

APPENDICES

Appendix-1

Well Inventory Record surrounding Exploratory Wells

Shallow Wells' Situation in the Study Area

The Inventory records of shallow wells surrounding exploratory wells and central low hills formed by diabase intrusion in the study area are arranged in this **Appendix 1**.

The feature of shallow wells' structure, water use and situation of quality as resident consciousness in the study area is described as follows.

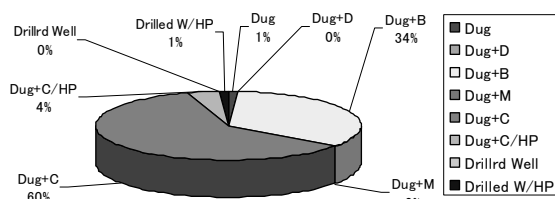
The shallow wells situation of each area such as a) north west part of the study area, b) central and south west part of the study area and c) diabase intrusion area is described in the main report **Chapter 4, Paragraph 4.3**.

Shallow Wells in the Study Area (Summary of whole shallow wells in this inventory area)

1) Well structure and water level

Dug wells with concrete cover or block cover reach to 94%. The diffusion rate of hand pump is rather low. Dug well with hand pump is 4% and drilled well with hand pump is 1%. Diameter of Dug wells is 0.8 to 1.2m, total depth is 1.1 to 12.2m, average 5.1m. Water level is 0.0 to 7.7m, average 1.7m.

Table A 1-2 Well Dimension in the Study Area



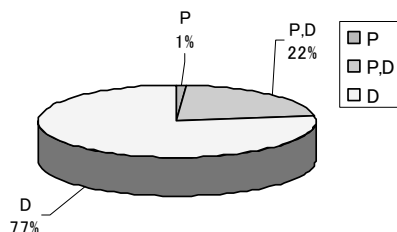
Well Dimension							
Ground Hight (m)		Total Depth (m)		Water Level (m)		WL(Elevation, m)	
Max.	27	Max.	12.20	Max.	7.69	Max.	21.95
Min.	4	Min.	1.06	Min.	0.01	Min.	2.93
Average	9	Average	5.14	Average	1.68	Average	7.20
Median	8	Median	4.61	Median	1.11	Median	6.67
Mode	8	Mode	4.30	Mode	0.10	Mode	5.16
Total N	102	Total N	100	Total N	98	Total N	98

Figure A.1-1 Well Structure in the Study Area

2) Groundwater use

Drinking water use including domestic water use is 23%, 77% of wells can not use as drilling water. Average water use per well is 13.6 gallon/ day/ person. Average total volume of water use per well is 4,016 gallon/ day.

Table A.1-3 Water Use Volume of Well in the Study Area



Water Use					
Person/ Well		Vol./ P. (Gal/day)		T. Volume (Well, Gal/day)	
Max.	1500	Max.	20.0		
Min.	8	Min.	3.0		
Average	294	Average	13.6	Average	4,016
Median	250	Median	15.0		
Mode	500	Mode	15.0		
Total N	101	Total N	101		

Figure A.1-2 Use of Water in the Study Area

3) Dry-up Condition and Quality of groundwater

Dry up well in dry season is 29%, and well in which water level goes down in dry season is 29%. 42% of wells are not recognized any dry up situation. The water quality or problem as resident consciousness is as

follows.

- i) 46% of wells has bad water quality situation such as cloudy water (15%), colored water (25%), Dirty water (5%) and Salty water (5%).
- ii) Contamination such as dust/ leaves/ rubbish blowing in, muddy/ rusty/ foamy situation, tadpole/ worm generation and odor is felt in 52% of wells.

Table A.1-4 Water Quality of Wells in the Study Area (by Field Measurement)

Water Quality									
Temp. (oC)		pH		EC (mS/cm)		TDS(mg/L)		Turbidity (NTU)	
Max.	31.3	Max.	8.37	Max.	1.000	Max.	94.0	Max.	55.0
Min.	21.6	Min.	4.20	Min.	0.016	Min.	0.0	Min.	15.0
Average	27.8	Average	6.14	Average	0.175	Average	12.9	Average	26.0
Median	27.8	Median	6.25	Median	0.122	Median	7.2	Median	5.0
Mode	28.1	Mode	5.70	Mode	0.065	Mode	0.0	Mode	1.0
Total N	102	Total N	102	Total N	102	Total N	102	Total N	102

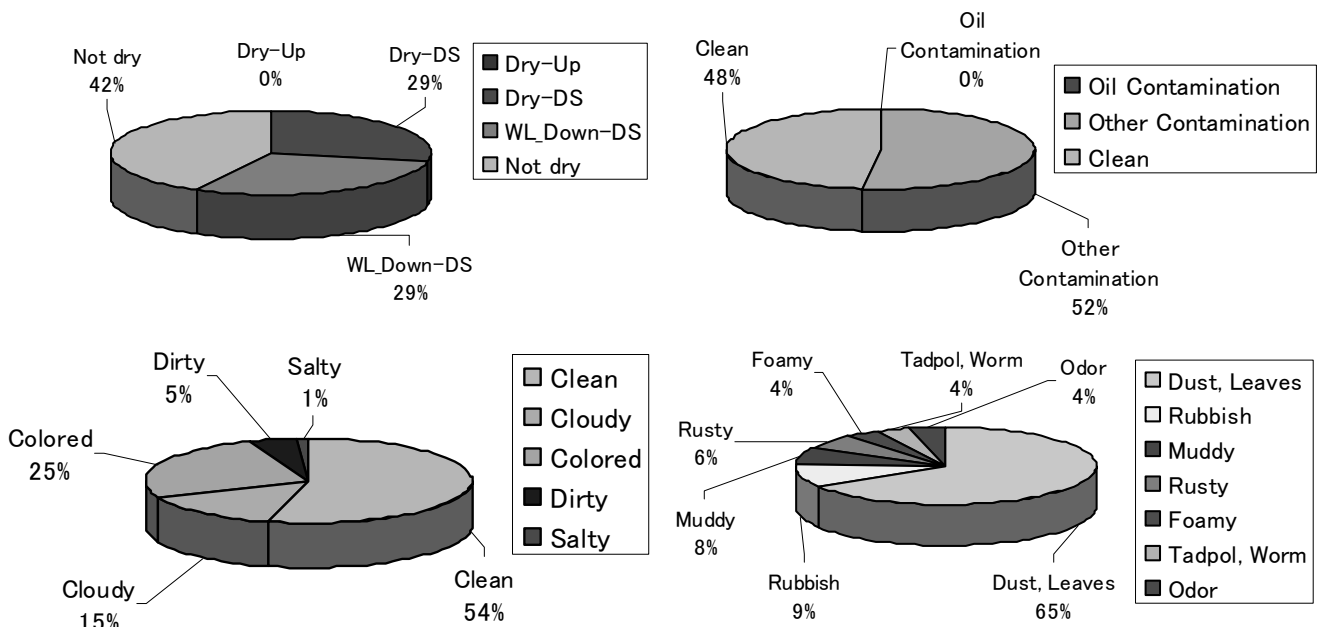


Figure A.1-3 Dry up Situation and Water Quality Consciousness in the Study Area

Table A.1-1 Summary of Well Inventory surrounding Exploratory Wells and Diabase Intrusion Area

