

## 7. WATER SOURCE DEVELOPMENT

### 7.1 General

**Table 7.1.1  
Water Source Information**

Content: Water Sources - General Information		Page : 1 of 1	Date:	Filename: h20-res.xls		
Data Collection Level: Municipal		Prov. No. : 0129	Shtname: (M) General Information			
Region Number: 01		Prov. Name: Ilocos Sur	Form No. : M 4.1			
Type of Source		↔	Shallow Well	Deep Well	Spring	
General Information	1/ Total Number of Source	#	30,314	739	218	
	<b>Implementation</b>					
	2/ Government Agency	#	4,378	543	218	
	3/ Private	#	25,936	196	0	
	<b>Usage</b>					
	4/ Drinking	#	28,184	394	217	
	5/ Washing/Bathing	#	28,184	394	203	
	6/ Gardening	#	0	0	0	
	7/ Irrigation	#	0	0	0	
	8/ Industrial	#	0	0	0	
	<b>Water Quality</b>					
	9/ High Iron/Manganese Content	#	0	0	3	
	10/ High Chloride Content	#	0	0	0	
11/ Turbidity/Color/Smell	#	0	0	0		
<b>Production</b>						
12/ Less/No Water in dry season	#	34	0	3		
13/ Usable through the year	#	50	0	0		
Well Information	<b>Technical</b>					
	14/ Diameter < 100 mm (4")	#				
	15/ Diameter >= 100 mm (4")	#				
	16/ SWL < 5 m below ground	#	0	0	0	
	17/ SWL >= 5 m below ground	#	0	0	0	
	18/ Specific Capacity < 3 m <sup>3</sup> /hr/m	#				
	19/ Specific Capacity >= 3 m <sup>3</sup> /hr/m	#				
	20/ B-Value < 1,000 s/m <sup>3</sup>	#				
	21/ B-Value >= 1,000 s/m <sup>3</sup>	#				
	22/ C-Value < 60,000 s <sup>2</sup> /m <sup>6</sup> (Well Loss Const.)	#				
23/ C-Value >= 60,000 s <sup>2</sup> /m <sup>6</sup>	#					
Aquifer Information	<b>Technical</b>					
	24/ T-Value < 0.001 m <sup>2</sup> /s	#				
	25/ T-Value >= 0.001 m <sup>2</sup> /s	#				
	26/ S-Value < 0.01	#				
	27/ S-Value >= 0.01	#				
	<b>Geology</b>					
	28/ Alluvial Formation	#				
29/ Volcanic Formation	#					
30/ Limestone Formation	#					
31/ Sandstone Formation	#					
32/ Other Sediment Formation	#					
Spring Info.	<b>Technical</b>					
	33/ Minimum Yield < 10 m <sup>3</sup> /h	#	0	0	0	
	34/ Minimum Yield >= 10 m <sup>3</sup> /h	#	0	0	0	
	<b>Other</b>					
	35/ Tapped Using Gravity	#	0	0	218	
36/ Undeveloped Using Gravity	#	0	0	36		
37/ Untapped Spring	#	0	0	8		

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PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Water Sources - General Information		Page : 1 of 1	Date:	Filename: h20-res.xls					
Data Collection Level: Municipal		Prov. No. : 0129	Shtname: (M) General Information						
Region Number: 01		Prov. Name: Ilocos Sur	Form No. : M 4.1						
Municipal Number/Municipal Name		Atilem/012901			Banayoyo/012902				
Type of Source		Shallow Well	Deep Well	Spring	Shallow Well	Deep Well	Spring		
General Information	1/ Total Number of Source	#	33	0	15	689	2	0	
	<b>Implementation</b>								
	2/ Government Agency	#	29		15	44	2		
	3/ Private	#	4			645			
	<b>Usage</b>								
	4/ Drinking	#	31		15	656	0		
	5/ Washing/Bathing	#	31		15	656	0		
	6/ Gardening	#							
	7/ Irrigation	#							
	8/ Industrial	#							
	<b>Water Quality</b>								
	9/ High Iron/Manganese Content	#							
	10/ High Chloride Content	#							
11/ Turbidity/Color/Sinell	#								
<b>Production</b>									
12/ Less/No Water in dry season	#								
13/ Usable through the year	#								
Well Information	<b>Technical</b>								
	14/ Diameter < 100 mm (4")	#							
	15/ Diameter >= 100 mm (4")	#							
	16/ SWL < 5 m below ground	#							
	17/ SWL >= 5 m below ground	#							
	18/ Specific Capacity < 3 m <sup>3</sup> /hr/m	#							
	19/ Specific Capacity >= 3 m <sup>3</sup> /hr/m	#							
	20/ B-Value < 1,000 s/m <sup>2</sup>	#							
	21/ B-Value < 1,000 s/m <sup>2</sup>	#							
	22/ C-Value < 60,000 s <sup>2</sup> /m <sup>4</sup> (Well Loss Const.)	#							
23/ C-Value >= 60,000 s <sup>2</sup> /m <sup>4</sup>	#								
Aquifer Information	<b>Technical</b>								
	24/ T-Value < 0.001 m <sup>2</sup> /s	#							
	25/ T-Value >= 0.001 m <sup>2</sup> /s	#							
	26/ S-Value < 0.01	#							
	27/ S-Value >= 0.01	#							
	<b>Geology</b>								
	28/ Alluvial Formation	#							
29/ Volcanic Formation	#								
30/ Limestone Formation	#								
31/ Sandstone Formation	#								
32/ Other Sediment Formation	#								
Spring Info.	<b>Technical</b>								
	33/ Minimum Yield < 10 m <sup>3</sup> /h	#							
	34/ Minimum Yield >= 10 m <sup>3</sup> /h	#							
	<b>Other</b>								
	35/ Tapped Using Gravity	#			15				
36/ Undeveloped Using Gravity	#								
37/ Untapped Spring	#								

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PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Water Sources - General Information		Page : 1 of 1	Date:	Filename: h20-res.xls				
Data Collection Level: Municipal		Prov. No. : 0129	Shtname: (M) General Information					
Region Number: 01		Prov. Name: Ilocos Sur	Form No. : M 4 1					
Municipal Number/Municipal Name		Bantay/012903			Burgos/012904			
Type of Source		Shallow Well	Deep Well	Spring	Shallow Well	Deep Well	Spring	
General Information	1/ Total Number of Source	# 1,222	33	1	835	13	15	
	<b>Implementation</b>							
	2/ Government Agency	# 168	18	1	63	7	15	
	3/ Private	# 1,054	15		772	6		
	<b>Usage</b>							
	4/ Drinking	# 1,222	32	1	796	13	15	
	5/ Washing/Bathing	# 1,222	32	1	796	13	15	
	6/ Gardening	#						
	7/ Irrigation	#						
	8/ Industrial	#						
	<b>Water Quality</b>							
	9/ High Iron/Manganese Content	#						
	10/ High Chloride Content	#						
11/ Turbidity/Color/Smell	#							
<b>Production</b>								
12/ Less/No Water in dry season	#							
13/ Usable through the year	#							
Well Information	<b>Technical</b>							
	14/ Diameter < 100 mm (4")	#						
	15/ Diameter >= 100 mm (4")	#						
	16/ SWL < 5 m below ground	#						
	17/ SWL >= 5 m below ground	#						
	18/ Specific Capacity < 3 m <sup>3</sup> /hr/m	#						
	19/ Specific Capacity >= 3 m <sup>3</sup> /hr/m	#						
	20/ B-Value < 1,000 s/m <sup>3</sup>	#						
	21/ B-Value >= 1,000 s/m <sup>3</sup>	#						
	22/ C-Value < 60,000 s <sup>2</sup> /m <sup>6</sup> (Well Loss Const.)	#						
23/ C-Value >= 60,000 s <sup>2</sup> /m <sup>6</sup>	#							
Aquifer Information	<b>Technical</b>							
	24/ T-Value < 0.001 m <sup>2</sup> /s	#						
	25/ T-Value >= 0.001 m <sup>2</sup> /s	#						
	26/ S-Value < 0.01	#						
	27/ S-Value >= 0.01	#						
	<b>Geology</b>							
	28/ Alluvial Formation	#						
	29/ Volcanic Formation	#						
30/ Limestone Formation	#							
31/ Sandstone Formation	#							
32/ Other Sediment Formation	#							
Spring Info.	<b>Technical</b>							
	33/ Minimum Yield < 10 m <sup>3</sup> /h	#						
	34/ Minimum Yield >= 10 m <sup>3</sup> /h	#						
	<b>Other</b>							
	35/ Tapped Using Gravity	#		1			15	
36/ Undeveloped Using Gravity	#							
37/ Untapped Spring	#					1		

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PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Water Sources - General Information		Page : 1 of 1	Date:	Filename: h20-res.xls					
Data Collection Level: Municipal		Prov. No. : 0129	Shtname: (M) General Information						
Region Number: 01		Prov. Name: Ilocos Sur	Form No. : M 4.1						
Municipal Number/Municipal Name		Cabugao/012905			CandJon/012906				
Type of Source		Shallow Well	Deep Well	Spring	Shallow Well	Deep Well	Spring		
General Information	1/ Total Number of Source	#	322	64	4	2,340	31	4	
	Implementation								
	2/ Government Agency	#	220	54	4	343	31	4	
	3/ Private	#	102	10		1,997			
	Usage								
	4/ Drinking	#	271	14	4	2,311	31	4	
	5/ Washing/Bathing	#	271	14	4	2,311	31	4	
	6/ Gardening	#							
	7/ Irrigation	#							
	8/ Industrial	#							
	Water Quality								
	9/ High Iron/Manganese Content	#							
	10/ High Chloride Content	#							
11/ Turbidity/Color/Smell	#								
Production									
12/ Less/No Water in dry season	#								
13/ Usable through the year	#								
Well Information	Technical								
	14/ Diameter < 100 mm (4")	#							
	15/ Diameter >= 100 mm (4")	#							
	16/ SWL < 5 m below ground	#							
	17/ SWL >= 5 m below ground	#							
	18/ Specific Capacity < 3 m <sup>3</sup> /hr/m	#							
	19/ Specific Capacity >= 3 m <sup>3</sup> /hr/m	#							
	20/ B-Value < 1,000 s/m <sup>3</sup>	#							
	21/ B-Value < 1,000 s/m <sup>3</sup>	#							
	22/ C-Value < 60,000 s <sup>2</sup> /m <sup>6</sup> (Well Loss Const.)	#							
23/ C-Value >= 60,000 s <sup>2</sup> /m <sup>6</sup>	#								
Aquifer Information	Technical								
	24/ T-Value < 0.001 m <sup>2</sup> /s	#							
	25/ T-Value >= 0.001 m <sup>2</sup> /s	#							
	26/ S-Value < 0.01	#							
	27/ S-Value >= 0.01	#							
	Geology								
	28/ Alluvial Formation	#							
	29/ Volcanic Formation	#							
30/ Limestone Formation	#								
31/ Sandstone Formation	#								
32/ Other Sediment Formation	#								
Spring Info.	Technical								
	33/ Minimum Yield < 10 m <sup>3</sup> /h	#							
	34/ Minimum Yield >= 10 m <sup>3</sup> /h	#							
	Other								
	35/ Tapped Using Gravity	#			4			4	
36/ Undeveloped Using Gravity	#								
37/ Untapped Spring	#								

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PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Water Sources - General Information		Page : 1 of 1	Date:	Filename: h20-res.xls					
Data Collection Level: Municipal		Prov. No. : 0129		Shiname: (M) General Information					
Region Number: 01		Prov. Name: Ilocos Sur		Form No. : M 4.1					
Municipal Number/Municipal Name		Caoyan/012907			Cervantes/012908				
Type of Source		Shallow Well	Deep Well	Spring	Shallow Well	Deep Well	Spring		
General Information	1/ Total Number of Source	#	1,873	1	0	15	0	30	
	<b>Implementation</b>								
	2/ Government Agency	#	839			14		30	
	3/ Private	#	1,034	1		1			
	<b>Usage</b>								
	4/ Drinking	#	755	1		15		30	
	5/ Washing/Bathing	#	755	1		15		30	
	6/ Gardening	#							
	7/ Irrigation	#							
	8/ Industrial	#							
	<b>Water Quality</b>								
	9/ High Iron/Manganese Content	#							
	10/ High Chloride Content	#							
11/ Turbidity/Color/Smell	#								
<b>Production</b>									
12/ Less/No Water in dry season	#								
13/ Usable through the year	#								
Well Information	<b>Technical</b>								
	14/ Diameter < 100 mm (4")	#							
	15/ Diameter >= 100 mm (4")	#							
	16/ SWL < 5 m below ground	#							
	17/ SWL >= 5 m below ground	#							
	18/ Specific Capacity < 3 m <sup>3</sup> /hr/m	#							
	19/ Specific Capacity >= 3 m <sup>3</sup> /hr/m	#							
	20/ B-Value < 1,000 s/m <sup>3</sup>	#							
	21/ B-Value >= 1,000 s/m <sup>3</sup>	#							
	22/ C-Value < 60,000 s <sup>2</sup> /m <sup>6</sup> (Well Loss Const.)	#							
23/ C-Value >= 60,000 s <sup>2</sup> /m <sup>6</sup>	#								
Aquifer Information	<b>Technical</b>								
	24/ T-Value < 0.001 m <sup>2</sup> /s	#							
	25/ T-Value >= 0.001 m <sup>2</sup> /s	#							
	26/ S-Value < 0.01	#							
	27/ S-Value >= 0.01	#							
	<b>Geology</b>								
	28/ Alluvial Formation	#							
29/ Volcanic Formation	#								
30/ Limestone Formation	#								
31/ Sandstone Formation	#								
32/ Other Sediment Formation	#								
Spring Info.	<b>Technical</b>								
	33/ Minimum Yield < 10 m <sup>3</sup> /h	#							
	34/ Minimum Yield >= 10 m <sup>3</sup> /h	#							
	<b>Other</b>								
	35/ Tapped Using Gravity	#						30	
36/ Undeveloped Using Gravity	#								
37/ Untapped Spring	#								

LEGEND: # - Specify figure

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Water Sources - General Information		Page : 1 of 1	Date:	Filename: h20-res.xls					
Data Collection Level: Municipal		Prov. No. : 0129	Sitname: (M) General Information						
Region Number: 01		Prov. Name: Ilocos Sur	Form No. : M4.1						
Municipal Number/Municipal Name		Cahimuyed012909			G. del Pilar/012910				
Type of Source		Shallow Well	Deep Well	Spring	Shallow Well	Deep Well	Spring		
General Information	1/ Total Number of Source	#	239	54	6	2	1	19	
	<b>Implementation</b>								
	2/ Government Agency	#	35	50	6	2		19	
	3/ Private	#	204	4			1		
	<b>Usage</b>								
	4/ Drinking	#	239	45	6	2		19	
	5/ Washing/Bathing	#	239	45	6	2		19	
	6/ Gardening	#							
	7/ Irrigation	#							
	8/ Industrial	#							
	<b>Water Quality</b>								
	9/ High Iron/Manganese Content	#							
	10/ High Chloride Content	#							
11/ Turbidity/Color/Smell	#								
<b>Production</b>									
12/ Less/No Water in dry season	#								
13/ Usable through the year	#								
Well Information	<b>Technical</b>								
	14/ Diameter < 100 mm (4")	#							
	15/ Diameter >= 100 mm (4")	#							
	16/ SWL < 5 m below ground	#							
	17/ SWL >= 5 m below ground	#							
	18/ Specific Capacity < 3 m <sup>3</sup> /hr/m	#							
	19/ Specific Capacity >= 3 m <sup>3</sup> /hr/m	#							
	20/ B-Value < 1,000 s/m <sup>3</sup>	#							
	21/ B-Value >= 1,000 s/m <sup>3</sup>	#							
	22/ C-Value < 60,000 s <sup>2</sup> /m <sup>6</sup> (Well Loss Const.)	#							
23/ C-Value >= 60,000 s <sup>2</sup> /m <sup>6</sup>	#								
Aquifer Information	<b>Technical</b>								
	24/ T-Value < 0.001 m <sup>2</sup> /s	#							
	25/ T-Value >= 0.001 m <sup>2</sup> /s	#							
	26/ S-Value < 0.01	#							
	27/ S-Value >= 0.01	#							
	<b>Geology</b>								
	28/ Alluvial Formation	#							
29/ Volcanic Formation	#								
30/ Limestone Formation	#								
31/ Sandstone Formation	#								
32/ Other Sediment Formation	#								
Spring Info.	<b>Technical</b>								
	33/ Minimum Yield < 10 m <sup>3</sup> /h	#							
	34/ Minimum Yield >= 10 m <sup>3</sup> /h	#							
	<b>Other</b>								
	35/ Tapped Using Gravity	#			6			19	
36/ Undeveloped Using Gravity	#			2			1		
37/ Untapped Spring	#						1		

