
2155	1269707.375	487665.287	8.884	NS
2156	1269707.514	487636.152	8.264	NS
2157	1269703.647	487689.828	8.975	NS
2158	1269641.493	487709.559	8.530	NS
2159	1269686.662	487692.697	8.448	NS
2160	1269641.404	487687.123	8.335	NS
2161	1269640.605	487665.815	8.412	NS
2162	1269626.234	487638.731	8.694	NS
2163	1269603.830	487639.403	8.737	NS
2164	1269601.058	487708.965	8.596	NS
2165	1269602.745	487655.984	8.515	NS
2166	1269601.373	487698.957	8.540	NS
2167	1269589.470	487707.774	8.608	NS
2168	1269575.923	487646.288	8.824	NS
2169	1269578.421	487708.186	8.913	NS
2170	1269548.069	487650.070	8.620	NS
2171	1269551.197	487707.246	8.811	NS
2172	1269534.016	487650.661	8.649	NS
2173	1269525.244	487706.436	8.894	NS
2174	1269519.873	487653.846	8.576	NS
2175	1269501.480	487654.307	8.571	NS
2176	1269501.975	487704.699	8.376	NS
2177	1269501.368	487704.206	8.795	NS
2178	1269500.030	487703.240	8.526	NS
2179	1269499.338	487703.092	8.547	NS
2180	1269498.595	487702.828	8.738	NS

Pt.No	Northings	Eastings	Height	Code
2281	1270081.201	487774.041	8.880	NS
2282	1270080.601	487819.928	8.628	NS
2283	1270014.297	487772.639	8.600	NS
2284	1270111.600	487828.624	8.714	NS
2285	1270109.329	487881.979	8.544	NS
2286	1270109.027	487856.015	8.850	NS
2287	1270062.479	487878.784	8.651	NS
2288	1270008.432	487876.158	8.626	NS
2289	1270009.586	487856.567	8.836	NS
2290	1269959.054	487869.555	8.584	NS
2291	1269981.692	487860.033	8.622	NS
2292	1269905.401	487874.891	7.677	NS
2293	1269905.461	487857.419	8.559	NS
2294	1269850.707	487875.377	8.619	NS
2295	1269904.063	487841.169	8.778	NS
2296	1269833.239	487875.290	8.725	NS
2297	1269802.317	487873.963	8.560	NS
2298	1269802.441	487852.202	8.607	NS
2299	1269801.794	487861.490	8.742	NS
2300	1269742.187	487875.974	8.518	NS
2301	1269726.817	487856.385	8.846	NS
2302	1269724.672	487846.174	8.645	NS
2303	1269699.105	487858.761	8.571	NS
2304	1269699.726	487841.731	8.387	NS
2305	1269651.481	487841.731	8.443	NS
2306	1269619.226	487838.520	8.710	NS
2307	1269595.996	487844.847	8.961	NS
2308	1269579.661	487844.331	8.784	NS
2309	1269545.537	487853.040	8.442	NS
2310	1269527.190	487842.008	8.566	NS
2311	1269493.486	487840.838	8.314	NS
2312	1269447.419	487837.503	8.304	NS
2313	1269422.620	487845.814	8.283	NS
2314	1269392.843	487850.937	8.333	NS
2315	1269406.774	487521.983	8.679	NS
2316	1269428.980	487523.944	8.685	NS
2317	1269408.126	487481.520	8.777	NS
2318	1269431.360	487533.387	8.608	NS
2319	1269453.464	487482.750	8.395	NS
2320	1269445.205	487535.828	8.359	NS
2321	1269461.737	487537.294	8.686	NS
2322	1269460.074	487544.321	8.631	NS
2323	1269501.201	487487.628	8.235	NS
2324	1269497.878	487542.431	9.006	NS
2325	1269524.491	487487.622	8.625	NS
2326	1269532.711	487553.115	8.865	NS
2327	1269553.946	487551.756	9.053	NS
2328	1269561.009	487550.274	9.032	NS
2329	1269554.897	487525.130	8.751	NS
2330	1269567.576	487488.694	8.342	NS

Pt.No	Northings	Eastings	Height	Code
2331	1269565.910	487518.011	8.250	NS
2332	1269571.236	487486.283	8.354	NS
2333	1269607.680	487517.550	8.696	NS
2334	1269607.386	487486.505	8.493	NS
2335	1269605.806	487561.532	8.803	NS
2336	1269611.636	487556.870	8.913	NS
2337	1269631.332	487554.444	8.448	NS
2338	1269657.097	487538.515	8.747	NS
2339	1269652.366	487500.683	8.404	NS
2340	1269668.196	487535.333	8.369	NS
2341	1269683.274	487544.323	8.351	NS
2342	1269685.030	487506.705	8.303	NS
2343	1269709.931	487562.222	8.314	NS
2344	1269709.363	487499.524	8.437	NS
2345	1269709.747	487499.798	8.708	NS
2346	1269710.492	487499.789	8.705	NS
2347	1269711.181	487499.829	8.428	NS
2348	1269711.857	487499.959	8.423	NS
2349	1269712.421	487499.925	8.640	NS
2350	1269713.249	487499.928	8.639	NS
2351	1269713.793	487499.478	8.467	NS
2352	1269708.648	487528.373	8.580	NS
2353	1269721.576	487496.307	8.785	NS
2354	1269731.182	487500.965	8.444	NS
2355	1269732.355	487530.431	9.219	NS
2356	1269793.691	487575.816	8.467	NS
2357	1269793.874	487527.185	8.786	NS
2358	1269821.962	487574.482	8.346	NS
2359	1269774.076	487491.616	9.120	NS
2360	1269858.736	487572.836	8.336	NS
2361	1269814.402	487517.259	8.552	NS
2362	1269883.210	487583.960	8.296	NS
2363	1269835.257	487516.071	8.291	NS
2364	1269914.227	487583.968	8.851	NS
2365	1269916.023	487584.360	8.908	NS
2366	1269874.423	487505.311	9.014	NS
2367	1269931.579	487582.256	8.735	NS
2368	1269877.697	487539.176	8.293	NS
2369	1269918.558	487535.535	8.782	NS
2370	1269919.359	487502.839	8.193	NS
2371	1269917.001	487502.905	8.197	NS
2372	1269917.856	487502.955	8.558	NS
2373	1269918.561	487503.044	8.400	NS
2374	1269919.359	487502.869	8.396	NS
2375	1269919.913	487502.800	8.511	NS
2376	1269920.624	487502.736	8.509	NS
2377	1269921.290	487502.505	8.252	NS
2378	1269937.400	487572.478	8.399	NS
2379	1269944.032	487495.617	8.755	NS
2380	1269968.672	487581.830	8.483	NS

Pt.No	Northings	Eastings	Height	Code
2381	1269964.939	487493.952	7.532	NS
2382	1269971.443	487528.660	8.872	NS
2383	1269943.682	487532.504	8.424	NS
2384	1270008.609	487581.263	8.893	NS
2385	1270002.734	487569.108	8.500	NS
2386	1270018.928	487567.592	8.458	NS
2387	1270022.579	487497.934	8.648	NS
2388	1270062.106	487597.246	9.141	NS
2389	1270123.946	487481.327	8.082	NS
2390	1270084.541	487596.945	8.882	NS
2391	1270118.575	487592.073	9.107	NS
2392	1270125.566	487425.082	8.298	NS
2393	1270127.218	487389.034	8.205	NS
2394	1270078.731	487383.533	8.084	NS
2395	1270085.196	487418.736	8.038	NS
2396	1270024.711	487424.369	8.368	NS
2397	1270027.156	487356.259	8.338	NS
2398	1270024.660	487435.481	8.615	NS
2399	1269989.756	487359.062	8.151	NS
2400	1270004.313	487440.411	8.279	NS
2401	1269976.150	487361.351	8.084	NS
2402	1269990.898	487429.378	8.012	NS
2403	1269964.117	487358.639	8.211	NS
2404	1269974.592	487431.821	8.016	NS
2405	1269962.987	487365.478	8.112	NS
2406	1269961.860	487434.800	8.172	NS
2407	1269926.006	487375.766	8.165	NS
2408	1269925.497	487375.975	8.354	NS
2409	1269924.786	487376.315	8.361	NS
2410	1269924.266	487376.547	8.205	NS
2411	1269923.548	487376.955	8.243	NS
2412	1269922.881	487377.211	8.383	NS
2413	1269922.125	487377.840	8.378	NS
2414	1269921.560	487378.092	8.173	NS
2415	1269921.541	487434.326	8.253	NS
2416	1269919.268	487450.552	8.458	NS
2417	1269900.521	487455.043	8.508	NS
2418	1269871.942	487462.025	8.625	NS
2419	1269841.595	487355.185	8.193	NS
2420	1269850.904	487463.804	8.663	NS
2421	1269843.399	487353.758	8.190	NS
2422	1269863.862	487482.586	8.871	NS
2423	1269855.655	487492.079	8.579	NS
2424	1269817.029	487433.477	8.620	NS
2425	1269826.759	487466.512	8.498	NS
2426	1269815.781	487471.091	8.526	NS
2427	1269819.199	487355.615	7.716	NS
2428	1269775.279	487394.123	8.101	NS
2429	1269765.309	487447.886	8.153	NS
2430	1269761.938	487403.097	8.551	NS