Well No.	Community	Coordination			Well Situation							Use				Water Quality					Contamination		
		Easting	Northing	EL (m)	Type	Head	Casing	Equipment withdrawal	T. Depth (m)	WL (m)	Dry-up Situation	Purpose	Person	Yield G/day/P	T. Volume G/day	T (°C)	PH	EC (mS/cm)	TDS (mg/L)	Turbidity (NTU)	Condition	Kind	Description
OWJ5-1	Duport Road North East, Cow Field	314624	693831	9	1	5	1	2	4.99	1.13	2	2.3	500	15	7500	28.8	6.30	0.093	60	7.5	2.4	2	Dust, Leaves
OWJ5-2	Duport Road North East, Cow Field	314594	693867	9	1	5	1	2	5.87	2.47	4	1.2	500	15	7500	29.2	4.44	0.088	57	6.3	1	3	
OWJ5-3	Duport Road North East, Cow Field	314547	693858	8	1	6	3	2	4.93	1.66	4	2	500	15	7500	28.8	4.92	0.075	49	6.4	1	2	Dust, Leaves
OWJ5-4	Duport Road North East, Cow Field	314690	693798	8	1	5	1	2	1.81	0.01	1	2	450	15	6750	28.4	5.15	0.064	41	5.0	1	2	Dust, Leaves
OWJ5-5	Duport Road North East, Cow Field	314690	693865	10	1	6	3	2	7.64	3.96	4	2	20	11	220	29.7	5.16	0.076	49	11.1	1	2	Dust, Leaves
OWJ5-6	Duport Road North East, Cow Field	314777	693995	14	1	5	1	2	10.58	6.77	4	1.2	500	11	5500	28.8	4.96	0.048	31	10.8	1	3	
OWJ5-7	Duport Road North East, Cow Field	314703	694077	12	1	5	1	2	7.73	4.03	1	2	500	15	7500	28.6	4.20	0.066	43	7.4	1	2	Dust
OWJ5-8	Duport Road North East, Cow Field	314797	693864	12	1	5	1	2	7.39	5.32	0	2	15	11	165	29.9	4.41	0.125	81	14.8	3	2	Dust, Leaves
OWJ5-9	Duport Road North East, Cow Field	314449	694018	14	1	5	1	2	7.98	3.36	2	2.3	100	8	800	28.6	4.57	0.690	44	11.0	3	2	Dust, Leaves
OWJ5-10	Duport Road North East, Cow Field	314398	693991	12	1	5	1	2	5.68	2.05	4	2	26	3	78	28.4	4.60	0.036	23	33.5	2.4	2	Dust, Leaves
OWJ6-1	Paynesville Joe Bar, Block G2	312993	692905	11	1	6	3	2	5.72	1.43	4	2.3	20	15	300	28.1	5.97	0.107	69	0.0	1	3	
OWJ6-2	Paynesville Joe Bar, Block G2	313070	693007	10	1	6	3	2	3.90	0.30	1	2.3	500	15	7500	27.8	5.81	0.116	75	5.9	1	2	Dust, Plastic bags
OWJ6-3	Paynesville Joe Bar, Block G2	313203	693028	9	1	6	3	2	1.68	0.04	2	2	25	15	375	27.3	6.10	0.214	139	4.4	1	3	
OWJ6-4	Paynesville Joe Bar, Block G2	313177	692960	10	1	6	3	2	3.68	1.06	2	2.3	500	15	7500	27.0	6.40	0.137	89	6.0	1	2	Dust
OWJ6-5	Paynesville Joe Bar, Block G2	313246	692922	8	1	6	3	2	3.05	0.68	4	2	8	15	120	27.2	6.27	0.078	50	3.8	1	3	
OWJ6-6	Paynesville Joe Bar, Block G2	313266	692925	8	1	6	3	2	2.80	0.33	4	1.2	800	8	6400	27.4	6.23	0.195	127	4.0	1	2	Dust, Leaves
OWJ6-7	Paynesville Joe Bar, Block G2	313194	692880	10	1	6	1	2	3.53	1.17	4	2.3	500	15	7500	27.8	6.24	0.176	114	5.4	1.2	2	Dust, Wood
OWJ6-8	Paynesville Joe Bar, Block G2	313160	692892	10	1	5	1	2	3.15	0.87	1	2.3	500	15	7500	27.4	6.28	0.154	100	17.8	2	2	Dust, Leaves, Plastic bags
OWJ6-9	Paynesville Joe Bar, Block G2	313133	692863	11	1	6	3	2	4.61	1.00	4	2	250	15	3750	27.7	6.33	0.173	112	2.2	1	3	
OWJ6-10	Paynesville Joe Bar, Block G2	313117	692795	12	1	1	3	2	1.95	1.08	4	2.3	15	20	300	27.0	6.47	0.178	115	21.9	3	2	Smell
OWJ6-11	Paynesville Joe Bar, Block G2	313094	692856	12	1	6	3	1			1	1.2	1500	15	22500	27.7	6.11	0.177	115	0.0	1	3	
OWJ6-12	Paynesville Joe Bar, Block G2	313101	692886	12	1	5	1	2	4.22	1.70	2	2	30	15	450	27.6	6.17	0.233	151	1.9	1	2	Plastic bags
OWJ6-13	Paynesville Joe Bar, Block G2	313034	692941	11	1	6	3	2	4.09	0.99	4	2.3	10	15	150	27.6	6.17	0.102	66	4.4	1.3	3	
OWJ6-14	Paynesville Joe Bar, Block G2	312967	692998	11	1	5	3	2	3.45	0.53	1	1.2	500	15	7500	27.9	5.99	0.058	38	0.2	1	3	
OWJ6-15	Paynesville Joe Bar, Block G2	312943	692974	11	1	6	3	2	3.90	0.33	2	2.3	100	11	1100	28.0	5.89	0.277	180	2.6	1.3	3	
OWJ6-16	Paynesville Joe Bar, Block G2	312902	692866	12	1	6	3	2	4.30	0.40	4	1.2	500	15	7500	27.7	6.15	0.294	191	3.4	1	3	
OWJ6-17	Paynesville Joe Bar, Block G2	312929	692846	12	1	6	3	2	5.29	1.44	1	1.2	100	15	1500	27.2	6.09	0.167	108	0.0	1	2	Dust, Leaves
OWJ6-18	Paynesville Joe Bar, Block G2	312959	692781	14	1	6	3	1	9.08	3.17	1	1.2	15	10	150	28.2	6.39	0.106	69	0.0	1	3	
OWJ7-1	Duport Road South, Zubah Town	314602	612898	9	1	6	3	2	6.53	3.00	1	2	250	15	3750	27.4	6.38	0.043	28	0.5	1	2	Dust, Leaves
OWJ7-2	Duport Road South, Zubah Town	314616	692923	8	1	6	3	2	5.52	1.98	2	1.2	450	15	6750	27.4	6.26	0.058	37	1.2	1	3	
OWJ7-3	Duport Road South, Zubah Town	314796	692970	8	1	6	3	2	6.70	2.84	1	2	500	15	7500	28.1	6.05	0.148	96	3.4	1	2	Dust, Leaves
OWJ7-4	Duport Road South, Zubah Town	314487	692839	9	1	6	3	2	5.01	1.20	1	1.2	500	15	7500	28.5	6.88	0.104	68	0.0	1	3	
OWJ7-5	Duport Road South, Zubah Town	314459	692756	9	1	5	1	2	5.98	2.75	1	2	500	15	7500	27.7	5.51	0.035	22	7.2	1	2	Dust, Leaves
OWJ7-6	Duport Road South, Zubah Town	314354	692713	11	1	6	3	2	4.72	3.29	2	2.3	500	15	7500	27.9	5.37	0.053	34	0.0	1	2	Dust, Leaves
OWJ7-7	Duport Road South, Zubah Town	314509	692720	11	1	5	1	2	7.45	4.14	4	1.2	500	15	7500	27.6	4.86	0.045	29	0.0	1	3	
OWJ7-8	Duport Road South, Zubah Town	314605	692745	10	1	6	3	2	8.42	4.15	2	2.3	100	10	1000	28.1	5.70	0.082	41	14.6	2	2	Dust, Leaves
OWJ7-9	Duport Road South, Zubah Town	314686	692768	12	1	5	3	1			1	1.2	500	15	7500	28.5	5.03	0.720	47	0.0	1	3	
OWJ8-1	Rihab/BorBor Town, Thinkers Village O.F.	316522	691051	7	1	6	3	2	3.72	0.65	4	2.3	9	15	135	26.1	6.47	0.216	140	0.0	3	2	Dust, Leaves
OWJ8-2	Rihab/BorBor Town, Thinkers Village O.F.	316660	690867	7	1	5	1	2	4.75	2.69	2	1.2	50	15	750	26.6	6.78	0.024	15	14.8	1	2	Dust, Leaves, Plastic bags
OWJ8-3	Rihab/BorBor Town, Thinkers Village O.F.	316700	691014	7	1	5	1	2	3.10	1.63	2	2.3	50	13	650	27.0	4.94	0.029	18	15.5	1	2	Dust, Leaves
OWJ8-4	Rihab/BorBor Town, Thinkers Village O.F.	316673	691190	5	1	6	3	2	4.50	0.78	1	2.3	50	13	650	27.6	6.26	0.101	65	14.1	1	2	Mosquitos, fleas
OWJ8-5	Rihab/BorBor Town, Thinkers Village O.F.	316687	691268	5	1	6	3	2	4.20	0.90	1	2.3	50	15	750	27.8	6.86	0.128	83	13.0	1	3	
OWJ8-6	Rihab/BorBor Town, Thinkers Village O.F.	316634	691344	5	1	6	3	2	3.67	0.15	1	2.3	150	15	2250	28.0	6.90	0.065	42	0.0	1	3	
OWJ8-7	Rihab/BorBor Town, Thinkers Village O.F.	316548	691246	10	1	6	3	2	6.92	2.63	1	1.2	500	15	7500	28.1	6.82	0.220	142	0.0	1	3	
OWJ8-8	Rihab/BorBor Town, Thinkers Village O.F.	316430	691102	6	1	5	3	2	6.54	1.13	1	2	150	15	2250	28.1	8.37	0.197	127	6.1	3	2	Dust, Leaves
OWJ8-9	Rihab/BorBor Town, Thinkers Village O.F.	316350	691114	6	1	6	3	2	4.30	0.80	4	2.3	50	12	600	28.1	7.37	0.309	201	35.3	3.4	2	Dust, Leaves
OWJ8-10	Rihab/BorBor Town, Thinkers Village O.F.	316220	690974	8	1	5	1	2	4.49	1.47	1	2.3	12	7	84	27.9	7.44	0.180	117	16.4	2	2	Dust, Leaves, Mold
OWJ8-11	Rihab/BorBor Town, Thinkers Village O.F.	316286	690914	7	1	6	3	2	6.80	2.07	1	1.2	50	15	750	27.9	7.06	0.129	84	0.0	1	3	
OWJ8-12	Rihab/BorBor Town, Thinkers Village O.F.	316277	690903	7	1	6	3	2	5.62	2.23	1	1.2	500	11	5500	28.3	6.43	0.043	28	0.0	1	3	
OWJ9-1	Rihab/BorBor Town, Kendeh Town O.F.	315155	690129	7	1	6	3	2	4.60	0.46	2	1.2	500	15	7500	26.9	6.19	0.411	267	3.3	1	3	
OWJ9-2	Rihab/BorBor Town, Kendeh Town O.F.	315153	690216	6	1	6	3	2	3.91	0.28	1	1.2	500	15	7500	26.6	6.09	0.174	113	11.9	1	3	
OWJ9-3	Rihab/BorBor Town, Kendeh Town O.F.	315016	690047	7	1	5	1	2	2.37	0.10	2	2.3	50	13	650	27.3	6.26	0.190	123	16.1	3	2	Dust, Leaves
OWJ9-4	Rihab/BorBor Town, Kendeh Town O.F.	314832	690002	6	1	6	3	2	3.62	0.16	1	2.3	50	15	750	27.4	6.66	0.312	202	12.6	2	3	
OWJ9-5	Rihab/BorBor Town, Kendeh Town O.F.	314979	689892	7	1	6	3	2	6.16	0.34	1	2.3	50	15	750	28.1	6.94	0.216	140	16.2	3	2	Dust, Leaves
OWJ9-6	Rihab/BorBor Town, Kendeh Town O.F.	314957	689946	7	1	6	3	2	4.70	0.28	1	2.3	20	15	300	28.3	6.87	0.404	262	0.0	3	3	
OWJ9-7	Rihab/BorBor Town, Kendeh Town O.F.	314950	689813	7	1	5	2	2	4.16	0.21	1	2.3	50	15	750	28.2	6.84	0.622	398	50.1	3	2	Muddy condition
OWJ9-8	Rihab/BorBor Town, Kendeh Town O.F.	314941	689772	8	1	6	3	2	4.15	0.50	4	2.3	50	15	750	28.0	7.13	0.585	375	0.0	3	2	Dust, Leaves
OWJ9-9	Rihab/BorBor Town, Kendeh Town O.F.	315143	689923	8	1	6	3	2	3.63	0.24	2	1.2	100	15	1500	28.0	6.85	0.167	109	0.0	3	2	Dust, Leaves
OWJ9-10	Rihab/BorBor Town, Kendeh Town O.F.	315147	689873	8	1	6	3	2	3.76	0.11	1	No use	0	0	0	27.7	6.91	0.270	175	6.4	3	2	Muddy, Rusty
OWJ9-11	Rihab/BorBor Town, Kendeh Town O.F.	315187	689894	8	1	6	3	2	6.04	0.27	1	2.3	500	15	7500	28.7	6.04	1.000	641	13.9	3	3	
OWJ9-12	Rihab/BorBor Town, Kendeh Town O.F.	315376																					