LEGEND: # - Specify figure

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Water Sources - General Information		Page : 1 of 1	Date:	Filename: h20-res.xls					
Data Collection Level: Municipal		Prov. No. : 0129	Shtname: (M) General Information						
Region Number: 01		Prov. Name: Ilocos Sur	Form No. : M-4.1						
Municipal Number/Municipal Name		Lidlidja/012911			Magsingal/012912				
Type of Source		Shallow Well	Deep Well	Spring	Shallow Well	Deep Well	Spring		
General Information	1/ Total Number of Source	#	5	71	11	1,513	7	0	
	<b>Implementation</b>								
	2/ Government Agency	#	3	11	11	143	7		
	3/ Private	#	2	60		1,370			
	<b>Usage</b>								
	4/ Drinking	#		69	11	1,513	7		
	5/ Washing/Bathing	#		69	11	1,513	7		
	6/ Gardening	#							
	7/ Irrigation	#							
	8/ Industrial	#							
	<b>Water Quality</b>								
	9/ High Iron/Manganese Content	#							
	10/ High Chloride Content	#							
11/ Turbidity/Color/Smell	#								
<b>Production</b>									
12/ Less/No Water in dry season	#								
13/ Usable through the year	#								
Well Information	<b>Technical</b>								
	14/ Diameter < 100 mm (4")	#							
	15/ Diameter >= 100 mm (4")	#							
	16/ SWL < 5 m below ground	#							
	17/ SWL >= 5 m below ground	#							
	18/ Specific Capacity < 3 m <sup>3</sup> /hr/m	#							
	19/ Specific Capacity >= 3 m <sup>3</sup> /hr/m	#							
	20/ B-Value < 1,000 s/m <sup>3</sup>	#							
	21/ B-Value >= 1,000 s/m <sup>3</sup>	#							
	22/ C-Value < 60,000 s <sup>2</sup> m <sup>6</sup> (Well Loss Const.)	#							
23/ C-Value >= 60,000 s <sup>2</sup> m <sup>6</sup>	#								
Aquifer Information	<b>Technical</b>								
	24/ T-Value < 0.001 m <sup>2</sup> /s	#							
	25/ T-Value >= 0.001 m <sup>2</sup> /s	#							
	26/ S-Value < 0.01	#							
	27/ S-Value >= 0.01	#							
	<b>Geology</b>								
	28/ Alluvial Formation	#							
29/ Volcanic Formation	#								
30/ Limestone Formation	#								
31/ Sandstone Formation	#								
32/ Other Sediment Formation	#								
Spring Info.	<b>Technical</b>								
	33/ Minimum Yield < 10 m <sup>3</sup> /h	#							
	34/ Minimum Yield >= 10 m <sup>3</sup> /h	#							
	<b>Other</b>								
	35/ Tapped Using Gravity	#			11				
36/ Undeveloped Using Gravity	#			1					
37/ Untapped Spring	#						1		

LEGEND: # - Specify figure

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Water Sources - General Information		Page : 1 of 1	Date:	Filename: h20-res.xls					
Data Collection Level: Municipal		Prov. No. : 0129	Shtname: (M) General Information						
Region Number: 01		Prov. Name: Ilocos Sur	Form No. : M 4.1						
Municipal Number/Municipal Name		Nagbukel/012913			Narvacan/012914				
Type of Source		Shallow Well	Deep Well	Spring	Shallow Well	Deep Well	Spring		
General Information	1/ Total Number of Source	#	463	93	3	4,962	8	1	
	<b>Implementation</b>								
	2/ Government Agency	#	12	22	3	118	7	1	
	3/ Private	#	451	71		4,844	1		
	<b>Usage</b>								
	4/ Drinking	#	396	20	3	4,818	1	1	
	5/ Washing/Bathing	#	396	20	3	4,818	1	1	
	6/ Gardening	#							
	7/ Irrigation	#							
	8/ Industrial	#							
	<b>Water Quality</b>								
	9/ High Iron/Manganese Content	#							
	10/ High Chloride Content	#							
11/ Turbidity/Color/Smell	#								
<b>Production</b>									
12/ Less/No Water in dry season	#								
13/ Usable through the year	#								
Well Information	<b>Technical</b>								
	14/ Diameter < 100 mm (4")	#							
	15/ Diameter >= 100 mm (4")	#							
	16/ SWL < 5 m below ground	#							
	17/ SWL >= 5 m below ground	#							
	18/ Specific Capacity < 3 m <sup>3</sup> /hr/m	#							
	19/ Specific Capacity >= 3 m <sup>3</sup> /hr/m	#							
	20/ B-Value < 1,000 s/m <sup>3</sup>	#							
	21/ B-Value >= 1,000 s/m <sup>3</sup>	#							
	22/ C-Value < 60,000 s <sup>2</sup> /m <sup>6</sup> (Well Loss Const.)	#							
23/ C-Value >= 60,000 s <sup>2</sup> /m <sup>6</sup>	#								
Aquifer Information	<b>Technical</b>								
	24/ T-Value < 0.001 m <sup>2</sup> /s	#							
	25/ T-Value >= 0.001 m <sup>2</sup> /s	#							
	26/ S-Value < 0.01	#							
	27/ S-Value >= 0.01	#							
	<b>Geology</b>								
	28/ Alluvial Formation	#							
	29/ Volcanic Formation	#							
30/ Limestone Formation	#								
31/ Sandstone Formation	#								
32/ Other Sediment Formation	#								
Spring Info.	<b>Technical</b>								
	33/ Minimum Yield < 10 m <sup>3</sup> /h	#							
	34/ Minimum Yield >= 10 m <sup>3</sup> /h	#							
	<b>Other</b>								
	35/ Tapped Using Gravity	#			3			1	
36/ Undeveloped Using Gravity	#			3					
37/ Untapped Spring	#			1					

LEGEND: # - Specify figure



PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Water Sources - General Information		Page: 1 of 1	Date:	Filename: h20-res.xls					
Data Collection Level: Municipal		Prov. No.: 0129	Shtname: (M) General Information						
Region Number: 01		Prov. Name: Ilocos Sur	Form No.: M4.1						
Municipal Number/Municipal Name		Quirino/012915			Salcedo/012916				
Type of Source		Shallow Well	Deep Well	Spring	Shallow Well	Deep Well	Spring		
General Information	1/ Total Number of Source	#	0	0	14	223	39	14	
	<b>Implementation</b>								
	2/ Government Agency	#			14	100	39	14	
	3/ Private	#				123			
	<b>Usage</b>								
	4/ Drinking	#			14	180	4	13	
	5/ Washing/Bathing	#			14	180	4	1	
	6/ Gardening	#							
	7/ Irrigation	#							
	8/ Industrial	#							
	<b>Water Quality</b>								
	9/ High Iron/Manganese Content	#							
	10/ High Chloride Content	#							
11/ Turbidity/Color/Smell	#								
<b>Production</b>									
12/ Less/No Water in dry season	#								
13/ Usable through the year	#								
Well Information	<b>Technical</b>								
	14/ Diameter < 100 mm (4")	#							
	15/ Diameter >= 100 mm (4")	#							
	16/ SWL < 5 m below ground	#							
	17/ SWL >= 5 m below ground	#							
	18/ Specific Capacity < 3 m <sup>3</sup> /hr/m	#							
	19/ Specific Capacity >= 3 m <sup>3</sup> /hr/m	#							
	20/ B-Value < 1,000 s/in <sup>3</sup>	#							
	21/ B-Value < 1,000 s/in <sup>3</sup>	#							
	22/ C-Value < 60,000 s <sup>2</sup> /m <sup>6</sup> (Well Loss Const.)	#							
23/ C-Value >= 60,000 s <sup>2</sup> /m <sup>6</sup>	#								
Aquifer Information	<b>Technical</b>								
	24/ T-Value < 0.001 m <sup>2</sup> /s	#							
	25/ T-Value >= 0.001 m <sup>2</sup> /s	#							
	26/ S-Value < 0.01	#							
	27/ S-Value >= 0.01	#							
	<b>Geology</b>								
	28/ Alluvial Formation	#							
	29/ Volcanic Formation	#							
30/ Limestone Formation	#								
31/ Sandstone Formation	#								
32/ Other Sediment Formation	#								
Spring Info.	<b>Technical</b>								
	33/ Minimum Yield < 10 m <sup>3</sup> /h	#							
	34/ Minimum Yield >= 10 m <sup>3</sup> /h	#							
	<b>Other</b>								
	35/ Tapped Using Gravity	#			14			14	
36/ Undeveloped Using Gravity	#			12					
37/ Untapped Spring	#			3					

LEGEND: # - Specify figure

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Water Sources - General Information		Page : 1 of 1	Date:	Filename: b20-res.xls				
Data Collection Level: Municipal		Prov. No. : 0129	Shtname: (M) General Information					
Region Number: 01		Prov. Name: Ilocos Sur		Form No. : M4.1				
Municipal Number/Municipal Name		San Emilio/012917			San Esteban/012918			
Type of Source		Shallow Well	Deep Well	Spring	Shallow Well	Deep Well	Spring	
General Information	1/ Total Number of Source	#	10	6	13	777	3	0
	<b>Implementation</b>							
	2/ Government Agency	#	2		13	54	3	
	3/ Private	#	8	6		726		
	<b>Usage</b>							
	4/ Drinking	#	8	6	13	777	2	
	5/ Washing/Bathing	#	8	6	13	777	2	
	6/ Gardening	#						
	7/ Irrigation	#						
	8/ Industrial	#						
	<b>Water Quality</b>							
	9/ High Iron/Manganese Content	#						
	10/ High Chloride Content	#						
11/ Turbidity/Color/Smell	#							
<b>Production</b>								
12/ Less/No Water in dry season	#							
13/ Usable through the year	#							
Well Information	<b>Technical</b>							
	14/ Diameter < 100 mm (4")	#						
	15/ Diameter >= 100 mm (4")	#						
	16/ SWL < 5 m below ground	#						
	17/ SWL >= 5 m below ground	#						
	18/ Specific Capacity < 3 m <sup>3</sup> /hr/m	#						
	19/ Specific Capacity >= 3 m <sup>3</sup> /hr/m	#						
	20/ B-Value < 1,000 s/m <sup>3</sup>	#						
	21/ B-Value >= 1,000 s/m <sup>3</sup>	#						
22/ C-Value < 60,000 s <sup>2</sup> /m <sup>6</sup> (Well Loss Const.)	#							
23/ C-Value >= 60,000 s <sup>2</sup> /m <sup>6</sup>	#							
Aquifer Information	<b>Technical</b>							
	24/ T-Value < 0.001 m <sup>2</sup> /s	#						
	25/ T-Value >= 0.001 m <sup>2</sup> /s	#						
	26/ S-Value < 0.01	#						
	27/ S-Value >= 0.01	#						
	<b>Geology</b>							
	28/ Alluvial Formation	#						
29/ Volcanic Formation	#							
30/ Limestone Formation	#							
31/ Sandstone Formation	#							
32/ Other Sediment Formation	#							
Spring Info.	<b>Technical</b>							
	33/ Minimum Yield < 10 m <sup>3</sup> /h	#						
	34/ Minimum Yield >= 10 m <sup>3</sup> /h	#						
	<b>Other</b>							
	35/ Tapped Using Gravity	#			13			
36/ Undeveloped Using Gravity	#							
37/ Untapped Spring	#							

LEGEND: # - Specify figure

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Water Sources - General Information		Page : 1 of 1	Date:	Filename: h20-res.xls					
Data Collection Level: Municipal		Prov. No. : 0129	Shtname: (M) General Information						
Region Number: 01		Prov. Name: Hocos Sur		Form No. : M-1					
Municipal Number/Municipal Name		San Idelfonso/012919			San Juan/012920				
Type of Source		Shallow Well	Deep Well	Spring	Shallow Well	Deep Well	Spring		
General Information	1/ Total Number of Source	#	343	4	0	1,392	21	2	
	<b>Implementation</b>								
	2/ Government Agency	#	34	4		223	21	2	
	3/ Private	#	309			1,169			
	<b>Usage</b>								
	4/ Drinking	#	336	3		1,224	12	2	
	5/ Washing/Bathing	#	336	3		1,224	12		
	6/ Gardening	#							
	7/ Irrigation	#							
	8/ Industrial	#							
	<b>Water Quality</b>								
	9/ High Iron/Manganese Content	#							
	10/ High Chloride Content	#							
11/ Turbidity/Color/Smell	#								
<b>Production</b>									
12/ Less/No Water in dry season	#								
13/ Usable through the year	#								
Well Information	<b>Technical</b>								
	14/ Diameter < 100 mm (4")	#							
	15/ Diameter >= 100 mm (4")	#							
	16/ SWL < 5 m below ground	#							
	17/ SWL >= 5 m below ground	#							
	18/ Specific Capacity < 3 m <sup>3</sup> /hr/m	#							
	19/ Specific Capacity >= 3 m <sup>3</sup> /hr/m	#							
	20/ B-Value < 1,000 s/m <sup>3</sup>	#							
	21/ B-Value < 1,000 s/m <sup>3</sup>	#							
	22/ C-Value < 60,000 s <sup>2</sup> /m <sup>2</sup> (Well Loss Const.)	#							
23/ C-Value >= 60,000 s <sup>2</sup> /m <sup>2</sup>	#								
Aquifer Information	<b>Technical</b>								
	24/ T-Value < 0.001 m <sup>2</sup> /s	#							
	25/ T-Value >= 0.001 m <sup>2</sup> /s	#							
	26/ S-Value < 0.01	#							
	27/ S-Value >= 0.01	#							
	<b>Geology</b>								
	28/ Alluvial Formation	#							
	29/ Volcanic Formation	#							
30/ Limestone Formation	#								
31/ Sandstone Formation	#								
32/ Other Sediment Formation	#								
Spring Info.	<b>Technical</b>								
	33/ Minimum Yield < 10 m <sup>3</sup> /h	#							
	34/ Minimum Yield >= 10 m <sup>3</sup> /h	#							
	<b>Other</b>								
	35/ Tapped Using Gravity	#						2	
36/ Undeveloped Using Gravity	#						3		
37/ Untapped Spring	#								

LEGEND: # - Specify figure

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Water Sources - General Information		Page : 1 of 1	Date:	Filename: h20-res.xls					
Data Collection Level: Municipal		Prov. No. : 0129	Shtname: (M) General Information						
Region Number: 01		Prov. Name: Ilocos Sur	Form No. : M4.1						
Municipal Number/Municipal Name		San Vicente/012921			Santa/012922				
Type of Source		Shallow Well	Deep Well	Spring	Shallow Well	Deep Well	Spring		
General Information	1/ Total Number of Source	#	614	0	0	470	15	1	
	<b>Implementation</b>								
	2/ Government Agency	#	109			108	12	1	
	3/ Private	#	505			362	3		
	<b>Usage</b>								
	4/ Drinking	#	591			460	12	1	
	5/ Washing/Bathing	#	591			460	12	1	
	6/ Gardening	#							
	7/ Irrigation	#							
	8/ Industrial	#							
	<b>Water Quality</b>								
	9/ High Iron/Manganese Content	#							
	10/ High Chloride Content	#							
11/ Turbidity/Color/Smell	#								
<b>Production</b>									
12/ Less/No Water in dry season	#								
13/ Usable through the year	#								
Well Information	<b>Technical</b>								
	14/ Diameter < 100 mm (4")	#							
	15/ Diameter >= 100 mm (4")	#							
	16/ SWL < 5 m below ground	#							
	17/ SWL >= 5 m below ground	#							
	18/ Specific Capacity < 3 m <sup>3</sup> /hr/m	#							
	19/ Specific Capacity >= 3 m <sup>3</sup> /hr/m	#							
	20/ B-Value < 1,000 s/m <sup>2</sup>	#							
	21/ B-Value < 1,000 s/m <sup>2</sup>	#							
	22/ C-Value < 60,000 s <sup>2</sup> /m <sup>4</sup> (Well Loss Const.)	#							
23/ C-Value >= 60,000 s <sup>2</sup> /m <sup>4</sup>	#								
Aquifer Information	<b>Technical</b>								
	24/ T-Value < 0.001 m <sup>2</sup> /s	#							
	25/ T-Value >= 0.001 m <sup>2</sup> /s	#							
	26/ S-Value < 0.01	#							
	27/ S-Value >= 0.01	#							
	<b>Geology</b>								
	28/ Alluvial Formation	#							
29/ Volcanic Formation	#								
30/ Limestone Formation	#								
31/ Sandstone Formation	#								
32/ Other Sediment Formation	#								
Spring Info.	<b>Technical</b>								
	33/ Minimum Yield < 10 m <sup>3</sup> /h	#							
	34/ Minimum Yield >= 10 m <sup>3</sup> /h	#							
	<b>Other</b>								
	35/ Tapped Using Gravity	#						1	
36/ Undeveloped Using Gravity	#								
37/ Untapped Spring	#						1		

