

REGION 11



**RESULT OF ANALYSIS**

1	Name of WD	Carmen
2	Date of Analysis	February 2003
3	Area number	8 - Region 11
4	Province	Davao

1	Name of source	Well #2
2	Location	7° 21' 40.6"
		125° 38' 3.1"
3	Depth Borehole; meter	45
4	Discharge Flowrate; liters/sec	12
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator
		No data

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		15.17	
2	Temperature	°C		27.5*		27	Calcium	mg/L		66.32	
3	pH		6.5-8.5	8.3*		28	Magnesium	mg/L		29.79	
4	Color	Units	5	20		29	Silica	mg/L		74.29	
5	Turbidity	NTU	5	29		30	Total Iron	mg/L	1	5.68	0.001
6	Conductivity	µS/cm		1,473		31	Total Manganese	mg/L	0.5	0.41	0.006
7	Total Dissolved Solids	mg/L	500	886		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		-		33	Zinc	mg/L	5 <sup>@</sup>	<MDL	0.002
9	Chloride	mg/L	250	170		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		568		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		0		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	288		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	35.40		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		4.17	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0.03 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	1.61 <sup>1</sup>	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		5	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.26		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	0.007	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.01	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		2.0		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		20.0		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		7.0		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		<MDL	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	85.22			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

U Unobjectionable Odor, O = Objectionable Odor

+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

## RESULT OF ANALYSIS

1	Name of WD	Panabo
2	Date of Analysis	February 2003
3	Area number	8 - Region 11
4	Province	Panabo City

1	Name of source	Datu Abdul Well	
2	Location	7° 19' 5.3"	Brgy. Datu Abdul
		125° 39' 4.2"	Panabo City
3	Depth Borehole; meter	70	
4	Discharge Flowrate; liters/sec	20	
5	Date of Well Operation	No data	
6	Disinfection Unit	Gas Chlorinator	No data
		Hypochlorinator	

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		9.01	
2	Temperature	°C		27.7*		27	Calcium	mg/L		45.74	
3	pH		6.5-8.5	8.5*		28	Magnesium	mg/L		45.37	
4	Color	Units	5	<5		29	Silica	mg/L		63.78	
5	Turbidity	NTU	5	1.00		30	Total Iron	mg/L	1	0.10	0.001
6	Conductivity	µS/cm		1,406		31	Total Manganese	mg/L	0.5	0.19	0.006
7	Total Dissolved Solids	mg/L	500	802		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		1,050		33	Zinc	mg/L	5 <sup>@</sup>	<MDL	0.002
9	Chloride	mg/L	250	249		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		376		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		0 <sup>3</sup>		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	301		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	4		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		4.29	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	1.43 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	0	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		<MDL	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.21		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	0.006	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	0.02	0.01	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		2.0		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		8.0		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		<1		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		0.02	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	78.43			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

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+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

### RESULT OF ANALYSIS

1	Name of WD	Tagum
2	Date of Analysis	February 2003
3	Area number	8 - Region 11
4	Province	Tagum City

1	Name of source	Gemini Well	
2	Location	7° 25' 30.8"	Gemini Village, Apocon Tagum City, Davao
		125° 49' 27.0"	
3	Depth Borehole; meter	96	
4	Discharge Flowrate; liters/sec	21.5	
5	Date of Well Operation	No data	
6	Disinfection Unit	Gas Chlorinator	No data
		Hypochlorinator	

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		9.89	
2	Temperature	°C		26*		27	Calcium	mg/L		16.08	
3	pH		6.5-8.5	9.3*		28	Magnesium	mg/L		10.26	
4	Color	Units	5	20		29	Silica	mg/L		20.97	
5	Turbidity	NTU	5	7		30	Total Iron	mg/L	1	<MDL	0.001
6	Conductivity	µS/cm		1,028		31	Total Manganese	mg/L	0.5	0.008	0.006
7	Total Dissolved Solids	mg/L	500	651		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		652		33	Zinc	mg/L	5 <sup>@</sup>	<MDL	0.002
9	Chloride	mg/L	250	73		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		424		35	Arsenic	mg/L	0.01	0.008	0.01
11	Acidity	mg/L		0		36	Chromium	mg/L	0.05	0.001	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	82		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	21		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		1.59	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	0	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		<MDL	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.26		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.01	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		2.0		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		8.0		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		5.0		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		0.09	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	96.18			II			<MDL	0.02

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MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

## RESULT OF ANALYSIS

1	Name of WD	Mati
2	Date of Analysis	February 2003
3	Area number	8 - Region 11
4	Province	Cagayan De Oro

1	Name of source	Well #2
2	Location	6° 57' 54"
		126° 11' 55.6"
3	Depth Borehole; meter	44
4	Discharge Flowrate; liters/sec	15
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator
		No data

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		1.32	
2	Temperature	°C		28.4*		27	Calcium	mg/L		105.22	
3	pH		6.5-8.5	8.1*		28	Magnesium	mg/L		16.58	
4	Color	Units	5	<5		29	Silica	mg/L		51	
5	Turbidity	NTU	5	<5		30	Total Iron	mg/L	1	<MDL	0.001
6	Conductivity	µS/cm		666		31	Total Manganese	mg/L	0.5	<MDL	0.006
7	Total Dissolved Solids	mg/L	500	373		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		383		33	Zinc	mg/L	5 <sup>@</sup>	<MDL	0.002
9	Chloride	mg/L	250	14		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		326		35	Arsenic	mg/L	0.01	0.01	0.01
11	Acidity	mg/L		-		36	Chromium	mg/L	0.05	0.04	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	331		37	Cadmium	mg/L	0.003	0.027	0.003
13	Sulfate	mg/L	250	27		38	Selenium	mg/L	0.01	0.027	0.001
14	Phosphate	mg/L		<MDL	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0.01 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	2 <sup>1</sup>	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		<MDL	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.11		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.01	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		5.0		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		<5		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		2.0		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		0.04	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	13.34			II			<MDL	0.02

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MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

## RESULT OF ANALYSIS

1	Name of WD	Panabo
2	Date of Analysis	February 2003
3	Area number	8 - Region 11
4	Province	Panabo City

1	Name of source	Nigara Well	
2	Location	7° 19' 30.3"	Brgy. Datu Abdul, Panabo City
		125° 38' 53.5"	
3	Depth Borehole; meter	70	
4	Discharge Flowrate; liters/sec	20	
5	Date of Well Operation	No data	
6	Disinfection Unit	Gas Chlorinator	No data
		Hypochlorinator	

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		6.24	
2	Temperature	°C		27.6*		27	Calcium	mg/L		92.0	
3	pH		6.5-8.5	8.4*		28	Magnesium	mg/L		35.72	
4	Color	Units	5	<5		29	Silica	mg/L		19.61	
5	Turbidity	NTU	5	<5		30	Total Iron	mg/L	1	0.51	0.001
6	Conductivity	µS/cm		650		31	Total Manganese	mg/L	0.5	0.51	0.006
7	Total Dissolved Solids	mg/L	500	443		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		-		33	Zinc	mg/L	5 <sup>@</sup>	<MDL	0.002
9	Chloride	mg/L	250	10		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		352		35	Arsenic	mg/L	0.01	0.01	0.01
11	Acidity	mg/L		0		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	377		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	19		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		2.21	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	1.97 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	0	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		<MDL	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.17		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	0.02	0.01	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		3.0		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		20.0		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		1.0		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		ND	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	8.35			II			<MDL	0.02

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MDL Method Detection Limit

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<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

**RESULT OF ANALYSIS**

1	Name of WD	Polomolok
2	Date of Analysis	February 2003
3	Area number	8 - Region 11
4	Province	South Cotabato

1	Name of source	Pump Station #2
2	Location	No Data
		No Data
3	Depth Borehole; meter	No Data
4	Discharge Flowrate; liters/sec	No Data
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		2.92	
2	Temperature	°C		22		27	Calcium	mg/L		14.25	
3	pH		6.5-8.5	8.26		28	Magnesium	mg/L		2.54	
4	Color	Units	5	<5		29	Silica	mg/L		97	
5	Turbidity	NTU	5	<5		30	Total Iron	mg/L	1	<MDL	0.001
6	Conductivity	µS/cm		240		31	Total Manganese	mg/L	0.5	<MDL	0.006
7	Total Dissolved Solids	mg/L	500	-		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		-		33	Zinc	mg/L	5 @	<MDL	0.002
9	Chloride	mg/L	250	5		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		80		35	Arsenic	mg/L	0.01	0.004	0.01
11	Acidity	mg/L		0 <sup>3</sup>		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 @	46		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	<MDL		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		<MDL	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0.02 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	1.39 <sup>1</sup>	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		<MDL	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.13		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	0.04	0.01	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		6.0		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		<5		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		<1		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		<MDL	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 @	4.04			II			<MDL	0.02

Note: @ Secondary Standard; compliance with the standard and analysis are not obligatory

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<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination



### RESULT OF ANALYSIS

1	Name of WD	Polomolok
2	Date of Analysis	February 2003
3	Area number	8 - Region 11
4	Province	South Cotabato

1	Name of source	Pump Station #4
2	Location	No Data
		No Data
3	Depth Borehole; meter	No Data
4	Discharge Flowrate; liters/sec	No Data
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		3.12	
2	Temperature	°C		22		27	Calcium	mg/L		17.90	
3	pH		6.5-8.5	8.53		28	Magnesium	mg/L		2.04	
4	Color	Units	5	<5		29	Silica	mg/L		104	
5	Turbidity	NTU	5	<5		30	Total Iron	mg/L	1	<MDL	0.001
6	Conductivity	µS/cm		240		31	Total Manganese	mg/L	0.5	<MDL	0.006
7	Total Dissolved Solids	mg/L	500	174 <sup>2</sup>		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		194		33	Zinc	mg/L	5 <sup>@</sup>	<MDL	0.002
9	Chloride	mg/L	250	7		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		54		35	Arsenic	mg/L	0.01	0.01	0.01
11	Acidity	mg/L		0		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	53		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	<MDL		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		<MDL	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0.02 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	12.78 <sup>1</sup>	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		<MDL	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.13		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	0	0.01	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		9.0		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		<5		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		2.0		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		0.002	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	4.58			II			<MDL	0.02

Note: @ Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

U Unobjectionable Odor, O = Objectionable Odor

+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

### RESULT OF ANALYSIS

1	Name of WD	Tupi
2	Date of Analysis	February 2003
3	Area number	8 - Region 11
4	Province	South Cotabato

1	Name of source	Well #1
2	Location	No Data
		No Data
3	Depth Borehole; meter	No Data
4	Discharge Flowrate; liters/sec	No Data
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		2.30	
2	Temperature	°C		21.5		27	Calcium	mg/L		18.96	
3	pH		6.5-8.5	6.66		28	Magnesium	mg/L		3.61	
4	Color	Units	5	<5		29	Silica	mg/L		97.80	
5	Turbidity	NTU	5	<5		30	Total Iron	mg/L	1	<MDL	0.001
6	Conductivity	$\mu$ S/cm		241		31	Total Manganese	mg/L	0.5	<MDL	0.006
7	Total Dissolved Solids	mg/L	500	211		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		218		33	Zinc	mg/L	5 <sup>@</sup>	<MDL	0.002
9	Chloride	mg/L	250	8		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		60		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		15		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	62		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	9		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		<MDL	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0.03 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	7.96 <sup>1</sup>	0.001	41	Aldrin & Dieldrin	$\mu$ g/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		ND	0.20	42	Chlordane	$\mu$ g/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.13		43	DDT	$\mu$ g/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	$\mu$ g/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.01	45	Heptachlor/Heptachlor Epoxide	$\mu$ g/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		4		46	Lindane	$\mu$ g/L	2	<MDL	0.01
22	COD	mg/L		<5		47	Methoxychlor	$\mu$ g/L	20	<MDL	0.02
23	BOD	mg/L		<1		48	Toxaphene	$\mu$ g/L		<MDL	0.02
24	Surfactant	mg/L		<MDL	0.05	49	Endosulfan I	$\mu$ g/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	4.82			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

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+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

## RESULT OF ANALYSIS

1	Name of WD	Tupi
2	Date of Analysis	February 2003
3	Area number	8 - Region 11
4	Province	South Cotabato

1	Name of source	Well #2
2	Location	No Data
		No Data
3	Depth Borehole; meter	No Data
4	Discharge Flowrate; liters/sec	No Data
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator
		No data

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		1.74	
2	Temperature	°C		21.5		27	Calcium	mg/L		22.74	
3	pH		6.5-8.5	6.61		28	Magnesium	mg/L		3.74	
4	Color	Units	5	<5		29	Silica	mg/L		103.09	
5	Turbidity	NTU	5	<5		30	Total Iron	mg/L	1	<MDL	0.001
6	Conductivity	µS/cm		233		31	Total Manganese	mg/L	0.5	<MDL	0.006
7	Total Dissolved Solids	mg/L	500	183		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		205		33	Zinc	mg/L	5 <sup>@</sup>	0.08	0.002
9	Chloride	mg/L	250	8		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		68		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		5		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	72		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	5		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		<MDL	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0.03 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	5.17 <sup>1</sup>	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		<MDL	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.08		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.01	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		4.0		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		<5		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		2.0		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		<MDL	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	6.27			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

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+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

## RESULT OF ANALYSIS

1	Name of WD	Davao City
2	Date of Analysis	February 2003
3	Area number	8 - Region 11
4	Province	Davao City

1	Name of source	Well #1
2	Location	7° 8' 7.7"
		125° 37' 29.0"
3	Depth Borehole; meter	120
4	Discharge Flowrate; liters/sec	35.2
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		10.86	
2	Temperature	°C		26.5*		27	Calcium	mg/L		94.52	
3	pH		6.5-8.5	8.7*		28	Magnesium	mg/L		51.97	
4	Color	Units	5	<5		29	Silica	mg/L		62.07	
5	Turbidity	NTU	5	<5		30	Total Iron	mg/L	1	0.07	0.001
6	Conductivity	µS/cm		1,189		31	Total Manganese	mg/L	0.5	0.1	0.006
7	Total Dissolved Solids	mg/L	500	648		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		781		33	Zinc	mg/L	5 <sup>®</sup>	<MDL	0.002
9	Chloride	mg/L	250	19		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		781		35	Arsenic	mg/L	0.01	0.004	0.01
11	Acidity	mg/L		0		36	Chromium	mg/L	0.05	0.001	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>®</sup>	450		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	4		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		0.88	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0.07 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	0	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		<MDL	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.06		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	0.03	0.010	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		3.0		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		11.0		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		<1		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		<MDL	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>®</sup>	37.85			II			<MDL	0.02

Note: <sup>®</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

U Unobjectionable Odor, O = Objectionable Odor

+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

**RESULT OF ANALYSIS**

1	Name of WD	Hagonoy
2	Date of Analysis	February 2003
3	Area number	8 - Region 11
4	Province	Cagayan De Oro

1	Name of source	Well #1
2	Location	6° 41' 2.0"
		125° 20' 55.1"
3	Depth Borehole; meter	92
4	Discharge Flowrate; liters/sec	2.0
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		53.96	
2	Temperature	°C		28.8*		27	Calcium	mg/L		14.84	
3	pH		6.5-8.5	8.9*		28	Magnesium	mg/L		13.38	
4	Color	Units	5	20		29	Silica	mg/L		76.82	
5	Turbidity	NTU	5	5.00		30	Total Iron	mg/L	1	0.17	0.001
6	Conductivity	µS/cm		1,226		31	Total Manganese	mg/L	0.5	0.04	0.006
7	Total Dissolved Solids	mg/L	500	667		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		757		33	Zinc	mg/L	5 <sup>@</sup>	<MDL	0.002
9	Chloride	mg/L	250	139		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		441		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		0		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	92		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	<MDL		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		6.26	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	3.33 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	2.70 <sup>1</sup>	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		9	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.16		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	0.003	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.010	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		1.0		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		44.0		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		2.0		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		<MDL	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	60.42			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

U Unobjectionable Odor, O = Objectionable Odor

+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

## RESULT OF ANALYSIS

1	Name of WD	Kiblawan
2	Date of Analysis	February 2003
3	Area number	8 - Region 11
4	Province	Davao del Sur

1	Name of source	Well #1
2	Location	6° 37' 34.4"
		125° 15' 18"
3	Depth Borehole; meter	55
4	Discharge Flowrate; liters/sec	11
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		8.36	
2	Temperature	°C		26.7*		27	Calcium	mg/L		65.34	
3	pH		6.5-8.5	7.9*		28	Magnesium	mg/L		18.40	
4	Color	Units	5	<5		29	Silica	mg/L		83.60	
5	Turbidity	NTU	5	<5		30	Total Iron	mg/L	1	<MDL	0.001
6	Conductivity	$\mu$ S/cm		1,346		31	Total Manganese	mg/L	0.5	<MDL	0.006
7	Total Dissolved Solids	mg/L	500	658		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		812		33	Zinc	mg/L	5 <sup>®</sup>	<MDL	0.002
9	Chloride	mg/L	250	240		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		344		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		42		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>®</sup>	239		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	31		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		2.21	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0.27 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	0.65 <sup>1</sup>	0.001	41	Aldrin & Dieldrin	$\mu$ g/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		<MDL	0.20	42	Chlordane	$\mu$ g/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.42		43	DDT	$\mu$ g/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	$\mu$ g/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.010	45	Heptachlor/Heptachlor Epoxide	$\mu$ g/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		2.0		46	Lindane	$\mu$ g/L	2	<MDL	0.01
22	COD	mg/L		40.0		47	Methoxychlor	$\mu$ g/L	20	<MDL	0.02
23	BOD	mg/L		1.0		48	Toxaphene	$\mu$ g/L		<MDL	0.02
24	Surfactant	mg/L		<MDL	0.05	49	Endosulfan I	$\mu$ g/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>®</sup>	28.55			II			<MDL	0.02

Note: <sup>®</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

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+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

### RESULT OF ANALYSIS

1	Name of WD	San Isidro
2	Date of Analysis	February 2003
3	Area number	8 - Region 11
4	Province	Davao City

1	Name of source	Well #1
2	Location	6° 49' 56.1"
		126° 4' 54.3"
3	Depth Borehole; meter	52
4	Discharge Flowrate; liters/sec	3.55
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		0.42	
2	Temperature	°C		29.4*		27	Calcium	mg/L		137.22	
3	pH		6.5-8.5	7.9*		28	Magnesium	mg/L		30.17	
4	Color	Units	5	<5		29	Silica	mg/L		52.50	
5	Turbidity	NTU	5	<5		30	Total Iron	mg/L	1	<MDL	0.001
6	Conductivity	µS/cm		992		31	Total Manganese	mg/L	0.5	0.04	0.006
7	Total Dissolved Solids	mg/L	500	587		32	Aluminum	mg/L	0.2	ND	0.01
8	Total Solids	mg/L		678		33	Zinc	mg/L	5 <sup>@</sup>	0.42	0.002
9	Chloride	mg/L	250	76		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		392		35	Arsenic	mg/L	0.01	0.02	0.01
11	Acidity	mg/L		0		36	Chromium	mg/L	0.05	0.08	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	467		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	32		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		<MDL	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0.03 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	13 <sup>1</sup>	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		<MDL	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.12		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.010	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		5.0		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		6.0		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		2.0		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		<MDL	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	11.64			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