Well No.	Community	Coordination			Well Situation							Use				Water Quality					Contamination		
		Eathting	Northing	EL (m)	Type	Head	Casing	Equipment withdrawal	T. Depth (m)	WL (m)	Dry-up Situation	Purpose	Person	Yield G/day/P	T.Volume G/day	T (°C)	PH	EC (mS/cm)	TDS (mg/L)	Turbidity (NTU)	Condition	Kind	Description
OWJ10-1	Rihab/BorBor Town, Ghengbah Town	318115	689591	5	1	6	3	2	1.71	0.29	1	2,3	25	8	200	25.8	7.29	0.199	129	16.3	3	2	Dust, Muddy
OWJ10-2	Rihab/BorBor Town, Ghengbah Town	318148	689446	5	1	6	3	2	2.25	0.15	1	2,3	25	8	200	29.1	7.10	0.118	76	25.0	2,3	2	Rusty, Smell
OWJ10-3	Rihab/BorBor Town, Ghengbah Town	317828	689301	6	1	6	3	2	3.15	0.50	4	2,3	500	18	9000	27.1	6.68	0.201	130	17.1	2	2	Dust, Leaves
OWJ10-4	Rihab/BorBor Town, Ghengbah Town	317985	689445	6	1	6	3	2	4.67	0.86	1	2	10	8	80	27.2	7.11	0.266	172	14.1	2,3	2	Foamy
OWJ10-5	Rihab/BorBor Town, Ghengbah Town	318047	689579	5	1	6	3	2	3.05	0.06	1	2,3	150	15	2250	21.6	6.78	0.427	278	10.6	2,3	2	Tadpols
OWJ10-6	Rihab/BorBor Town, Ghengbah Town	318114	689766	4	1	6	3	2	5.90	0.10	4	2,3	250	15	3750	27.8	6.57	0.113	73	0.0	1	3	
OWJ10-7	Rihab/BorBor Town, Ghengbah Town	318094	689969	4	1	5	1	2	3.28	1.07	1	1,2	250	15	3750	27.6	5.70	0.164	107	0.0	1	3	
OWJ10-8	Rihab/BorBor Town, Ghengbah Town	318144	690018	4	1	6	3	2	5.10	0.35	1	1	500	10	5000	26.3	7.15	0.217	141	0.0	1	3	
OWJ10-9	Rihab/BorBor Town, Ghengbah Town	318425	689794	4	1	6	3	2	4.30	0.07	1	2,3	50	15	750	28.3	7.23	0.431	280	13.9	3	2	Rusty, Mudy
OWJ10-10	Rihab/BorBor Town, Ghengbah Town	318456	689661	4	1	6	3	2	3.58	0.27	4	2,3	250	15	3750	27.5	7.04	0.207	135	1.6	3	2	Leaves, Grasses
OWJ11-1	Rihab/BorBor Town, Ghengbah Town	317745	689351	6	1	5	2	2	1.06	0.87	2	2	15	5	75	31.3	7.14	0.539	345	77.0	5	3	
OWJ11-2	Rihab/BorBor Town, Ghengbah Town	317721	689282	6	1	6	3	2	3.22	0.90	2	2	35	15	525	29.8	7.50	2.590	1.66	0.8	4	3	
OWJ11-3	Rihab/BorBor Town, Ghengbah Town	317720	689281	6	1	6	3	2	3.77	0.89	4	2	170	20	3400	29.4	6.78	0.316	206	8.8	3	3	
OWJ11-4	Rihab/BorBor Town, Ghengbah Town	317618	689167	6	1	6	3	2	3.89	0.38	4	2	30	3	90	28.9	6.46	0.347	225	23.4	2	3	
OWJ11-5	Rihab/BorBor Town, Ghengbah Town	317405	689306	6	1	6	3	2	2.05	0.81	4	2	100	4	400	29.8	6.50	0.218	142	2.3	1	3	
OWJ11-6	Rihab/BorBor Town, Ghengbah Town	317299	689339	6	1	6	3	2	2.79	0.84	2	2	100	4	400	29.6	6.40	0.194	126	5.0	1	3	
IWD1-1	Rihab/BorBor Town, Rihab	3142235	690914	10	1	5	1	2	8.27	5.27	2	2,3	500	15	7500	26.4	6.55	0.031	20	(19.0)	1	3	
IWD1-2	Rihab/BorBor Town, Rihab	314205	690976	8	1	5	1	2	5.65	2.15	1	2,3	500	15	7500	26.8	5.77	0.040	25	(26.8)	1	3	
IWD1-3	Rihab/BorBor Town, Rihab	314220	691033	8	1	5	3	2	8.15	2.35	1	1,2	500	15	7500	26.6	5.70	0.077	50	(16.6)	1	3	
IWD1-4	Rihab/BorBor Town, Rihab	314383	691011	16	1	5	1	2	7.85	4.75	1	1,2	500	15	7500	26.4	5.84	0.045	29	(53.2)	1	3	
IWD1-5	Rihab/BorBor Town, Rihab	314525	691161	8	1	5	1	2	5.50	2.99	1	1,2	500	15	7500	26.9	5.30	0.062	40	(34.4)	1	2	Roots
IWD1-6	Rihab/BorBor Town, Rihab	314579	691127	13	1	5	1	2	9.35	7.69	2	1,2	500	15	7500	27.0	5.18	0.056	36	30.9	3	2	Leaves, Grasses
IWD1-7	Rihab/BorBor Town, Rihab	314624	691127	13	1	6	3	2	9.02	7.58	2	2,3	500	8	4000	27.2	5.27	0.050	32	1.9	1	3	
IWD1-8	Rihab/BorBor Town, Rihab	314895	691194	9	1	5	1	2	7.30	3.06	4	2,3	500	15	7500	26.8	5.32	0.040	25	36.0	3	2	Plastic bags, Rags
IWD1-9	Rihab/BorBor Town, Rihab	315060	691175	6	1	5	1	2	3.50	1.55	2	2	250	15	3750	27.2	4.85	0.035	23	2.8	2	2	Dust, Leaves
IWD1-10	Rihab/BorBor Town, Rihab	314541	690887	27	1	6	3	2	7.85	5.05	2	2,3	200	15	3000	26.8	5.25	0.073	47	17.9	1	2	Tadpols, Mold
IWD1-11	Rihab/BorBor Town, Rihab	314415	690355	8	1	6	3	2	4.73	1.34	1	1,2	500	15	7500	27.3	5.55	0.057	36	13.7	1	3	
IWD1-12	Rihab/BorBor Town, Rihab	314667	690473	15	1	6	3	2	7.65	1.92	2	1,2	500	15	7500	27.6	6.25	0.096	62	15.3	1	2	Dry grasses
IWD1-13	Rihab/BorBor Town, Rihab	315006	690627	16	1	6	3	2	7.58	2.65	4	2,3	500	15	7500	27.3	5.66	0.048	31	10.4	1	3	
IWD2-1	Rihab/BorBor Town, Thinkers village O.F.	316305	690414	9	1	5	1	2	4.79	0.78	2	1,2	500	15	7500	26.9	5.80	0.033	21	(82.0)	1	3	
IWD2-2	Rihab/BorBor Town, Thinkers village O.F.	316390	690554	9	1	5	1	2	4.58	2.45	2	1,2	500	15	7500	26.9	5.42	0.022	14	(27.8)	1	3	
IWD2-3	Rihab/BorBor Town, Thinkers village O.F.	316604	690403	12	1	6	1	2	8.62	3.03	2	2,3	250	15	3750	26.1	5.70	0.027	17	(46.1)	2	2	Trashes
IWD2-4	Rihab/BorBor Town, Thinkers village O.F.	316561	690245	11	1	5	1	2	4.53	2.83	1	2,3	500	15	7500	28.1	5.60	0.064	42	(94.0)	2	2	Foamy
IWD2-5	Rihab/BorBor Town, Thinkers village O.F.	316558	690200	10	1	5	1	2	4.18	2.04	2	2,3	500	15	7500	27.9	5.58	0.119	77	12.7	1	2	Leaves, Ants
IWD2-6	Rihab/BorBor Town, Thinkers village O.F.	316601	690125	8	2	6	1	1	12.20		2	1,2	500	15	7500	28.7	5.16	0.016	10	8.0	1	3	
IWD2-7	Rihab/BorBor Town, Thinkers village O.F.	316282	690111	8	1	6	3	2	3.20	0.30	4	2,3	25	15	375	28.1	6.45	0.215	140	7.1	1	2	Dust, Leaves
IWD2-8	Rihab/BorBor Town, Thinkers village O.F.	316201	690496	10	1	6	3	2	7.55	2.03	1	1,2	500	15	7500	27.8	7.52	0.053	34	6.2	1	3	
IWD2-9	Rihab/BorBor Town, Thinkers village O.F.	316265	690564	11	1	5	1	2	5.40	1.93	2	2,3	250	15	3750	27.8	6.56	0.034	22	8.0	1	3	
IWD2-10	Rihab/BorBor Town, Thinkers village O.F.	315928	690630	10	1	6	1	2	4.50	1.60	4	1,2	500	15	7500	28.4	5.67	0.065	42	0.0	1	3	
IWD2-11	Rihab/BorBor Town, Thinkers village O.F.	315675	690717	6	1	6	3	1	12.00		4	1,2	500	15	7500	29.0	5.69	0.065	44	0.0	1	3	

Remarks;

Well Situation

Type 1; Dug well, 2; Drilled Well

Head 1; Nothing, 2; Tire, 3; Drum, 4; Stone masonry, 5; Block, 6; Concrete

Casing 1; Nothing, 2; Block, 3; Concrete colgate, 4; PVC casing, 5; Steel casing

Equipment 1; Hand pump, 2; Well bucket

Dry-up 1; No dry-up, 2; Dry up in dry season, 3; Sometimes dry-up by drawing 4; Water level goes down in dry season, 5; Water level goes down by drawing