LEGEND: # - Specify figure

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Water Sources - General Information		Page : 1 of 1	Date:	Filename: h20-res.xls					
Data Collection Level: Municipal		Prov. No. : 0129	Shtname: (M) General Information						
Region Number: 01		Prov. Name: Ilocos Sur	Form No. : M-4.1						
Municipal Number/Municipal Name		Santa Catalina/012923			Santa Cruz/012924				
Type of Source		Shallow Well	Deep Well	Spring	Shallow Well	Deep Well	Spring		
General Information	1/ Total Number of Source	#	778	0	0	1,537	3	6	
	<b>Implementation</b>								
	2/ Government Agency	#	82			236	2	6	
	3/ Private	#	696			1,301	1		
	<b>Usage</b>								
	4/ Drinking	#	763			1,513	3	6	
	5/ Washing/Bathing	#	763			1,513	3	6	
	6/ Gardening	#							
	7/ Irrigation	#							
	8/ Industrial	#							
	<b>Water Quality</b>								
	9/ High Iron/Manganese Content	#							
	10/ High Chloride Content	#							
11/ Turbidity/Color/Smell	#								
<b>Production</b>									
12/ Less/No Water in dry season	#								
13/ Usable through the year	#								
Well Information	<b>Technical</b>								
	14/ Diameter < 100 mm (4")	#							
	15/ Diameter >= 100 mm (4")	#							
	16/ SWL < 5 m below ground	#							
	17/ SWL >= 5 m below ground	#							
	18/ Specific Capacity < 3 m <sup>3</sup> /hr/m	#							
	19/ Specific Capacity >= 3 m <sup>3</sup> /hr/m	#							
	20/ B-Value < 1,000 s/m <sup>2</sup>	#							
	21/ B-Value < 1,000 s/m <sup>2</sup>	#							
	22/ C-Value < 60,000 s <sup>2</sup> /m <sup>6</sup> (Well Loss Const.)	#							
23/ C-Value >= 60,000 s <sup>2</sup> /m <sup>6</sup>	#								
Aquifer Information	<b>Technical</b>								
	24/ T-Value < 0.001 m <sup>2</sup> /s	#							
	25/ T-Value >= 0.001 m <sup>2</sup> /s	#							
	26/ S-Value < 0.01	#							
	27/ S-Value >= 0.01	#							
	<b>Geology</b>								
	28/ Alluvial Formation	#							
29/ Volcanic Formation	#								
30/ Limestone Formation	#								
31/ Sandstone Formation	#								
32/ Other Sediment Formation	#								
Spring Info.	<b>Technical</b>								
	33/ Minimum Yield < 10 m <sup>3</sup> /h	#							
	34/ Minimum Yield >= 10 m <sup>3</sup> /h	#							
	<b>Other</b>								
	35/ Tapped Using Gravity	#						6	
36/ Undeveloped Using Gravity	#								
37/ Untapped Spring	#								

LEGEND: # - Specify figure

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Water Sources - General Information		Page : 1 of 1	Date:	Filename: h20-res.xls					
Data Collection Level: Municipal		Prov. No : 0129	Shtname: (M) General Information						
Region Number: 01		Prov. Name: Hocos Sur		Form No. : M 4.1					
Municipal Number/Municipal Name		Santa Lucia/012925			Santa Maria/012926				
Type of Source		Shallow Well	Deep Well	Spring	Shallow Well	Deep Well	Spring		
General Information	1/ Total Number of Source	#	761	4	3	1,775	29	0	
	<b>Implementation</b>								
	2/ Government Agency	#	203	4	3	176	19		
	3/ Private	#	558			1,599	10		
	<b>Usage</b>								
	4/ Drinking	#	726		3	1,763	26		
	5/ Washing/Bathing	#	726		3	1,763	26		
	6/ Gardening	#							
	7/ Irrigation	#							
	8/ Industrial	#							
	<b>Water Quality</b>								
	9/ High Iron/Manganese Content	#			3				
	10/ High Chloride Content	#							
11/ Turbidity/Color/Snell	#								
<b>Production</b>									
12/ Less/No Water in dry season	#	34		3					
13/ Usable through the year	#	50							
Well Information	<b>Technical</b>								
	14/ Diameter < 100 mm (4")	#							
	15/ Diameter >= 100 mm (4")	#							
	16/ SWL < 5 m below ground	#							
	17/ SWL >= 5 m below ground	#							
	18/ Specific Capacity < 3 m <sup>3</sup> /hr/m	#							
	19/ Specific Capacity >= 3 m <sup>3</sup> /hr/m	#							
	20/ B-Value < 1,000 s/m <sup>3</sup>	#							
	21/ B-Value < 1,000 s/m <sup>3</sup>	#							
	22/ C-Value < 60,000 s <sup>2</sup> /m <sup>6</sup> (Well Loss Const.)	#							
	23/ C-Value >= 60,000 s <sup>2</sup> /m <sup>6</sup>	#							
Aquifer Information	<b>Technical</b>								
	24/ T-Value < 0.001 m <sup>2</sup> /s	#							
	25/ T-Value >= 0.001 m <sup>2</sup> /s	#							
	26/ S-Value < 0.01	#							
	27/ S-Value >= 0.01	#							
	<b>Geology</b>								
	28/ Alluvial Formation	#							
29/ Volcanic Formation	#								
30/ Limestone Formation	#								
31/ Sandstone Formation	#								
32/ Other Sediment Formation	#								
Spring Info.	<b>Technical</b>								
	33/ Minimum Yield < 10 m <sup>3</sup> /h	#							
	34/ Minimum Yield >= 10 m <sup>3</sup> /h	#							
	<b>Other</b>								
	35/ Tapped Using Gravity	#			3				
36/ Undeveloped Using Gravity	#								
37/ Untapped Spring	#								

LEGEND: # - Specify figure

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Water Sources - General Information		Page : 1 of 1	Date:	Filename: h20-res.xls				
Data Collection Level: Municipal		Prov. No. : 0129	Shtname: (M) General Information					
Region Number: 01		Prov. Name: Hoccos Sur	Form No. : M 4.1					
Municipal Number/Municipal Name		Santiago/012927			Santo Domingo/012928			
Type of Source		Shallow Well	Deep Well	Spring	Shallow Well	Deep Well	Spring	
General Information	1/ Total Number of Source	#	1,039	63	2	1,559	1	2
	<b>Implementation</b>							
	2/ Government Agency	#	27	61	2	166	1	2
	3/ Private	#	1,012	2		1,393		
	<b>Usage</b>							
	4/ Drinking	#	925	59	2	1,551		2
	5/ Washing/Bathing	#	925	59	2	1,551		2
	6/ Gardening	#						
	7/ Irrigation	#						
	8/ Industrial	#						
	<b>Water Quality</b>							
	9/ High Iron/Manganese Content	#						
	10/ High Chloride Content	#						
11/ Turbidity/Color/Smell	#							
<b>Production</b>								
12/ Less/No Water in dry season	#							
13/ Usable through the year	#							
Well Information	<b>Technical</b>							
	14/ Diameter < 100 mm (4")	#						
	15/ Diameter >= 100 mm (4")	#						
	16/ SWL < 5 m below ground	#						
	17/ SWL >= 5 m below ground	#						
	18/ Specific Capacity < 3 m <sup>3</sup> /hr/m	#						
	19/ Specific Capacity >= 3 m <sup>3</sup> /hr/m	#						
	20/ B-Value < 1,000 s/m <sup>3</sup>	#						
	21/ B-Value < 1,000 s/m <sup>3</sup>	#						
	22/ C-Value < 60,000 s <sup>2</sup> /m <sup>6</sup> (Well Loss Const.)	#						
23/ C-Value >= 60,000 s <sup>2</sup> /m <sup>6</sup>	#							
Aquifer Information	<b>Technical</b>							
	24/ T-Value < 0.001 m <sup>2</sup> /s	#						
	25/ T-Value >= 0.001 m <sup>2</sup> /s	#						
	26/ S-Value < 0.01	#						
	27/ S-Value >= 0.01	#						
	<b>Geology</b>							
	28/ Alluvial Formation	#						
29/ Volcanic Formation	#							
30/ Limestone Formation	#							
31/ Sandstone Formation	#							
32/ Other Sediment Formation	#							
Spring Info.	<b>Technical</b>							
	33/ Minimum Yield < 10 m <sup>3</sup> /h	#						
	34/ Minimum Yield >= 10 m <sup>3</sup> /h	#						
	<b>Other</b>							
	35/ Tapped Using Gravity	#			2			2
36/ Undeveloped Using Gravity	#			3				
37/ Untapped Spring	#							

LEGEND: # - Specify figure

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Water Sources - General Information		Page : 1 of 1	Date:	Filename: h20-res.xls				
Data Collection Level: Municipal		Prov. No. : 0129	Shtname: (M) General Information					
Region Number: 01		Prov. Name: Ilocos Sur	Form No. : M 4 1					
Municipal Number/Municipal Name		Sigay/012929			Sinait/012930			
Type of Source		Shallow Well	Deep Well	Spring	Shallow Well	Deep Well	Spring	
General Information	1/ Total Number of Source	#	0	0	7	2,008	1	0
	Implementation							
	2/ Government Agency	#			7	197	1	
	3/ Private	#				1,811		
	Usage							
	4/ Drinking	#			7	1,843	1	
	5/ Washing/Bathing	#			7	1,843	1	
	6/ Gardening	#						
	7/ Irrigation	#						
	8/ Industrial	#						
	Water Quality							
	9/ High Iron/Manganese Content	#						
	10/ High Chloride Content	#						
11/ Turbidity/Color/Smell	#							
Production								
12/ Less/No Water in dry season	#							
13/ Usable through the year	#							
Well Information	Technical							
	14/ Diameter < 100 mm (4")	#						
	15/ Diameter >= 100 mm (4")	#						
	16/ SWL < 5 m below ground	#						
	17/ SWL >= 5 m below ground	#						
	18/ Specific Capacity < 3 m <sup>3</sup> /hr/m	#						
	19/ Specific Capacity >= 3 m <sup>3</sup> /hr/m	#						
	20/ B-Value < 1,000 s/m <sup>3</sup>	#						
	21/ B-Value < 1,000 s/m <sup>3</sup>	#						
	22/ C-Value < 60,000 s <sup>2</sup> /m <sup>6</sup> (Well Loss Const.)	#						
23/ C-Value >= 60,000 s <sup>2</sup> /m <sup>6</sup>	#							
Aquifer Information	Technical							
	24/ T-Value < 0.001 m <sup>2</sup> /s	#						
	25/ T-Value >= 0.001 m <sup>2</sup> /s	#						
	26/ S-Value < 0.01	#						
	27/ S-Value >= 0.01	#						
	Geology							
	28/ Alluvial Formation	#						
29/ Volcanic Formation	#							
30/ Limestone Formation	#							
31/ Sandstone Formation	#							
32/ Other Sediment Formation	#							
Spring Info.	Technical							
	33/ Minimum Yield < 10 m <sup>3</sup> /h	#						
	34/ Minimum Yield >= 10 m <sup>3</sup> /h	#						
	Other							
	35/ Tapped Using Gravity	#			7			
36/ Undeveloped Using Gravity	#							
37/ Untapped Spring	#							

LEGEND: # - Specify figure



PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Water Sources - General Information		Page : 1 of 1	Date:	Filename: h20_res.xls					
Data Collection Level: Municipal		Prov. No. : 0129	Sh/Name: (M) General Information						
Region Number: 01		Prov. Name: Ilocos Sur	Form No. : M 4.1						
Municipal Number/Municipal Name		Sugpon/012931			Soyo/012932				
Type of Source		Shallow Well	Deep Well	Spring	Shallow Well	Deep Well	Spring		
General Information	1/ Total Number of Source	#	28	3	9	112	0	33	
	<b>Implementation</b>								
	2/ Government Agency	#	4	3	9	22		33	
	3/ Private	#	24			90			
	<b>Usage</b>								
	4/ Drinking	#	19	3	9	112		33	
	5/ Washing/Bathing	#	19	3	9	112		33	
	6/ Gardening	#							
	7/ Irrigation	#							
	8/ Industrial	#							
	<b>Water Quality</b>								
	9/ High Iron/Manganese Content	#							
	10/ High Chloride Content	#							
11/ Turbidity/Color/Smell	#								
<b>Production</b>									
12/ Less/No Water in dry season	#								
13/ Usable through the year	#								
Well Information	<b>Technical</b>								
	14/ Diameter < 100 mm (4")	#							
	15/ Diameter >= 100 mm (4")	#							
	16/ SWL < 5 m below ground	#							
	17/ SWL >= 5 m below ground	#							
	18/ Specific Capacity < 3 m <sup>3</sup> /hr/m	#							
	19/ Specific Capacity >= 3 m <sup>3</sup> /hr/m	#							
	20/ B-Value < 1,000 s/m <sup>3</sup>	#							
	21/ B-Value >= 1,000 s/m <sup>3</sup>	#							
	22/ C-Value < 60,000 s <sup>2</sup> /m <sup>6</sup> (Well Loss Const.)	#							
23/ C-Value >= 60,000 s <sup>2</sup> /m <sup>6</sup>	#								
Aquifer Information	<b>Technical</b>								
	24/ T-Value < 0.001 m <sup>2</sup> /s	#							
	25/ T-Value >= 0.001 m <sup>2</sup> /s	#							
	26/ S-Value < 0.01	#							
	27/ S-Value >= 0.01	#							
	<b>Geology</b>								
	28/ Alluvial Formation	#							
29/ Volcanic Formation	#								
30/ Limestone Formation	#								
31/ Sandstone Formation	#								
32/ Other Sediment Formation	#								
Spring Info.	<b>Technical</b>								
	33/ Minimum Yield < 10 m <sup>3</sup> /h	#							
	34/ Minimum Yield >= 10 m <sup>3</sup> /h	#							
	<b>Other</b>								
	35/ Tapped Using Gravity	#			9			33	
36/ Undeveloped Using Gravity	#			6			5		
37/ Untapped Spring	#								

LEGEND: # - Specify figure

PROVINCIAL WATER SUPPLY, SEWERAGE AND SANITATION SECTOR PLAN

Content: Water Sources - General Information		Page : 1 of 1	Date:	Filename: h20-res.xls					
Data Collection Level: Municipal		Prov. No. : 0129	Shtname: (M) General Information						
Region Number: 01		Prov. Name: Ilocos Sur	Form No. : M-4.1						
Municipal Number/Municipal Name		Tagudin/012933			Vigan/012934				
Type of Source		Shallow Well	Deep Well	Spring	Shallow Well	Deep Well	Spring		
General Information	1/ Total Number of Source	#	1,415	26	3	1,076	25	0	
	<b>Implementation</b>								
	2/ Government Agency	#	262	23	3	343	23		
	3/ Private	#	1,153	3		733	2		
	<b>Usage</b>								
	4/ Drinking	#	1,300	19	3	1,068	9		
	5/ Washing/Bathing	#	1,300	19	3	1,068	9		
	6/ Gardening	#							
	7/ Irrigation	#							
	8/ Industrial	#							
	<b>Water Quality</b>								
	9/ High Iron/Manganese Content	#							
	10/ High Chloride Content	#							
11/ Turbidity/Color/Smell	#								
<b>Production</b>									
12/ Less/No Water in dry season	#								
13/ Usable through the year	#								
Well Information	<b>Technical</b>								
	14/ Diameter < 100 mm (4")	#							
	15/ Diameter >= 100 mm (4")	#							
	16/ SWL < 5 m below ground	#							
	17/ SWL >= 5 m below ground	#							
	18/ Specific Capacity < 3 m <sup>3</sup> /hr/m	#							
	19/ Specific Capacity >= 3 m <sup>3</sup> /hr/m	#							
	20/ B-Value < 1,000 s/m <sup>3</sup>	#							
	21/ B-Value < 1,000 s/m <sup>3</sup>	#							
	22/ C-Value < 60,000 s <sup>2</sup> /m <sup>6</sup> (Well Loss Const.)	#							
23/ C-Value >= 60,000 s <sup>2</sup> /m <sup>6</sup>	#								
Aquifer Information	<b>Technical</b>								
	24/ T-Value < 0.001 m <sup>2</sup> /s	#							
	25/ T-Value >= 0.001 m <sup>2</sup> /s	#							
	26/ S-Value < 0.01	#							
	27/ S-Value >= 0.01	#							
	<b>Geology</b>								
	28/ Alluvial Formation	#							
	29/ Volcanic Formation	#							
30/ Limestone Formation	#								
31/ Sandstone Formation	#								
32/ Other Sediment Formation	#								
Spring Info.	<b>Technical</b>								
	33/ Minimum Yield < 10 m <sup>3</sup> /h	#							
	34/ Minimum Yield >= 10 m <sup>3</sup> /h	#							
	<b>Other</b>								
	35/ Tapped Using Gravity	#			3				
36/ Undeveloped Using Gravity	#								
37/ Untapped Spring	#								