U Unobjectionable Odor, O = Objectionable Odor

+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

**RESULT OF ANALYSIS**

1	Name of WD	Digos
2	Date of Analysis	February 2003
3	Area number	8 - Region 11
4	Province	Davao del Sur

1	Name of source	Well #3
2	Location	6° 45' 5.4"
		125° 20' 47.5"
3	Depth Borehole; meter	120
4	Discharge Flowrate; liters/sec	38
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		11.22	
2	Temperature	°C		26.5*		27	Calcium	mg/L		28.52	
3	pH		6.5-8.5	8.4*		28	Magnesium	mg/L		9.53	
4	Color	Units	5	<5		29	Silica	mg/L		89	
5	Turbidity	NTU	5	<5		30	Total Iron	mg/L	1	<MDL	0.001
6	Conductivity	µS/cm		347		31	Total Manganese	mg/L	0.5	<MDL	0.006
7	Total Dissolved Solids	mg/L	500	218		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		-		33	Zinc	mg/L	5 <sup>@</sup>	<MDL	0.002
9	Chloride	mg/L	250	2		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		185		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		0 <sup>3</sup>		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	110		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	17		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		0.86	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	0	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		<MDL	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.09		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.010	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		1.4		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		20.0		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		<1		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		<MDL	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	9.18			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

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+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination



## RESULT OF ANALYSIS

1	Name of WD	Davao City
2	Date of Analysis	February 2003
3	Area number	8 - Region 11
4	Province	Davao City

1	Name of source	Well #30
2	Location	7° 2' 11.4"
		125° 30' 59.9"
3	Depth Borehole; meter	129
4	Discharge Flowrate; liters/sec	52.63
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator
		No data

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		2.32	
2	Temperature	°C		22.4*		27	Calcium	mg/L		64.85	
3	pH		6.5-8.5	9.2*		28	Magnesium	mg/L		3.92	
4	Color	Units	5	<5		29	Silica	mg/L		69.09	
5	Turbidity	NTU	5	<5		30	Total Iron	mg/L	1	0.07	0.001
6	Conductivity	µS/cm		302 <sup>2</sup>		31	Total Manganese	mg/L	0.5	<MDL	0.006
7	Total Dissolved Solids	mg/L	500	193 <sup>2</sup>		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		-		33	Zinc	mg/L	5 <sup>@</sup>	<MDL	0.002
9	Chloride	mg/L	250	0.37		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		61.05		35	Arsenic	mg/L	0.01	0.006	0.01
11	Acidity	mg/L		0.3		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	178.07		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	11		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		0.88	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0.003 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	0	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		<MDL	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.07		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	0.002	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	0.03	0.010	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		4.0		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		9.0		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		<1		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		<MDL	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	4.34			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

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+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

### RESULT OF ANALYSIS

1	Name of WD	Glan
2	Date of Analysis	February 2003
3	Area number	8 - Region 11
4	Province	Sarangani

1	Name of source	Well #4
2	Location	5° 49' 10.8"
		125° 13' 17.7"
3	Depth Borehole; meter	9
4	Discharge Flowrate; liters/sec	3
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator
		No data

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		4.12	
2	Temperature	°C		28.7*		27	Calcium	mg/L		132.68	
3	pH		6.5-8.5	8.5*		28	Magnesium	mg/L		18.34	
4	Color	Units	5	<5		29	Silica	mg/L		47	
5	Turbidity	NTU	5	<5		30	Total Iron	mg/L	1	<MDL	0.001
6	Conductivity	µS/cm		1,019		31	Total Manganese	mg/L	0.5	0.30	0.006
7	Total Dissolved Solids	mg/L	500	517		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		658		33	Zinc	mg/L	5 <sup>@</sup>	<MDL	0.002
9	Chloride	mg/L	250	52		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		552		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		0 <sup>3</sup>		36	Chromium	mg/L	0.05	0.04	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	407		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	<MDL		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		0.17	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	1.1 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	0	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		<MDL	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.01		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.010	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		4.0		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		10.0		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		2.0		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		<MDL	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	45.26			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

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+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

### RESULT OF ANALYSIS

1	Name of WD	Tagum
2	Date of Analysis	February 2003
3	Area number	8 - Region 11
4	Province	Davao

1	Name of source	Well #4
2	Location	7° 26' 41.6"
		125° 48' 24.8"
3	Depth Borehole; meter	J. Village, Visayan Tagum City, Davao
4	Discharge Flowrate; liters/sec	86
5	Date of Well Operation	29.4
6	Disinfection Unit	No data
	Gas Chlorinator Hypochlorinator	No data

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		6.56	
2	Temperature	°C		26*		27	Calcium	mg/L		113.64	
3	pH		6.5-8.5	8.4*		28	Magnesium	mg/L		13.55	
4	Color	Units	5	10		29	Silica	mg/L		30.0	
5	Turbidity	NTU	5	8		30	Total Iron	mg/L	1	0.10	0.001
6	Conductivity	µS/cm		692		31	Total Manganese	mg/L	0.5	0.82	0.006
7	Total Dissolved Solids	mg/L	500	443 <sup>2</sup>		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		473		33	Zinc	mg/L	5 <sup>@</sup>	<MDL	0.002
9	Chloride	mg/L	250	22		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		320		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		0		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	340		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	9		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		2.82	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0.47 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	0	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		<MDL	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.12		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	0.008	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.010	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		3.0		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		12.0		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		6.0		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		0.11	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	21.52			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

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MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

## RESULT OF ANALYSIS

1	Name of WD	Digos
2	Date of Analysis	February 2003
3	Area number	8 - Region 11
4	Province	Davao Del Sur

1	Name of source	Well #5
2	Location	6° 45' 43.5"
		125° 21' 4.7"
		Jumao - as St. Digos City
		Davao Del Sur
3	Depth Borehole; meter	112
4	Discharge Flowrate; liters/sec	40
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator
		No data

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		10.84	
2	Temperature	°C		26.9*		27	Calcium	mg/L		47.48	
3	pH		6.5-8.5	8.5*		28	Magnesium	mg/L		10.74	
4	Color	Units	5	<5		29	Silica	mg/L		78	
5	Turbidity	NTU	5	<5		30	Total Iron	mg/L	1	<MDL	0.001
6	Conductivity	µS/cm		448		31	Total Manganese	mg/L	0.5	<MDL	0.006
7	Total Dissolved Solids	mg/L	500	255		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		278		33	Zinc	mg/L	5 <sup>@</sup>	<MDL	0.002
9	Chloride	mg/L	250	6		34	Copper	mg/L	1	0.004	0.001
10	Total Alkalinity	mg/L		223		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		0		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	163		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	4		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		3.68	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	0.78 <sup>1</sup>	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		<MDL	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.15		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.010	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		2.0		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		19.0		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		<1		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		<MDL	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	10.90			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

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<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

### RESULT OF ANALYSIS

1	Name of WD	Glan
2	Date of Analysis	February 2003
3	Area number	8 - Region 11
4	Province	Cagayan De Oro

1	Name of source	Well #5
2	Location	5° 49' 21.8"
		125° 12' 42"
3	Depth Borehole; meter	80
4	Discharge Flowrate; liters/sec	12
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator
		No data

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		2.59	
2	Temperature	°C		29.2*		27	Calcium	mg/L		179.81	
3	pH		6.5-8.5	8.2*		28	Magnesium	mg/L		21.22	
4	Color	Units	5	<5		29	Silica	mg/L		41	
5	Turbidity	NTU	5	<5		30	Total Iron	mg/L	1	0.38	0.001
6	Conductivity	µS/cm		1,227		31	Total Manganese	mg/L	0.5	0.26	0.006
7	Total Dissolved Solids	mg/L	500	660 <sup>2</sup>		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		774		33	Zinc	mg/L	5 <sup>@</sup>	<MDL	0.002
9	Chloride	mg/L	250	67		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		520		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		11		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	536		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	<MDL		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		<MDL	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0.53 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	0	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		<MDL	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.14		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.010	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		4.0		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		6.0		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		2.0		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		0.03	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	36.34			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