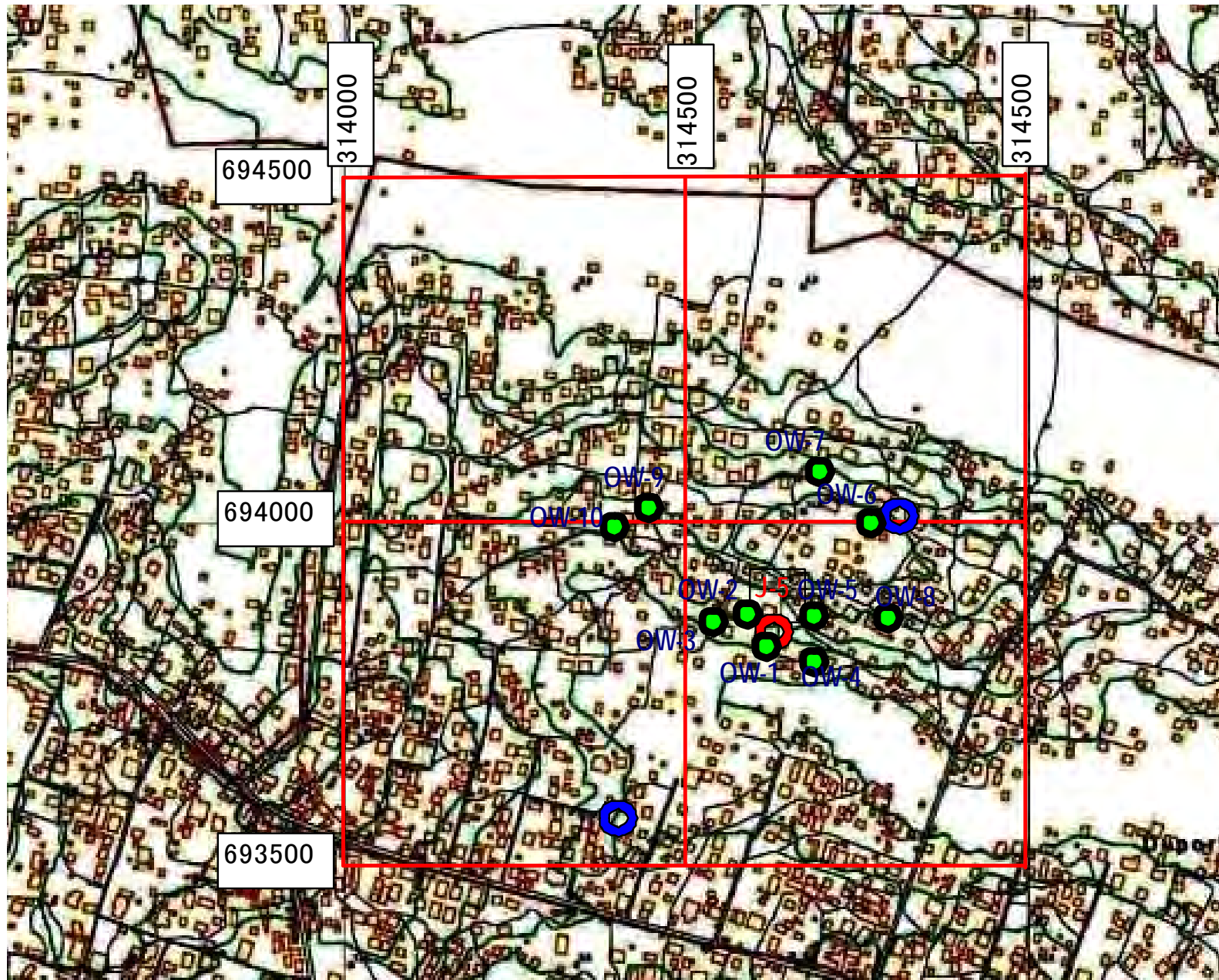
Water Quality


Condition 1; Claen, 2; Cloudy, 3; Colored, 4; Dirty, 5; Salty


Contamination


Kind 1; Oil contamination, 2; Other contamination, 3; No contamination


J-5 AREA





WELL INVENTORY (for Exploratory Well Drilling)					OWJ5-1			
					Survey Date	27 Oct. 2009		
Registered Well No.			Zone	Paynesville		Community	Duport Road North East, Cow field	
Location	Easting	314624		Northing	693831		Elevation	9 m
Construction	Year	1999		Provider	Mrs. Jessie Kekula			
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others		Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, ⑤ Block, 6. Concrete		Well head hight (m)	0.67
	Casing	① Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)				Equipment	1. Hand pump well, ② Draw well, 3. Others	
	Diameter (cm)	150		Total Depth (m)	4.99		Water Level (m)	1.80
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others ()							2,3
	No. of User	500		Volume	15 Gallon / day / person		Total	7500 Gallon / day
Dry-up Condition	1. No dry-up, ② Dry-up in dry season (1 week), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing							2
Water Quality	Tempera-true	28.8 °C		pH	6.30		E.C	0.093 mS/cm
	TDS	60 mg/L		Salt	0.0 ppt		Turbidity	7.5 NTU
	Others	1. Clean, ② Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), ④ Dirty, 5. Salty						2,4
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) ② Other contamination (dust, leaves blowing) 3.Any contamination cannot be perceived							2
	Countermeasure for contamination	Chlorination 6 times/year						
	Disease by water							
Other Resident Conscious-ness								
								
Remarks								


WELL INVENTORY (for Exploratory Well Drilling)					OWJ5-2		
					Survey Date	27 Oct. 2009	
Registered Well No.			Zone	Paynesville	Community	Duport Road North East, Cow field	
Location	Easting	314594	Northing	693867	Elevation	9 m	
Construction	Year	1992	Provider	Mr. Wedy Gbayan			
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, ⑤ Block, 6. Concrete	Well head height (m)	0.90	
	Casing	① Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others		
	Diameter (cm)	150	Total Depth (m)	5.87	Water Level (m)	3.37	
Water Use/ Yield	① Drinking water, ② Washing water, 3. Others ()					1,2	
	No. of User	500	Volume	15 Gallon / day / person	Total	7500 Gallon / day	
Dry-up Condition	1. No dry-up, 2. Dry-up in dry season (1 week), 3. Sometimes dry-up by drawing, ④ Water level goes down in dry season (), 5. Water level goes down by drawing					4	
Water Quality	Temperature	29.2 °C	pH	4.44	E.C	0.088 mS/cm	
	TDS	57 mg/L	Salt	0.0 ppt	Turbidity	6.3 NTU	
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					1
Contamina- tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination (dust blowing)					3	
	Countermeasure for contamination						
	Disease by water						
Other Resident Consciousness							
							
Remarks							


WELL INVENTORY (for Exploratory Well Drilling)					OWJ5-3			
					Survey Date	27 Oct. 2009		
Registered Well No.			Zone	Paynesville		Community	Duport Road North East, Cow field	
Location	Easting	314547		Northing	693858		Elevation	8 m
Construction	Year		Provider	Mr. Wilson				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others		Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete		Well head hight (m)	0.46
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)			Equipment	1. Hand pump well, ② Draw well, 3. Others		
	Diameter (cm)	80		Total Depth (m)	4.93		Water Level (m)	2.12
Water Use/ Yield	1. Drinking water, ②. Washing water, 3. Others ()							2
	No. of User	500		Volume	15 Gallon / day / person		Total	7500 Gallon / day
Dry-up Condition	1. No dry-up, 2. Dry-up in dry season (1 week), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (3 months), 5. Water level goes down by drawing							4
Water Quality	Tempera-true	28.8 °C		pH	4.92		E.C	0.075 mS/cm
	TDS	49 mg/L		Salt	0.0 ppt		Turbidity	6.4 NTU
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty						
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) ②. Other contamination (blowing dust, leaves) 3. Any contamination cannot be perceived							2
	Countermeasure for contamination							
	Disease by water							
Other Resident Conscious-ness								
								
Remarks								


WELL INVENTORY (for Exploratory Well Drilling)					OWJ5-4				
					Survey Date	27 Oct. 2009			
Registered Well No.			Zone	Paynesville	Community	Duport Road North East, Cow field			
Location	Easting	314690	Northing	693798	Elevation	8	m		
Construction	Year	1993	Provider	Mr. Martin Paye					
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others		Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, ⑤ Block, 6. Concrete		Well head hight (m)	0.44	
	Casing	① Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)			Equipment	1. Hand pump well, ② Draw well, 3. Others			
	Diameter (cm)	120	Total Depth (m)	1.81	Water Level (m)	0.45			
Water Use/ Yield	1. Drinking water, ② Washing water, 3. Others ()						2		
	No. of User	450	Volume	15 Gallon / day / person	Total	6750 Gallon / day			
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (1 week), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing						1		
Water Quality	Tempera-true	28.4	°C	pH	5.15	E.C	0.064	mS/cm	
	TDS	41	mg/L	Salt	0.0	ppt	Turbidity	5.0	NTU
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty						1	
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt. ② Other contamination (blowing dust, leaves) 3. Any contamination cannot be perceived						2		
	Countermeasure for contamination	Chlorination 6 times/year							
	Disease by water								
Other Resident Conscious-ness									
									
Remarks									


WELL INVENTORY (for Exploratory Well Drilling)					OWJ5-5			
					Survey Date	27 Oct. 2009		
Registered Well No.			Zone	Paynesville	Community	Duport Road North East, Cow field		
Location	Easting	314690	Northing	693865	Elevation	10	m	
Construction	Year	2004	Provider	NGO				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others		Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete		Well head high (m)	0.50
	Casing	1. Nothing, 2. Block ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others			
	Diameter (cm)	80	Total Depth (m)	7.64	Water Level (m)	4.63		
Water Use/ Yield	1. Drinking water ② Washing water, 3. Others (cooking)						2	
	No. of User	20	Volume	11 Gallon / day / person	Total	220 Gallon / day		
Dry-up Condition	1. No dry-up, 2. Dry-up in dry season (1 week), 3. Sometimes dry-up by drawing ④, 4. Water level goes down in dry season (4 months), 5. Water level goes down by drawing						4	
Water Quality	Temperature	29.7	°C	pH	5.16	E.C	0.076 mS/cm	
	TDS	49	mg/L	Salt	0.0	ppt	Turbidity	11.1 NTU
	Others	① Clean, 2. Cloudy ③ Colored (Yellowish, Brownish, Reddish, Other (sometimes)), 4. Dirty, 5. Salty						1
Contamina- tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) ② Other contamination (blowing dust, leaves) 3. Any contamination cannot be perceived						2	
	Countermeasure for contamination	Chlorination 4 times/year						
	Disease by water							
Other Resident Consciousness	Warms are come up in water in dry season. Water makes itches on user's skin.							
								
Remarks								

WELL INVENTORY (for Exploratory Well Drilling)					OWJ5-6			
					Survey Date	27 Oct. 2009		
Registered Well No.			Zone	Paynesville	Community	Duport Road North East, Cow field		
Location	Easting	314777	Northing	693995	Elevation	14 m		
Construction	Year	2001	Provider	Mr. Saye Gbor				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, ⑤ Block, 6. Concrete	Well head hight (m)	0.65		
	Casing	① Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others			
	Diameter (cm)	150	Total Depth (m)	10.58	Water Level (m)	7.42		
Water Use/ Yield	① Drinking water, ② Washing water, 3. Others (cooking)					1,2		
	No. of User	500	Volume	11 Gallon / day / person	Total	5500 Gallon / day		
Dry-up Condition	1. No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, ④ Water level goes down in dry season (1 week), 5. Water level goes down by drawing					4		
Water Quality	Tempera-true	28.8	°C	pH	4.96	E.C	0.048 mS/cm	
	TDS	31	mg/L	Salt	0.0	ppt	Turbidity	10.8 NTU
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					1	
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination (③ Any contamination cannot be perceived					3		
	Countermeasure for contamination	Chlorination 6 times/year						
	Disease by water							
Other Resident Conscious-ness								
								
Remarks								

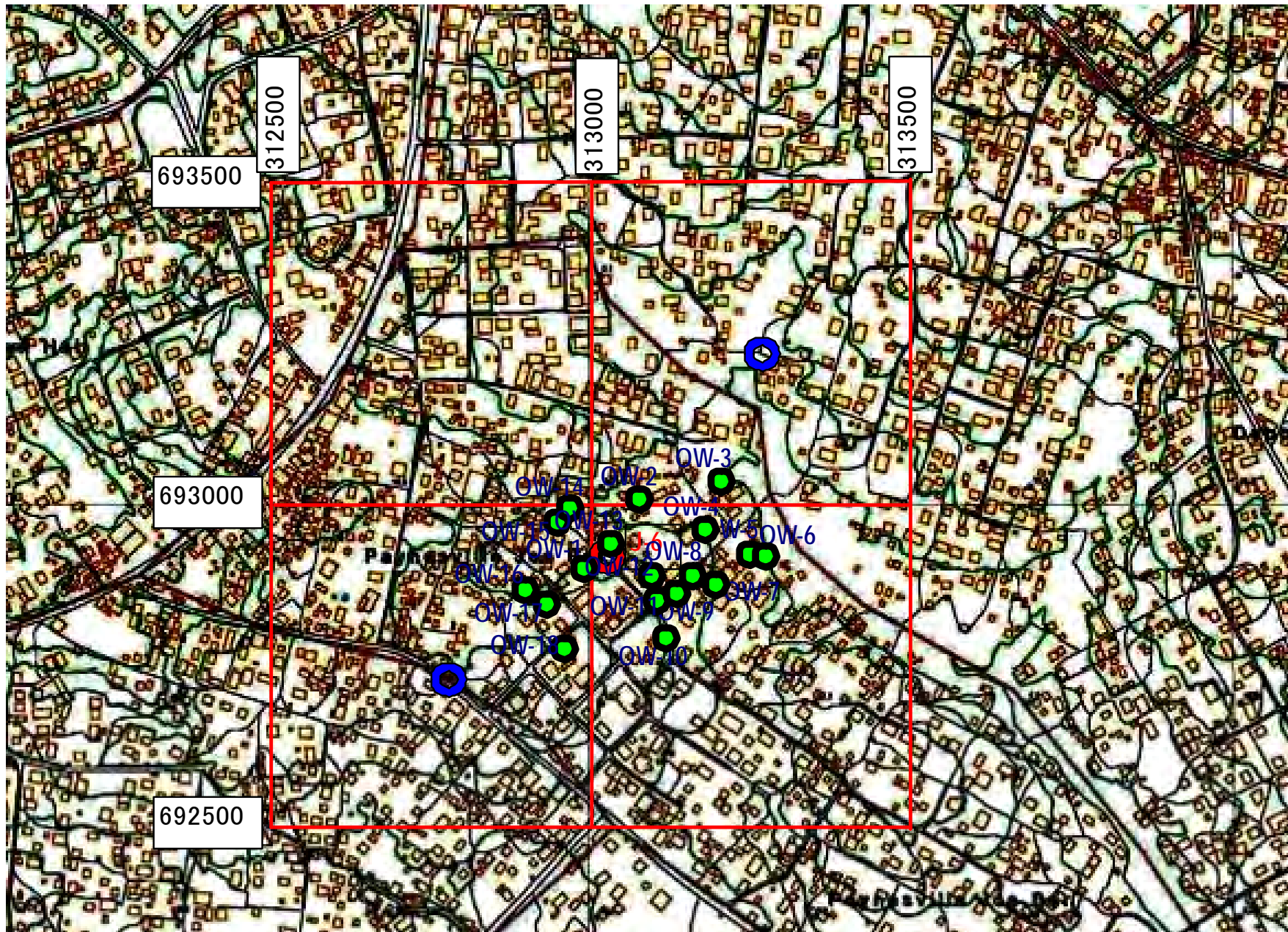
WELL INVENTORY (for Exploratory Well Drilling)					OWJ5-7	
					Survey Date	27 Oct. 2009
Registered Well No.			Zone	Paynesville	Community	Duport Road North East, Cow field
Location	Easting	314703	Northing	694077	Elevation	12 m
Construction	Year	2002	Provider	Mr. Benk Jalleh		
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, ⑤ Block, 6. Concrete	Well head hight (m)	0.71
	Casing	① Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others	
	Diameter (cm)	120	Total Depth (m)	7.73	Water Level (m)	4.74
Water Use/ Yield	1. Drinking water, ② Washing water, 3. Others ()					2
	No. of User	500	Volume	15 Gallon / day / person	Total	7500 Gallon / day
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					1
Water Quality	Tempera-true	28.6 °C	pH	4.20	E.C	0.066 mS/cm
	TDS	43 mg/L	Salt	0.0 ppt	Turbidity	7.4 NTU
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty				
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.② Other contamination (blowing dust)					2
	Countermeasure for contamination					
	Disease by water					
Other Resident Conscious-ness						
						