Pt.No	Northings	Eastings	Height	Code
2532	1269876.418	487979.244	8.434	NS
2533	1269803.454	487925.982	8.770	NS
2534	1269901.389	487909.103	8.436	NS
2535	1269898.380	487991.083	8.522	NS
2536	1269899.246	487990.926	8.859	NS
2537	1269899.805	487990.715	8.787	NS
2538	1269900.336	487990.624	8.567	NS
2539	1269901.262	487990.473	8.638	NS
2540	1269901.748	487990.464	8.784	NS
2541	1269902.451	487990.464	8.888	NS
2542	1269903.053	487990.411	8.435	NS
2543	1269903.731	487915.205	8.462	NS
2544	1269903.042	487958.303	8.680	NS
2545	1269931.531	487983.075	7.609	NS
2546	1270007.567	487928.782	8.550	NS
2547	1270003.703	487996.306	8.466	NS
2548	1270005.717	487961.748	9.189	NS
2549	1270053.524	487926.886	8.480	NS
2550	1270049.553	487998.457	8.501	NS
2551	1270065.617	487930.661	8.675	NS
2552	1270075.984	487931.062	8.664	NS
2553	1270108.026	487931.594	8.466	NS
2554	1270103.158	488000.057	8.568	NS
2555	1270104.428	488000.058	8.571	NS
2556	1270103.540	488000.116	8.781	NS
2557	1270105.722	487999.870	8.550	NS
2558	1270106.202	487999.719	8.764	NS
2559	1270106.723	487999.663	8.891	NS
2560	1270107.522	487999.377	8.503	NS
2561	1269380.518	488148.960	9.234	NS
2562	1269385.337	487985.441	9.534	NS
2563	1269385.174	487997.925	9.358	NS
2564	1269387.455	488005.255	8.775	NS
2565	1269384.252	488027.717	9.334	NS
2566	1269385.324	488057.078	8.565	NS
2567	1269384.669	488089.442	8.708	NS
2568	1269399.361	488057.316	8.572	NS
2569	1269427.653	488093.615	8.474	NS
2570	1269402.973	488005.970	8.697	NS
2571	1269435.278	488109.074	8.856	NS
2572	1269419.968	488006.349	8.720	NS
2573	1269437.675	488016.201	8.442	NS
2574	1269480.895	488113.793	8.458	NS
2575	1269481.451	488113.805	8.739	NS
2576	1269482.186	488113.741	8.733	NS
2577	1269483.649	488113.702	8.589	NS
2578	1269483.315	488113.602	8.594	NS
2579	1269484.225	488113.699	8.760	NS
2580	1269484.915	488113.730	8.756	NS
2581	1269485.375	488113.616	8.494	NS

Pt.No	Northings	Eastings	Height	Code
2482	1269486.496	487962.091	8.376	NS
2483	1269486.958	487962.239	8.720	NS
2484	1269487.561	487962.379	8.715	NS
2485	1269488.163	487962.414	8.454	NS
2486	1269489.061	487962.513	8.344	NS
2487	1269489.834	487962.550	8.666	NS
2488	1269490.398	487962.332	8.721	NS
2489	1269490.957	487962.402	8.429	NS
2490	1269487.603	487952.043	8.766	NS
2491	1269526.667	487909.374	8.823	NS
2492	1269499.824	487958.024	8.453	NS
2493	1269540.382	487912.784	8.499	NS
2494	1269534.894	487964.771	8.395	NS
2495	1269558.129	487910.669	8.807	NS
2496	1269576.910	487913.291	8.434	NS
2497	1269575.237	487969.059	8.902	NS
2498	1269593.939	487912.055	8.937	NS
2499	1269591.866	487968.756	8.936	NS
2500	1269611.133	487912.511	8.937	NS
2501	1269617.882	487979.351	8.878	NS
2502	1269624.047	487910.970	8.393	NS
2503	1269624.571	487977.067	8.434	NS
2504	1269617.664	487947.088	9.001	NS
2505	1269666.631	488001.114	8.810	NS
2506	1269621.936	488001.414	8.568	NS
2507	1269657.292	488002.558	8.985	NS
2508	1269697.587	487906.846	8.624	NS
2509	1269691.389	488007.747	8.427	NS
2510	1269691.738	488007.382	8.699	NS
2511	1269692.187	488006.898	8.754	NS
2512	1269693.134	488006.333	8.580	NS
2513	1269694.059	488006.199	8.551	NS
2514	1269694.684	488006.241	8.759	NS
2515	1269695.243	488006.073	8.782	NS
2516	1269695.778	488005.906	8.472	NS
2517	1269719.157	487916.552	9.057	NS
2518	1269727.850	487920.143	8.442	NS
2519	1269725.320	487980.655	8.493	NS
2520	1269380.107	488148.680	9.272	NS
2521	1269742.581	488010.365	9.127	NS
2522	1269773.137	487906.292	8.422	NS
2523	1269772.299	487972.971	8.486	NS
2524	1269800.017	487919.280	8.280	NS
2525	1269795.788	488000.783	8.761	NS
2526	1269826.913	487913.691	8.378	NS
2527	1269818.888	487995.070	8.617	NS
2528	1269830.288	487993.951	8.571	NS
2529	1269824.342	487986.528	8.927	NS
2530	1269816.977	487965.240	8.518	NS
2531	1269873.663	487924.755	8.483	NS

Pt.No	Northings	Eastings	Height	Code
2431	1269713.878	487430.122	8.073	NS
2432	1269717.509	487371.966	8.168	NS
2433	1269717.025	487372.170	8.550	NS
2434	1269716.501	487372.598	8.548	NS
2435	1269715.859	487373.378	8.284	NS
2436	1269715.247	487373.866	8.107	NS
2437	1269714.318	487374.522	8.522	NS
2438	1269713.639	487375.224	8.581	NS
2439	1269713.146	487375.511	8.195	NS
2440	1269714.002	487363.638	8.449	NS
2441	1269645.739	487465.350	8.148	NS
2442	1269679.356	487378.031	8.180	NS
2443	1269609.630	487458.041	8.429	NS
2444	1269604.777	487442.608	8.065	NS
2445	1269583.878	487461.502	8.600	NS
2446	1269572.135	487387.457	8.585	NS
2447	1269560.628	487465.922	8.488	NS
2448	1269539.657	487391.505	8.146	NS
2449	1269528.849	487450.382	8.064	NS
2450	1269526.487	487384.345	8.440	NS
2451	1269516.395	487441.114	8.487	NS
2452	1269517.870	487383.816	8.681	NS
2453	1269497.889	487465.962	8.684	NS
2454	1269490.482	487380.725	8.463	NS
2455	1269475.320	487428.873	8.634	NS
2456	1269463.692	487456.499	8.495	NS
2457	1269479.798	487382.090	8.598	NS
2458	1269422.720	487443.727	8.392	NS
2459	1269443.656	487377.974	8.585	NS
2460	1269434.420	487409.793	8.528	NS
2461	1269437.646	487381.506	8.414	NS
2462	1269404.572	487402.105	9.113	NS
2463	1269408.424	487373.990	9.349	NS
2464	1269406.923	487438.257	9.139	NS
2466	1269366.935	487959.993	8.321	NS
2467	1269368.601	487959.947	8.814	NS
2468	1269371.900	487957.691	8.753	NS
2469	1269375.546	487958.105	7.235	NS
2470	1269376.806	487958.556	6.950	NS
2471	1269378.077	487959.649	7.384	NS
2472	1269383.384	487960.987	9.044	NS
2473	1269386.392	487961.017	9.522	NS
2474	1269389.156	487961.829	8.364	NS
2475	1269392.995	487904.097	8.734	NS
2476	1269386.041	487955.015	9.308	NS
2477	1269445.275	487906.135	8.778	NS
2478	1269449.006	487908.433	8.322	NS
2479	1269430.819	487961.634	8.385	NS
2480	1269454.084	487906.330	8.739	NS
2481	1269490.917	487907.018	8.351	NS