LEGEND: # - Specify figure

7.3 Groundwater Sources  
7.3.2 Groundwater Availability in the Province

Table 7.3.1 Major References

NO.	REPORT/INFORMATION	AGENCY/AUTHOR/ PUBLISHED YEAR	CONTENTS	REFERENCE DATA/DESCRIPTION	OUTPUT
1.	Administrative Map (1:200,000)	NAMRIA	municipal boundaries	municipal boundaries	Figures 7.6.1, 7.3.3, 7.5.1
2.	Topographic Map (1:50,000)	NAMRIA	topographic contours, natural waterways, road, etc.	highest peak, major river basins	Figures 7.5.1, 7.6.2
3.	Rapid Assessment of Water Supply Sources	NWRB	groundwater availability, well data and inventory	no. of wells, well specific capacity, static water level and depth	Tables 7.1.1, 7.6.1, 7.6.2, 7.6.3 Sections 7.3.2, 7.6
4.	Groundwater Resources Investigation	NWRB	groundwater availability area with salt water intrusion, resistivity	resistivity survey result, area potential for high yielding wells and salt water intrusion	Figures 7.3.1, 7.3.3 Section 7.2
5.	Geological Map of the Philippines (1:1,000,000)	BMGS	lithologic distribution and structural features in the Philippines	lithologic distribution and structural features of the province	Figures 7.2.1, 7.3.1, 7.3.2
6.	Geology and Mineral Resources of Ilocos Sur Province	BMGS	Philippine physiographic provinces, sedimentary, metamorphic and igneous rocks	stratigraphy of Ilocos Sur	Sections 7.2 Table 7.6.2
7.	Philippine Water Resources Summary Data	DPWH/ERS	stream flow and lake or river stage	flow rate measurements and drainage areas of major rivers in the province	Tables 7.5.1 Section 7.5
8.	Provincial Profile	PPDO-Ilocos Sur	physical & socio-economic description of the province	land use, topography, climate	Table 7.6.2 Sections 7.2, 7.2.3
9.	Feasibility/Engineering Studies for Vigan Metro, Tagudin, Sta. Cruz, Sta. Maria, Sto. Domingo and Sta. Lucia Water Districts	LWUA	Water District's existing facilities, demand projections and proposed program of works	aquifer characteristics, spring sources and water quality description	Table 7.6.2 Section 7.3.2, 7.6

Table 7.3.2 Well Inventory by Municipality

ILOCOS SUR

MUNICIPAL	LOCATION	WELL_NO	DATE	DEPTH	SWL	DISCHGE	DRAWDWN	SPCCP	USAGE	REMARKS
JALILEM	POBLACION NORT	NWS-0250		15.20	10.70	0.88	0.91	0.970		
JALILEM	POBLACION SOUTH	NWS10255		18.20	12.01	0.63	0.61	1.050		
BANAYOYO	CASILAGAN	NW22614	08/18/61	16.77	1.52	0.63	0.61	1.000		
BANAYOYO	CENTRAL SCHOOL	BP317616		20.10	9.76	0.32	1.52	0.210		
BANAYOYO	GLUPANLE	BP317612		22.30	11.60	0.32	2.13	0.150		
BANAYOYO	NAGUMBA	NWS-6725		18.80	10.98	0.32				
BANAYOYO	POBLACION	NWS-7858		22.50	8.84	0.32				
BANTAY	ANANAY	BPW-9457	12/28/55	10.06	4.57	0.63	0.61	1.030		
BANTAY	BALALANG	BP317505		14.00	4.27	0.63	1.21	0.520		
BANTAY	BALALENG	BPW-7156	09/19/56	18.60	5.49	0.63	0.61	1.030		ABANDONED
BANTAY	BANTAY WEST COMM. SCH.	LWUA- 34		112.50						
BANTAY	BUKIG	NWS-7667		45.70	6.10	0.63				
BANTAY	BULAG		07/16/74	12.20	3.00	1.14	2.50	0.456		
BANTAY	BULAG	BPW	07/16/74	14.63	3.05	0.95	2.44	0.390		
BANTAY	BULAG	BPW14411	09/01/56	9.15	3.35	0.57	0.30	1.900		
BANTAY	BULAG	BPW29744		14.30	3.05	0.95	2.43	0.390		
BANTAY	BULAG	LWUA- 35	07/16/74	14.30	3.00	1.14	2.48	0.400		
BANTAY	BULAG	NWS-2265		50.20	10.70	0.32				
BANTAY	BULALENG	BP317505	04/22/75	14.33	4.27	0.63	1.21	0.520		
BANTAY	BULALENG	LWUA- 33		3.60						
BANTAY	CABUSLIGAN	BP317511		15.20	5.49	0.63	0.30	2.100		
BANTAY	CAPANGANAN	BP312606		16.10	2.52	0.95	1.22	0.780		
BANTAY	GUIMOD	BPW-5566	10/06/52	24.40	2.74	0.63	0.30	2.100		
BANTAY	LINGSAT	LWUA- 18	05/27/77	55.10	3.40	1.14	1.20	0.950		
BANTAY	MALINGB	BPW-9468	12/18/55	9.15	2.74	0.63	0.91	0.690		
BANTAY	ORA	NWS-7250		28.90	13.70	1.63	2.36	0.690		
BANTAY	ORA WEST	LWUA- 36	06/24/77	19.80	6.10	1.14	1.50	0.760		
BANTAY	PAING	BP717533		15.20	4.57	0.95	0.61	1.560		
BANTAY	PAING EAST	NW226018	11/03/60	17.38	9.76	0.63	0.38	1.660		
BANTAY	PAING EAST	NW226127	09/29/61	16.16	7.01	0.38	0.90	0.420		
BANTAY	PERILLA	BPW14410	08/22/56	11.89	4.27	0.50	0.91	0.550		
BANTAY	SAN JULIAN	LWUA- 45	02/01/62	8.50	4.60	0.38	0.73	0.520		
BANTAY	SAN JULIAN	LWUA- 46	02/01/62	8.50	4.60	0.38	0.60	0.640		
BANTAY	SAN JULIAN	NWS22621		8.50	4.57	0.32	0.62	0.520		
BANTAY	SINABAAN	NWS-7264		47.20	6.10	0.32				
BANTAY	TALLEB	BPW14409	09/01/56	12.80	3.66	0.57	0.91	0.630		
BANTAY	TALLEB	NWS22593	11/27/59	32.01	12.20	0.63	7.88	0.080		
BANTAY	TAY-AC	BPW10599	03/20/56	21.95	4.57	0.32	3.20	0.100		
BURGOS	BALUGANG	BPW10260	04/14/56	21.34	11.28	0.63	0.91	0.690		ABANDONED
BURGOS	BANGBANGAR	BPW10258	07/02/56	33.23						
BURGOS	DAYANKI	NWS-8221		12.40	6.40	0.95				
BURGOS	LUNA	NWS-6728		22.80	9.15	0.32				
BURGOS	MACADAYAN	BP317510		21.90	10.70	0.32	1.52	0.210		
BURGOS	MAMBOG	BPW-7869	03/23/55	16.77	4.57	1.26	0.61	2.070		
BURGOS	MAMBOG NORTE	NW226320	06/28/63	13.72	6.71	0.63	0.61	1.040		
BURGOS	PADAYAO	BP317506	05/14/75	21.34	9.15	0.32	1.52	0.210		
BURGOS	PUBLIC PLAZA	BPW-5657	01/09/53	30.49	3.05	1.26	6.00	0.210		ABANDONED
CABUGAO	ARAGAN	BPW13017	01/04/57	60.37						

ILOCOS SUR

MUNICIPAL	LOCATION	WELL NO	DATE	DEPTH	SWL	DISCHGE	DRAWDWN	SPCCP	USAGE	REMARKS
CABUGAO	BUNGRO	BPW13615	01/08/57	10.67	6.10	0.52				
CABUGAO	BUNGRO	BPW13616	01/08/57	13.72	3.05	0.32				
CANDON	BUGNAY	BPW13614	01/08/57	9.15		0.32				
CABUGAO	CACASAN	NWS12366		14.30	3.96	0.32				
CABUGAO	CARONIPAN	NWS-9707		23.40	6.10	0.32				
CABUGAO	CATUCDAAN	BPW-8980	11/05/55	25.61	4.27	0.76	0.32	2.370		
CABUGAO	CUANTACLA	NW226221	03/29/62	32.01	6.10	0.32	10.67	0.030		
CABUGAO	CUANTACLA EAST	01/08/57	04/02							ABANDONED
CABUGAO	CUANTACLA WEST	BPW13619	01/08/57	27.45	7.62	0.32	4.57	0.076		
CABUGAO	DACLAPAN	NWS-7247		13.40	1.83	0.32				
CABUGAO	DACLAPAN	NWS-9709		13.70	2.44	0.32				
CABUGAO	DACLAPAN	NWS12364		17.30	4.88	0.32				
CABUGAO	DARAROT	NWS12361		14.60	3.35	0.32				
CABUGAO	MARGAAY	NW226223	12/21/62	45.73	9.15	0.44	8.80	0.050		
CABUGAO	NAMANGAN	NWS12365		13.70	3.96	0.32				
CABUGAO	PANAY-GAN	NWS-9708		18.70	4.27	0.32				
CABUGAO	PANOTOGAN	NWS12368		13.70	1.52	0.32				
CABUGAO	PILA	NWS-3981		46.00	6.10	0.08	6.00	0.010		
CABUGAO	PUGOS	NWS12369		11.50	1.22	0.32				
CABUGAO	REPAAC	BPW-8050	01/05/56	21.65	12.80	0.69	5.30	0.130		
CABUGAO	REPAAC	NW317615		30.40	8.54	0.63	3.71	0.170		
CABUGAO	REPAAC	NWS14660		34.10	10.70	0.32				
CABUGAO	SABANG	NWS-9710		12.10	2.44	0.32				
CABUGAO	SABANG	NWS12367		13.70	3.05	0.32				
CABUGAO	SALUMANGUE	NWS-7246		15.20	3.96	0.32				
CABUGAO	SALUMANGUE	NWS-9712		14.60	1.52	0.32				
CABUGAO	SALUMANGUE	NWS12363		13.70	3.35	0.32				
CABUGAO	SALUMANGUE NO. 2	NWS-9711		12.10	2.44	0.32				
CABUGAO	SAGAYADEN	NW226222	10/17/62	12.20	2.44	0.63	0.91	0.690		
CABUGAO	SINIM	BPW-8311	06/23/55	21.34	7.62	0.76	6.33	0.120		
CABUGAO	TUKOD	BPW31733	03/17/75	15.24	4.57	1.07				
CABUGAO	TUKOD	NWS12362		20.40	7.62	0.32				
CANDON	ATUDANTE	BPW-5526	08/17/52	15.24	1.22	0.95	0.32	2.970		
CANDON	BAGANI	BP317512		12.10	4.57	0.32	1.52	0.210		
CANDON	BUGNAY	NWS10725	04/05/72	32.01	12.20					
CANDON	CALAOAN	NW226052	05/03/60	9.76	2.44	0.50	0.91	0.550		
CANDON	CATERMAN	NW226034	09/26/60	5.49	3.05	0.50	0.30	1.670		
CANDON	CATERMAN SCHOOL SITE	NW226035	09/15/60	3.05	1.52	0.50	0.30	1.670		
CANDON	DAIG-DAYA SCHOOL SITE	NW226033	05/27/60	16.71	3.05	0.50	0.91	0.550		
CANDON	GALONGBUYAN	BPW31767		9.16		0.32	1.23	0.260		
CANDON	GABOR	NW226041	02/15/60	14.63	3.96	0.57	0.61	0.930		
CANDON	LANGLANGCA	BPW11058	03/19/56	14.63		0.63	2.74	0.230		
CANDON	PALACAPAC	NW226133	04/07/61	26.83	6.10	0.32	10.67	0.030		
CANDON	PALACAPAC EAST	NWS22614	05/19/61	25.00	7.62	0.32	6.40	0.050		
CANDON	PARILOC	BPW-7098	08/07/54	14.02	3.05	0.63	0.61	1.030		
CANDON	POBLACION	BPW11059	04/08/56	12.20	3.05	0.63	3.00	0.210		
CANDON	POBLACION NORTE	NW226101	01/15/62	10.10	2.13	0.63	1.54	0.470		
CANDON	SANGGAN	BPW-8840	08/10/55	17.28	4.27	0.95	0.61	1.560		

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MUNICIPAL	LOCATION	WELL_NO	DATE	DEPTH	SWL	DISCHGE	DRAWDWN	SPUP	USAGE	REMARKS
CANDON	STO. TOMAS	NW226037		31.60	10.70	0.44	1.11	0.96		
CANDON	TALOGTLOG SCHOOL SITE	NW226036	09/09/60	7.32	1.52	0.30	0.30	0.30	1.070	
CAOAYAN		LWUA-104	10/18/62	6.00	2.50	0.38	1.11	0.340		
CAOAYAN	ANONANG	BPW-9463	12/17/55	6.71	4.27	0.63	0.61	1.030		
CAOAYAN	ANONANG	LWUA-95		6.70	4.30	0.75	0.58	1.310		
CAOAYAN	ANONANG	LWUA-96								
CAOAYAN	CALLAOQUIP	BPW-7411	12/28/54	9.76	1.52	1.26	0.91	1.480		
CAOAYAN	CALLAOQUIP	LWUA-106		9.76	1.50	1.52	0.94	1.620		
CAOAYAN	CAOAYAN CENTRAL ENCH.	NW317530		6.70	3.05	0.52				
CAOAYAN	CAOAYAN ELEM. SCHOOL	LWUA-108	12/22/75	22.00	3.00	0.38	0.60	0.633		
CAOAYAN	FUERTE	BPW-9846	06/12/56	9.15	3.35	0.76	0.61	1.230		
CAOAYAN	FUERTE	NW226252	11/05/62	7.32	3.96	0.44	1.52	0.290		
CAOAYAN	FUERTE	NWS-5047		54.80	4.57	1.26	1.83	0.690		
CAOAYAN	MANANGAI	LWUA-108		7.93	1.50	0.76	1.25	0.610		
CAOAYAN	MANANGAI	NWS30728	06/20/72	9.15	3.06	0.32	0.30	1.070		
CAOAYAN	NANSUGAO	NW226233	10/18/62	5.80	3.66	0.50	0.63	0.820		
CAOAYAN	NANSUGAO	LWUA-105		7.60	3.60	0.61	0.70	0.870		
CAOAYAN	PANDAN	LWUA-109	12/22/75	6.70	3.00	0.38	0.40	0.950		
CAOAYAN	PANDAN	NW317514		4.20	2.44	5.18				
CAOAYAN	POBLACION	BPW-5033	05/19/49	15.24	2.44	1.26	0.61	2.070		
CAOAYAN	PURO	LWUA-103		18.30	2.40	1.52	0.60	2.530		
CAOAYAN	PURO	BPW-7409	12/04/54	9.15	1.22	1.58	0.61	2.600		
CAOAYAN	PURO	LWUA-115	04/13/62	5.50	1.80	0.61	2.00	0.305		
CAOAYAN	PURO	LWUA-116	04/13/62	8.50	1.80	0.61	1.60	0.380		
CAOAYAN	TAMORONG	NWS-5493		13.70	2.44	0.95	3.08	0.370		
CAOAYAN	TAMORONG	LWUA-114		13.72	2.40	1.14	3.08	0.370		
CONCEPCION	POBLACION	NWS-7857		9.10						ABANDONED
GALIMUYOD	ANAGARAN	LWUA-74		10.00						
GALIMUYOD	GALIMUYOD CENTRAL SCH.	NW226316	02/11/63	15.24	4.88	0.50	2.50	0.200		
GALIMUYOD	HONNAMA	NW317515		18.20		0.61				
GALIMUYOD	IBRD BAKANGAY	LWUA-7								
GALIMUYOD	NAGLALAN	LWUA-6			1.80					
GALIMUYOD	PAGANGPANG	NW226317	04/20/63	14.02	7.32	0.50	0.51	0.820		
GALIMUYOD	POBLACION	NWS-8246		10.30	5.79	0.95				
LIDLIDA	POBLACION	BPW-8246	04/14/55	11.89	5.79	0.88	0.91	0.970		
LIDLIDA	SUYSUYAN	NW226310	09/28/63	19.82	6.10	0.63	1.85	0.340		
MAGSINGAL	BARBARUI	NWS12370		16.70	1.83	0.32				
MAGSINGAL	BINOKO	NW226014	04/22/60	14.02	5.18	0.63	0.97	0.650		
MAGSINGAL	CABARDAN	NWS20431		16.70	1.83	0.32	0.17	1.830		
MAGSINGAL	CADANGLAAN	NWS22651	08/31/65	16.57	3.06	0.63	3.94	0.180		
MAGSINGAL	CAKALAN	BP317502	02/10/75	19.82	6.10	0.63	6.30	0.100		
MAGSINGAL	CAKALAN	NWS-7245		21.30	5.60	0.32				
MAGSINGAL	CAKALAN EAST	BP227302		19.80	13.70	0.32				
MAGSINGAL	DAKUYAN	NW226126	09/13/61	7.95	1.22	0.38	0.90	0.420		
MAGSINGAL	LICCAONG	NW226015	05/18/60	24.40	12.50	0.63	2.74	0.230		
MAGSINGAL	MAASASIN	BPW-1408		15.20	10.70	0.32				
MAGSINGAL	MAGATCATUID	NWS14657		22.80	10.10	0.32				
MAGSINGAL	MANANGAN	NWS14658		21.90	9.76	0.32				