U Unobjectionable Odor, O = Objectionable Odor

+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

### RESULT OF ANALYSIS

1	Name of WD	Mati
2	Date of Analysis	February 2003
3	Area number	8 - Region 11
4	Province	Davao Oriental

1	Name of source	Well #5
2	Location	6° 57' 38.9"
		126° 11' 52.3"
3	Depth Borehole; meter	43
4	Discharge Flowrate; liters/sec	6
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		0.70	
2	Temperature	°C		28.5*		27	Calcium	mg/L		63.82	
3	pH		6.5-8.5	8.4*		28	Magnesium	mg/L		7.94	
4	Color	Units	5	<5		29	Silica	mg/L		39	
5	Turbidity	NTU	5	<5		30	Total Iron	mg/L	1	<MDL	0.001
6	Conductivity	$\mu$ S/cm		481		31	Total Manganese	mg/L	0.5	0.08	0.006
7	Total Dissolved Solids	mg/L	500	308		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		-		33	Zinc	mg/L	5.0	<MDL	0.002
9	Chloride	mg/L	250	8		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		254		35	Arsenic	mg/L	0.01	0.014	0.01
11	Acidity	mg/L		0		36	Chromium	mg/L	0.05	0.02	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	192		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	10		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		<MDL	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0.02 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	3.57 <sup>1</sup>	0.001	41	Aldrin & Dieldrin	$\mu$ g/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		2.52	0.20	42	Chlordane	$\mu$ g/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.07		43	DDT	$\mu$ g/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	$\mu$ g/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.010	45	Heptachlor/Heptachlor Epoxide	$\mu$ g/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		5.0		46	Lindane	$\mu$ g/L	2	<MDL	0.01
22	COD	mg/L		4.0		47	Methoxychlor	$\mu$ g/L	20	<MDL	0.02
23	BOD	mg/L		2.0		48	Toxaphene	$\mu$ g/L		<MDL	0.02
24	Surfactant	mg/L		<MDL	0.05	49	Endosulfan I	$\mu$ g/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	8.54			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

U Unobjectionable Odor, O = Objectionable Odor

+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

REGION 12





**RESULT OF ANALYSIS**

1	Name of WD	Mlang
2	Date of Analysis	February 2003
3	Area number	8 - Region 12
4	Province	Cotabato

1	Name of source	Deepwell 2
2	Location	No Data
		No Data
3	Depth Borehole; meter	94
4	Discharge Flowrate; liters/sec	20
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		4.97	
2	Temperature	°C		21.1		27	Calcium	mg/L		33.52	
3	pH		6.5-8.5	6.56*		28	Magnesium	mg/L		8.54	
4	Color	Units	5	67		29	Silica	mg/L		102.06	
5	Turbidity	NTU	5	22		30	Total Iron	mg/L	1	3.92	0.001
6	Conductivity	µS/cm		376		31	Total Manganese	mg/L	0.5	0.24	0.006
7	Total Dissolved Solids	mg/L	500	215		32	Aluminum	mg/L	0.2	0.43	0.01
8	Total Solids	mg/L		348		33	Zinc	mg/L	5 <sup>®</sup>	<MDL	0.002
9	Chloride	mg/L	250	12		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		179		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		-		36	Chromium	mg/L	0.05	0.06	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>®</sup>	119		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	<MDL		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		<MDL	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0.012 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	0.35 <sup>1</sup>	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		3	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.16		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.010	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		2.0		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		33.0		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		5.0		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		<MDL	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>®</sup>	7.72			II			<MDL	0.02

Note: <sup>®</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

U Unobjectionable Odor, O = Objectionable Odor

+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

### RESULT OF ANALYSIS

1	Name of WD	Tubod-Baroy
2	Date of Analysis	February 2003
3	Area number	8 - Region 12
4	Province	Lanao del Norte

1	Name of source	Well #1
2	Location	No Data
		No Data
3	Depth Borehole; meter	No Data
4	Discharge Flowrate; liters/sec	No Data
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		3.61	
2	Temperature	°C		18*		27	Calcium	mg/L		14.80	
3	pH		6.5-8.5	7*		28	Magnesium	mg/L		7.37	
4	Color	Units	5	<5		29	Silica	mg/L		96.78	
5	Turbidity	NTU	5	<5		30	Total Iron	mg/L	1	0.16	0.001
6	Conductivity	µS/cm		314		31	Total Manganese	mg/L	0.5	<MDL	0.006
7	Total Dissolved Solids	mg/L	500	168		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		265		33	Zinc	mg/L	5 <sup>@</sup>	<MDL	0.002
9	Chloride	mg/L	250	6		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		169		35	Arsenic	mg/L	0.01	0.02	0.01
11	Acidity	mg/L		-		36	Chromium	mg/L	0.05	0.001	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	67		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	15		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		<MDL	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0.01 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	0.91 <sup>1</sup>	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		7	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.16		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	0.002	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.010	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		2.0		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		16.0		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		1.0		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		<MDL	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	9.42			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

U Unobjectionable Odor, O = Objectionable Odor

+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

### RESULT OF ANALYSIS

1	Name of WD	Bacolod
2	Date of Analysis	February 2003
3	Area number	8 - Region 12
4	Province	

1	Name of source	Well #1
2	Location	No Data
		No Data
3	Depth Borehole; meter	61
4	Discharge Flowrate; liters/sec	22
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		2.64	
2	Temperature	°C		25*		27	Calcium	mg/L		15.22	
3	pH		6.5-8.5	6.7*		28	Magnesium	mg/L		6.24	
4	Color	Units	5	<5		29	Silica	mg/L		87.54	
5	Turbidity	NTU	5	<5		30	Total Iron	mg/L	1	<MDL	0.001
6	Conductivity	µS/cm		234		31	Total Manganese	mg/L	0.5	<MDL	0.006
7	Total Dissolved Solids	mg/L	500	138		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		198		33	Zinc	mg/L	5 <sup>@</sup>	0.02	0.002
9	Chloride	mg/L	250	1		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		107		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		-		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	64		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	8		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		<MDL	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0.01 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	0	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		3	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.03		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.010	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		4.0		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		10.0		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		1.0		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		<MDL	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	4.17			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

U Unobjectionable Odor, O = Objectionable Odor

+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

**RESULT OF ANALYSIS**

1	Name of WD	Midsayap
2	Date of Analysis	February 2003
3	Area number	8 - Region 12
4	Province	Cotabato

1	Name of source	Villarica Well
2	Location	No Data
		No Data
3	Depth Borehole, meter	60
4	Discharge Flowrate, liters/sec	20
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator
		No data

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		11.94	
2	Temperature	°C		22		27	Calcium	mg/L		98.56	
3	pH		6.5-8.5	6.79		28	Magnesium	mg/L		18.24	
4	Color	Units	5	33		29	Silica	mg/L		83	
5	Turbidity	NTU	5	24		30	Total Iron	mg/L	1	7.32	0.001
6	Conductivity	µS/cm		792		31	Total Manganese	mg/L	0.5	2.18	0.006
7	Total Dissolved Solids	mg/L	500	431		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		497		33	Zinc	mg/L	5 <sup>@</sup>	0.27	0.002
9	Chloride	mg/L	250	57		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		366		35	Arsenic	mg/L	0.01	0.002	0.01
11	Acidity	mg/L		105		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	321		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	3.29		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		13	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0.1 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	0	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		1.33	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.12		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.010	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		1		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		12.0		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		9.0		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		0.07	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	11.67			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

U Unobjectionable Odor, O = Objectionable Odor

+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

## RESULT OF ANALYSIS

1	Name of WD	Sultan Kudarat (Maguindanao)
2	Date of Analysis	February 2003
3	Area number	8 - Region 12
4	Province	Maguindanao

1	Name of source	Rebuken Well
2	Location	No Data
		No Data
3	Depth Borehole; meter	101
4	Discharge Flowrate; liters/sec	30
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		5.22	
2	Temperature	°C		28*		27	Calcium	mg/L		21.54	
3	pH		6.5-8.5	7.8*		28	Magnesium	mg/L		21.77	
4	Color	Units	5	<5		29	Silica	mg/L		56.60	
5	Turbidity	NTU	5	<5		30	Total Iron	mg/L	1	<MDL	0.001
6	Conductivity	µS/cm		677		31	Total Manganese	mg/L	0.5	<MDL	0.006
7	Total Dissolved Solids	mg/L	500	402		32		mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		415		33	Zinc	mg/L	5 <sup>@</sup>	<MDL	0.002
9	Chloride	mg/L	250	7		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		373		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		0		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	143		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	11		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		1.47	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0.87 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	0	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		<MDL	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.16		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	0.005	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.010	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		2.0		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		35.0		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		2.0		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		<MDL	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	23.56			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

U Unobjectionable Odor, O = Objectionable Odor

+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

## RESULT OF ANALYSIS

1	Name of WD	Sultan Kudarat
2	Date of Analysis	February 2003
3	Area number	8 - Region 12
4	Province	Sultan Kudarat

1	Name of source	PS - Esparanza	
2	Location	No Data	Pump Station Esparanza
		No Data	Sultan Kudarat
3	Depth Borehole; meter	No Data	
4	Discharge Flowrate; liters/sec	No Data	
5	Date of Well Operation	No data	
6	Disinfection Unit	Gas Chlorinator	No data
		Hypochlorinator	

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U		26	Potassium	mg/L		7.77	
2	Temperature	°C		20.4		27	Calcium	mg/L		73.22	
3	pH		6.5-8.5	7.13		28	Magnesium	mg/L		14.38	
4	Color	Units	5	<5		29	Silica	mg/L		98.79	
5	Turbidity	NTU	5	13		30	Total Iron	mg/L	1	0.58	0.001
6	Conductivity	µS/cm		878		31	Total Manganese	mg/L	0.5	0.90	0.006
7	Total Dissolved Solids	mg/L	500	502		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		535		33	Zinc	mg/L	5 <sup>@</sup>	<MDL	0.002
9	Chloride	mg/L	250	104		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		336		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		-		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	242		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	<MDL		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		2.70	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	2.07 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	0	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		4	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.04		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	0.003	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.010	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		2.0		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		11.0		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		1.0		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		<MDL	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	33.30			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