Pt.No	Northings	Eastings	Height	Code
2682	1270019.990	488233.903	9.092	NS
2683	1269994.543	488283.517	8.403	NS
2684	1269995.728	488233.107	8.741	NS
2685	1269997.366	488188.341	8.993	NS
2686	1269949.711	488279.663	8.561	NS
2687	1269955.612	488226.102	8.462	NS
2688	1269892.059	488279.919	8.524	NS
2689	1269891.505	488279.876	8.927	NS
2690	1269890.722	488279.895	8.930	NS
2691	1269890.103	488279.897	8.657	NS
2692	1269899.192	488280.017	8.658	NS
2693	1269888.616	488280.194	8.853	NS
2694	1269888.032	488280.578	8.831	NS
2695	1269887.607	488280.549	8.524	NS
2696	1269885.938	488294.153	8.673	NS
2697	1269891.933	488221.374	8.950	NS
2698	1269890.690	488195.474	8.720	NS
2699	1269894.865	488182.717	8.982	NS
2700	1269874.942	488294.425	8.632	NS
2701	1269865.799	488207.143	8.698	NS
2702	1270093.685	488390.450	8.539	NS
2703	1270092.379	488390.090	8.725	NS
2704	1270091.833	488379.980	8.739	NS
2705	1270090.222	488379.639	8.412	NS
2706	1270090.569	488372.833	8.582	NS
2707	1270089.468	488379.136	8.808	NS
2708	1270088.920	488378.981	8.802	NS
2709	1270088.526	488378.921	8.444	NS
2710	1270085.167	488381.178	8.675	NS
2711	1270094.569	488372.833	8.582	NS
2712	1270043.352	488336.153	8.626	NS
2713	1270041.784	488361.761	8.903	NS
2714	1270022.594	488335.967	8.663	NS
2715	1269991.152	488362.906	8.811	NS
2716	1269992.646	488333.196	8.874	NS
2717	1269974.506	488357.536	8.559	NS
2718	1269935.195	488346.711	8.597	NS
2719	1269898.748	488329.939	8.785	NS
2720	1269882.450	488331.313	9.400	NS
2721	1269877.771	488330.358	9.238	NS
2722	1269873.012	488331.344	8.599	NS
2723	1269874.861	488294.334	8.658	NS
2724	1269873.523	488296.303	9.258	NS
2725	1269870.435	488303.908	9.261	NS
2726	1269867.924	488309.130	8.532	NS
2727	1269831.948	488252.521	8.568	NS
2728	1269828.646	488210.306	8.530	NS
2729	1269767.356	488307.851	8.576	NS
2730	1269768.541	488308.785	9.088	NS
2731	1269770.065	488316.440	9.171	NS

Pt.No	Northings	Eastings	Height	Code
2632	1269831.598	488029.303	8.449	NS
2633	1269893.166	488129.671	8.459	NS
2634	1269893.899	488129.778	8.724	NS
2635	1269894.555	488129.712	8.782	NS
2636	1269894.982	488130.227	8.609	NS
2637	1269895.664	488130.676	8.710	NS
2638	1269896.305	488130.749	8.855	NS
2639	1269896.894	488130.825	9.029	NS
2640	1269897.643	488130.724	8.494	NS
2641	1269898.725	488026.093	8.517	NS
2642	1269899.205	488036.909	8.601	NS
2643	1269892.621	488158.918	8.933	NS
2644	1269892.217	488158.219	8.676	NS
2645	1270003.568	488030.209	9.090	NS
2646	1269930.331	488128.674	8.905	NS
2647	1269939.673	488131.425	8.905	NS
2648	1270002.073	488071.240	9.037	NS
2649	1269999.933	488133.232	8.907	NS
2650	1270027.120	488137.080	8.489	NS
2651	1270031.234	488034.931	8.572	NS
2652	1270047.301	488133.628	8.803	NS
2653	1270061.246	488032.243	8.954	NS
2654	1270066.732	488032.792	8.972	NS
2655	1270045.891	488143.702	8.978	NS
2656	1270105.583	488032.099	8.824	NS
2657	1270051.042	488133.108	8.860	NS
2658	1270097.443	488136.997	8.901	NS
2659	1270007.809	488137.110	8.761	NS
2660	1270098.805	488137.340	8.876	NS
2661	1270099.634	488137.885	8.655	NS
2662	1270100.432	488136.313	8.656	NS
2663	1270101.273	488138.149	8.761	NS
2664	1270102.018	488136.282	8.758	NS
2665	1270102.422	488138.663	8.540	NS
2666	1270096.412	488233.910	8.667	NS
2667	1270092.109	488286.141	8.586	NS
2668	1270092.592	488286.402	8.824	NS
2669	1270093.485	488286.487	8.779	NS
2670	1270094.066	488286.468	8.426	NS
2671	1270094.622	488286.442	8.483	NS
2672	1270095.258	488286.572	8.827	NS
2673	1270096.094	488286.512	8.829	NS
2674	1270096.819	488286.563	8.881	NS
2675	1270068.024	488236.107	8.847	NS
2676	1270065.627	488286.407	8.834	NS
2677	1270052.693	488234.845	9.203	NS
2678	1270040.140	488276.539	8.590	NS
2679	1270039.303	488224.465	8.509	NS
2680	1270025.144	488284.184	8.846	NS
2681	1270018.703	488283.649	8.805	NS

Pt.No	Northings	Eastings	Height	Code
2582	1269487.167	488009.356	8.337	NS
2583	1269482.971	488060.453	8.691	NS
2584	1269487.213	488049.872	8.808	NS
2585	1269537.551	488052.417	8.440	NS
2586	1269532.054	488112.834	8.777	NS
2587	1269523.182	488010.893	8.944	NS
2588	1269536.331	488112.824	8.905	NS
2589	1269539.536	488011.770	8.745	NS
2590	1269557.575	488015.924	8.541	NS
2591	1269586.447	488113.659	8.483	NS
2592	1269554.962	488011.711	8.645	NS
2593	1269588.252	488079.163	8.936	NS
2594	1269589.240	488013.048	8.430	NS
2595	1269621.399	488116.381	8.786	NS
2596	1269617.712	488082.901	9.011	NS
2597	1269635.916	488115.161	8.474	NS
2598	1269659.276	488118.098	8.756	NS
2599	1269623.235	488030.215	9.115	NS
2600	1269687.253	488121.034	8.509	NS
2601	1269687.801	488121.161	8.863	NS
2602	1269688.495	488121.581	8.862	NS
2603	1269688.901	488121.974	8.707	NS
2604	1269689.340	488121.948	8.707	NS
2605	1269690.633	488121.927	8.897	NS
2606	1269691.220	488121.893	8.957	NS
2607	1269692.050	488121.800	8.538	NS
2608	1269623.185	488013.474	8.627	NS
2609	1269622.676	488001.605	8.736	NS
2610	1269656.170	488003.835	8.906	NS
2611	1269662.268	488014.066	8.808	NS
2612	1269657.452	488034.657	8.757	NS
2613	1269693.474	488011.777	8.556	NS
2614	1269691.282	488140.736	8.831	NS
2615	1269692.397	488040.716	8.703	NS
2616	1269694.623	488050.241	8.654	NS
2617	1269709.389	488141.721	8.694	NS
2618	1269709.389	488141.721	8.699	NS
2619	1269692.698	488071.541	8.667	NS
2620	1269747.703	488141.424	8.506	NS
2621	1269699.453	488008.615	8.488	NS
2622	1269792.226	488124.367	8.788	NS
2623	1269742.975	488010.905	9.018	NS
2624	1269763.029	488016.939	8.487	NS
2625	1269835.031	488126.914	8.357	NS
2626	1269767.388	488005.870	8.845	NS
2627	1269876.101	488127.333	8.393	NS
2628	1269795.730	488001.124	8.838	NS
2629	1269796.289	488021.737	8.745	NS
2630	1269794.859	488054.841	8.674	NS
2631	1269794.057	488075.172	8.807	NS