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MUNICIPAL	LOCATION	WELL NO	DATE	DEPTH	NWL	DISCHG	DRAWDWN	SPCCP	USAGE	REMARKS
MAGSINGAL	MAKATUDU	NW226125	07/11/61	15.24	7.34	0.81	0.20	1.270		
MAGSINGAL	MANZANTE	BP117610		10.60	4.57	0.52	0.17	1.880		
MAGSINGAL	MANZANTE	BPW-7417	01/11/55	10.37	1.83	0.76	0.61	1.250		
MAGSINGAL	MIRAMAR	NWS14656		15.20	2.13	0.52				ABANDONED
MAGSINGAL	NAPO	BPW-6226	05/11/55	37.50						
MAGSINGAL	NAPO	BPW14660		15.20	7.62	0.32				
MAGSINGAL	NAPO	NWS14662		21.60	6.10	0.32				
MAGSINGAL	PAGSANAAN	BPW-8227	06/08/55	7.32	1.83	0.88	0.40	2.450		
MAGSINGAL	HANAY	NWS-5416		21.50	5.49	0.32				
MAGSINGAL	PAGSANAAN	NWS14661		22.80	6.10	0.32				
MAGSINGAL	PATONG	NWS14659		21.50	2.44	0.52				
MAGSINGAL	PURO	BPW-7416	01/02/55	9.15	1.22	0.89	0.61	3.100		
MAGSINGAL	PURO	NWS20432		10.50	2.44	0.32	0.13	2.440		
MAGSINGAL	SABANGAN	NWS14665		15.20	2.44	0.32				
MAGSINGAL	STA. MONICA	BPW-9671	07/23/55	14.63	5.49	0.76	0.90	0.840		
MAGSINGAL	STA. MONICA	NWS-8876		14.60	1.22	0.93				
MAGSINGAL	SUBAC	BPW31755		39.60	16.80	0.63	1.54	0.410		
MAGSINGAL	BANDRIL	NWS19540	09/05/57	17.38	2.74	0.63	0.61	1.050		
MAGSINGAL	BANTUGO	BPW-9122	07/22/56	15.24	4.88	0.63	0.46	2.100		
MAGSINGAL	BANTUGO	BPW15482	04/16/57	41.16	8.23	0.32				
MAGSINGAL	LAPTING	BPW15483	05/19/57	28.96	7.52	0.63	15.75	0.040		
MAGSINGAL	MAPISI EAST	BPW15485	06/19/57	19.82	11.43	0.63	0.46	1.370		
MAGSINGAL	MAPISI WEST	BPW15486	06/20/57	23.78	6.40	0.63	9.00	0.070		
MAGSINGAL	MISSION	BPW-9123	07/07/56	27.44	6.71	0.32	10.67	0.030		
MAGSINGAL	NAGBUKEL ELEM. SCHOOL	BP317620		19.80	14.60	0.63	7.31	0.410		
MAGSINGAL	NAGBUKEL ELEM. SCHOOL	NWS19541	10/14/57	23.17	6.10	0.63	4.50	0.140		
MAGSINGAL	POBLACION	NWS-6729		14.60	4.88	0.32	0.64	0.500		
MAGSINGAL	POBLACION EAST	NWS19539	08/19/57	16.46	4.27	0.63	0.61	1.050		
MAGSINGAL	POBLACION WEST	NWS15487	08/01/57	35.06	8.44	0.32				
MAGSINGAL	TALLE	BPW15484	06/08/57	18.30	3.66	0.63	7.88	0.080		
MAGSINGAL	ABOUR NORTE	NW226152	08/18/61	10.67	2.44	0.50	0.61	2.440		
MAGSINGAL	AQUIB	NWS11366	12/31/57	50.30	3.66	4.73	15.77	0.300		
MAGSINGAL	AMBULOGAN	NWS19529	04/15/58	19.20	6.10	0.63	6.30	0.100		
MAGSINGAL	ANTENG	NW225912	08/31/59	13.72	6.10	0.50	1.83	0.270		
MAGSINGAL	AQUIB PRIM. SCH. SITE	NW226326	08/24/63	13.41	4.57	0.50	1.52	0.550		
MAGSINGAL	BANGLAYAN	NW226323	06/09/63	19.51	12.20	0.63	5.00	0.210		
MAGSINGAL	BANGLAYAN	NWS17618		13.70	6.10	0.63	0.61	1.050		
MAGSINGAL	BANTAY ABOT	NWS22619		7.60	6.10	0.32				
MAGSINGAL	CACALDINGAN	NWS-9119		26.00	9.76	2.21	7.90	0.280		
MAGSINGAL	CACALDINGAN	NWS22635	06/20/61	15.11	1.52	0.63	1.21	0.520		
MAGSINGAL	CODONG	BP317522		10.60	1.23	0.63	2.10	0.500		
MAGSINGAL	CAGAYUNGAN	BP317518		9.40	1.22	0.32	1.86	0.170		
MAGSINGAL	CAGAYUNGAN	BPW-9466	11/27/55	9.76	2.74	0.76	0.61	1.250		
MAGSINGAL	CAMARAO	NW226314	08/15/63	15.24	3.35	0.63	1.21	0.520		
MAGSINGAL	CODONG	NW226322	05/24/63	10.10	6.10	0.50	0.52	0.500		
MAGSINGAL	DASAY PRIMARY SCHOOL	NW226328	04/27/63	8.23	1.83	0.32	0.91	0.350		
MAGSINGAL	DINALADAN	NW226152		10.60	2.44	0.50	0.61	0.820		
MAGSINGAL	EASTERN POLE	NWS11448		21.50	1.52	9.43				

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MUNICIPAL	LOCATION	WELL_NO	DATE	DEPTH	SWL	DISCHGE	DRAWDWN	SPCCP	USAGE	REMARKS
NARVACAN	LODOPU	BPW-9863	11/21/55	10.87	3.99	0.70	0.90	0.880		
NARVACAN	LUNGOG	BPW-7968	03/12/55	12.20	1.52	1.26	1.30	4.200		
NARVACAN	LANPAO	NWS19510	08/20/58	28.96	10.67	0.44	4.40	0.100		
NARVACAN	NAGSABAKAN	NW226315	08/28/63	9.15	2.44	0.63	1.21	0.520		
NARVACAN	NANGUNEG SCHOOL	NW226336	09/09/63	9.15	2.44	0.63	1.21	0.520		
NARVACAN	NANGUNEG WEST	NW226367	09/19/63	9.10	1.52	0.63	0.91	0.690		
NARVACAN	NORTH CENTRAL SCHOOL	NW226321	04/29/63	6.71	2.44	0.63	1.85	0.340		
NARVACAN	ORENCE	NW225913		14.60	2.44	0.31				
NARVACAN	PASTOC	BPW-9125	01/21/56	9.15	3.05	0.63	0.50	2.100		
NARVACAN	PARATONG NORTH	NW226331	09/26/63	9.15	2.13	0.63	2.42	0.260		
NARVACAN	PARARIAN	NW226324	08/20/63	14.03	3.66	0.63	0.01	1.030		
NARVACAN	QUINARAYAN	BPW-9124	02/14/56	12.80		0.63				
NARVACAN	RIVADAVIA	NW226337	09/09/63	9.15	1.83	0.30	1.52	0.340		
NARVACAN	SAN ANTONIO	BPW29736	9.10	3.66	0.63	3.00	0.210			
NARVACAN	SAN ANTONIO	NW226114	05/11/61	12.20	3.66	0.30	1.22	0.410		
NARVACAN	SAN ANTONIO	NW226128	12/15/61	9.45	3.90	0.36	1.00	0.380		
NARVACAN	SAN ANTONIO	NWS29733	05/02/75	7.62	3.66	0.63	0.30	2.100		
NARVACAN	SAN PABLO	NWS226344	08/10/63	15.55	3.66	0.63	0.90	0.630		
NARVACAN	SAN PEDRO	NWS-6732		13.70	1.52	0.32				
NARVACAN	SIMILONG	NWS22633	05/18/63	10.37	3.05	0.63	1.21	0.520		
NARVACAN	SOUTH CENTRAL	BP317528	9.70	2.13	0.32	0.91	0.350			
NARVACAN	SUCOG	BP317519	33.50	7.62	0.38	12.66	0.030			
NARVACAN	SULVEC	BPW11057	03/12/56	12.20		0.63				
NARVACAN	TUROD	BPW-9126	03/04/56	11.59	0.63	0.63				
NARVACAN	TUROD	NW226316	9.10		0.63					
NARVACAN	TUROD ELEM. SCHOOL	NW226325	09/09/63	9.15	2.13	0.30	2.17	0.230		
SALCEDO	DINARATAN	NW226319	06/03/63	14.63	11.28	0.63	0.61	1.030		
SALCEDO	MALIGCONG	NW226318	05/07/63	23.48	14.94	0.63	1.83	0.340		
SALCEDO	MAMBOG	BPW-0727	28.90	9.15	0.32					
SALCEDO	POBLACION	NWS-6726	21.90	13.10	0.32					
SALCEDO	SALCEDO MED. HOSPITAL	NW227402	04/22/74	25.61	13.80	0.63	1.54	0.410		
SALCEDO	SANTIAGO	BP227204	23.40	1.52	3.11					
SAN ESTEBAN	ANSAD PRIM. SCHOOL SITE	NWS15591	07/05/57	17.07	3.99	0.63	0.61	1.030		
SAN ESTEBAN	APATOT	BP227303		12.10	6.10	0.32				
SAN ESTEBAN	APATOT	BPW-4347	04/02/55	8.54	5.49	0.88	0.61	1.440		
SANTIAGO	BIGBIGA	NWS15593	08/11/57	25.00	3.05	0.63	2.10	0.300		
SAN ESTEBAN	BULBULALA	NWS14638	10.60		1.98	0.32				
SAN ESTEBAN	CAPPA-CAPPA	NWS15592	07/23/57	12.20	3.05	0.63	0.90	0.700		
SAN ESTEBAN	LU-OB	NW227203	03/19/72	10.67	3.66	0.32				
SAN ESTEBAN	MANDULON	NWS15590	06/12/57	18.60	7.32	0.63	0.61	1.030		
SAN ESTEBAN	NORTHWEST POBLACION	NWS15597	01/24/58	9.15	2.44	0.63	0.30	2.100		
SAN ESTEBAN	POBLACION	NWS-121	12.10	2.44	0.95	0.60	1.560			
SAN ESTEBAN	POBLACION	NWS-4874	16.70	1.83	1.55					
SAN ESTEBAN	POBLACION EAST	NWS15594	12/31/57	18.00	3.66	0.63	0.90	0.700		
SAN ESTEBAN	SAN JULIAN	NWS15596	12/20/57	18.29	3.66	0.63	1.21	0.520		
SAN ESTEBAN	SAN NICOLAS	BP155594	12.10	6.10	0.32					
SAN ESTEBAN	SAN NICOLAS	BPW-8207	05/13/55	16.77						
SAN ESTEBAN	SAN NICOLAS	NWS-7868	16.70	2.44	1.38	0.60	2.590			



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MUNICIPAL	LOCATION	WELL_NO	DATE	DEPTH	SWL	DITCHGE	DKAWDWN	SFCCP	USAGE	REMARKS
SAN ESTEBAN	SAN NICOLAS	NWS15595	11/08/57	21.95	3.05	0.53	1.21	0.520		
SAN ESTEBAN	SAN PABLO	BPW22921		12.10	6.10	0.32		2.070		
SAN ESTEBAN	SAN PABLO	BPW-4987	04/24/49	12.20	1.22	1.20	0.01			
SAN ESTEBAN	SAN PABLO NORIE	NWS22637	04/17/63	10.87	3.05	0.63	1.21	0.520		
SAN ESTEBAN	SAN PABLO WEST	NWS10921	04/20/58	6.10						
SAN ESTEBAN	SAN RAFAEL	BPW-4906		12.10	6.71	0.32				
SAN ESTEBAN	SOUTH CENTRAL SCHOOL	NWS22035		10.90	3.66	0.52		1.030		
SAN ESTEBAN	SOUTH CENTRAL SCHOOL	NWS22636	05/17/63	10.98	2.44	0.63	0.61			
STA. CATALINA	TAMORONG	BPW12113		9.10	5.49	0.32				
SAN ESTEBAN	UNSAO	NWS-6727		13.70	3.05	0.63				
SAN ILDEFONSO		LWUA-16		10.98						
SAN ILDEFONSO	BUSING CENTRO	BPW14678	02/18/57	15.85	4.57	0.76	0.61	1.250		
SAN ILDEFONSO	BUSING SCHOOL	BPW14677	02/17/57	17.38	3.66	0.63	0.91	0.690		
SAN ILDEFONSO	CRUISIS ST.	BPW14680	02/22/57	12.20	3.05	0.57	0.61	0.930		
SAN ILDEFONSO	DONGALO	BPW14681	12/25/56	12.50	2.74	0.76	0.50	2.530		
SAN ILDEFONSO	IBAY	NWS-8051		12.10	5.18	0.88	0.61	1.430		
SAN ILDEFONSO	POBLACION	BPW-7406	11/07/54	27.44	7.62	0.76	1.52	0.500		
SAN ILDEFONSO	POBLACION	BPW-4672	01/02/55	12.80	6.40	0.88				
SAN ILDEFONSO	RICO ST. POBLACION	BPW14679	02/20/57	13.72	3.05	0.63	0.61	1.030		
SAN ILDEFONSO	SAGAGAT	BPW14682	02/28/57	11.58	3.05	0.57	1.21	0.470		
SAN ILDEFONSO	SAN SEBASTIAN	LWUA-11		12.20	1.80	1.14	1.20	0.930		
SARAVAGAN	TURKOD	BPW-9126	03/03/56	11.59		0.63				
SAN JUAN	ASILANG	NWS22592	09/07/59	26.90	4.57	0.63	6.50	0.100		
SAN JUAN	IBASIL	BPW-5590	11/02/52	25.01	3.05	1.26	0.30	4.200		
SAN JUAN	BANAUAN	NW226253	11/27/62	14.02	6.10	0.63	3.00	0.210		
SAN JUAN	CABANGLOJAN	NW226112	02/28/61	9.76	2.44	0.63	1.21	0.520		
SAN JUAN	CAMANGAAN	NWS22591	08/07/59	32.01	5.49	0.63	7.00	0.090		
SAN JUAN	CAMINDURVAN	BPW-8884	08/15/55	10.98	5.18	0.76	0.30	2.540		
SAN JUAN	CARONGAN	NWS30721	02/05/72	29.88	7.62	0.76	0.30	2.530		
SAN JUAN	DARDARAT	NW226231	02/23/62	3.90	2.13	0.32	0.30	1.070		
SAN JUAN	GUIMOD NORIE	NW226020	01/05/61	14.63	5.49	0.63	1.85	0.340		
SAN JUAN	LAPOG NORTH CTRL. SCH.	NW226017	09/12/60	18.29	2.44	0.63	2.10	0.500		
SAN JUAN	LAPTING	NW226079		21.30	3.05	0.63	1.54	0.410		
SAN JUAN	LAPTING WEST	NW226019	12/08/60	21.34	3.05	0.63	1.54	0.410		
SAN JUAN	MAGNUPUTAN	NWS-8670		21.30	3.05	0.95	1.50	0.630		
SAN JUAN	SAGSABARAN	BPW31751	02/08/75	21.95	4.57	0.63	1.54	0.410		
SAN JUAN	POBLACION	NWS-5464		24.30	8.23	1.89	0.91	2.080		
SAN JUAN	POBLACION	NWS13487		35.00	8.84	0.32				
SAN JUAN	REPARO	BPW-7407	11/27/54	12.20	1.83	1.14	0.61	1.870		
SAN JUAN	SABANGAN	NW226115	03/17/61	10.67	4.57	0.63	0.91	0.690		
SAN JUAN	SAN ISIDRO	BPW-8225	08/16/55	7.62	0.91	0.95	0.61	1.560		
SAN JUAN	SAGANG	NW226111	01/27/61	9.15	2.44	0.63	1.21	0.520		
SAN JUAN	SOLOT SOLOT	NWS-7886		9.10	1.83	0.32				
SAN JUAN	TALLEB	NWS15484		18.20	3.66	0.32				
SAN JUAN	TAKUDTUD	NW226251	02/28/62	12.80	7.62	0.50	1.56	0.430		
SAN JUAN	TAKUDTUD	NWS22672	08/27/67	35.06	2.74					
SAN VICENTE	SAN SEBASTIAN	BPW12114		15.20	9.15	0.32				
SAN VICENTE	SAN SEBASTIAN	NW226255	11/29/62	6.70	3.05	0.50	0.30	1.670		