U Unobjectionable Odor, O = Objectionable Odor

+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

## RESULT OF ANALYSIS

1	Name of WD	Sultan Kudarat
2	Date of Analysis	February 2003
3	Area number	8 - Region 12
4	Province	Tacurong City

1	Name of source	PS-5
2	Location	No Data
		No Data
3	Depth Borehole; meter	No Data
4	Discharge Flowrate; liters/sec	No Data
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		1.64	
2	Temperature	°C		20.3		27	Calcium	mg/L		22.63	
3	pH		6.5-8.5	6.94		28	Magnesium	mg/L		5.88	
4	Color	Units	5	<5		29	Silica	mg/L		101.27	
5	Turbidity	NTU	5	<5		30	Total Iron	mg/L	1	0.17	0.001
6	Conductivity	uS/cm		395 <sup>2</sup>		31	Total Manganese	mg/L	0.5	0.34	0.006
7	Total Dissolved Solids	mg/L	500	253		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		-		33	Zinc	mg/L	5 <sup>@</sup>	<MDL	0.002
9	Chloride	mg/L	250	8		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		122		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		5		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	81		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	<MDL		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		<MDL	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0.5 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	0	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		<MDL	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.18		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.010	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		3.0		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		<5		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		2		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		0.01	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	3.62			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

U Unobjectionable Odor, O = Objectionable Odor

+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

## RESULT OF ANALYSIS

1	Name of WD	Tubod-Baroy
2	Date of Analysis	February 2003
3	Area number	8 - Region 12
4	Province	Lanao del Norte

1	Name of source	Pumping Station District 2
2	Location	No Data
		No Data
3	Depth Borehole; meter	No Data
4	Discharge Flowrate; liters/sec	No Data
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		1.42	
2	Temperature	°C		23*		27	Calcium	mg/L		13.52	
3	pH		6.5-8.5	7*		28	Magnesium	mg/L		8.09	
4	Color	Units	5	10		29	Silica	mg/L		101.53	
5	Turbidity	NTU	5	5.00		30	Total Iron	mg/L	1	1.16	0.001
6	Conductivity	$\mu$ S/cm		311		31	Total Manganese	mg/L	0.5	0.14	0.006
7	Total Dissolved Solids	mg/L	500	209		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		279		33	Zinc	mg/L	5 <sup>@</sup>	<MDL	0.002
9	Chloride	mg/L	250	5		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		158		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		-		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	67		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	4		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		<MDL	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0.73 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	0	0.001	41	Aldrin & Dieldrin	$\mu$ g/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		1	0.20	42	Chlordane	$\mu$ g/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.16		43	DDT	$\mu$ g/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	$\mu$ g/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.010	45	Heptachlor	$\mu$ g/L	0.03	0.01	0.01
21	DO (DO%)	mg/L		3.0		46	Lindane	$\mu$ g/L	2	<MDL	0.01
22	COD	mg/L		10.0		47	Methoxychlor	$\mu$ g/L	20	<MDL	0.02
23	BOD	mg/L		4.0		48	Toxaphene	$\mu$ g/L		<MDL	0.02
24	Surfactant	mg/L		<MDL	0.05	49	Endosulfan I	$\mu$ g/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	9.84			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

U Unobjectionable Odor, O = Objectionable Odor

+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination



## RESULT OF ANALYSIS

1	Name of WD	Pikit
2	Date of Analysis	February 2003
3	Area number	8 - Region 12
4	Province	Cotabato

1	Name of source		Pump Station 2
2	Location	No Data	National H-way, Pikit, Cotabato
		No Data	
3	Depth Borehole; meter		200
4	Discharge Flowrate; liters/sec		7.6
5	Date of Well Operation		No data
6	Disinfection Unit	Gas Chlorinator	No data
		Hypochlorinator	

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		16.44	
2	Temperature	°C		21.5		27	Calcium	mg/L		157.83	
3	pH		6.5-8.5	7.13		28	Magnesium	mg/L		13.52	
4	Color	Units	5	<5		29	Silica	mg/L		101.87	
5	Turbidity	NTU	5	<5		30	Total Iron	mg/L	1	0.02	0.001
6	Conductivity	µS/cm		1,654		31	Total Manganese	mg/L	0.5	0.02	0.006
7	Total Dissolved Solids	mg/L	500	1,100		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		1,154		33	Zinc	mg/L	5 <sup>@</sup>	<MDL	0.002
9	Chloride	mg/L	250	371		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		221		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		-		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	450		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	56		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		<MDL	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	1.03 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	0	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		<MDL	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.15		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.010	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		3.0		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		29.0		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		<1		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		<MDL	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	47.98			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

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+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

## RESULT OF ANALYSIS

1	Name of WD	Pikit
2	Date of Analysis	February 2003
3	Area number	8 - Region 12
4	Province	Cotabato

1	Name of source	Pump Station 1
2	Location	No Data
		No Data
3	Depth Borehole; meter	40
4	Discharge Flowrate; liters/sec	2
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		1.75	
2	Temperature	°C		20.9		27	Calcium	mg/L		123.24	
3	pH		6.5-8.5	6.72		28	Magnesium	mg/L		3.08	
4	Color	Units	5	<5		29	Silica	mg/L		63.77	
5	Turbidity	NTU	5	<5		30	Total Iron	mg/L	1	<MDL	0.001
6	Conductivity	µS/cm		617		31	Total Manganese	mg/L	0.5	<MDL	0.006
7	Total Dissolved Solids	mg/L	500	397		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		450		33	Zinc	mg/L	5 <sup>@</sup>	<MDL	0.002
9	Chloride	mg/L	250	31		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		251		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		-		36	Chromium	mg/L	0.05	0.01	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	320		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	7		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		<MDL	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0.01 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	9.70 <sup>1</sup>	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		<MDL	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.07		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.010	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		4.0		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		<5		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		<1		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		<MDL	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	4.88			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

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+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

### RESULT OF ANALYSIS

1	Name of WD	Sultan Kudarat (Maguindanao)
2	Date of Analysis	February 2003
3	Area number	8 - Region 12
4	Province	Maguindanao

1	Name of source	Macaguiling Well #1
2	Location	No Data
		No Data
3	Depth Borehole; meter	97
4	Discharge Flowrate; liters/sec	35
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		7.67	
2	Temperature	°C		28*		27	Calcium	mg/L		47.69	
3	pH		6.5-8.5	7.5*		28	Magnesium	mg/L		28.76	
4	Color	Units	5	<5		29	Silica	mg/L		37.71	
5	Turbidity	NTU	5	<5		30	Total Iron	mg/L	1	<MDL	0.001
6	Conductivity	$\mu$ S/cm		666		31	Total Manganese	mg/L	0.5	<MDL	0.006
7	Total Dissolved Solids	mg/L	500	318		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		438		33	Zinc	mg/L	5 <sup>@</sup>	<MDL	0.002
9	Chloride	mg/L	250	5		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		362		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		0		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	238		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	3		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		<MDL	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	1.1 <sup>†</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	0	0.001	41	Aldrin & Dieldrin	$\mu$ g/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		<MDL	0.20	42	Chlordane	$\mu$ g/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.09		43	DDT	$\mu$ g/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	0.006	0.002	44	Endrin	$\mu$ g/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.010	45	Heptachlor/Heptachlor Epoxide	$\mu$ g/L	0.03	0.01	0.01
21	DO (DO%)	mg/L		3.0		46	Lindane	$\mu$ g/L	2	<MDL	0.01
22	COD	mg/L		<5		47	Methoxychlor	$\mu$ g/L	20	<MDL	0.02
23	BOD	mg/L		<1		48	Toxaphene	$\mu$ g/L		<MDL	0.02
24	Surfactant	mg/L		<MDL	0.05	49	Endosulfan I	$\mu$ g/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	17.29			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

U Unobjectionable Odor, O = Objectionable Odor

+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

## RESULT OF ANALYSIS

1	Name of WD	Mlang
2	Date of Analysis	February 2003
3	Area number	8 - Region 12
4	Province	Cotabato

1	Name of source	Deepwell 1	
2	Location	No Data	Poblacion B Mlang, Cotabato
		No Data	
3	Depth Borehole; meter	53	
4	Discharge Flowrate; liters/sec	23	
5	Date of Well Operation	No data	
6	Disinfection Unit	Gas Chlorinator	No data
		Hypochlorinator	

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		4.76	
2	Temperature	°C		21.8		27	Calcium	mg/L		27.14	
3	pH		6.5-8.5	6.94*		28	Magnesium	mg/L		7.42	
4	Color	Units	5	<5		29	Silica	mg/L		97.08	
5	Turbidity	NTU	5	<5		30	Total Iron	mg/L	1	0.70	0.001
6	Conductivity	µS/cm		314		31	Total Manganese	mg/L	0.5	0.17	0.006
7	Total Dissolved Solids	mg/L	500	297		32	Aluminum	mg/L	0.2	0.51	0.01
8	Total Solids	mg/L		327		33	Zinc	mg/L	5 <sup>@</sup>	<MDL	0.002
9	Chloride	mg/L	250	7		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		155		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		5		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	98		37	Cadmium	mg/L	0.003	0.001	0.003
13	Sulfate	mg/L	250	17		38	Selenium	mg/L	0.01	0.001	0.001
14	Phosphate	mg/L		<MDL	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0.013 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	0	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		<MDL	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.14		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.010	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		2.0		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		7.0		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		2.0		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		<MDL	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	6.78			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