Pt.No	Northings	Eastings	Height	Code
2832	1269377.677	488251.548	8.670	NS
2833	1269378.297	488198.610	8.853	NS
2834	1269384.609	488263.977	8.720	NS
2835	1269378.360	488179.513	9.030	NS
2836	1269376.709	488278.030	8.704	NS
2837	1269380.276	488170.466	8.743	NS
2838	1269369.307	488297.495	9.376	NS
2839	1269380.941	488157.520	8.669	NS
2840	1269374.351	488310.357	8.927	NS
2841	1269374.093	488345.519	8.854	NS
2842	1269371.100	488344.984	9.557	NS
2843	1269368.429	488345.470	9.602	NS
2844	1269363.015	488344.162	7.331	NS
2845	1269361.330	488344.109	7.224	NS
2846	1269360.426	488343.562	7.310	NS
2847	1269356.127	488341.936	9.367	NS
2848	1269353.905	488341.727	9.367	NS
2849	1269352.021	488341.232	8.587	NS
2850	1269383.938	488106.987	8.823	NS
2851	1269380.797	488106.594	9.443	NS
2852	1269376.523	488107.073	9.331	NS
2853	1269372.126	488107.001	7.361	NS
2854	1269370.395	488113.990	7.126	NS
2855	1269369.143	488114.096	7.312	NS
2856	1269364.836	488113.915	9.084	NS
2857	1269362.684	488114.079	9.074	NS
2858	1269361.183	488113.998	8.513	NS
2859	1269369.846	488587.032	9.960	NS
2860	1269371.505	488316.042	9.695	NS
2861	1269325.757	488208.234	9.067	NS
2862	1269337.832	488209.070	8.875	NS
2863	1269340.359	488597.342	9.482	NS
2864	1269332.681	488598.414	8.976	NS
2865	1269329.642	488602.041	8.939	NS
2866	1269342.362	488571.889	8.858	NS
2867	1269343.750	488570.916	9.060	NS
2868	1269337.564	488572.666	8.868	NS
2869	1269303.984	488575.906	8.750	NS
2870	1269304.133	488574.597	9.025	NS
2871	1269303.445	488571.591	9.023	NS
2872	1269293.075	488489.748	8.765	NS
2873	1269293.557	488489.434	9.003	NS
2874	1269343.116	488481.719	8.729	NS
2875	1269342.179	488484.675	9.067	NS
2876	1269297.458	488525.137	9.242	NS
2877	1269242.959	488533.267	8.608	NS
2878	1269256.278	488579.356	8.796	NS
2879	1269271.177	488583.372	9.052	NS
2880	1269275.448	488605.729	9.479	NS
2881	1269271.215	488597.391	8.850	NS

Pt.No	Northings	Eastings	Height	Code
2782	1269531.986	488174.100	8.602	NS
2783	1269575.890	488385.047	8.747	NS
2784	1269584.325	488173.511	8.666	NS
2785	1269558.444	488376.927	8.816	NS
2786	1269544.661	488223.053	8.486	NS
2787	1269553.469	488316.091	8.943	NS
2788	1269536.264	488236.728	8.788	NS
2789	1269584.441	488270.475	8.875	NS
2790	1269548.125	488224.657	8.695	NS
2791	1269548.677	488222.026	8.816	NS
2792	1269533.669	488266.207	8.761	NS
2793	1269534.221	488276.938	8.472	NS
2794	1269502.922	488208.995	8.449	NS
2795	1269488.003	488213.016	8.725	NS
2796	1269526.032	488316.837	8.751	NS
2797	1269491.049	488230.433	8.524	NS
2798	1269510.436	488356.753	9.016	NS
2799	1269476.685	488228.617	8.884	NS
2800	1269513.040	488387.549	8.968	NS
2801	1269483.206	488174.148	8.839	NS
2802	1269478.969	488171.850	8.846	NS
2803	1269478.071	488196.264	8.937	NS
2804	1269473.348	488211.879	8.621	NS
2805	1269474.712	488391.995	8.707	NS
2806	1269474.311	488391.769	8.954	NS
2807	1269473.344	488391.569	8.849	NS
2808	1269472.240	488390.325	8.749	NS
2809	1269471.844	488389.319	8.863	NS
2810	1269471.336	488389.193	8.959	NS
2811	1269470.730	488387.734	8.926	NS
2812	1269470.394	488387.905	8.638	NS
2813	1269450.128	488243.120	8.585	NS
2814	1269471.232	488374.634	8.951	NS
2815	1269471.141	488352.929	8.760	NS
2816	1269482.064	488214.474	8.513	NS
2817	1269481.436	488214.385	8.797	NS
2818	1269480.525	488214.227	8.802	NS
2819	1269479.699	488214.066	8.680	NS
2820	1269478.085	488213.899	8.634	NS
2821	1269478.332	488213.555	8.839	NS
2822	1269477.655	488213.090	8.842	NS
2823	1269476.820	488212.726	8.542	NS
2824	1269475.600	488313.230	8.854	NS
2825	1269474.778	488280.361	8.828	NS
2826	1269475.492	488274.136	8.935	NS
2827	1269440.187	488186.919	8.432	NS
2828	1269475.632	488256.086	8.710	NS
2829	1269430.978	488171.817	8.611	NS
2830	1269444.428	488262.027	8.434	NS
2831	1269430.326	488196.781	8.687	NS

Pt.No	Northings	Eastings	Height	Code
2732	1269774.555	488320.226	8.513	NS
2733	1269765.662	488371.967	8.814	NS
2734	1269768.793	488373.656	9.198	NS
2735	1269768.761	488373.639	9.209	NS
2736	1269770.747	488355.988	9.308	NS
2737	1269775.782	488359.532	8.872	NS
2738	1269789.934	488183.920	8.531	NS
2739	1269789.690	488192.282	8.612	NS
2740	1269788.405	488222.618	8.817	NS
2741	1269755.911	488326.257	8.893	NS
2742	1269752.613	488306.302	8.499	NS
2743	1269787.013	488261.741	8.657	NS
2744	1269773.648	488261.874	8.824	NS
2745	1269730.857	488304.613	8.635	NS
2746	1269764.852	488266.935	8.526	NS
2747	1269684.611	488306.577	8.661	NS
2748	1269684.164	488319.826	8.647	NS
2749	1269683.492	488319.730	8.889	NS
2750	1269682.585	488319.630	8.750	NS
2751	1269681.422	488319.458	8.752	NS
2752	1269680.942	488319.208	8.910	NS
2753	1269680.377	488319.169	8.968	NS
2754	1269679.627	488320.754	8.657	NS
2755	1269679.668	488222.383	8.683	NS
2756	1269680.654	488292.463	8.790	NS
2757	1269737.063	488222.563	8.790	NS
2758	1269738.424	488262.918	8.784	NS
2759	1269731.115	488263.575	8.968	NS
2760	1269685.798	488218.812	8.544	NS
2761	1269680.111	488363.678	8.659	NS
2762	1269689.006	488177.144	8.494	NS
2763	1269685.269	488174.308	8.709	NS
2764	1269616.793	488366.220	8.864	NS
2765	1269649.828	488171.702	8.551	NS
2766	1269615.301	488333.992	8.894	NS
2767	1269606.897	488318.525	8.954	NS
2768	1269669.565	488227.685	8.644	NS
2769	1269603.731	488292.845	8.857	NS
2770	1269644.112	488218.311	8.846	NS
2771	1269699.599	488216.584	8.887	NS
2772	1269582.549	488216.857	8.534	NS
2773	1269578.868	488302.938	8.901	NS
2774	1269617.145	488169.455	8.919	NS
2775	1269602.907	488173.053	8.981	NS
2776	1269584.021	488170.450	8.820	NS
2777	1269680.155	488267.246	8.721	NS
2778	1269547.391	488214.624	8.839	NS
2779	1269632.046	488214.194	8.753	NS
2780	1269579.384	488318.203	8.799	NS
2781	1269527.219	488186.607	8.443	NS