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MUNICIPAL	LOCATION	WELL NO	DATE	DEPTH	SWL	DISCHGE	DRAWDWN	SPCCP	USAGE	REMARKS
SAN VICENTE	SAN SEBASTIAN	NWS1-9926	12/21/56	7.62	3.45	0.20	1.20	0.410		
SAN VICENTE	LWUA-30			5.00						
SAN VICENTE	BANTAGAY	LWUA-29		10.46	2.40	0.76	0.59	1.270		
SAN VICENTE	BANTAGAY	BPW-9462	12/29/55	10.57	2.24	0.63	0.40	0.700		
SAN VICENTE	BAYUBAY	BPW-9461	01/02/55	7.32	2.74	0.76	0.61	1.240		
SAN VICENTE	BAYUBAY NORTE	LWUA-38		7.00	1.20	0.91	1.25	0.730		
SAN VICENTE	CROSSING	LWUA-42		6.10						
SAN VICENTE	CROSSING TO RIVER	LWUA-40		10.00						
SAN VICENTE	SAN SEBASTIAN	LWUA-4	12/27/62	7.60	3.40	0.61	0.86	0.763		
SAN VICENTE	GUMOD	LWUA-28	9.15							
SAN VICENTE	PUDOC	BPW-7866	10/27/55	12.20	1.83	1.14	0.91	1.250		
SAN VICENTE	PUDOC SUR	BPW1-9625	01/03/57	1.20						
SAN VICENTE	PANGADA	BPW1-767		10.60	3.35					
SAN VICENTE	PUDOC	BPW1-9623	12/11/56	6.71						
SAN VICENTE	PUDOC	LWUA-24		12.20	1.80	1.36		1.340		
SAN VICENTE	PUDOC	LWUA-25		12.20	1.80	0.61	0.94	0.650		
SAN VICENTE	PUDOC	LWUA-25		12.10	1.83	1.13	0.91	1.240		
SAN VICENTE	PUDOC CENTRO	NWS-7865		6.86	2.40					
SAN VICENTE	PUDOC NORTE	BPW1-9624	12/20/56	6.71	2.44	0.52				
SAN VICENTE	SAN SEBASTIAN	BPW-7160	10/20/54	12.20	1.83	0.93	1.22	0.780		
SAN VICENTE	SAN SEBASTIAN	LWUA-12		6.10	3.00	0.61	0.45	1.740		
SAN VICENTE	SAN SEBASTIAN	LWUA-14		15.55	6.30					
SAN VICENTE	SAN SEBASTIAN	LWUA-17		5.44						
SAN VICENTE	SAN SEBASTIAN	NWS2-9235	11/29/62	6.09	3.05	0.50		1.670		
SAN VICENTE	SAN SEBASTIAN	NWS1-9626	12/31/56	9.70	2.44	0.50	1.21	0.410		
SAN VICENTE	SAN SEBASTIAN SCH. SITE	NWS-9076	04/18/72	14.63	3.35	0.44	0.61	0.720		
SAN VICENTE	SAN VICENTE ELEM. SCH.	LWUA-39		8.00						
SAN VICENTE	NACTUPACAN	BPW1-9628	12/18/56	5.18		0.44	0.61	0.720		
SAN VICENTE	MANGGUSONG	BPW1-9627	12/26/56	15.55						
SAN VICENTE	TAMURONG	BPW1-9622	12/20/56	5.49		0.32				
SAN VICENTE	SOUTH BAMBIA	LWUA-5		9.76						
SAN VICENTE	TAMUKONG	LWUA-30		7.60	3.00					
SANTA	AMPANDULA	BPW1-9076	14/12/57	34.45	19.82	0.63	1.21	0.520		
SANTA	BANAANG	BPW11127	04/29/56	40.24	22.86	0.32	3.20	0.100		
SANTA	BASUG	BPW-9120	12/17/55	21.34	16.16	0.63	0.61	1.030		
SANTA	CABANGARAN EAST	BPW15588	03/17/57	33.84	21.34	0.63	1.21	0.530		
SANTA	CABANGARAN	BPW13075	11/21/56	20.73	13.41	0.76	0.61	1.250		
SANTA	CABULON	BPW13080	02/01/57	21.04	2.44	0.63	1.21	0.530		
SANTA	CALUNBUYAN	BPW13079	01/22/57	2.74	1.52	0.63	0.30	2.100		
SANTA	CALUNBUYAN WEST	BPW13078	01/19/57	4.57	1.52	0.63	0.30	2.100		
SANTA	CASIBEK	NWS1-3435		6.00	2.13	0.32	0.76	0.420		
SANTA	DAMMAY	BPW13073	07/07/56	12.20	1.83	0.63	0.91	0.690		
SANTA	MABILBILA	BPW13061	01/29/57	25.61	7.93	0.76	0.61	1.250		
SANTA	MABILBILA	NWS1-9446		22.80	9.45		0.61	0.530		
SANTA	MABILBILA	NWS-9121		29.50	12.20	0.50	10.00	0.050		
SANTA	MANUJVA	BPW13077	01/26/57	13.41	3.66		0.63	0.60	2.100	
SANTA	MANUJVA	BPW14676	11/20/56	30.48	13.72	0.76	0.60	1.250		
SANTA	NAMALANGAN	BPW-9524	10/18/56	29.27	13.72	0.95	0.46	2.065		

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MUNICIPAL	LOCATION	WELL NO	DATE	DEPTH	NWL	DISCHGE	DRAWDWN	SPPCP	USAGE	REMARKS
SANTA	NAMALANGAN	NW226115	07/14/61	56.28	24.10	0.63	1.83	0.400		
SANTA	OKIBI	BPW13074	11/29/56	4.27	0.91	0.63	0.30	2.100		
SANTA	RIZAL	BPW45526	11/07/56	24.40	4.88	0.63	1.21	0.520		
SANTA	RIZAL	BPW11126	04/08/56	17.68	7.32	0.62	1.88	0.170		
SANTA	SACUYVA	BPW43110	08/14/55	40.49	18.90	0.63	0.90	0.700		
SANTA	SACUYVA NORTE	BPW15589	05/07/57	25.61	11.90	0.63	0.70	2.100		
SANTA	SACUYVA SUR	BPW45525	10/28/56	24.40	9.15	0.70	0.61	1.250		
SANTA	WESTERN RANCHO	BPW15062	07/14/57	5.80	2.10	0.63	0.34	1.800		
SANTIAGO	BIG-BIGA	NW225912	07/19/60	34.15	12.20	0.44	3.14	0.140		
SANTIAGO	BULBULALA	BPW13638	07/08/67	10.67						
SANTIAGO	BUTOL	NWS22612	02/17/61	11.28	2.44	0.63	0.61	1.050		
SANTIAGO	DAN-AR	NWS46134		13.70	7.52	0.32				
SANTIAGO	DAN-AR	NWS22605	08/19/60	16.77	3.05	0.63	0.61	1.030		
SANTIAGO	GABAO	BP226011		9.10	3.06	0.32				
SANTIAGO	GABAO	BPW13637	01/03/67	6.71						
SANTIAGO	IMUS	NW226142	09/29/61	17.10	2.44	0.32	6.40	0.050		
SANTIAGO	MAMBOG	NWS29227	15/19/72	28.96	9.15	0.38				
SANTIAGO	OLO-OLO	NWS-7859		16.40	4.88	0.32				
SANTIAGO	PLAZA	NWS-4688		11.20						ABANDONED
SANTIAGO	POB. SANTIAGO	NWS22638	04/05/63	13.72	6.10	0.63	1.21	0.520		
SANTIAGO	POBLACION	NW226318		13.70	3.05	0.32				
SANTIAGO	POBLACION II	BPW4761		27.40	9.15	1.83				
SANTIAGO	POBLACION MARKET	NWS22608	11/03/60	19.82	3.05	0.32	10.60	0.030		
SANTIAGO	POBLACION NORTE	NWS	05/03/72	23.42	1.52	3.15	3.05	1.040		
SANTIAGO	POB. SUR WATERWORKS	NWS22609	12/08/60	19.82	3.06	0.32	10.60	0.030		
SANTIAGO	SABANGAN	NWS-6724		13.70	3.53	0.32				
SANTIAGO	SABANGAN	BP117523		6.70	2.24	0.32	0.61	0.520		
SANTIAGO	SALINGCUB	NWS22619	06/25/63	14.63	6.10	0.44	1.22			
SANTIAGO	SAN ROQUE	NW226010	01/03/61	12.20	3.05	0.50	0.61	0.820		
SANTIAGO	SAN ROQUE	NWS-7461		12.10	2.74	0.32				
SANTIAGO	SANTIAGO ELEM. SCHOOL	NWS22606	09/05/60	16.46	3.05	0.32	0.97	0.350		
SANTIAGO	SANTIAGO ELEM. SCHOOL	NWS22607	09/30/60	38.11	27.44					ABANDONED
SANTIAGO	UBBOG	NWS13636		15.50	5.49	0.32				
SINAIT	BATOG	3073-130		3.95	0.50					
SINAIT	BARACBAC	NW226011	02/10/60	18.29	9.45	0.32	5.33	0.060		
SINAIT	BINACUD	BPW13611	12/16/60	10.37	5.18	0.32				
SINAIT	BINACUD	3073-116		6.60	4.90					
SINAIT	CABAMBANAN	NWS31769		21.30	7.62	0.44	0.61	0.720		
SINAIT	CABANTALAN	3073-132		3.95	2.45					
SINAIT	CADANGLAN	BPW-8223	07/30/55	12.20	4.57	0.76	0.92	0.830		
SINAIT	CADANGLAN	NW225915	01/08/60	13.72	3.60	0.63	1.53	0.410		
SINAIT	CALINGAYAN	3073-131		7.60	4.33					
SINAIT	CURTIN	BPW13612	12/15/56	8.54						
SINAIT	DALAGUITAN	3073-117		5.20	1.60					
SINAIT	DALAGUITAN	3073-124		3.95	3.35					
SINAIT	DALAGUITAN	3073-129		3.70	3.10					

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MUNICIPAL	LOCATION	WELL_NO	DATE	DEPTH	SWL	DISCHGE	DRAWDWN	SPCCP	USAGE	REMARKS
SINAIT	DALAGUIN	NWS-7855		12.10	2.44	0.52				
SINAIT	PUG-OS	NWS-7864		32.00						ABANDONED
SINAIT	NAMINAMA	NW317515		18.20	3.65	0.63	0.61	1.040		
SINAIT	JORDAN	3073-134		6.75	1.63					
SINAIT	R. MAGSAYSAY	NW297811	01/18/74	23.17	4.57	0.63	5.70	0.170		
SINAIT	MARSAY	NW226013	03/25/60	10.67	3.05	0.63	1.21	0.520		
SINAIT	MASADAG	NW317614		10.40	4.57	0.52	0.61	0.520		
SINAIT	NAGBALIWARTAN	3073-143		4.65	1.83					
SINAIT	NAGBALIWARTAN	3073-144		5.00	3.23					
SINAIT	PARATONG	NW226012	03/02/60	9.15	2.44	0.63	1.21	0.520		
SINAIT	POBLACION	3073-157		5.25	2.45					
SINAIT	POBLACION	BPW13613	01/06/66	11.59	1.52	0.63				
SINAIT	POBLACION	NWS-5480		24.30	3.05	0.52				
SINAIT	PUBLIC MARKET	NWS-9703		13.70	1.83	0.52				
SINAIT	PUG-OS	NWS-6793		7.60	2.44	0.52				
SINAIT	PURAG	3073-141		4.15						
SINAIT	PURAG	3073-142		4.18	2.26					
SINAIT	RANGAY	NW317520		16.40	3.05	0.95	1.50	0.630		
SINAIT	SAPRIANA	BPW-8222	07/14/55	18.29	1.83	0.63	1.21	0.520		
SINAIT	SIPRIANA	3073-120		4.90	0.80					
SINAIT	SIPRIANA	3073-123		5.25	0.85					
SINAIT	STA. CRUZ	3073-118			FLOWING					
SINAIT	STA. CRUZ	3073-122			FLOWING					
SINAIT	STA. CRUZ	3073-126		8.40	0.55					
SINAIT	STA. CRUZ	3073-127		4.35	0.15					
SINAIT	STA. CRUZ	3073-128		3.69	2.06					
SINAIT	STA. CRUZ	3073-133		109.00						ABANDONED
SINAIT	STA. CRUZ	NWS-5020		30.40	0.61	0.52				
SINAIT	STA. CRUZ	NWS-7251		14.20	2.75					
SINAIT	TAPAQ	3073-121		34.00	0.60					
SINAIT	TAPAQ	3073-125		9.76	3.66	0.63	0.91	0.690		
SINAIT	TEPPENG	NW225914	12/04/59	7.62	3.66	0.44	1.83	0.240		
SINAIT	TEPPENG	NW226254	12/14/62	13.70	4.57	0.52				
SINAIT	TUBIGAY	NWS-9705		29.50	5.18	0.63	0.61	1.040		
SINAIT	TUBIGAY	NWS-9706		39.60	18.90	0.52				
STA. CATALINA		LWUA-37	09/27/57	107.00	3.00	0.76	1.00	0.760		
STA. CATALINA		LWUA-47	01/28/77	10.70	2.40	0.45	2.20	0.200		
STA. CRUZ	BABAYOAN	BPW11066	05/28/56	23.86	6.40	0.32	2.66	0.120		
STA. CATALINA	CABAROAN	LWUA-44		7.90	2.44	0.76	0.34	2.240		
STA. CATALINA	CABAROAN	NWS-8058		6.00	2.44	0.63	0.30	2.100		
STA. CATALINA	CABAROAN	BPW-7159	10/08/54	9.45	1.52	0.95	0.61	1.560		
STA. CATALINA	CABITAGAN	LWUA-52		9.45	1.80	1.14	0.33	3.450		
STA. CATALINA	CABITAGAN	BPW10697	03/04/56	10.98	3.35	0.76	1.22	0.620		
STA. CATALINA	CABULOAN	LWUA-49		10.98	1.60	0.91	1.22	0.620		
STA. CATALINA	CABULOAN	NWS10895		10.90	3.35	0.76	1.22	0.620		
STA. CATALINA	TAMORONG	BPW14660		6.00	3.05	0.52				
STA. CATALINA	TAMORONG	LWUA-37	09/27/57	12.20	3.00	0.76	1.00	0.760		