U Unobjectionable Odor, O = Objectionable Odor

+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

## RESULT OF ANALYSIS

1	Name of WD	Kauswagan
2	Date of Analysis	February 2003
3	Area number	8 - Region 12
4	Province	Lanao del Norte

1	Name of source	Auditorium Well
2	Location	No Data
		No Data
3	Depth Borehole; meter	30
4	Discharge Flowrate; liters/sec	5.4
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		1.70	
2	Temperature	°C		25*		27	Calcium	mg/L		14.62	
3	pH		6.5-8.5	7.3*		28	Magnesium	mg/L		7.80	
4	Color	Units	5	<5		29	Silica	mg/L		44.84	
5	Turbidity	NTU	5	<5		30	Total Iron	mg/L	1	<MDL	0.001
6	Conductivity	µS/cm		290		31	Total Manganese	mg/L	0.5	<MDL	0.006
7	Total Dissolved Solids	mg/L	500	161		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		279		33	Zinc	mg/L	5 <sup>®</sup>	<MDL	0.002
9	Chloride	mg/L	250	17		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		103		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		-		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>®</sup>	69		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	14		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		<MDL	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0.02 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	3.0 <sup>1</sup>	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		7	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.06		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.010	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		2.0		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		18.0		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		1.0		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		<MDL	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>®</sup>	8.0			II			<MDL	0.02

Note: <sup>®</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

U Unobjectionable Odor, O = Objectionable Odor

+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

## RESULT OF ANALYSIS

1	Name of WD	Midsayap
2	Date of Analysis	February 2003
3	Area number	8 - Region 12
4	Province	Cotabato

1	Name of source	Abaga Well
2	Location	No Data
		No Data
3	Depth Borehole; meter	56
4	Discharge Flowrate; liters/sec	14
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		11.41	
2	Temperature	°C		23		27	Calcium	mg/L		53.7	
3	pH		6.5-8.5	6.91		28	Magnesium	mg/L		19.68	
4	Color	Units	5	5		29	Silica	mg/L		93	
5	Turbidity	NTU	5	8		30	Total Iron	mg/L	1	0.7	0.001
6	Conductivity	µS/cm		627		31	Total Manganese	mg/L	0.5	0.19	0.006
7	Total Dissolved Solids	mg/L	500	375		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		441		33	Zinc	mg/L	5 <sup>@</sup>	<MDL	0.002
9	Chloride	mg/L	250	3		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		354		35	Arsenic	mg/L	0.01	0.005	0.01
11	Acidity	mg/L		68.44		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	215		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	5.35		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		2.21	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0.003 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	0.52 <sup>1</sup>	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		<MDL	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.14		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.010	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		1.0		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		13.0		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		6.0		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		0.01	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	7.88			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

U Unobjectionable Odor, O = Objectionable Odor

+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

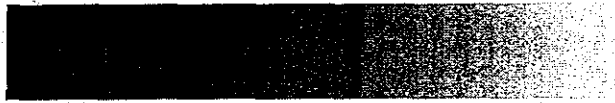
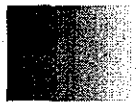
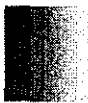
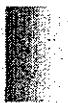
As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination



ARMM





## RESULT OF ANALYSIS

1	Name of WD	Marawi City
2	Date of Analysis	February 2003
3	Area number	8 - ARMM
4	Province	Marawi City

1	Name of source	Pumping Station #4
2	Location	No Data
		No Data
3	Depth Borehole; meter	55
4	Discharge Flowrate; liters/sec	40
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		0.81	
2	Temperature	°C		23.4		27	Calcium	mg/L		24.75	
3	pH		6.5-8.5	7.41		28	Magnesium	mg/L		11.56	
4	Color	Units	5	<5		29	Silica	mg/L		64.69	
5	Turbidity	NTU	5	<5		30	Total Iron	mg/L	1	0.11	0.001
6	Conductivity	µS/cm		301		31	Total Manganese	mg/L	0.5	ND	0.006
7	Total Dissolved Solids	mg/L	500	215 <sup>2</sup>		32	Aluminum	mg/L	0.2	ND	0.01
8	Total Solids	mg/L		287		33	Zinc	mg/L	5 <sup>@</sup>	0.2	0.002
9	Chloride	mg/L	250	9		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		148		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		16		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	109		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	6		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		2.7	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0	0.001	40	Mercury	mg/L	0.001	0.002	0.001
16	Nitrate	mg/L	50	7 <sup>1</sup>	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		0.28	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	<MDL		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	0	0.01	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		3.0		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		15.0		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		1.0		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		<MDL	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	2.78			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST inc.)

U Unobjectionable Odor, O = Objectionable Odor

+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

## RESULT OF ANALYSIS

1	Name of WD	Kabacan
2	Date of Analysis	February 2003
3	Area number	8 - ARMM
4	Province	Cotabato

1	Name of source	Pump Station 2
2	Location	No Data
		No Data
3	Depth Borehole; meter	100
4	Discharge Flowrate; liters/sec	30
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		-	
2	Temperature	°C		22		27	Calcium	mg/L		28.08	
3	pH		6.5-8.5	7.16		28	Magnesium	mg/L		13.62	
4	Color	Units	5	<5		29	Silica	mg/L		100.01	
5	Turbidity	NTU	5	<5		30	Total Iron	mg/L	1	0.22	0.001
6	Conductivity	uS/cm		613		31	Total Manganese	mg/L	0.5	0.46	0.006
7	Total Dissolved Solids	mg/L	500	409		32	Aluminum	mg/L	0.2	0.43	0.01
8	Total Solids	mg/L		-		33	Zinc	mg/L	5 <sup>@</sup>	<MDL	0.002
9	Chloride	mg/L	250	25		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		289		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		13		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	126		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	22		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		<MDL	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	2.7 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	0	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		<MDL	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.18		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	0.006	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.01	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		2.0		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		11.0		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		<1		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		<MDL	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	16.04			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

U Unobjectionable Odor, O = Objectionable Odor

+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

### RESULT OF ANALYSIS

1	Name of WD	Bongao
2	Date of Analysis	February 2003
3	Area number	8 - ARMM
4	Province	Tawi-Tawi

1	Name of source	Well #1
2	Location	No Data
		No Data
3	Depth Borehole; meter	30
4	Discharge Flowrate; liters/sec	19
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		1.61	
2	Temperature	°C		21		27	Calcium	mg/L		104.36	
3	pH		6.5-8.5	6.8*		28	Magnesium	mg/L		13.83	
4	Color	Units	5	5		29	Silica	mg/L		10.78	
5	Turbidity	NTU	5	<5		30	Total Iron	mg/L	1	1.0	0.001
6	Conductivity	$\mu$ S/cm		1,626		31	Total Manganese	mg/L	0.5	<MDL	0.006
7	Total Dissolved Solids	mg/L	500	939		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		990		33	Zinc	mg/L	5 <sup>@</sup>	0.006	0.002
9	Chloride	mg/L	250	374		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		281		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		5		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	318		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	11		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		<MDL	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0.1 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	3.78 <sup>1</sup>	0.001	41	Aldrin & Dieldrin	$\mu$ g/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		<MDL	0.20	42	Chlordane	$\mu$ g/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.12		43	DDT	$\mu$ g/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	$\mu$ g/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.01	45	Heptachlor/Heptachlor Epoxide	$\mu$ g/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		3.0		46	Lindane	$\mu$ g/L	2	<MDL	0.01
22	COD	mg/L		22.0		47	Methoxychlor	$\mu$ g/L	20	<MDL	0.02
23	BOD	mg/L		4.0		48	Toxaphene	$\mu$ g/L		<MDL	0.02
24	Surfactant	mg/L		0.10	0.05	49	Endosulfan I	$\mu$ g/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	6.52			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

U Unobjectionable Odor, O = Objectionable Odor

+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

### RESULT OF ANALYSIS

1	Name of WD	Bongao
2	Date of Analysis	February 2003
3	Area number	8 - ARMM
4	Province	Tawi-Tawi

1	Name of source	Well #3
2	Location	No Data Brgy. Sanga-Sanga Bongao, Tawi-Tawi (P.S. #3)
		No Data
3	Depth Borehole; meter	40
4	Discharge Flowrate; liters/sec	12.6
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator Hypochlorinator
		No data

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		4.38	
2	Temperature	°C		20.9		27	Calcium	mg/L		104.36	
3	pH		6.5-8.5	7.2*		28	Magnesium	mg/L		29.29	
4	Color	Units	5	20		29	Silica	mg/L		17.78	
5	Turbidity	NTU	5	<5		30	Total Iron	mg/L	1	0.86	0.001
6	Conductivity	µS/cm		487		31	Total Manganese	mg/L	0.5	0.04	0.006
7	Total Dissolved Solids	mg/L	500	264		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		323		33	Zinc	mg/L	5 <sup>@</sup>	0.04	0.002
9	Chloride	mg/L	250	33		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		216		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		5		36	Chromium	mg/L	0.05	0.05	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	381		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	<MDL		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		<MDL	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0.87 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	2.22 <sup>1</sup>	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		<MDL	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.02		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.01	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		2.0		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		11.0		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		3.0		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		0.07	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	67.02			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