Remarks						

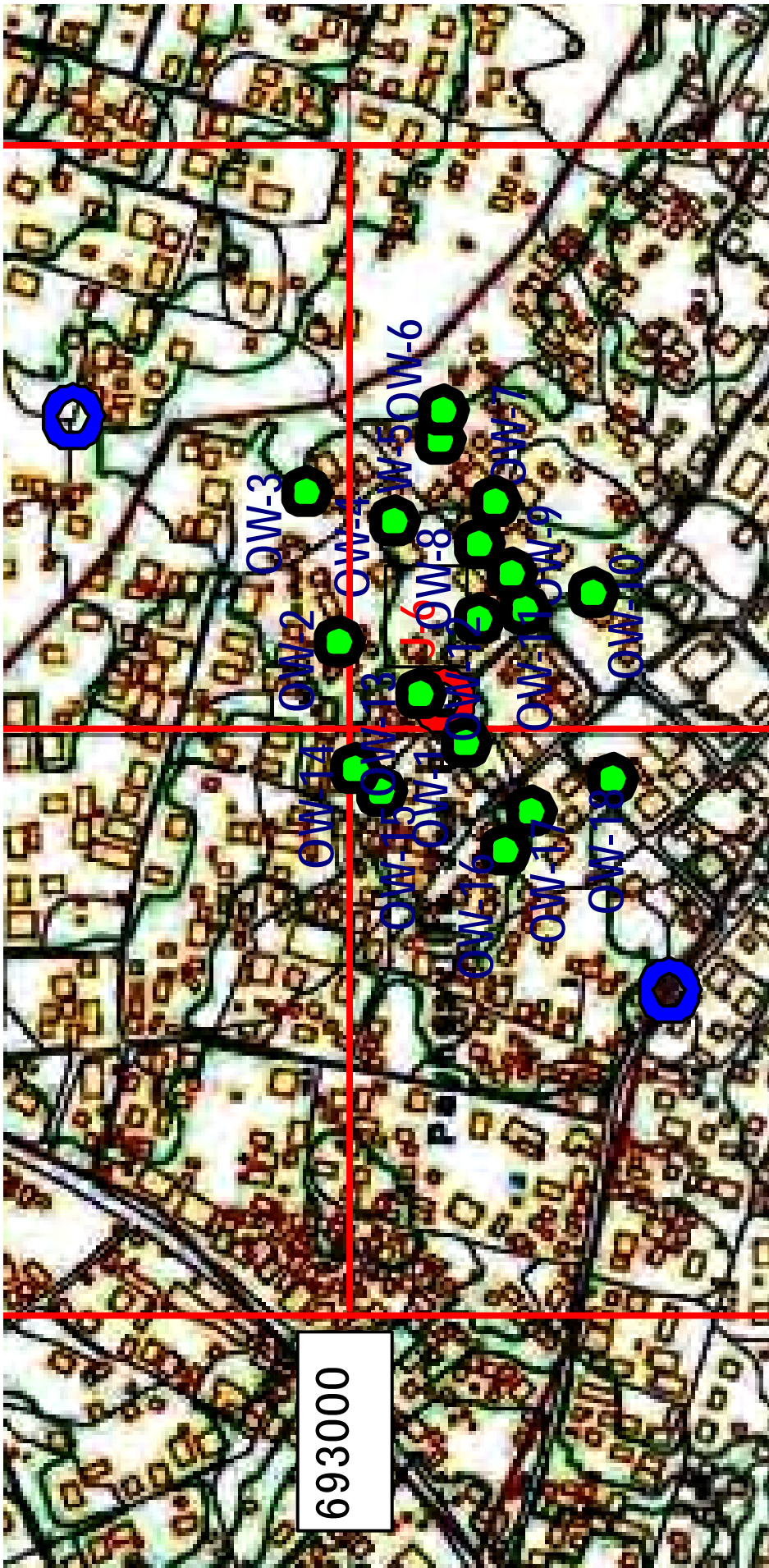
WELL INVENTORY (for Exploratory Well Drilling)					OWJ5-8		
					Survey Date	27 Oct. 2009	
Registered Well No.			Zone	Paynesville	Community	Duport Road North East, Cow field	
Location	Easting	314797	Northing	693864	Elevation	12 m	
Construction	Year	2007	Provider	Mr. Joshua Reeves			
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	0.05	
	Casing	① Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others		
	Diameter (cm)	150	Total Depth (m)	7.39	Water Level (m)	5.99	
Water Use/ Yield	1. Drinking water, ② Washing water, 3. Others (cooking)					2	
	No. of User	15	Volume	11 Gallon / day / person	Total	165 Gallon / day	
Dry-up Condition	1. No dry-up, ② Dry-up in dry season (2 months), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing						
Water Quality	Tempera-true	29.9 °C	pH	4.41	E.C	0.125 mS/cm	
	TDS	81 mg/L	Salt	0.0 ppt	Turbidity	14.8 NTU	
	Others	1. Clean, 2. Cloudy, ③ Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					3
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination (blowing dust, leaves) 3. Any contamination cannot be perceived					2	
	Countermeasure for contamination						
	Disease by water						
Other Resident Conscious-ness							
							
Remarks							

WELL INVENTORY (for Exploratory Well Drilling)					OWJ5-9			
					Survey Date	27 Oct. 2009		
Registered Well No.			Zone	Paynesville	Community	Duport Road North East, Cow field		
Location	Easting	314449	Northing	694018	Elevation	14 m		
Construction	Year		Provider	Mr. Jimmy Sulonteh				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, ⑤ Block, 6. Concrete	Well head hight (m)	0.40		
	Casing	① Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others			
	Diameter (cm)	150	Total Depth (m)	7.98	Water Level (m)	3.76		
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others ()					2,3		
	No. of User	100	Volume	8 Gallon / day / person	Total	800 Gallon / day		
Dry-up Condition	1. No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, ④ Water level goes down in dry season (4 months), 5. Water level goes down by drawing					4		
Water Quality	Tempera-true	28.6 °C	pH	4.57	E.C	0.69 mS/cm		
	TDS	44 mg/L	Salt	0.0 ppt	Turbidity	11.0 NTU		
	Others	1. Clean, 2. Cloudy, ③ Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					3	
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) ② Other contamination (dust, leaves blowing) 3. Any contamination cannot be perceived					2		
	Countermeasure for contamination	Chlorination 2 times/year						
	Disease by water							
Other Resident Conscious-ness								
								
Remarks								


WELL INVENTORY (for Exploratory Well Drilling)					OWJ5-10	
					Survey Date	27 Oct. 2009
Registered Well No.			Zone	Paynesville	Community	Duport Road North East, Cow field
Location	Easting	314398	Northing	693991	Elevation	12 m
Construction	Year	1993	Provider	Mr. Amos Tweh		
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, ⑤ Block, 6. Concrete	Well head height (m)	0.10
	Casing	① Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well ② Draw well, 3. Others	
	Diameter (cm)	180	Total Depth (m)	5.68	Water Level (m)	2.15
Water Use/ Yield	1. Drinking water, ② Washing water, 3. Others ()					2
	No. of User	26	Volume	3 Gallon / day / person	Total	78 Gallon / day
Dry-up Condition	1. No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing ④ Water level goes down in dry season (), 5. Water level goes down by drawing					4
Water Quality	Temperature	28.4 °C	pH	4.60	E.C	0.036 mS/cm
	TDS	23 mg/L	Salt	0.0 ppt	Turbidity	33.5 NTU
	Others	① Clean ② Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), ④ Dirty, 5. Salty				2,4
Contamina- tion	1. Oil Contamination (a. Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt) ②. Other contamination (blowing dust, leaves)					2
	Countermeasure for contamination					
	Disease by water					
Other Resident Consciousness						
						
Remarks						


J-6 AREA








693000


WELL INVENTORY (for Exploratory Well Drilling)					OWJ6-1			
					Survey Date	28 Oct. 2009		
Registered Well No.			Zone	Paynesville	Community	Paynesville Joe Bar, Block G2		
Location	Easting	312993	Northing	692905	Elevation	11 m		
Construction	Year	2005	Provider	Mr. Richard Wesec				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head height (m)	0.60		
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others			
	Diameter (cm)	65	Total Depth (m)	5.72	Water Level (m)	2.03		
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others (cooking)					2,3		
	No. of User	20	Volume	15 Gallon / day / person	Total	300 Gallon / day		
Dry-up Condition	1. No dry-up, 2. Dry-up in dry season (1 week), 3. Sometimes dry-up by drawing, ④ Water level goes down in dry season (), 5. Water level goes down by drawing					4		
Water Quality	Temperature	28.1 °C	pH	5.97	E.C	0.107 mS/cm		
	TDS	69 mg/L	Salt	0.0 ppt	Turbidity	0.0 NTU		
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					1	
Contamina- tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination () ③ Any contamination cannot be perceived					3		
	Countermeasure for contamination	Chlorination 4 times/year						
	Disease by water							
Other Resident Consciousness								
								
Remarks								


WELL INVENTORY (for Exploratory Well Drilling)					OWJ6-2			
					Survey Date	28 Oct. 2009		
Registered Well No.			Zone	Paynesville	Community	Paynesville Joe Bar, Block G2		
Location	Easting	313070	Northing	693007	Elevation	10 m		
Construction	Year	2005	Provider	Mr. Abraham Darsaw				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head height (m)	0.85		
	Casing	1. Nothing, 2. Block ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others			
	Diameter (cm)	75	Total Depth (m)	3.90	Water Level (m)	1.15		
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others ()					2,3		
	No. of User	500	Volume	15 Gallon / day / person	Total	1500 Gallon / day		
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (1 week), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					1		
Water Quality	Temperature	27.8 °C	pH	5.81	E.C	0.116 mS/cm		
	TDS	75 mg/L	Salt	0.0 ppt	Turbidity	5.9 NTU		
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					1	
Contamina- tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) ② Other contamination (Dust, plastic bags blowing) 3.Any contamination cannot be perceived					2		
	Countermeasure for contamination	Chlorination 6 times/year						
	Disease by water							
Other Resident Conscious-ness								
								
Remarks	Water level is almost same as a neighbor ditch water level.							