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MUNICIPAL	LOCATION	WELL NO	DATE	DEPTH	NWL	DISCHGE	DRAWDWN	SPCCP	USAGE	REMARKS
STA. CATALINA	TAMORONG	NWS14694		12.10	2.44	0.32				
STA. CATALINA	TAMORONG	LWUA-41	09/17/57	18.30	3.00	0.76	1.30	0.590		N DACANAY
STA. CATALINA	PARATONG	BPW10598	04/10/56	5.49	1.83	0.63	0.50	1.260		
STA. CATALINA	PARATONG	LWUA-31		5.49	1.20	0.45	1.80	0.250		
SAS VICENTE	PUDOC	LWUA-41	09/17/57	18.30	3.00	0.76	1.30	0.586		
STA. CATALINA	SINABAAN	BPW14629	01/02/57	5.49						
STA. CATALINA	TAMORONG	BPW-7865	01/20/55	8.54	1.22	0.32	3.55	0.090		
STA. CATALINA	TAMORONG	BPW13630	12/24/56	6.10						
STA. CATALINA	TAMORONG III	BPW13628		6.00	1.83	0.32				
STA. CATALINA	TAMORONG	NWS14663		15.20	3.05	0.42				
STA. CATALINA	CABITTAGAN	NWS22624	10/26/62	7.93	1.83	0.44	0.61	0.720		
STA. CRUZ	AMARAO	BPW-8838	08/13/55	8.54	3.66	0.88	0.61	1.440		
STA. CRUZ	BABAYOAN	NWS11063		22.80	6.40	0.32	2.67	0.120		
STA. CRUZ	BACAYAN	NWS21617	06/30/59	18.90	7.62	0.50	6.25	0.080		
STA. CRUZ	BAYUGAO	BPW14660	12/14/56	17.07	4.57	0.63	1.53	0.410		
STA. CRUZ	BESALAN	BPW-8839	08/13/55	12.80	4.85	0.76	0.90	1.520		
STA. CRUZ	BESALAN	NW226312	04/23/63	14.94	4.27	0.63	0.61	1.030		
STA. CRUZ	CAMANGGAAN	NWS22632	04/30/63	39.63	5.49	0.63	2.74	0.230		
STA. CRUZ	CANDALIGAN	NWS21618	07/24/59	10.67	3.18	0.50	1.85	0.270		
STA. CRUZ	CANDALIGAN	NW225911		10.60	5.18	0.63				
STA. CRUZ	CAPARIGAN	BPW14663	10/27/56	9.76	1.52	0.63	0.40	2.100		
STA. CRUZ	CASILAGAN	NWS21616	06/09/59	13.72	2.44	0.63	2.42	0.260		
STA. CRUZ	DILI	BP317632		18.20		0.32				
STA. CRUZ	DILI	BPW11066	07/22/56	11.52	3.05	0.63	0.50	2.100		
STA. CRUZ	DILI	BPW13455	08/19/56	13.72	7.32	0.95	0.91	1.040		
STA. CRUZ	GABOR	BPW13460	09/19/56	8.25	2.44	0.63	0.61	1.030		
STA. CRUZ	MAMBOG	BPW14665	12/02/56	13.72	1.83	0.63	2.42	0.260		
STA. CRUZ	MANTANAS	BPW13457	08/05/56	12.20	5.49	0.63	0.30	2.100		
STA. CRUZ	PADAOL	NW226311	03/22/63	17.68	3.66	0.44	1.83	0.240		
STA. CRUZ	PIDDID	BPW11062	05/11/56	23.80	7.32	0.32	10.60	0.030		
STA. CRUZ	PILAR	NWS-8791		6.40	2.74	0.94				
STA. CRUZ	PILAR	NWS22618	12/11/61	7.93	1.83	0.32	1.23	0.260		
STA. CRUZ	POBLACION	BPW11060	07/17/56	15.24		0.63				
STA. CRUZ	POBLACION NORTE	BPW14664	11/10/56	13.11	3.66	0.63	0.61	1.030		
STA. CRUZ	POBLACION SUR	BPW15479	01/12/57	12.80	3.66	0.63	0.30	2.100		
STA. CRUZ	PARATONG	NWS14661		8.20	2.74	0.63	1.41	0.520		
STA. CRUZ	SAGAT	BPW11061	04/26/56	12.88	2.44	0.76	0.90	0.640		
STA. CRUZ	SAN JOSE	BP317611		18.80	7.62	0.38	3.16	0.120		
STA. CRUZ	SAN JOSE	BPW15481	03/10/57	28.06	4.27	0.63	3.00	0.210		
STA. CRUZ	SAN JOSE	NWS-7800		31.60	4.57	0.31				
STA. CRUZ	SAN JOSE	NWS22631	04/02/63	60.98	6.10	0.63	9.00	0.070		
STA. CRUZ	SAN PEDRO	NWS11064		28.30	12.20	0.95	5.93			
STA. CRUZ	SIDAOPEN	BPW15478	12/29/56	18.29	4.88	0.63	1.21	0.520		
STA. CRUZ	SEVILLA	BPW14659	08/31/56	10.67	1.83	0.63	0.30	2.100		
STA. CRUZ	SEVILLA	BP317601		9.10	2.44	0.38	2.22	0.090		
STA. CRUZ	SEVILLA	BPW13462	10/10/56	9.76	0.91	0.63	0.61	1.030		
STA. CRUZ	QUINSORIANO	BPW15480	01/10/57	15.85	4.57	0.63	1.53	0.410		
STA. CRUZ	SUYO	NWS-8793		9.40	3.96	0.95	1.22	0.780		

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STA. CRUZ	VILLA GARCIA	BPW-8792	11/05/55	9.76	2.74	0.76	0.61	1.250		
STA. CRUZ	VILLA HERMONA	BPW-11065	07/07/56	9.15	2.44	0.63	3.00	0.210		
STA. LUCIA	ALINCAOEG	BPW-17636		22.80	3.66	0.82	2.46	0.150		
STA. LUCIA	VIGAL	NW226129	01/22/62	7.62	2.74	0.81	0.61	0.520		
STA. LUCIA	CONCONIG	NWS-7242		13.70		0.32				
STA. LUCIA	LUBA	BPW-9118	11/07/55	10.37	1.22	0.63	1.21	0.520		
STA. LUCIA	NAGTABLAAN	BPW-17578		17.30	4.59	0.52	1.88	0.170		
STA. LUCIA	NAGREBAN	BPW-13659	12/11/56	9.76	1.52	0.38	1.52	0.250		
STA. LUCIA	NORTH CENTRAL SCHOOL	BPW-17527		9.10	1.22	0.52	1.23	0.260		
STA. LUCIA	PALALI	BPW-8248	05/20/55	18.29	9.15	1.76	0.52	0.500		
STA. LUCIA	POBLACION	BPW-5678	02/02/54	15.24	1.83	1.26	2.10	0.660		
STA. LUCIA	POBLACION	BPW-5713	03/05/53	15.24	1.83	0.95	1.82	0.520		
STA. LUCIA	POBLACION	BPW-8841	08/11/55	8.84	2.59	0.95	0.45			
STA. LUCIA	PAGC	NWS13640		26.50	9.15	0.63	0.61	1.030		
STA. LUCIA	SABUNAN	BPW-17526		8.20	0.91	0.32	1.23	0.290		
STA. LUCIA	SABUNAN	BPW-9459	11/22/55	7.62	2.13	0.63	0.61	1.030		
STA. CRUZ	SAN JOSE	NWS-7460		56.50		0.32				
STA. CRUZ	SEVILLA	NWS-7243		13.70		0.32				
STA. LUCIA	SOUTH CENTRAL	BPW-17525		9.10	1.22	0.32	0.61	0.520		
STA. LUCIA	STA. LUCIA ES	NW226232	03/30/62	5.80	1.52	0.38	0.29	1.270		
STA. MARIA	AGAGRAO	BPW-10595	03/22/56	17.08	4.57	3.72	1.52	2.450		
STA. MARIA	AGNIA COLLEGE	NW297310	11/13/73	24.40	1.52					
STA. MARIA	AGNIA COLLEGE	NW297312	11/28/73	16.77	1.52					
STA. MARIA	AGNIA COLLEGE	NW297313	01/09/74	22.26	1.22	0.63	2.13	2.960		
STA. MARIA	AGNIA HIGH SCHOOL	NWS-9522	11/11/59	25.91	1.83	0.63	0.61	1.030		
STA. MARIA	AGRI HIGH SCHOOL	BPW-6792		21.40	3.44	0.63	5.00	0.210		
STA. MARIA	AGRI SCHOOL	BPW-6791	10/16/54	39.63	1.83	0.63	0.10	3.050		
STA. MARIA	AMPOGAN	BPW-13631	01/05/56	9.15		0.32				
STA. MARIA	BABALLASOAN	NW226031	04/07/60	19.57	13.41	0.50	1.22	0.410		
SANTA	BANAANG	BPW-14408	09/29/56	37.80	21.34	0.63	0.61	1.030		
STA. MARIA	BIAO	NW225941	09/18/59	7.32	10.67	0.63				
SANTA	CASIBER	BPW-13635	07/12/56	9.10	3.13	0.32	0.61	0.530		
STA. MARIA	DANUMAN	BPW-13632	01/07/57	9.15						
STA. MARIA	DUNGLAYAN	NW226442	03/15/60	18.60	5.18	0.50	0.91	0.550		
STA. MARIA	DUNGLAYAN	NWS22652	09/23/65	13.72	4.88	0.63	0.30	2.100		
STA. MARIA	ILOCOS SUR AGRI. COL.	NWS29739	10/22/73	21.65	1.52	0.32				
STA. MARIA	LASLASONG	BPW-13633	01/02/57	6.71						
STA. MARIA	LINGSAT	NWS-13635		5.40	1.52	0.32				
SANTA	MABILILA	BPW-9121	01/11/56	29.57	12.20	0.50	10.00	0.050		
SANTA	MABILILA	BPW-13636	07/21/56	22.86	9.45	0.32	0.61	0.520		
STA. MARIA	MAYANGANAY SUR	BPW-17516		7.90	1.83	0.63	0.61	1.030		
STA. MARIA	MAYANGANAY	NWS10596		16.10	3.05	0.38	3.16	0.120		
STA. MARIA	NALVO	BPW-17513		7.30	2.74	0.63	1.21	0.520		
STA. MARIA	POBLACION SUR	NWS29741	03/23/74	26.52	3.05					
STA. MARIA	POBLACION	BPW-5510	07/15/52	15.24	2.44	0.63	0.61	1.030		
STA. MARIA	POBLACION	NWS29745	06/10/71	20.43	3.05	0.32				
STA. MARIA	PUBLIC PLAZA	NWS29745	07/16/74	18.29	2.74					
STA. MARIA	SEMSON ST.	NW225931	10/11/59	20.73	2.44	0.63	1.33	0.410		

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STA. MARIA	STA. MARIA WATERWORKS	NW226051	10/07/60	13.94	1.22	0.63	7.87	0.080		ABANDONED
STA. MARIA	STA. MARIA WATERWORKS	NW226052	01/19/61	29.57						
STA. MARIA	STA. MARIA WATERWORKS	NW226131	05/04/61	29.57	2.13	3.16	13.80	0.300		
STA. MARIA	SUSO	NWS-6720		13.40	3.05	0.32				ABANDONED
STA. MARIA	SUSO BEACH	NWS22615	07/12/61	24.40						
STA. MARIA	SUSO CENTIK	NWS22616	08/22/61	7.32	0.91	0.63	0.30	2.100		
STA. MARIA	SUSO INT.	NWS22617	09/29/61	7.93	3.05	0.50	0.61	0.820		
STA. MARIA	TANGAAN	BPW-8245	04/02/55	8.34		0.76	6.35	0.120		
STA. MARIA	TINAAN	BPW13634	01/03/57	9.45		0.52	0.07	4.570		
STA. MARIA	TANGAAN	NWS-8245		8.50	5.49	0.94	1.00	0.940		
STA. MARIA	WEST CENTRAL ELEM. SCH.	BP317504	04/04/75	12.70	3.66	0.63	3.93	0.160		
STO. DOMINGO	CABRIGANAN	NWS-5400		12.40	2.74	1.58	0.62	2.590		
STO. DOMINGO	CALAYAB	NW226122	04/15/61	8.84	3.96	0.58	0.90	0.420		
STO. DOMINGO	CAMESTIZOAN	BPW13620	12/21/56	9.15	2.74	0.32				
STO. DOMINGO	CASILI	BPW-7408	11/17/54	12.80	4.27	0.88	0.91	0.970		
STO. DOMINGO	FLORA	BPW-7863	10/22/55	19.82	2.74	0.63	0.61	1.030		
STO. DOMINGO	FLORA	BPW31739		9.10	2.44	0.32	1.23			
STO. DOMINGO	FLORA	BPW31762		9.10	4.57	0.52		0.560		
STO. DOMINGO	LAGAITI	NWS22594	01/06/60	20.43	3.05	0.63	0.30	2.100		
STO. DOMINGO	LAGINGEN	NWS22613	11/19/58	32.01	15.24	0.63	0.61	1.030		
STO. DOMINGO	LUSSOC	BP317524		31.00	5.18	0.32	1.23	0.200		
STO. DOMINGO	LUSSOC	NWS-7248		16.70	3.66	0.32				
STO. DOMINGO	NORTH CENTRAL SCHOOL	BP317631		10.60	2.44	0.32	1.24	0.260		
STO. DOMINGO	PADU GRANDI	NWS-8313		14.60	6.71	0.95	0.91	1.040		
STO. DOMINGO	PADU-CHICO	NW226123	05/08/61	9.76	3.66	0.38	0.61	0.620		
STO. DOMINGO	PANAY	NWS22601	02/19/60	12.80	2.44	0.32	2.13	0.150		
STO. DOMINGO	PANGPANGDAN	BPW31768		9.10		0.52	0.91	0.350		
STO. DOMINGO	PUSSUAC	BPW-8312	06/11/55	14.63	6.40	0.95	0.91	1.040		
STO. DOMINGO	QUIMARAYAN	NWS-8053		9.10	2.74	0.76	0.30	2.530		
STO. DOMINGO	SIVED	NW226124	06/12/61	8.34	3.05	0.38	0.29	1.270		
STO. DOMINGO	STA. CRUZ	BPW13621	01/05/57	9.15	2.44	0.63				
STO. DOMINGO	SUGSUKI	NW226121	03/17/61	6.40	3.05	0.38	0.20	1.900		
SUGPON	BALABALAYANG	BP317712		20.73	4.57	0.76				
SUGPON	CENTRAL SCHOOL	BP317707		21.34	5.49	0.76				
SUYO	BITO	NW225922	01/05/60	25.61		0.32				
SUYO	CABUGAO	BPW-8244	09/28/55	22.26	10.06	0.76	2.11	0.360		ABANDONED
SUYO	LUB-ONG	NW226021	03/09/60	7.63	0.95					
TAGUDIN	AG-AGUMAN	BPW-8843	09/11/55	20.43	7.52	0.95	1.82	0.520		
TAGUDIN	AMBALAYAT	NW226313	06/27/63	10.06	6.71	0.63	6.30	0.100		
TAGUDIN	AMBALAYAT	NWS22603	04/16/60	21.44	19.51	0.50				
TAGUDIN	BARACRAC	NW225942	11/27/59	21.04	7.62	0.50				
TAGUDIN	BECCUES	BPW-7144	08/30/54	7.93	1.83	0.76	0.61	1.240		
TAGUDIN	BIMANGA	NWS-8794		6.00	1.52	0.95		0.156		
TAGUDIN	BIO	BPW22671	09/25/67	115.85		0.95				
TAGUDIN	BIO	NW225921	09/25/59	29.27	29.27	0.63	0.90	0.700		
TAGUDIN	DARDARAKI	BPW-8796	09/27/55	6.40	1.83	0.76	0.61	1.240		
TAGUDIN	GARITAN	NW226117	12/29/61	21.95	6.10	0.63	1.53	0.410		
TAGUDIN	GARITAN	NWS22604	05/16/60	36.59	12.07	0.38	3.80	0.040		