Pt.No	Northings	Eastings	Height	Code
2982	1269165.143	487968.135	8.745	NS
2983	1269173.126	487968.213	8.259	NS
2984	1269311.463	487950.582	8.467	NS
2985	1269233.045	487936.101	8.304	NS
2986	1269166.352	487935.704	8.557	NS
2987	1269248.309	487894.884	8.483	NS
2988	1269268.532	487901.971	8.344	NS
2989	1269290.088	487878.387	9.798	NS
2990	1269301.478	487906.373	8.722	NS
2991	1269302.432	487912.063	8.402	NS
2992	1269308.355	487921.600	8.505	NS
2993	1269308.718	487891.347	8.910	NS
2994	1269307.596	487873.837	8.435	NS
2995	1269321.240	487891.412	8.150	NS
2996	1269324.153	487889.171	8.569	NS
2997	1269231.449	487883.306	8.509	NS
2998	1269231.599	487862.684	8.579	NS
2999	1269345.700	487895.672	8.561	NS
3001	1269074.854	487996.839	8.235	NS
3002	1269074.900	487997.397	8.569	NS
3003	1269074.581	487998.032	8.582	NS
3004	1269073.514	487996.371	8.285	NS
3005	1269075.042	487999.793	8.309	NS
3006	1269074.899	488000.097	8.534	NS
3007	1269074.675	488001.112	8.274	NS
3008	1269062.500	487999.785	8.254	NS
3009	1269060.906	488034.394	8.764	NS
3010	1269058.969	488072.250	8.110	NS
3011	1269065.610	488119.352	8.355	NS
3012	1269064.117	488163.701	8.441	NS
3013	1269055.701	488168.136	8.699	NS
3014	1269055.902	488196.506	8.355	NS
3015	1269065.268	488185.196	8.259	NS
3016	1269063.834	488207.100	8.699	NS
3017	1269063.601	488214.402	9.606	NS
3018	1269039.595	488213.484	9.573	NS
3019	1269022.345	488213.525	9.029	NS
3020	1269062.132	488220.137	8.984	NS
3021	1269041.237	488223.455	7.895	NS
3022	1269043.495	488224.979	8.835	NS
3023	1269022.693	488221.232	7.779	NS
3024	1269011.996	488223.012	7.720	NS
3025	1269019.660	488248.820	8.695	NS
3026	1269008.671	488251.538	8.577	NS
3027	1269008.869	488251.583	8.577	NS
3028	1269027.997	488201.896	8.240	NS
3029	1269028.315	488201.351	8.706	NS

Pt.No	Northings	Eastings	Height	Code
2932	1269215.921	488068.168	8.652	NS
2933	1269210.226	488063.701	8.313	NS
2934	1269161.741	488060.192	8.367	NS
2935	1269176.650	488042.926	8.323	NS
2936	1269364.259	488027.731	8.469	NS
2937	1269334.651	488012.043	8.361	NS
2938	1269341.723	488007.098	8.715	NS
2939	1269324.023	488007.060	8.437	NS
2940	1269321.624	488010.263	8.687	NS
2941	1269320.898	488023.039	8.557	NS
2942	1269261.330	488022.210	8.853	NS
2943	1269265.116	488009.355	8.425	NS
2944	1269265.313	488008.299	8.827	NS
2945	1269265.262	488007.728	8.842	NS
2946	1269264.377	488006.980	8.431	NS
2947	1269264.284	488006.193	8.472	NS
2948	1269264.026	488005.615	8.741	NS
2949	1269263.687	488004.751	8.740	NS
2950	1269263.241	488003.880	8.362	NS
2951	1269263.402	488011.459	8.815	NS
2952	1269205.584	488003.916	8.301	NS
2953	1269166.805	488014.815	8.384	NS
2954	1269159.611	488004.709	8.301	NS
2955	1269159.495	488004.137	8.694	NS
2956	1269159.337	488002.707	8.434	NS
2957	1269159.356	488002.382	8.229	NS
2958	1269159.356	488001.840	8.513	NS
2959	1269159.297	488001.517	8.758	NS
2960	1269157.730	488000.636	8.740	NS
2961	1269157.300	487999.607	8.235	NS
2962	1269327.283	487992.487	8.440	NS
2963	1269343.627	487984.769	8.556	NS
2964	1269343.627	487984.769	8.556	NS
2965	1269343.627	487984.769	8.556	NS
2966	1269343.627	487984.769	8.556	NS
2967	1269343.627	487984.769	8.556	NS
2968	1269343.627	487984.769	8.556	NS
2969	1269343.627	487984.769	8.556	NS
2970	1269343.627	487984.769	8.556	NS
2971	1269343.627	487984.769	8.556	NS
2972	1269343.627	487984.769	8.556	NS
2973	1269343.627	487984.769	8.556	NS
2974	1269343.627	487984.769	8.556	NS
2975	1269343.627	487984.769	8.556	NS
2976	1269343.627	487984.769	8.556	NS
2977	1269343.627	487984.769	8.556	NS
2978	1269343.627	487984.769	8.556	NS
2979	1269343.627	487984.769	8.556	NS
2980	1269343.627	487984.769	8.556	NS
2981	1269343.627	487984.769	8.556	NS

Pt.No	Northings	Eastings	Height	Code
2882	1269217.451	488580.361	8.896	NS
2883	1269206.365	488584.543	8.867	NS
2884	1269207.762	488581.301	9.081	NS
2885	1269204.007	488535.483	8.825	NS
2886	1269167.322	488579.835	9.038	NS
2887	1269427.320	488609.663	9.740	NS
2888	1269426.875	488607.241	9.774	NS
2889	1269426.557	488605.143	9.773	NS
2890	1269477.656	488599.221	9.731	NS
2891	1269496.030	488593.456	9.711	NS
2892	1269524.929	488589.728	9.536	NS
2893	1269526.227	488595.034	9.430	NS
2894	1269508.255	488597.514	9.546	NS
2895	1269518.736	488615.639	9.290	NS
2896	1269308.973	488206.903	8.626	NS
2897	1269297.469	488206.773	8.869	NS
2898	1269254.149	488204.525	8.765	NS
2899	1269208.385	488208.349	8.434	NS
2900	1269208.341	488207.707	8.976	NS
2901	1269208.219	488207.151	8.975	NS
2902	1269208.149	488206.390	8.722	NS
2903	1269207.990	488205.558	8.628	NS
2904	1269208.013	488205.045	8.781	NS
2905	1269207.924	488204.125	8.726	NS
2906	1269207.863	488203.186	8.464	NS
2907	1269155.643	488202.642	8.513	NS
2908	1269299.604	488171.628	8.657	NS
2909	1269320.952	488174.202	8.707	NS
2910	1269318.814	488162.882	8.347	NS
2911	1269255.249	488190.403	8.459	NS
2912	1269208.096	488162.366	8.496	NS
2913	1269250.317	488162.034	8.592	NS
2914	1269166.205	488163.141	8.654	NS
2915	1269321.011	488139.192	8.328	NS
2916	1269297.056	488134.441	8.813	NS
2917	1269289.025	488132.113	8.857	NS
2918	1269312.040	488123.581	8.366	NS
2919	1269248.624	488138.487	8.751	NS
2920	1269212.476	488115.225	8.755	NS
2921	1269239.536	488116.405	8.417	NS
2922	1269233.366	488115.634	8.786	NS
2923	1269158.815	488134.796	8.971	NS
2924	1269160.139	488107.858	8.620	NS
2925	1269171.806	488090.662	8.411	NS
2926	1269321.637	488064.795	8.325	NS
2927	1269314.232	488047.087	8.621	NS
2928	1269308.856	488046.510	8.340	NS
2929	1269354.695	488064.748	8.861	NS
2930	1269238.488	488074.756	8.965	NS
2931	1269249.685	488067.355	8.339	NS