U Unobjectionable Odor, O = Objectionable Odor

+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

## RESULT OF ANALYSIS

1	Name of WD	Kabacan
2	Date of Analysis	February 2003
3	Area number	8 - ARMM
4	Province	Cotabato

1	Name of source	Pump Station 1
2	Location	No Data
		No Data
3	Depth Borehole; meter	101
4	Discharge Flowrate; liters/sec	35
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		-	
2	Temperature	°C		22.5		27	Calcium	mg/L		33.52	
3	pH		6.5-8.5	7.53		28	Magnesium	mg/L		13.34	
4	Color	Units	5	<5		29	Silica	mg/L		85.89	
5	Turbidity	NTU	5	<5		30	Total Iron	mg/L	1	0.02	0.001
6	Conductivity	uS/cm		556		31	Total Manganese	mg/L	0.5	0.23	0.006
7	Total Dissolved Solids	mg/L	500	374		32	Aluminum	mg/L	0.2	0.43	0.01
8	Total Solids	mg/L		-		33	Zinc	mg/L	5 <sup>@</sup>	<MDL	0.002
9	Chloride	mg/L	250	19		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		261		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		<MDL		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	139		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	9		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		<MDL	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	1.37 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	0	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		1	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.12		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.01	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		3.0		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		<5		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		<1		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		<MDL	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	13.68			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

U Unobjectionable Odor, O = Objectionable Odor

+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

## RESULT OF ANALYSIS

1	Name of WD	Marawi City
2	Date of Analysis	February 2003
3	Area number	8 - ARMM
4	Province	Marawi City

1	Name of source	Pumping Station #5
2	Location	No Data
		No Data
3	Depth Borehole; meter	No data
4	Discharge Flowrate; liters/sec	40
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		2.54	
2	Temperature	°C		23.3		27	Calcium	mg/L		10.02	
3	pH		6.5-8.5	7.39		28	Magnesium	mg/L		5.32	
4	Color	Units	5	<5		29	Silica	mg/L		45.2	
5	Turbidity	NTU	5	<5		30	Total Iron	mg/L	1	5.28	0.001
6	Conductivity	uS/cm		157		31	Total Manganese	mg/L	0.5	0.01	0.006
7	Total Dissolved Solids	mg/L	500	98		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		149		33	Zinc	mg/L	5 <sup>@</sup>	0.05	0.002
9	Chloride	mg/L	250	8		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		70		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		15		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	47		37	Cadmium	mg/L	0.003	0.004	0.003
13	Sulfate	mg/L	250	3		38	Selenium	mg/L	0.01	0.004	0.001
14	Phosphate	mg/L		2.58	0.1	39	Lead	mg/L	0.01	0.03	0.005
15	Nitrite	mg/L	3	0	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	1.30 <sup>1</sup>	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		<MDL	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	<MDL		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.01	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		5.0		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		13.0		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		1.0		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		<MDL	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	5.5			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

U Unobjectionable Odor, O = Objectionable Odor

+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

CARAGA





## RESULT OF ANALYSIS

1	Name of WD	Butuan
2	Date of Analysis	February 2003
3	Area number	7 - CARAGA
4	Province	Butuan City

1	Name of source	Well #10
2	Location	8° 58' 2.9"
		125° 36' 11.2"
3	Depth Borehole; meter	158
4	Discharge Flowrate; liters/sec	12.46
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator
		No data

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		1.82	
2	Temperature	°C		28.3*		27	Calcium	mg/L		34.26	
3	pH		6.5-8.5	8.9*		28	Magnesium	mg/L		1.97	
4	Color	Units	5	20		29	Silica	mg/L		33	
5	Turbidity	NTU	5	1.77		30	Total Iron	mg/L	1	<MDL	0.001
6	Conductivity	$\mu$ S/cm		520		31	Total Manganese	mg/L	0.5	0.01	0.006
7	Total Dissolved Solids	mg/L	500	266		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		365		33	Zinc	mg/L	5 <sup>@</sup>	<MDL	0.002
9	Chloride	mg/L	250	22		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		236		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		0 <sup>3</sup>		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	93.66		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	0		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		1.03	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0.1 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	0	0.001	41	Aldrin & Dieldrin	$\mu$ g/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		1.12	0.20	42	Chlordane	$\mu$ g/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.11		43	DDT	$\mu$ g/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	$\mu$ g/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.01	45	Heptachlor Epoxide	$\mu$ g/L	0.03	0.06	0.01
21	DO (DO%)	mg/L		1.6		46	Lindane	$\mu$ g/L	2	<MDL	0.01
22	COD	mg/L		17.0		47	Methoxychlor	$\mu$ g/L	20	<MDL	0.02
23	BOD	mg/L		10.0		48	Toxaphene	$\mu$ g/L		<MDL	0.02
24	Surfactant	mg/L		0.22	0.05	49	Endosulfan I	$\mu$ g/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	16.54			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

U Unobjectionable Odor, O = Objectionable Odor

+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

**RESULT OF ANALYSIS**

1	Name of WD	Buenavista
2	Date of Analysis	February 2003
3	Area number	7 - CARAGA
4	Province	Agusan Del Norte

1	Name of source	Well #2
2	Location	8° 57' 17.7"
		125° 23' 53.3"
3	Depth Borehole; meter	80
4	Discharge Flowrate; liters/sec	4.5
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		1.94	
2	Temperature	°C		27.4*		27	Calcium	mg/L		40.06	
3	pH		6.5-8.5	8.6*		28	Magnesium	mg/L		17.90	
4	Color	Units	5	5		29	Silica	mg/L		51	
5	Turbidity	NTU	5	1.83		30	Total Iron	mg/L	1	0.10	0.001
6	Conductivity	u S/cm		1,209		31	Total Manganese	mg/L	0.5	0.08	0.006
7	Total Dissolved Solids	mg/L	500	687		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		693		33	Zinc	mg/L	5 @	<MDL	0.002
9	Chloride	mg/L	250	165		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		438		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		0 <sup>3</sup>		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 @	174		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	6		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		0.32	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0.03 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	0	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		1.54	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.07		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.01	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		3.9		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		21.0		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		7.0		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		<MDL	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 @	65.58			II			<MDL	0.02

Note: @ Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

U Unobjectionable Odor, O = Objectionable Odor

+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

**RESULT OF ANALYSIS**

1	Name of WD	Nasipit
2	Date of Analysis	February 2003
3	Area number	7 - CARAGA
4	Province	Agusan Del Norte

1	Name of source	Well #3
2	Location	8° 57' 32.2"
		125° 21' 12.8"
3	Depth Borehole; meter	75
4	Discharge Flowrate; liters/sec	35
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		0.90	
2	Temperature	°C		28.1*		27	Calcium	mg/L		19.10	
3	pH		6.5-8.5	8.4*		28	Magnesium	mg/L		42.11	
4	Color	Units	5	<5		29	Silica	mg/L		67.43	
5	Turbidity	NTU	5	3.07*		30	Total Iron	mg/L	1	0.10	0.001
6	Conductivity	uS/cm		801		31	Total Manganese	mg/L	0.5	0.28	0.006
7	Total Dissolved Solids	mg/L	500	437 <sup>2</sup>		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		479		33	Zinc	mg/L	5 <sup>@</sup>	<MDL	0.002
9	Chloride	mg/L	250	8		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		480		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		<MDL		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	221		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	0		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		<MDL	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	2.43 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	0	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		<MDL	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.06		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	0.006	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.01	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		2.3*		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		<5		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		3.0		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		<MDL	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	11.08			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

U Unobjectionable Odor, O = Objectionable Odor

+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

## RESULT OF ANALYSIS

1	Name of WD	Butuan
2	Date of Analysis	February 2003
3	Area number	7 - CARAGA
4	Province	Butuan City

1	Name of source	Well #5
2	Location	8° 55' 52.6"
		125° 30' 30.2"
3	Depth Borehole; meter	80
4	Discharge Flowrate; liters/sec	14.69
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		7.64	
2	Temperature	°C		26.9*		27	Calcium	mg/L		100.60	
3	pH		6.5-8.5	8.4*		28	Magnesium	mg/L		50.35	
4	Color	Units	5	<5		29	Silica	mg/L		37	
5	Turbidity	NTU	5	0.33*		30	Total Iron	mg/L	1	1.17	0.001
6	Conductivity	$\mu$ S/cm		1,437		31	Total Manganese	mg/L	0.5	0.10	0.006
7	Total Dissolved Solids	mg/L	500	906		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		908		33	Zinc	mg/L	5 <sup>@</sup>	<MDL	0.002
9	Chloride	mg/L	250	304		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		392		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		0 <sup>3</sup>		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	459		37	Cadmium	mg/L	0.003	0.005	0.003
13	Sulfate	mg/L	250	0		38	Selenium	mg/L	0.01	0.005	0.001
14	Phosphate	mg/L		7.85	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0.07 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	0.17 <sup>1</sup>	0.001	41	Aldrin & Dieldrin	$\mu$ g/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		<MDL	0.20	42	Chlordane	$\mu$ g/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.15		43	DDT	$\mu$ g/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	$\mu$ g/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.01	45	Heptachlor/Heptachlor Epoxide	$\mu$ g/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		2*		46	Lindane	$\mu$ g/L	2	<MDL	0.01
22	COD	mg/L		21.0		47	Methoxychlor	$\mu$ g/L	20	<MDL	0.02
23	BOD	mg/L		3.0		48	Toxaphene	$\mu$ g/L		<MDL	0.02
24	Surfactant	mg/L		0.03	0.05	49	Endosulfan I	$\mu$ g/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	23.05			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