WELL INVENTORY (for Exploratory Well Drilling)					OWJ6-3	
					Survey Date	28 Oct. 2009
Registered Well No.			Zone	Paynesville	Community	Paynesville Joe Bar, Block G2
Location	Easting	313203	Northing	693028	Elevation	9 m
Construction	Year	2002	Provider	Mr. Samuel G. Dahn		
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head height (m)	0.58
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others	
	Diameter (cm)	75	Total Depth (m)	1.68	Water Level (m)	0.50
Water Use/ Yield	1. Drinking water, ② Washing water, 3. Others ()					2
	No. of User	25	Volume	15 Gallon / day / person	Total	375 Gallon / day
Dry-up Condition	1. No dry-up, ② Dry-up in dry season (1 week), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (3 months), 5. Water level goes down by drawing					2
Water Quality	Temperature	27.3 °C	pH	6.10	E.C	0.214 mS/cm
	TDS	139 mg/L	Salt	0.0 ppt	Turbidity	4.4 NTU
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty				
Contamina- tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination () ③ Any contamination cannot be perceived					3
	Countermeasure for contamination	Chlorination 3 times/week				
	Disease by water					
Other Resident Consciousness						
						
Remarks						


WELL INVENTORY (for Exploratory Well Drilling)					OWJ6-4			
					Survey Date	28 Oct. 2009		
Registered Well No.			Zone	Paynesville	Community	Paynesville Joe Bar, Block G2		
Location	Easting	313177	Northing	692960	Elevation	10	m	
Construction	Year	1993	Provider	Mr. Benjamin Warner				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others		Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete		Well head hight (m)	0.53
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)			Equipment	1. Hand pump well, ② Draw well, 3. Others		
	Diameter (cm)	60	Total Depth (m)	3.68	Water Level (m)	1.59		
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others (cooking)						2.3	
	No. of User	500	Volume	15	Gallon / day / person	Total	7500	
Dry-up Condition	1. No dry-up, ② Dry-up in dry season (3 months), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing						2	
Water Quality	Tempera-true	27.0	°C	pH	6.40	E.C	0.137	
	TDS	89	mg/L	Salt	0.0	ppt	Turbidity	6.0
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty						1
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt. ② Other contamination (blowing dust) 3. Any contamination cannot be perceived						2	
	Countermeasure for contamination	Chlorination 2 times/year						
	Disease by water							
Other Resident Conscious-ness	Warms are come up in water in dry season.							
								
Remarks								


WELL INVENTORY (for Exploratory Well Drilling)					OWJ6-5		
					Survey Date	28 Oct. 2009	
Registered Well No.			Zone	Paynesville	Community	Paynesville Joe Bar, Block G2	
Location	Easting	313246	Northing	692922	Elevation	8 m	
Construction	Year	1980	Provider	Mrs. Henry Wright			
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head height (m)	0.40	
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others		
	Diameter (cm)	70	Total Depth (m)	3.05	Water Level (m)	1.08	
Water Use/ Yield	1. Drinking water, ② Washing water, 3. Others ()					2	
	No. of User	8	Volume	15 Gallon / day / person	Total	120 Gallon / day	
Dry-up Condition	1. No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, ④ Water level goes down in dry season (4 months), 5. Water level goes down by drawing					4	
Water Quality	Tempera-true	27.2	°C	pH	6.27	E.C	0.078 mS/cm
	TDS	50	mg/L	Salt	0.0 ppt	Turbidity	3.8 NTU
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					1
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination () ③. Any contamination cannot be perceived					3	
	Countermeasure for contamination	Chlorination 12 times/year					
	Disease by water						
Other Resident Conscious-ness							
							
Remarks							

WELL INVENTORY (for Exploratory Well Drilling)					OWJ6-6			
					Survey Date	28 Oct. 2009		
Registered Well No.			Zone	Paynesville	Community	Paynesville Joe Bar, Block G2		
Location	Easting	313266	Northing	692925	Elevation	8 m		
Construction	Year		Provider	Mr. William Cole				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block ⑥ Concrete	Well head height (m)	0.45		
	Casing	1. Nothing, 2. Block ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well ② Draw well, 3. Others			
	Diameter (cm)	70	Total Depth (m)	2.80	Water Level (m)	0.78		
Water Use/ Yield	① Drinking water ② Washing water, 3. Others (cooking)					1,2		
	No. of User	800	Volume	8 Gallon / day / person	Total	1600 Gallon / day		
Dry-up Condition	1. No dry-up, 2. Dry-up in dry season (1 week), 3. Sometimes dry-up by drawing ④ Water level goes down in dry season (1 week), 5. Water level goes down by drawing					4		
Water Quality	Temperature	27.4 °C	pH	6.23	E.C	0.195 mS/cm		
	TDS	127 mg/L	Salt	0.0 ppt	Turbidity	4.0 NTU		
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					1	
Contamina- tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) ② Other contamination (blowing dust, leaves)					2		
	Countermeasure for contamination	Chlorination 2 times/month						
	Disease by water							
Other Resident Consciousness								
								
Remarks								


WELL INVENTORY (for Exploratory Well Drilling)					7OWJ6-7		
					Survey Date	28 Oct. 2009	
Registered Well No.			Zone	Paynesville	Community	Paynesville Joe Bar, Block G2	
Location	Easting	313194	Northing	692880	Elevation	10 m	
Construction	Year	1991	Provider	Mr. Alfred Borton			
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	0.45	
	Casing	① Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others		
	Diameter (cm)	150	Total Depth (m)	3.53	Water Level (m)	1.62	
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others (cooking)					2,3	
	No. of User	500	Volume	15 Gallon / day / person	Total	7500 Gallon / day	
Dry-up Condition	1. No dry-up, 2. Dry-up in dry season (1 week), 3. Sometimes dry-up by drawing, ④ Water level goes down in dry season (4 months), 5. Water level goes down by drawing					4	
Water Quality	Tempera-true	27.8	°C	pH	6.24	E.C	0.176 mS/cm
	TDS	114	mg/L	Salt	0.0 ppt	Turbidity	5.4 NTU
	Others	① Clean, ② Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty (Sometimes cloudy)					1,2
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) ② Other contamination (blowing dust, wood fragments) 3. Any contamination cannot be perceived					2	
	Countermeasure for contamination	Chlorination 6 times/year					
	Disease by water						
Other Resident Conscious-ness							
							
Remarks							


WELL INVENTORY (for Exploratory Well Drilling)					OWJ6-8			
					Survey Date	28 Oct. 2009		
Registered Well No.			Zone	Paynesville	Community	Paynesville Joe Bar, Block G2		
Location	Easting	313160	Northing	692892	Elevation	10 m		
Construction	Year	2009	Provider	Mr. Jackson Kollie				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, ⑤ Block, 6. Concrete	Well head height (m)	0.30		
	Casing	① Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well ② Draw well, 3. Others			
	Diameter (cm)	125	Total Depth (m)	3.15	Water Level (m)	1.47		
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others (cooking)					2,3		
	No. of User	500	Volume	15 Gallon / day / person	Total	7500 Gallon / day		
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (2 months), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					1		
Water Quality	Tempera-true	27.4	°C	pH	6.28	E.C	0.154 mS/cm	
	TDS	100	mg/L	Salt	0.0	ppt	Turbidity	17.8 NTU
	Others	1. Clean, ② Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					2	
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt), ② Other contamination (blowing dust, leaves, plastic bags) 3. Any contamination cannot be perceived					2		
	Countermeasure for contamination	Chlorination 2 times/year						
	Disease by water							
Other Resident Conscious-ness								
								
Remarks								


WELL INVENTORY (for Exploratory Well Drilling)					OWJ6-9	
					Survey Date	28 Oct. 2009
Registered Well No.			Zone	Paynesville	Community	Paynesville Joe Bar, Block G2
Location	Easting	313133	Northing	692863	Elevation	11 m
Construction	Year	2003	Provider	Mr. Jhames Goba		
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head height (m)	0.95
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others	
	Diameter (cm)	65	Total Depth (m)	4.61	Water Level (m)	1.95
Water Use/ Yield	1. Drinking water, ② Washing water, 3. Others ()					2
	No. of User	250	Volume	15 Gallon / day / person	Total	3750 Gallon / day
Dry-up Condition	1. No dry-up, 2. Dry-up in dry season (1 week), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (1 month), 5. Water level goes down by drawing					4
Water Quality	Temperature	27.7 °C	pH	6.33	E.C	0.173 mS/cm
	TDS	112 mg/L	Salt	0.0 ppt	Turbidity	2.2 NTU
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty				1
Contamina- tion	1. Oil Contamination (a. Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination (③ Any contamination cannot be perceived					3
	Countermeasure for contamination	Chlorination 12 times/year				
	Disease by water					
Other Resident Consciousness						
						
Remarks						


WELL INVENTORY (for Exploratory Well Drilling)					OWJ6-10			
					Survey Date	28 Oct. 2009		
Registered Well No.			Zone	Paynesville	Community	Paynesville Joe Bar, Block G2		
Location	Easting	313117	Northing	692795	Elevation	12 m		
Construction	Year	1982	Provider	Mr. Amos Tweh				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	① Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, 6. Concrete	Well head hight (m)	0.00		
	Casing	1. Nothing, 2. Block ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others			
	Diameter (cm)	75	Total Depth (m)	1.95	Water Level (m)	1.08		
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others (cooking)					2,3		
	No. of User	15	Volume	20 Gallon / day / person	Total	300 Gallon / day		
Dry-up Condition	1. No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing ④ Water level goes down in dry season (), 5. Water level goes down by drawing					4		
Water Quality	Tempera-true	27.0	°C	pH	6.47	E.C	0.178 mS/cm	
	TDS	115	mg/L	Salt	0.0 ppt	Turbidity	21.9 NTU	
	Others	1. Clean, 2. Cloudy, ③ Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					3	
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) ② Other contamination (smell) 3. Any contamination cannot be perceived					2		
	Countermeasure for contamination	Chlorination 4 times/year						
	Disease by water							
Other Resident Conscious-ness								
								
Remarks								


WELL INVENTORY (for Exploratory Well Drilling)					OWJ6-11	
					Survey Date	28 Oct. 2009
Registered Well No.			Zone	Paynesville	Community	Paynesville Joe Bar, Block G2
Location	Easting	313094	Northing	692856	Elevation	12 m
Construction	Year	2005	Provider	Mr. James A. Morris		
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head height (m)	1.10
	Casing	1. Nothing, 2. Block ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	① Hand pump well, 2. Draw well, 3. Others	
	Diameter (cm)	75	Total Depth (m)		Water Level (m)	
Water Use/ Yield	① Drinking water, ② Washing water, 3. Others ()					1,2
	No. of User	1500	Volume	15 Gallon / day / person	Total	22500 Gallon / day
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					1
Water Quality	Temperature	27.7 °C	pH	6.11	E.C	0.177 mS/cm
	TDS	115 mg/L	Salt	0.0 ppt	Turbidity	0.0 NTU
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty				1
Contamina- tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination (③ Any contamination cannot be perceived					3
	Countermeasure for contamination	Chlorination 6 times/year				
	Disease by water					
Other Resident Consciousness						
						