Pt.No	Northings	Eastings	Height	Code
3386	1268785.150	488367.537	9.325	NS
3387	1268786.235	488364.919	10.418	NS
3388	1268788.256	488361.097	10.442	NS
3389	1268790.180	488358.105	9.296	NS
3390	1268791.069	488355.832	7.819	NS
3391	1268790.283	488350.802	8.683	NS
3392	1268778.516	488349.960	8.266	NS
3393	1268773.788	488351.095	10.310	NS
3394	1268772.436	488353.563	10.348	NS
3395	1268773.328	488361.377	8.354	NS
3396	1268772.049	488360.072	9.842	NS
3397	1268771.060	488355.313	10.327	NS
3398	1268746.826	488329.372	9.059	NS
3399	1268748.185	488330.458	8.577	NS
3400	1268749.090	488335.099	8.203	NS
3401	1268747.442	488337.101	10.334	NS
3402	1268740.130	488339.583	10.086	NS
3403	1268741.499	488340.209	10.093	NS
3404	1268717.974	488327.933	7.937	NS
3405	1268719.309	488325.328	8.474	NS
3406	1268718.258	488320.210	9.837	NS
3407	1268716.828	488317.432	9.910	NS
3408	1268717.912	488315.792	6.839	NS
3409	1268719.596	488307.535	7.651	NS
3410	1268718.625	488307.535	7.651	NS
3411	1268723.855	488312.024	7.658	NS
3412	1268726.190	488309.517	6.715	NS
3413	1268761.703	488342.971	7.114	NS
3414	1268809.791	488365.285	6.188	NS
3415	1268810.936	488360.076	6.564	NS
3416	1268812.898	488358.177	9.532	NS
3417	1268814.137	488357.667	9.148	NS
3418	1268814.967	488314.568	8.094	NS
3419	1268755.364	488316.088	7.324	NS
3420	1268789.119	488335.169	8.081	NS
3421	1268788.270	488336.793	7.385	NS
3422	1268785.738	488345.257	6.925	NS
3423	1268783.032	488349.590	7.736	NS
3424	1268769.875	488336.297	7.159	NS
3425	1268769.112	488319.112	8.606	NS
3426	1268750.566	488323.261	6.940	NS
3427	126873.423	488372.177	8.604	NS
3428	1268905.622	488316.178	8.726	NS
3429	1268869.915	488371.608	8.476	NS
3430	1268874.574	488326.454	8.775	NS
3431	1268882.496	488271.755	8.322	NS

Pt.No	Northings	Eastings	Height	Code
3083	1268863.971	488194.155	8.820	NS
3084	1268864.076	488194.665	8.884	NS
3085	1268863.698	488195.349	8.842	NS
3086	1268870.203	488151.887	8.655	NS
3087	1268886.688	488189.755	8.458	NS
3088	1268849.490	488214.035	8.592	NS
3089	1269105.599	488199.975	8.770	NS
3090	1269112.849	488202.290	8.644	NS
3091	1269141.283	488200.619	8.691	NS
3092	1269137.167	488188.478	8.575	NS
3093	1269155.853	488203.458	8.829	NS
3094	1269166.482	488204.157	8.769	NS
3095	1269166.174	488189.991	8.576	NS
3096	1269211.248	488208.704	8.689	NS
3097	1269210.855	488207.929	9.210	NS
3098	1269210.134	488206.982	9.202	NS
3099	1269209.509	488206.574	8.989	NS
3100	1269208.956	488205.366	8.948	NS
3101	1269208.783	488204.998	9.025	NS
3102	1269207.810	488204.019	8.911	NS
3103	1269207.441	488203.338	8.728	NS
3104	1269254.443	488207.654	8.842	NS
3105	1269297.575	488206.451	8.993	NS
3106	1269311.268	488212.362	8.792	NS
3108	1269356.207	488213.622	9.317	NS
3109	1269356.350	488208.481	9.086	NS
3110	1269353.820	488208.137	8.821	NS
3111	1269358.441	488178.731	9.114	NS
3112	1269360.546	488178.988	9.417	NS
3113	1269362.690	488180.012	9.320	NS
3114	1269366.091	488182.381	7.739	NS
3115	1269366.785	488184.087	7.152	NS
3116	1269369.365	488178.243	7.495	NS
3117	1269373.448	488180.878	9.305	NS
3118	1269377.426	488180.534	9.660	NS
3119	1269379.465	488181.765	8.897	NS
3120	1269363.278	488066.521	9.003	NS
3121	1269364.047	488012.983	8.598	NS
3122	1269361.479	488012.098	8.701	NS
3123	1269361.408	488011.052	8.636	NS
3124	1269361.471	488010.665	8.466	NS
3125	1269361.571	488009.851	9.775	NS
3126	1269361.181	488000.323	8.192	NS
3127	1269362.583	488398.367	8.888	NS
3128	1269363.838	488395.529	9.771	NS
3129	1269363.985	488391.768	9.826	NS
3130	1269363.117	488398.474	8.984	NS
3131	1269364.932	488388.439	7.868	NS
3132	1269364.244	488366.804	8.122	NS

Pt.No	Northings	Eastings	Height	Code
3033	1269028.220	488200.302	8.650	NS
3034	1269028.117	488199.776	8.473	NS
3035	1269028.193	488198.436	8.317	NS
3036	1269028.130	488197.908	8.548	NS
3037	1269028.057	488197.264	8.575	NS
3038	1269028.066	488196.709	8.095	NS
3039	1269045.010	488200.981	8.830	NS
3040	1268933.710	488195.416	8.230	NS
3041	1268939.522	488177.179	8.215	NS
3042	1268940.001	488165.651	8.199	NS
3043	1268971.542	488165.114	8.082	NS
3044	1268997.044	488130.884	8.178	NS
3045	1269019.664	488116.321	8.217	NS
3046	1269021.365	488092.388	8.126	NS
3047	1268973.836	488087.250	8.227	NS
3048	1268944.097	488126.792	8.127	NS
3049	1268946.136	488117.278	8.130	NS
3050	1268948.912	488082.915	8.328	NS
3051	1268958.719	488082.582	8.053	NS
3052	1268960.199	488012.775	8.530	NS
3053	1268980.611	488018.178	8.279	NS
3054	1268980.494	488018.468	8.538	NS
3055	1269023.306	488026.172	8.778	NS
3056	1268911.791	487995.236	8.141	NS
3057	1268911.754	487994.781	8.408	NS
3058	1268911.598	487993.512	8.073	NS
3059	1268911.394	487992.146	8.132	NS
3060	1268911.310	487991.804	8.463	NS
3061	1268910.998	487991.104	8.467	NS
3062	1268911.108	487990.690	8.160	NS
3063	1268976.734	487988.782	8.175	NS
3064	1268976.731	487988.811	8.120	NS
3065	1268974.496	487988.809	8.488	NS
3066	1268869.852	487992.665	8.386	NS
3067	1268868.214	487991.459	8.133	NS
3068	1268894.125	487950.902	7.989	NS
3069	1268910.186	487992.874	7.983	NS
3070	1268912.057	488005.569	8.248	NS
3071	1268870.385	488030.131	8.136	NS
3072	1268868.001	488043.515	8.090	NS
3073	1268858.509	488073.215	8.293	NS
3074	1268872.218	488073.722	8.061	NS
3075	1268888.776	488078.269	8.308	NS
3076	1268902.858	488070.621	8.474	NS
3077	1268852.918	488147.456	8.646	NS
3078	1268867.763	488190.848	8.438	NS
3079	1268867.516	488191.105	8.822	NS
3080	1268866.674	488191.904	8.750	NS
3081	1268866.372	488192.408	8.527	NS
3082	1268864.159	488193.568	8.619	NS



Pt.No	Northings	Eastings	Height	Code
4054	1269254.131	488344.067	8.751	NS
4055	1269212.831	488378.577	8.922	NS
4056	1269079.900	488264.388	8.860	NS
4057	1269147.168	488276.141	8.445	NS
4058	1269064.854	488264.305	9.561	NS
4059	1269139.781	488305.724	8.408	NS
4060	1269136.179	488289.198	10.188	NS
4061	1269154.814	488372.024	8.692	NS
4062	1269150.303	488371.855	8.797	NS
4063	1269241.684	488390.479	8.908	NS
4064	1269240.294	488397.106	8.792	NS
4065	1269238.262	488413.903	8.668	NS
4066	1269240.449	488405.134	8.830	NS
4067	1269179.699	488396.432	8.471	NS
4068	1269109.026	488331.609	8.104	NS
4069	1269118.835	488367.722	8.734	NS
4070	1269167.679	488412.462	8.901	NS
4071	1269167.056	488431.566	8.855	NS
4072	1269238.785	488436.007	9.083	NS
4073	1269201.341	488282.466	8.718	NS
4074	1269201.415	488271.972	8.994	NS
4075	1269210.014	488436.447	9.063	NS
4076	1269158.353	488424.792	8.782	NS
4077	1269212.650	488410.863	9.006	NS
4078	1269239.018	488486.708	9.187	NS
4079	1269146.714	488434.958	8.901	NS
4080	1269293.796	488490.703	9.098	NS
4081	1269295.863	488525.368	8.939	NS
4082	1269345.307	488417.973	8.676	NS
4083	1269289.982	488415.626	8.692	NS
4084	1269306.916	488416.461	8.724	NS
4085	1269350.881	488373.819	9.111	NS
4086	1269308.308	488381.806	8.767	NS
4087	1269308.873	488376.888	8.907	NS
4088	1269353.024	488319.417	9.262	NS
4089	1269303.985	488340.684	8.825	NS
4090	1269303.985	488340.684	8.816	NS
4091	1269356.524	488243.441	8.858	NS
4092	1269298.402	488310.173	9.018	NS
4093	1269309.526	488237.812	8.878	NS
4094	1269311.649	488211.935	8.844	NS
4095	1269146.890	488433.693	8.851	NS
4096	1269195.149	488489.518	8.884	NS
4097	1269167.115	488490.286	8.731	NS
4098	1269163.309	488489.977	8.850	NS
4099	1269149.336	488522.287	8.443	NS
4100	1269145.103	488484.798	8.785	NS
4101	1269144.884	488494.762	8.567	NS
4102	1269142.393	488549.289	8.877	NS
4103	1269129.433	488550.570	8.742	NS