U Unobjectionable Odor, O = Objectionable Odor

+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

### RESULT OF ANALYSIS

1	Name of WD	Buenavista
2	Date of Analysis	February 2003
3	Area number	7 - CARAGA
4	Province	Agusan Del Norte

1	Name of source	Well #1
2	Location	8° 57' 23.7"
		125° 23' 54.2"
3	Depth Borehole; meter	30
4	Discharge Flowrate; liters/sec	5
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		4.89	
2	Temperature	°C		27.7*		27	Calcium	mg/L		70.92	
3	pH		6.5-8.5	8.6*		28	Magnesium	mg/L		23.32	
4	Color	Units	5	<5		29	Silica	mg/L		63.38	
5	Turbidity	NTU	5	-		30	Total Iron	mg/L	1	0.10	0.001
6	Conductivity	µS/cm		1,178		31	Total Manganese	mg/L	0.5	0.10	0.006
7	Total Dissolved Solids	mg/L	500	625		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		692		33	Zinc	mg/L	5 <sup>@</sup>	<MDL	0.002
9	Chloride	mg/L	250	215		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		347		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		0 <sup>3</sup>		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	273		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	13		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		0.45	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	2.93 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	0.48 <sup>1</sup>	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		2	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.07		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.01	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		1.8		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		25.0		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		7.0		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		<MDL	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	55.29			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

U Unobjectionable Odor, O = Objectionable Odor

+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

## RESULT OF ANALYSIS

1	Name of WD	Tagbina
2	Date of Analysis	February 2003
3	Area number	7 - CARAGA
4	Province	

1	Name of source	Well #2
2	Location	8° 24' 57.6"
		126° 12' 21.8"
3	Depth Borehole; meter	42
4	Discharge Flowrate; liters/sec	3
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		1.62	
2	Temperature	°C		27.2*		27	Calcium	mg/L		214.30	
3	pH		6.5-8.5	7.8*		28	Magnesium	mg/L		0.90	
4	Color	Units	5	<5		29	Silica	mg/L		3.85	
5	Turbidity	NTU	5	0.22*		30	Total Iron	mg/L	1	0.10	0.001
6	Conductivity	µS/cm		653		31	Total Manganese	mg/L	0.5	<MDL	0.006
7	Total Dissolved Solids	mg/L	500	417 <sup>2</sup>		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		460		33	Zinc	mg/L	5 <sup>@</sup>	<MDL	0.002
9	Chloride	mg/L	250	25		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		291		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		15		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	539		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	2		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		<MDL	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	2.4 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	1.65 <sup>1</sup>	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		<MDL	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.06		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.01	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		2.42*		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		13.0		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		3.0		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		<MDL	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	7.48			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

U Unobjectionable Odor, O = Objectionable Odor

+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

## RESULT OF ANALYSIS

1	Name of WD	Tagbina
2	Date of Analysis	February 2003
3	Area number	7 - CARAGA
4	Province	

1	Name of source	Well #1
2	Location	8° 27' 38.3"
		126° 9' 32"
3	Depth Borehole; meter	54
4	Discharge Flowrate; liters/sec	5
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator
		No data

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		0.26	
2	Temperature	°C		25.3*		27	Calcium	mg/L		178.50	
3	pH		6.5-8.5	8.1*		28	Magnesium	mg/L		1.12	
4	Color	Units	5	<5		29	Silica	mg/L		3.21	
5	Turbidity	NTU	5	0.47*		30	Total Iron	mg/L	1	0.10	0.001
6	Conductivity	µS/cm		413		31	Total Manganese	mg/L	0.5	<MDL	0.006
7	Total Dissolved Solids	mg/L	500	264 <sup>2</sup>		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		305		33	Zinc	mg/L	5 <sup>@</sup>	<MDL	0.002
9	Chloride	mg/L	250	1		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		183		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		-		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	450		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	19		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		<MDL	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0.02 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	0	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		<MDL	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.10		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.01	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		4.8		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		8.0		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		4.0		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		0.03	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	0.62			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

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MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

## RESULT OF ANALYSIS

1	Name of WD	Nasipit
2	Date of Analysis	February 2003
3	Area number	7 - CARAGA
4	Province	Agusan del Norte

1	Name of source	Well #1
2	Location	8° 57' 52.5"
		125° 20' 1.8"
3	Depth Borehole; meter	35
4	Discharge Flowrate; liters/sec	8
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		0.54	
2	Temperature	°C		27.3*		27	Calcium	mg/L		16.25	
3	pH		6.5-8.5	8.7*		28	Magnesium	mg/L		44.50	
4	Color	Units	5	<5		29	Silica	mg/L		64.45	
5	Turbidity	NTU	5	1.38*		30	Total Iron	mg/L	1	<MDL	0.001
6	Conductivity	uS/cm		651		31	Total Manganese	mg/L	0.5	<MDL	0.006
7	Total Dissolved Solids	mg/L	500	382		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		401		33	Zinc	mg/L	5 <sup>®</sup>	<MDL	0.002
9	Chloride	mg/L	250	7		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		402		35	Arsenic	mg/L	0.01	<MDL	0.01
11	Acidity	mg/L		0		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>®</sup>	224		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	0		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		<MDL	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0.03 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	0	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		<MDL	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.05		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.01	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		5.17*		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		4.0		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		1.0		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		0.002	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>®</sup>	1.99			II			<MDL	0.02

Note: <sup>®</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

U Unobjectionable Odor, O = Objectionable Odor

+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination



### RESULT OF ANALYSIS

1	Name of WD	Madrid
2	Date of Analysis	February 2003
3	Area number	7 - CARAGA
4	Province	Surigao del Sur

1	Name of source	Well #1
2	Location	9° 15' 46.3"
		125° 57' 45.1"
3	Depth Borehole; meter	24
4	Discharge Flowrate; liters/sec	9
5	Date of Well Operation	No data
6	Disinfection Unit	Gas Chlorinator
		Hypochlorinator

	PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL		PARAMETERS	UNIT	PNSDW Limit	CONCENTRATION	MDL
1	Odor		U	U*		26	Potassium	mg/L		0.74	
2	Temperature	°C		27.5*		27	Calcium	mg/L		24.98	
3	pH		6.5-8.5	8.5*		28	Magnesium	mg/L		12.72	
4	Color	Units	5	<5		29	Silica	mg/L		46	
5	Turbidity	NTU	5	<5		30	Total Iron	mg/L	1	<MDL	0.001
6	Conductivity	µS/cm		334		31	Total Manganese	mg/L	0.5	<MDL	0.006
7	Total Dissolved Solids	mg/L	500	209		32	Aluminum	mg/L	0.2	<MDL	0.01
8	Total Solids	mg/L		-		33	Zinc	mg/L	5 <sup>@</sup>	<MDL	0.002
9	Chloride	mg/L	250	5		34	Copper	mg/L	1	<MDL	0.001
10	Total Alkalinity	mg/L		160		35	Arsenic	mg/L	0.01	0.008	0.01
11	Acidity	mg/L		0 <sup>3</sup>		36	Chromium	mg/L	0.05	<MDL	0.003
12	Hardness (as CaCO <sub>3</sub> )	mg/L	300 <sup>@</sup>	115		37	Cadmium	mg/L	0.003	<MDL	0.003
13	Sulfate	mg/L	250	0		38	Selenium	mg/L	0.01	<MDL	0.001
14	Phosphate	mg/L		<MDL	0.1	39	Lead	mg/L	0.01	<MDL	0.005
15	Nitrite	mg/L	3	0.013 <sup>1</sup>	0.001	40	Mercury	mg/L	0.001	<MDL	0.001
16	Nitrate	mg/L	50	0.043 <sup>1</sup>	0.001	41	Aldrin & Dieldrin	µg/L	0.03	<MDL	0.02
17	Ammonia-Nitrogen	mg/L		<MDL	0.20	42	Chlordane	µg/L	0.2	<MDL	0.02
18	Fluoride	mg/L	1	0.07		43	DDT	µg/L	2	<MDL	0.01
19	Cyanide	mg/L	0.07	<MDL	0.002	44	Endrin	µg/L	0.2	<MDL	0.02
20	Hydrogen Sulfide	mg/L	0.05	-	0.01	45	Heptachlor/Heptachlor Epoxide	µg/L	0.03	<MDL	0.01
21	DO (DO%)	mg/L		3.2*		46	Lindane	µg/L	2	<MDL	0.01
22	COD	mg/L		<5		47	Methoxychlor	µg/L	20	<MDL	0.02
23	BOD	mg/L		2.0		48	Toxaphene	µg/L		<MDL	0.02
24	Surfactant	mg/L		<MDL	0.05	49	Endosulfan I	µg/L		<MDL	0.01
25	Sodium	mg/L	200 <sup>@</sup>	2.34			II			<MDL	0.02

Note: <sup>@</sup> Secondary Standard; compliance with the standard and analysis are not obligatory

\* On Site Analysis (CEST Inc.)

U Unobjectionable Odor, O = Objectionable Odor

+ Re-examination result dated October 2003 (Intertek Laboratory)

MDL Method Detection Limit

As computed by Local Water Utilities Administration (LWUA).

<sup>1</sup> Estimation derived from gravimetric factor

<sup>2</sup> Estimation derived from major Cationic and Anionic constituents

<sup>3</sup> Acidity value qualified

- No basis for determination