Remarks						


WELL INVENTORY (for Exploratory Well Drilling)					OWJ6-12		
					Survey Date	28 Oct. 2009	
Registered Well No.			Zone	Paynesville	Community	Paynesville Joe Bar, Block G2	
Location	Easting	313101	Northing	692886	Elevation	12 m	
Construction	Year	1986	Provider	Mr. Moses Carter			
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, ⑤ Block, 6. Concrete	Well head hight (m)	0.45	
	Casing	① Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others		
	Diameter (cm)	150	Total Depth (m)	4.22	Water Level (m)	2.15	
Water Use/ Yield	1. Drinking water, ② Washing water, 3. Others (cooking)					2	
	No. of User	30	Volume	15 Gallon / day / person	Total	450 Gallon / day	
Dry-up Condition	1. No dry-up, ③ Dry-up in dry season (6 months), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					2	
Water Quality	Tempera-true	27.6	°C	pH	6.17	E.C	0.233 mS/cm
	TDS	151	mg/L	Salt	0.0 ppt	Turbidity	1.9 NTU
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					1
Contamina-tion	1. Oil Contamination (a. Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) ② Other contamination (dust, plastic back blowing) 3. Any contamination cannot be perceived					2	
	Countermeasure for contamination	Chlorination 12 times/year					
	Disease by water						
Other Resident Conscious-ness							
							
Remarks							

WELL INVENTORY (for Exploratory Well Drilling)					OWJ6-13	
					Survey Date	28 Oct. 2009
Registered Well No.			Zone	Paynesville	Community	Paynesville Joe Bar, Block G2
Location	Easting	313034	Northing	692941	Elevation	11 m
Construction	Year	2002	Provider	Mr. Prince Thones		
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head height (m)	0.60
	Casing	1. Nothing, 2. Block ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others	
	Diameter (cm)	80	Total Depth (m)	4.09	Water Level (m)	1.45
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others (cooking)					2,3
	No. of User	10	Volume	15 Gallon / day / person	Total	150 Gallon / day
Dry-up Condition	1. No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (1 week), 5. Water level goes down by drawing					4
Water Quality	Tempera-true	27.6 °C	pH	6.17	E.C	0.102 mS/cm
	TDS	66 mg/L	Salt	0.0 ppt	Turbidity	1.4 NTU
	Others	① Clean, 2. Cloudy, ③ Colored (Yellowish, ⑥ Brownish, Reddish, Other (in dry season))				1,3
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination () ③ Any contamination cannot be perceived					3
	Countermeasure for contamination	Chlorination 6 times/year				
	Disease by water					
Other Resident Conscious-ness						
						
Remarks						

WELL INVENTORY (for Exploratory Well Drilling)					OWJ6-14		
					Survey Date	28 Oct. 2009	
Registered Well No.			Zone	Paynesville	Community	Paynesville Joe Bar, Block G2	
Location	Easting	312967	Northing	692998	Elevation	11 m	
Construction	Year	1993	Provider	Mr. Joseph Willie			
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, ⑤ Block, 6. Concrete	Well head hight (m)	0.45	
	Casing	1. Nothing, 2. Block ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well ② Draw well, 3. Others		
	Diameter (cm)	80	Total Depth (m)	3.45	Water Level (m)	0.98	
Water Use/ Yield	① Drinking water ② Washing water, 3. Others ()					1,2	
	No. of User	500	Volume	15 Gallon / day / person	Total	7500 Gallon / day	
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					1	
Water Quality	Tempera-true	27.9	°C	pH	5.99	E.C	0.058 mS/cm
	TDS	38	mg/L	Salt	0.0 ppt	Turbidity	0.2 NTU
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					1
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination () ③ Any contamination cannot be perceived					3	
	Countermeasure for contamination	Chlorination 12 times/year					
	Disease by water						
Other Resident Conscious-ness							
							
Remarks							

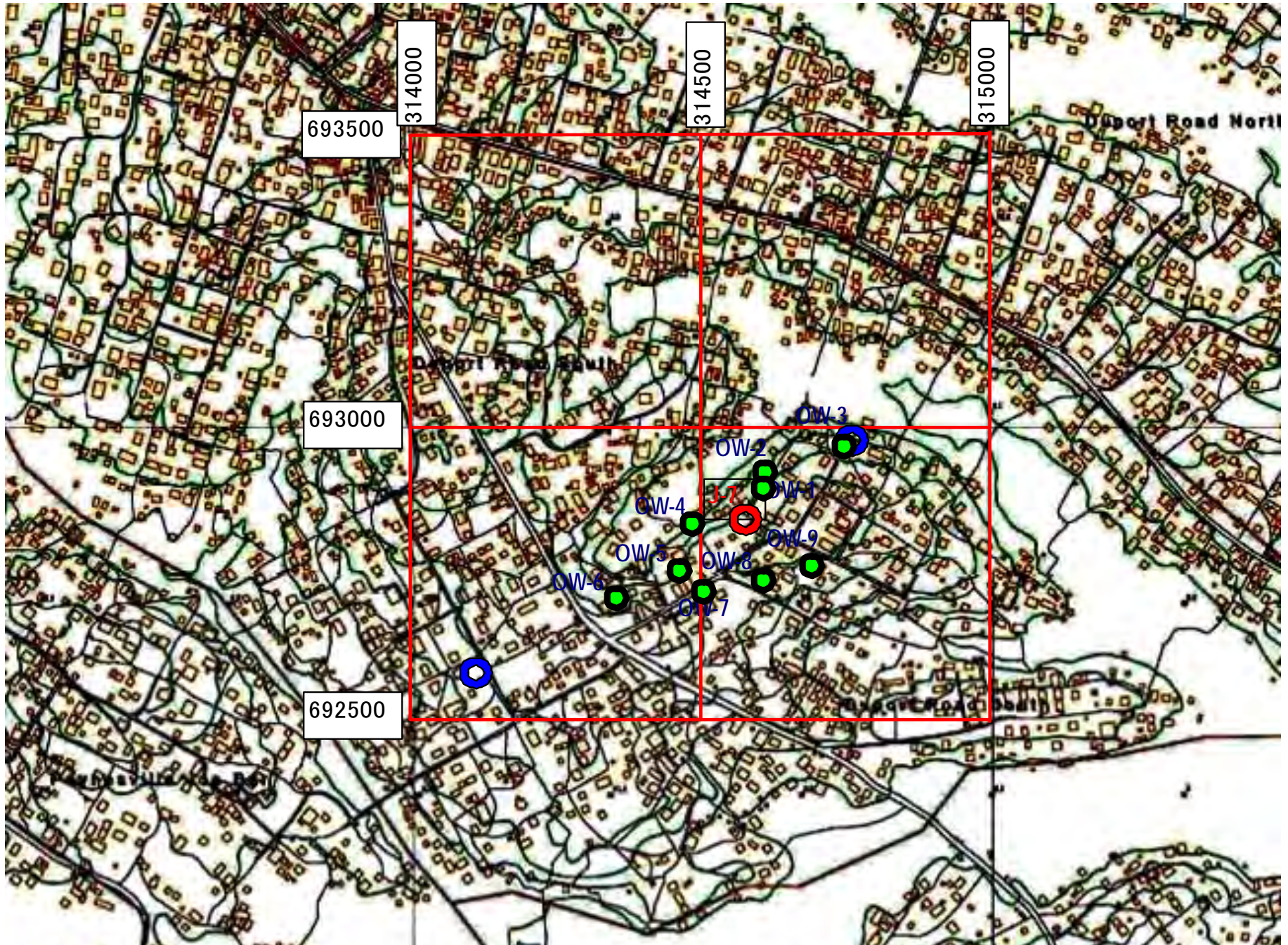
WELL INVENTORY (for Exploratory Well Drilling)					OWJ6-15			
					Survey Date	28 Oct. 2009		
Registered Well No.			Zone	Paynesville	Community	Paynesville Joe Bar, Block G2		
Location	Easting	312943	Northing	692974	Elevation	11 m		
Construction	Year	2005	Provider	Mr. Freeman Garway				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	0.50		
	Casing	1. Nothing, 2. Block ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well ② Draw well, 3. Others			
	Diameter (cm)	75	Total Depth (m)	3.90	Water Level (m)	0.83		
Water Use/ Yield	1. Drinking water ②, 2. Washing water ③ Others (cooking)					2,3		
	No. of User	100	Volume	11 Gallon / day / person	Total	1100 Gallon / day		
Dry-up Condition	1. No dry-up ②, 2. Dry-up in dry season (4 months), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					2		
Water Quality	Tempera-true	28.0	°C	pH	5.89	E.C	0.277 mS/cm	
	TDS	180	mg/L	Salt	0.1 ppt	Turbidity	2.6 NTU	
	Others	① Clean, 2. Cloudy ③, 3. Colored (Yellowish, ④ Brownish, Reddish, Other (in dry season)					1,3	
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination (③. Any contamination cannot be perceived					3		
	Countermeasure for contamination	Chlorination 12 times/year						
	Disease by water							
Other Resident Conscious-ness								
								
Remarks								


WELL INVENTORY (for Exploratory Well Drilling)					OWJ6-16			
					Survey Date	28 Oct. 2009		
Registered Well No.			Zone	Paynesville	Community	Paynesville Joe Bar, Block G2		
Location	Easting	312902	Northing	692866	Elevation	12 m		
Construction	Year	1960	Provider	Mr. Daniel Joeyouway				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head high (m)	0.40		
	Casing	1. Nothing, 2. Block, ⑤ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others			
	Diameter (cm)	80	Total Depth (m)	4.30	Water Level (m)	0.80		
Water Use/ Yield	① Drinking water, ② Washing water, 3. Others (cooking)					1,2		
	No. of User	500	Volume	15 Gallon / day / person	Total	1500 Gallon / day		
Dry-up Condition	1. No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, ④ Water level goes down in dry season (1 month), 5. Water level goes down by drawing					4		
Water Quality	Tempera-true	27.7 °C	pH	6.15	E.C	0.294 mS/cm		
	TDS	191 mg/L	Salt	0.1 ppt	Turbidity	3.4 NTU		
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					1	
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination (③ Any contamination cannot be perceived					3		
	Countermeasure for contamination	Chlorination 12 times/year						
	Disease by water							
Other Resident Conscious-ness								
								
Remarks								


WELL INVENTORY (for Exploratory Well Drilling)					OWJ6-17			
					Survey Date	28 Oct. 2009		
Registered Well No.			Zone	Paynesville	Community	Paynesville Joe Bar, Block G2		
Location	Easting	312929	Northing	692846	Elevation	12 m		
Construction	Year	1997	Provider	Mr. James K. Sumbo				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	0.62		
	Casing	1. Nothing, 2. Block ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others			
	Diameter (cm)	90	Total Depth (m)	5.29	Water Level (m)	2.06		
Water Use/ Yield	① Drinking water, ② Washing water, 3. Others (cooking)					1,2		
	No. of User	100	Volume	15 Gallon / day / person	Total	1500 Gallon / day		
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					1		
Water Quality	Tempera-true	27.2	°C	pH	6.09	E.C	0.167 mS/cm	
	TDS	108	mg/L	Salt	0.0	ppt	Turbidity	0.0 NTU
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					1	
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt. ② Other contamination (blowing dust, leaves)					2		
	Countermeasure for contamination	Chlorination 12 times/year						
	Disease by water							
Other Resident Conscious-ness								
								