Pt.No	Northings	Eastings	Height	Code
4004	1269119.438	488102.570	8.804	NS
4005	1269133.608	488138.195	8.902	NS
4006	1269117.018	488129.423	8.704	NS
4007	1269100.583	488129.734	8.704	NS
4008	1269116.722	488147.471	8.212	NS
4009	1269137.697	488158.068	8.421	NS
4010	1269103.314	488167.687	8.426	NS
4011	1269112.725	488199.450	8.236	NS
4012	1269113.293	488200.445	8.641	NS
4013	1269113.362	488201.146	8.806	NS
4014	1269113.639	488201.706	8.456	NS
4015	1269133.639	488202.700	8.501	NS
4016	1269114.015	488203.501	8.692	NS
4017	1269113.803	488204.097	8.889	NS
4018	1269116.616	488205.320	8.352	NS
4019	1269113.542	488205.880	8.729	NS
4020	1269110.878	488210.967	8.563	NS
4021	1269097.079	488201.001	8.804	NS
4022	1269097.694	488208.149	8.520	NS
4023	1269155.818	488203.735	8.588	NS
4024	1269165.143	488204.471	8.490	NS
4025	1269241.291	488235.321	8.909	NS
4026	1269236.570	488246.737	8.833	NS
4027	1269174.329	488221.225	8.359	NS
4028	1269113.599	488226.257	8.359	NS
4029	1269127.000	488231.612	8.549	NS
4030	1269146.819	488224.736	8.075	NS
4031	1269217.706	488248.124	9.371	NS
4032	1269149.035	488242.953	8.322	NS
4033	1269154.776	488249.458	8.652	NS
4034	1269166.408	488252.462	8.587	NS
4035	1269197.706	488248.065	8.751	NS
4036	1269122.050	488252.446	8.499	NS
4037	1269143.355	488254.801	8.532	NS
4038	1269201.496	488271.688	8.731	NS
4039	1269112.236	488248.490	8.691	NS
4040	1269162.820	488294.355	8.155	NS
4041	1269208.828	488302.086	8.707	NS
4042	1269171.250	488302.724	8.829	NS
4043	1269093.943	488243.948	9.017	NS
4044	1269152.632	488307.125	8.247	NS
4045	1269086.028	488246.269	9.216	NS
4046	1269222.781	488301.894	8.739	NS
4047	1269240.191	488301.902	8.857	NS
4048	1269175.635	488321.912	8.842	NS
4049	1269253.282	488302.731	9.011	NS
4050	1269260.342	488303.911	9.080	NS
4051	1269176.518	488340.473	8.119	NS
4052	1269096.576	488259.395	8.225	NS
4053	1269109.410	488272.019	8.335	NS

Pt.No	Northings	Eastings	Height	Code
3436	1268807.727	488324.103	8.508	NS
3437	1268821.344	488324.366	8.638	NS
3438	1268896.746	488236.117	8.385	NS
3439	1268872.480	488270.250	8.810	NS
3440	1268838.733	488324.703	8.724	NS
3441	1268885.155	488236.530	8.517	NS
3442	1268835.627	488302.293	8.401	NS
3443	1268891.598	488223.370	8.027	NS
3444	1268837.535	488279.794	8.376	NS
3445	1268839.543	488269.273	7.703	NS
3446	1268914.171	488196.871	7.152	NS
3447	1268914.623	488196.270	7.453	NS
3448	1268915.772	488195.202	7.389	NS
3449	1268915.980	488194.811	7.223	NS
3450	1268916.470	488194.243	7.183	NS
3451	1268916.932	488193.464	7.529	NS
3452	1268917.652	488192.594	7.529	NS
3453	1268918.402	488192.184	7.121	NS
3454	1268847.722	488268.666	7.796	NS
3455	1268804.956	488269.587	7.347	NS
3456	1268852.714	488236.938	8.416	NS
3457	1268797.438	488233.374	8.053	NS
3458	1268854.026	488152.385	8.228	NS
3459	1268801.593	488206.846	7.974	NS
3460	1268834.354	488165.036	8.096	NS
3461	1268832.572	488210.938	8.595	NS
3462	1268804.096	488190.999	8.085	NS
3463	1268762.798	488067.233	7.943	NS
3464	1268782.361	488191.380	8.310	NS
3465	1268752.587	488228.505	8.210	NS
3466	1268753.710	488233.052	9.204	NS
3467	1268758.618	488237.155	9.257	NS
3468	1268760.899	488241.764	8.076	NS
3469	1268751.047	488263.571	8.784	NS
3470	1268738.466	488289.098	8.175	NS
3471	1268736.390	488288.296	8.510	NS
3472	1268730.304	488285.369	8.635	NS
3473	1268728.939	488284.127	7.908	NS
3474	1268760.569	488289.881	7.944	NS
3475	1268730.428	488304.682	8.928	NS
3476	1268728.799	488306.061	7.556	NS
3477	1268727.192	488308.929	6.394	NS
3478	1268722.488	488296.894	8.234	NS
3479	1268720.410	488300.578	7.606	NS
3480	1268719.099	488303.240	7.523	NS
3481	1268533.738	488202.621	9.710	NS
4000	1269357.047	487895.894	8.601	NS
4001	1269369.500	487899.029	8.869	NS
4002	1269137.833	487999.582	8.725	NS
4003	1269136.981	488003.040	8.652	NS

Pt.No	Northings	Eastings	Height	Code
4204	1268953.504	488437.712	8.410	NS
4205	1268975.728	488460.004	8.909	NS
4206	1268974.030	488438.654	8.622	NS
4207	1268983.585	488462.943	8.688	NS
4208	1268987.153	488468.661	8.736	NS
4209	1268970.538	488461.168	7.634	NS
4210	1268986.639	488464.577	5.650	NS
4211	1268971.495	488468.988	6.372	NS
4212	1268936.971	488443.277	7.246	NS
4213	1268937.712	488446.490	5.820	NS
4214	1268936.461	488449.781	7.000	NS
4215	1268934.563	488451.221	8.463	NS
4216	1268661.366	488283.573	9.699	NS
4217	1268659.182	488286.925	8.263	NS
4218	1268653.722	488295.303	8.058	NS
4219	1268663.550	488290.222	9.708	NS
4220	1268665.734	488276.871	7.631	NS
4221	1268668.464	488272.682	7.228	NS
4222	1268670.648	488269.331	7.571	NS
4223	1268671.194	488268.493	8.410	NS
4224	1268672.286	488266.817	8.504	NS
4225	1268672.832	488265.980	8.172	NS
4226	1268662.458	488281.898	9.738	NS
4227	1268550.228	488191.875	9.574	NS
4228	1268528.562	488192.556	9.497	NS
4229	1268527.636	488192.934	9.278	NS
4230	1268527.451	488193.010	7.786	NS
4231	1268525.414	488193.842	7.827	NS
4232	1268518.009	488196.888	7.790	NS
4234	1268531.894	488191.194	9.493	NS
4235	1268533.283	488190.627	9.332	NS
4236	1268533.468	488190.551	7.649	NS
4237	1268535.319	488189.795	7.662	NS
4238	1268542.725	488186.769	7.050	NS
4239	1268549.205	488184.121	7.430	NS
4241	1268553.371	488182.419	8.591	NS
4242	1268554.759	488181.852	7.946	NS
4243	1268512.230	488107.502	9.604	NS
4244	1268513.666	488107.332	9.346	NS
4245	1268516.219	488107.207	8.253	NS
4246	1268516.917	488107.155	7.710	NS
4247	1268519.909	488106.934	7.198	NS
4248	1268522.402	488106.750	7.340	NS
4249	1268523.399	488106.676	8.518	NS
4250	1268525.892	488106.492	8.695	NS
4251	1268527.887	488106.344	8.078	NS
4252	1268510.933	488107.598	9.534	NS
4253	1268508.939	488107.745	8.642	NS
4254	1268502.955	488108.188	8.350	NS