ILOCOS SUR

MUNICIPAL	LOCATION	WELL_NO	DATE	DEPTH	NWL	DISCHGE	DRAWDWN	SPCCP	USAGE	REMARKS
TAGUDIN	LIBTONG	NWS-7862		12.10	2.13	0.32				
TAGUDIN	LUBTONG	NWS-2602		9.40	2.13	0.32				
TAGUDIN	LUBNAC	NW-226118	09/19/61	18.20	3.05	0.44	6.28	0.970		
TAGUDIN	POBLACION	BPW-5547	09/05/52	16.71	4.57	0.95	0.61	1.590		
TAGUDIN	POBLACION	NWS-29729	10/06/72	25.61	5.18	0.32	0.61	0.520		
TAGUDIN	POBLACION WATER WORKS	NWS-9521	10/19/56	185.97	3.05	0.31				
TAGUDIN	POBLACION WEST	BPW		25.60	5.18	0.32				
TAGUDIN	RANGET	NW-225943	01/20/60	17.28	0.50	0.50	0.50	1.000		
TAGUDIN	TAMPOGO	BPW-8795	10/08/55	7.93	1.83	1.14	0.91	1.250		
VIGAN				3.32						
VIGAN			12/31/77	36.00		3.79				
VIGAN		LWUA			3.32	6.50	1.03	6.340		
VIGAN	AMIANANCE	LWUA-39	04/03/73	36.00	9.70	0.32				
VIGAN	AYUSAN	NWS19545	10/31/58	18.291	5.49	0.63	0.61	1.030		
VIGAN	AYUSAN NORTE	LWUA-77		30.12	5.20	1.52	1.19	1.270		
VIGAN	AYUSAN NORTE	NWS19546	05/08/58	19.82	5.18	0.63	1.21	0.520		
VIGAN	PANFAY	LWUA-46	02/01/62	8.50	4.60	0.38	0.60	0.633		
VIGAN	BPW COMPOUND	NWS-29737	08/09/73	24.40	6.10	0.63	5.72	0.110		
VIGAN	BULALA	BP-317535		10.60	3.66	0.32	0.61	0.520		
VIGAN	BULALA	BPW14683	02/13/57	12.50	3.05	0.76	0.61	1.240		
VIGAN	CABARUAN	LWUA-83		12.20	2.80					
VIGAN	CABARUAN	NWS-8798		11.20	4.27	0.93				
VIGAN	CAMANGAAN	BPW-8977	09/21/55	10.37	5.49	0.76	0.61	1.250		
VIGAN	CAMANGAAN	LWUA-94		10.98	5.50	0.91	0.59	1.320		
VIGAN	CAPANGPANGAN	BPW14684	02/01/57	14.63	3.05	0.95	0.61	1.560		
VIGAN	CAPANGPANGAN	LWUA-68		14.60	3.00	1.14	0.65	1.740		
VIGAN	CAPANGPANGAN	LWUA-70		27.34	3.00	0.97	2.25	0.430		
VIGAN	CAPANGPANGAN	NWS21614	09/18/58	21.34	7.62	0.63	0.30	2.100		
VIGAN	CUTA	NWS-36731	02/05/73	34.15	6.10					
VIGAN	FLORENTINA LIBRARY	LWUA-60	07/31/76	28.00						
VIGAN	ILOCOS SUR NAT. H/S	LWUA-57	10/14/76	18.30	4.60					
VIGAN	IPH	NWS		76.10		0.32				
VIGAN	ISNAS	BP-17619		18.80	4.57	0.32	1.52	0.210		
VIGAN	MINDORO	BPW-7157	09/27/54	10.98	0.61	0.95	1.72	0.780		
VIGAN	MINDORO	LWUA-91		11.00						
VIGAN	MINDORO	LWUA090	12/12/62	6.40	1.50	0.76	0.59	1.270		
VIGAN	MINDORO	NWS21611	07/10/58	6.40	1.52	0.63	0.61	1.040		
VIGAN	MIRA	NWS-6794		30.40	13.70	6.30	3.04	2.070		
VIGAN	MOTOR POOL	LWUA-53		25.61	3.32	6.50	1.020	6.340		
VIGAN	MUNICIPAL COMPOUND	LWUA-38	03/07/75	25.60	10.70					
VIGAN	NAGANGALAN	BPW-8673	07/21/55	7.62	3.66	0.76	0.90	0.840		
VIGAN	NAGANGALAN	LWUA-71		7.62	3.60	0.91	0.96	0.940		
VIGAN	NATIONAL LIBRARY	LWUA-59	01/31/78	34.80	1.10	3.80				
VIGAN	NEW MOTOR POOL	BPW-9523	09/15/56	25.91	3.05	6.30	0.50	12.660		
VIGAN	PADA AYUSAN		08/30/77	12.50	6.10	0.45	1.20	0.375		
VIGAN	PAGBANTAYAN	NW-307302	02/24/73	30.49	8.54	0.32	0.61	0.520		
VIGAN	PAGPARTIAN	BPW-30731		36.50	6.71	0.32				
VIGAN	PAGPARTIAN	LWUA-69	05/31/73	38.40	6.70					



ILOCOS SUR

MUNICIPAL	LOCATION	WELL_NO	DATE	DEPTH	SWL	DISCHGE	DRAWDWN	SFCCP	USAGE	REMARKS
VIGAN	PAPARTIAN	NWS2924	02/21/15	22.24	6.71					
VIGAN	PARATONG-BULALA	BPW8978	09/14/55	7.32	1.83	0.76	1.22	0.620		
VIGAN	PONG-OL	LWUA-101	02/22/62	6.10	2.10	0.61	0.30	2.040		
VIGAN	PANTAY	BPW7410	12/18/54	10.10	1.52	1.14	0.30	3.800		
VIGAN	PANTAY	LWUA-63	12/07/77	6.10	1.52	0.76	2.11	0.360		
VIGAN	PANTAY	LWUA-64	10/10/10	10.10	1.52	1.56	0.31	4.490		
VIGAN	PANTAY DAYA		10/07/62	4.58	1.80	0.61	0.30	2.053		
VIGAN	PANTAY DAYA	LWUA-67		3.00	1.20					
VIGAN	PANTAY DAYA	LWUA-78		3.00	1.80					
VIGAN	PANTAY DAYA	NW22624	11/07/62	5.79	1.83	0.50	0.29	1.670		
VIGAN	PANTAY ELEM. SCHOOL	NWS-63	12/07/77	6.10	1.52	0.76	2.08	0.465		
VIGAN	PAGA	LWUA-62	06/30/77	12.50	6.10	0.45	1.18	0.480		ABANDONED
VIGAN	PAGA	LWUA-79		12.20						
VIGAN	PAGA	LWUA-80		18.30						
VIGAN	PAGA	LWUA-86	08/18/60	30.50	5.50	0.61	8.71	0.070		
VIGAN	PAGA	LWUA-66	08/18/60	29.00	5.50	0.61	8.20	0.074		
VIGAN	PARATONG	LWUA-92		7.30	1.30	0.91	1.19	0.760		
VIGAN	PARATONG	NWS22625	11/29/62	6.40	1.83	0.44	0.29	1.470		
VIGAN	PARATONG	NWS8978		7.30	1.83	0.13	1.18	0.110		
VIGAN	PONG-OL	NWS22622	02/24/62	6.10	2.13	0.50	0.29	1.670		
VIGAN	PROVINCIAL HOSPITAL	LWUA-97		76.20	2.40	3.79	23.68	0.160		
VIGAN	PROVINCIAL HOSPITAL	NW22529	09/18/63	73.48	2.44	3.15	22.50	0.140		
VIGAN	QUIRINO STADIUM	LWUA-54	01/17/55	9.10	0.90	2.27	0.30	7.570		
VIGAN	QUIRINO STADIUM	NWS7239		9.10	0.91	0.32				
VIGAN	RAGIS	LWUA-73	04/08/77	15.80	6.10	0.45	1.50	0.300		
VIGAN	RAGIS	NWS8776		14.60	6.10	0.95	1.22	0.620		
VIGAN	RIZAL ST.		12/31/77	36.00		3.79				
VIGAN	RUGSUANAN	BPW8799	08/12/55	9.45	3.05	0.76	0.61	1.240		
VIGAN	RUGSUANAN	LWUA-84		9.76	3.00	0.91	0.66	1.380		
VIGAN	SALINDEG	LWUA-102		12.20	1.80	1.52	0.29	5.070		
VIGAN	SALINDEG	BPW7867	02/08/55	12.20	1.83	1.26	0.30	4.200		
VIGAN	SAN JULIAN	BP317517		12.60	4.57	0.32	1.52	0.210		
VIGAN	SAN JULIAN NORTE	LWUA-55		12.30		0.76				
VIGAN	SAN JULIAN NORTE	NW227202	03/03/72	12.20	4.88	0.61	0.30	2.100		
VIGAN	SAN JULIAN NORTE	NWS19548	06/19/58	12.80	3.18	0.63	1.05	0.600		
VIGAN	SAN JULIAN SUR	BPW19247	05/29/58	22.36	3.49	0.61	0.91	0.690		
VIGAN	SAN PEDRO	NWS21613	08/23/58	9.15	1.52	0.63	0.91	0.690		
VIGAN	SAN PEDRO NORTE	NWS21612	07/25/58	9.76	1.52	0.63	0.91	0.690		
VIGAN	SAN PEDRO SUR	LWUA-100		9.15	2.70					
VIGAN	SAN VICENTE		12/21/62	7.60	3.40	0.61	1.20	0.808		
VIGAN	TAMAG	BPW14683	01/17/57	17.68	4.88	0.95	1.21	0.780		
VIGAN	TAMAG	LWUA-81		17.68		1.14				
VIGAN	UNI. OF NORTHERN PHIL.	BPW29758		41.10	4.57	0.52				
VIGAN	MINDORO	LWUA-90	12/12/62	21.00	1.80	0.38	0.30	1.266		

Source:  
Notes:

NWRR Well Inventory  
DEPTH = Meters Below Ground Level (m)  
DRAWDOWN = Drawdown (m)

SWL = Static Water Level (m)  
SFCCP = Specific Capacity (l/sec/m)

DISCHGE = Discharge Rate (l/sec)

7.5 Surface Water Sources

Table 7.5.1  
Water Quality Examination Results

In reply, please refer to  
Tel. Nos. (2) 95-32-11 to 29  
FAX No. (2) 921-2327  
Telex No. (722) 27947 MWSS PH



Republika ng Pilipinas  
PANGASIWAAN NG TUBIG AT ALKANTARILYA SA METROMANILA

Metropolitan Waterworks and Sewerage System  
Katipunan Road, Balara, Quezon City 1105, Philippines

CENTRAL LABORATORY DIVISION  
Sewage Research and Analysis Section

14 July 1995

Sample Submitted by : VIVIAN BIALA  
Date/Time Collected : 29 June 1995/ 1:15 p.m.  
Data/Time Submitted : 30 June 1995/10:45 a.m.  
Source of Sample : Abra River  
Santa, Ilocos Sur  
Sample Analyzed by : N. Alma Jose, R.M. Xavier, M.B. Pineda  
and H. B. Labaro

ANALYSIS OF RIVERWATER SAMPLE\*

Color	units	:	10.00
Turbidity	units	:	33.00
Conductivity	us/cm	:	220.00
pH		:	8.05
Alkalinity	mg/L	:	82.00
Total Hardness as CaCO <sub>3</sub>	mg/L	:	90.00
Ca Hardness as CaCO <sub>3</sub>	mg/L	:	27.20
Mg Hardness as CaCO <sub>3</sub>	mg/L	:	62.80
Chemical Oxygen Demand (COD)	mg/L	:	148.15
Chloride	mg/L	:	4.40
Sulfate	mg/L	:	27.00
Total Iron	mg/L	:	0.60
Manganese	mg/L	:	0.04
Ammonia-Nitrogen	mg/L	:	0.88

\* Sample received as submitted by client.

Submitted by:

*Buhay S. Astudillo*  
BUHAY S. ASTUDILLO  
Chief Chemist

Sewage Research and Analysis Section

3217-96

Certified Correct:

*Concepcion M. Masanga*  
CONCEPCION M. MASANGA  
Division Manager A, Central Laboratory



Republika ng Pilipinas  
**PANGASIWAAN NG TUBIG AT ALKANTARILYA SA METROMANILA**  
Metropolitan Waterworks and Sewerage System  
Katipunan Road, Balara, Quezon City 1105, Philippines  
CENTRAL LABORATORY DIVISION  
Sewage Research and Analysis Section

14 July 1995

Sample Submitted by : VIVIAN BIALA  
Date/Time Collected : 29 June 1995/10:20 a.m.  
Data/Time Submitted : 30 June 1995/10:45 am  
Source of Sample : Sta. Maria River  
Ilocos Sur  
Sample Analyzed by : N. Alma Jose, R.M. Xavier, M.B. Pineda  
and H. B. Labaro

ANALYSIS OF RIVERWATER SAMPLE\*

Color	units	:	5.00
Turbidity	units	:	29.00
Conductivity	us/cm	:	590.00
pH		:	8.00
Alkalinity	mg/L	:	232.00
Total Hardness as CaCO <sub>3</sub>	mg/L	:	208.00
Ca Hardness as CaCO <sub>3</sub>	mg/L	:	12.00
Mg Hardness as CaCO <sub>3</sub>	mg/L	:	196.00
Chemical Oxygen Demand (COD)	mg/L	:	222.20
Chloride	mg/L	:	8.70
Sulfate	mg/L	:	79.00
Total Iron	mg/L	:	1.00
Manganese	mg/L	:	0.03
Ammonia-Nitrogen	mg/L	:	0.95

\* Sample received as submitted by client.

Submitted by:

*buhay s. astudillo*  
BUHAY S. ASTUDILLO  
Chief Chemist

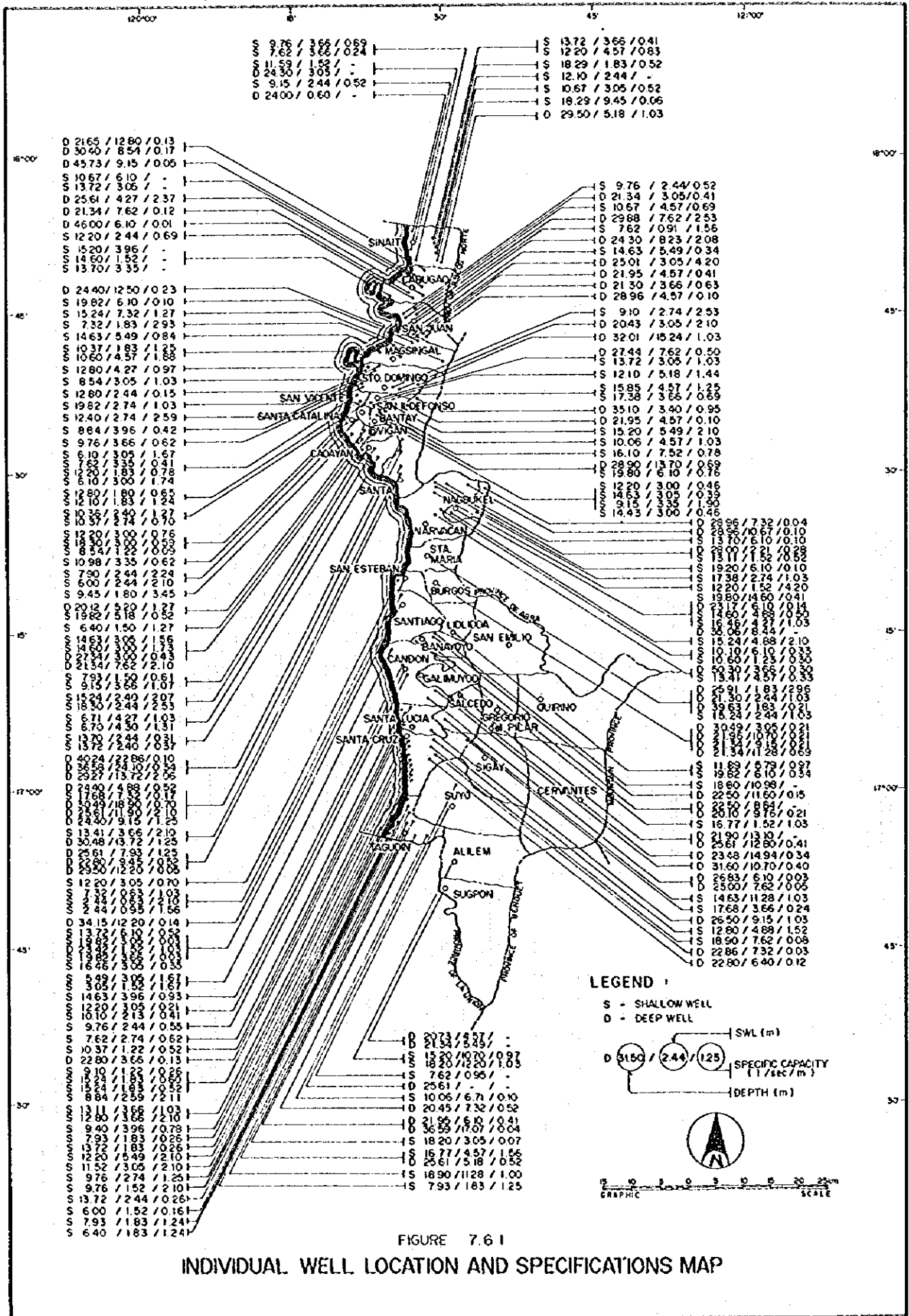
Sewage Research and Analysis Section  
3412-96

Certified Correct:

*Concepcion M. Masanga*  
CONCEPCION M. MASANGA

Division Manager A, Central Laboratory

# 7.6 Future Development Potential of Water Sources









JICA