Pt.No	Northings	Eastings	Height	Code
4154	1269002.032	488276.521	8.782	NS
4155	1268991.470	488250.541	8.469	NS
4156	1268972.446	488276.958	8.551	NS
4157	1268930.498	488267.001	8.201	NS
4158	1268967.821	488280.183	8.475	NS
4159	1268988.851	488276.301	8.822	NS
4160	1268998.780	488287.814	8.481	NS
4161	1268967.183	488300.573	8.837	NS
4162	1268886.976	488324.292	8.337	NS
4163	1268907.058	488304.980	9.096	NS
4164	1268981.956	488323.675	9.208	NS
4165	1268886.329	488317.533	8.724	NS
4166	1268913.213	488318.915	8.901	NS
4167	1268916.109	488324.809	8.435	NS
4168	1268883.884	488339.753	8.432	NS
4169	1268964.940	488318.661	9.517	NS
4170	1268910.508	488340.232	8.903	NS
4171	1269006.691	488315.456	8.824	NS
4172	1269006.592	488316.369	8.757	NS
4173	1269006.352	488317.951	8.705	NS
4174	1269000.373	488318.454	8.478	NS
4175	1268993.605	488328.383	8.373	NS
4176	1268994.507	488329.023	8.758	NS
4177	1268982.067	488344.290	8.459	NS
4178	1268952.200	488319.881	8.400	NS
4179	1268911.221	488354.832	8.705	NS
4180	1268886.241	488359.324	8.400	NS
4181	1268916.133	488363.766	8.420	NS
4182	1268910.325	488375.584	8.752	NS
4183	1268890.276	488376.914	8.672	NS
4184	1268910.360	488380.897	8.922	NS
4185	1268977.424	488388.949	8.774	NS
4186	1268973.305	488389.278	8.969	NS
4187	1268948.876	488385.431	8.983	NS
4188	1268929.589	488396.084	8.284	NS
4189	1268958.925	488387.509	8.875	NS
4190	1268959.100	488391.020	8.883	NS
4191	1268957.683	488402.902	8.577	NS
4192	1268958.214	488409.433	8.889	NS
4193	1268968.867	488411.601	8.495	NS
4194	1268944.281	488432.772	8.623	NS
4195	1268904.538	488413.448	8.890	NS
4196	1268887.211	488406.120	9.410	NS
4197	1268903.882	488420.381	8.787	NS
4198	1268938.054	488436.470	8.958	NS
4199	1268937.093	488432.963	8.555	NS
4200	1268964.884	488436.708	8.872	NS
4201	1268952.934	488428.625	9.250	NS
4202	1268954.392	488433.705	8.999	NS
4203	1268975.917	488440.031	9.033	NS

Pt.No	Northings	Eastings	Height	Code
4104	1269112.164	488493.189	8.853	NS
4105	1269102.117	488546.800	9.196	NS
4106	1269106.597	488461.901	9.160	NS
4107	1269105.396	488408.220	8.548	NS
4108	1269106.986	488433.890	8.934	NS
4109	1269105.114	488425.236	8.745	NS
4110	1269088.376	488496.282	8.897	NS
4111	1269048.241	488501.734	8.734	NS
4112	1269047.541	488509.682	8.761	NS
4113	1269039.098	488468.464	8.919	NS
4114	1269107.510	488305.662	8.421	NS
4115	1269034.147	488432.032	8.822	NS
4116	1269074.602	488319.548	8.507	NS
4117	1269069.422	488321.070	8.310	NS
4118	1269013.700	488419.058	8.647	NS
4119	1269105.231	488408.780	8.504	NS
4120	1269070.957	488380.843	8.644	NS
4121	1269068.279	488386.174	8.718	NS
4122	1269025.971	488399.177	8.397	NS
4123	1268997.636	488406.816	8.662	NS
4124	1268997.137	488401.833	8.697	NS
4125	1268994.420	488401.653	8.770	NS
4126	1268994.849	488406.200	8.730	NS
4127	1269055.428	488357.894	8.951	NS
4128	1269011.546	488402.500	8.678	NS
4129	1269035.430	488388.336	8.540	NS
4130	1268980.563	488465.708	9.132	NS
4131	1269043.486	488355.956	8.855	NS
4132	1268993.508	488385.223	8.811	NS
4133	1268990.992	488384.650	8.911	NS
4134	1269024.039	488362.805	8.535	NS
4135	1269056.477	488316.933	8.489	NS
4136	1268991.866	488365.209	8.721	NS
4137	1269053.888	488314.523	8.445	NS
4138	1268991.816	488359.016	8.703	NS
4139	1269040.144	488367.415	8.808	NS
4140	1269036.216	488342.607	8.698	NS
4141	1269001.068	488358.631	8.300	NS
4142	1269030.729	488313.014	8.452	NS
4143	1269033.262	488327.098	8.738	NS
4144	1268994.094	488327.803	8.925	NS
4145	1269050.499	488294.817	8.955	NS
4146	1269032.477	488292.425	9.048	NS
4147	1269033.729	488282.968	9.757	NS
4148	1269027.777	488294.101	8.598	NS
4149	1269006.575	488316.467	8.723	NS
4150	1269026.183	488285.125	8.555	NS
4151	1269044.669	488248.521	9.635	NS
4152	1269008.258	488305.302	8.468	NS
4153	1269004.187	488250.272	8.792	NS

Pt.No	Northings	Eastings	Height	Code
10024	1269325.757	488208.233	9.019	TBM6
10025	1269340.359	488597.341	9.475	TBM3
50000	1269222.775	487590.515	9.921	TBM4

Pt.No	Northings	Eastings	Height	Code
4255	1268513.193	487984.796	10.072	NS
4256	1268511.693	487984.747	10.008	NS
4257	1268509.495	487984.677	9.116	NS
4258	1268506.996	487984.596	8.304	NS
4259	1268506.496	487984.580	7.815	NS
4260	1268514.692	487984.844	10.120	NS
4261	1268517.690	487984.940	8.136	NS
4262	1268519.889	487985.011	7.787	NS
4263	1268522.888	487985.108	7.557	NS
4264	1268528.585	487985.291	7.828	NS
4265	1268529.984	487985.333	9.047	NS
4266	1268531.883	487985.398	9.142	NS
4267	1268533.382	487985.446	9.036	NS
4268	1268531.003	487675.992	10.140	NS
4269	1268529.508	487675.873	10.121	NS
4270	1268525.520	487675.557	8.450	NS
4271	1268523.826	487675.422	8.117	NS
4272	1268518.841	487675.026	8.038	NS
4273	1268532.498	487676.111	10.181	NS
4274	1268535.489	487676.348	8.700	NS
4275	1268537.483	487676.506	7.761	NS
4276	1268540.473	487676.744	7.201	NS
4277	1268542.467	487676.902	7.565	NS
4278	1268543.962	487677.021	8.642	NS
4279	1268546.953	487677.258	9.074	NS
4280	1268548.448	487677.377	8.764	NS
4281	1269824.613	487613.603	9.149	TBM12
4282	1269763.194	488314.041	9.447	TBM11
10000	1269308.253	488626.244	9.890	STN17
10001	1268969.658	488479.837	9.885	STN18
10002	1268525.263	488198.235	9.393	STN19
10003	1268513.449	488107.407	9.616	STN22
10004	1268514.547	487984.827	10.019	STN23
10005	1268532.370	487676.116	10.125	STN24
10006	1268541.338	487565.831	9.921	STN25
10007	1268762.923	487574.480	8.311	STN26
10008	1269234.266	487592.923	9.983	STN27
10009	1269367.093	487619.684	9.952	STN21
10010	1269337.951	488209.085	8.855	STN20
10011	1269027.902	487999.028	8.592	STN28
10012	1268928.445	487877.067	9.230	STN29
10013	1269124.559	487355.626	8.707	STN33
10014	1269377.986	488140.241	9.775	STN31
10015	1269427.358	487597.921	10.031	STN32
10016	1269049.301	487648.189	9.006	TBM10
10017	1269385.476	487533.879	9.178	TBM5
10018	1268780.072	488354.222	10.057	STN30
10019	1268744.782	488338.730	10.294	TBM9
10022	1269369.846	488587.031	9.954	GPS1
10023	1269371.505	488316.041	9.679	TBM7