Remarks								


WELL INVENTORY (for Exploratory Well Drilling)					OWJ6-18			
					Survey Date	28 Oct. 2009		
Registered Well No.			Zone	Paynesville	Community	Paynesville Joe Bar, Block G2		
Location	Easting	312959	Northing	692781	Elevation	14 m		
Construction	Year	1996	Provider	UNICEF				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	0.45		
	Casing	1. Nothing, 2. Block ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others			
	Diameter (cm)	105	Total Depth (m)	9.08	Water Level (m)	3.77		
Water Use/ Yield	① Drinking water ② Washing water, 3. Others (cooking)					1,2		
	No. of User	15	Volume	10 Gallon / day / person	Total	150 Gallon / day		
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					1		
Water Quality	Tempera-true	28.2	°C	pH	6.39	E.C	0.106 mS/cm	
	TDS	69	mg/L	Salt	0.0	ppt	Turbidity	0.0 NTU
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					1	
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination (③ Any contamination cannot be perceived					3		
	Countermeasure for contamination							
	Disease by water							
Other Resident Conscious-ness								
								
Remarks								


J-7 AREA





WELL INVENTORY (for Exploratory Well Drilling)					OWJ7-1	
					Survey Date	30 Oct. 2009
Registered Well No.			Zone	Paynesville	Community	Duport Road South, Zubah Town
Location	Easting	314602	Northing	612898	Elevation	9 m
Construction	Year	2001	Provider	Mr. Harris M. Dennis		
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head height (m)	0.8
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others	
	Diameter (cm)	65	Total Depth (m)	6.53	Water Level (m)	3.80
Water Use/ Yield	1. Drinking water, ② Washing water, 3. Others ()					2
	No. of User	250	Volume	15 Gallon / day / person	Total	3750 Gallon / day
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (1 week), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					1
Water Quality	Temperature	27.4 °C	pH	6.38	E.C	0.043 mS/cm
	TDS	28 mg/L	Salt	0.0 ppt	Turbidity	0.5 NTU
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty				1
Contamina- tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) ② Other contamination (blowing dust, leaves)					2
	Countermeasure for contamination	Chlorination 4 times/year				
	Disease by water					
Other Resident Consciousness						
						
Remarks						


WELL INVENTORY (for Exploratory Well Drilling)					OWJ7-2			
					Survey Date	30 Oct. 2009		
Registered Well No.			Zone	Paynesville	Community	Duport Road South, Zubah Town		
Location	Easting	314616	Northing	692923	Elevation	8 m		
Construction	Year	2006	Provider	Mrs. Rose Peters				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	0.70		
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others			
	Diameter (cm)	65	Total Depth (m)	5.52	Water Level (m)	2.83		
Water Use/ Yield	① Drinking water, ② Washing water, 3. Others ()					1,2		
	No. of User	450	Volume	15 Gallon / day / person	Total	6750 Gallon / day		
Dry-up Condition	1. No dry-up, ② Dry-up in dry season (1 week), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					2		
Water Quality	Tempera-true	27.4 °C	pH	6.26	E.C	0.058 mS/cm		
	TDS	37 mg/L	Salt	0.0 ppt	Turbidity	1.2 NTU		
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					1	
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination ()					3		
	Countermeasure for contamination	Chlorination 8 times/year						
	Disease by water							
Other Resident Conscious-ness								
								
Remarks								


WELL INVENTORY (for Exploratory Well Drilling)					OWJ7-3		
					Survey Date	30 Oct. 2009	
Registered Well No.			Zone	Paynesville	Community	Duport Road South, Zubah Town	
Location	Easting	314796	Northing	692970	Elevation	8 m	
Construction	Year		Provider	NGO			
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	0.40	
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others		
	Diameter (cm)	75	Total Depth (m)	6.70	Water Level (m)	3.30	
Water Use/ Yield	1. Drinking water, ② Washing water, 3. Others ()					2	
	No. of User	500	Volume	15 Gallon / day / person	Total	7500 Gallon / day	
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (1 week), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (3 months), 5. Water level goes down by drawing					1	
Water Quality	Tempera-true	28.1 °C	pH	6.05	E.C	0.148 mS/cm	
	TDS	96 mg/L	Salt	0.0 ppt	Turbidity	3.4 NTU	
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					1
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt), ② Other contamination (blowing dust, leaves)					2	
	Countermeasure for contamination						
	Disease by water						
Other Resident Conscious-ness							
							
Remarks	Formerly hand pump was installed.						


WELL INVENTORY (for Exploratory Well Drilling)					OWJ7-4	
					Survey Date	30 Oct. 2009
Registered Well No.			Zone	Paynesville	Community	Duport Road South, Zubah Town
Location	Easting	314487	Northing	692839	Elevation	9 m
Construction	Year		Provider	Sister Darlene		
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head height (m)	0.60
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others	
	Diameter (cm)	80	Total Depth (m)	5.01	Water Level (m)	1.80
Water Use/ Yield	① Drinking water, ② Washing water, 3. Others ()					1,2
	No. of User	500	Volume	15 Gallon / day / person	Total	7500 Gallon / day
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (1 week), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					1
Water Quality	Temperature	28.5 °C	pH	6.88	E.C	0.104 mS/cm
	TDS	68 mg/L	Salt	0.0 ppt	Turbidity	0.0 NTU
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty				1
Contamina- tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination (③. Any contamination cannot be perceived					3
	Countermeasure for contamination					
	Disease by water					
Other Resident Consciousness						
						
Remarks						

WELL INVENTORY (for Exploratory Well Drilling)					OWJ7-5	
					Survey Date	30 Oct. 2009
Registered Well No.			Zone	Paynesville	Community	Duport Road South, Zubah Town
Location	Easting	314459	Northing	692756	Elevation	9 m
Construction	Year	1997	Provider	Mr. Chris Miah		
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, ⑤ Block, 6. Concrete	Well head hight (m)	0.47
	Casing	① Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others	
	Diameter (cm)	130	Total Depth (m)	5.98	Water Level (m)	3.22
Water Use/ Yield	1. Drinking water, ② Washing water, 3. Others (cooking)					2
	No. of User	500	Volume	15 Gallon / day / person	Total	7500 Gallon / day
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (1 week level goes down in dry season (4 monthes), 3. Sometimes dry-up by drawing, 4. Water level goes down by drawing					1
Water Quality	Tempera-true	27.7 °C	pH	5.51	E.C	0.035 mS/cm
	TDS	22 mg/L	Salt	0.0 ppt	Turbidity	7.2 NTU
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty				1
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt. ② Other contamination (blowing dust, leaves) 3. Any contamination cannot be perceived					2
	Countermeasure for contamination	Chlorination 12 times/year				
	Disease by water					
Other Resident Conscious-ness	Warms are come up in water in dry season.					
						
Remarks						

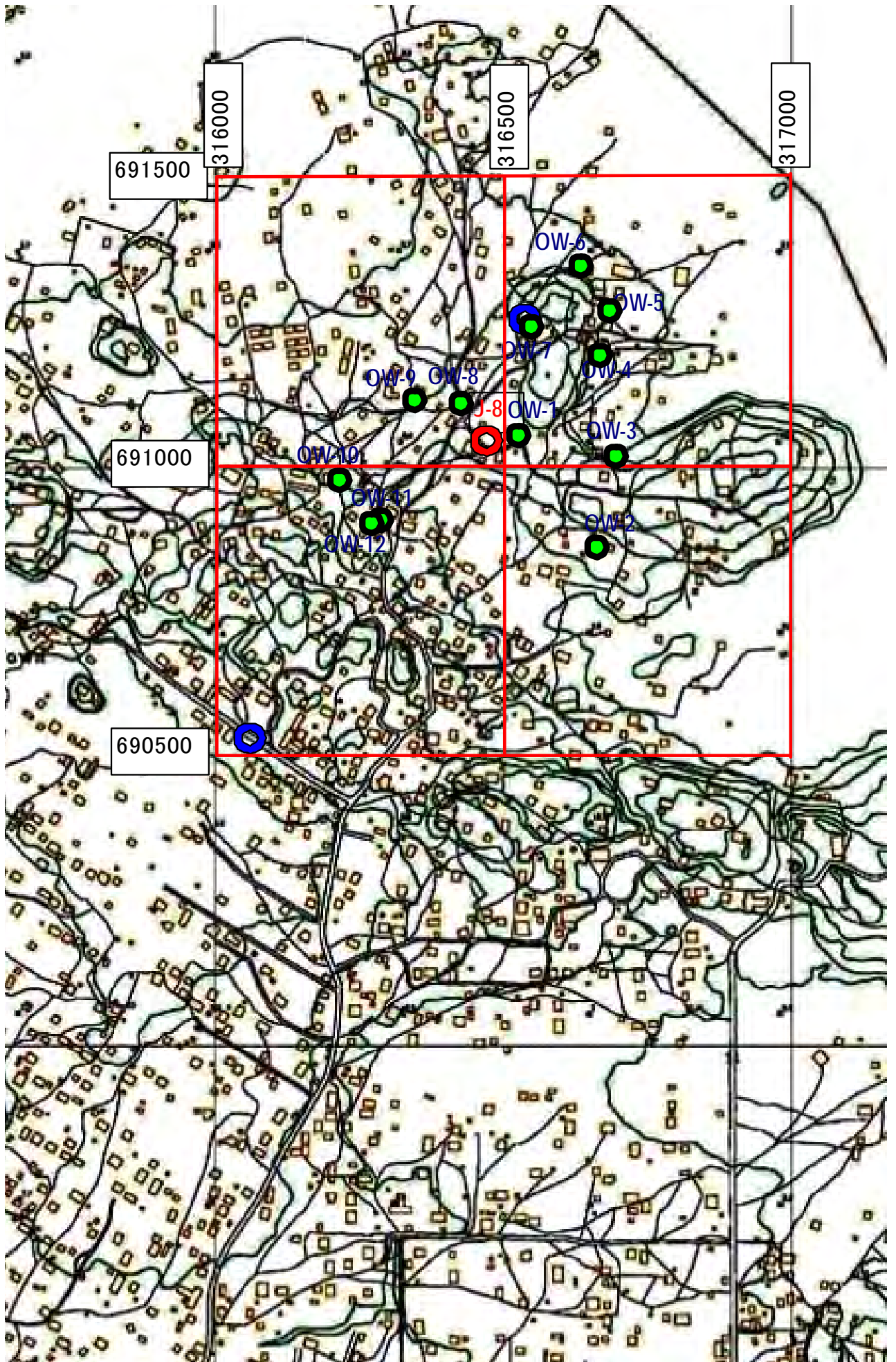
WELL INVENTORY (for Exploratory Well Drilling)					OWJ7-6			
					Survey Date	30 Oct. 2009		
Registered Well No.			Zone	Paynesville	Community	Duport Road South, Zubah Town		
Location	Easting	314354	Northing	692713	Elevation	11 m		
Construction	Year	2000	Provider	Mr. Bishop Kulah				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block ⑥ Concrete	Well head height (m)	0.35		
	Casing	1. Nothing, 2. Block ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well ② Draw well, 3. Others			
	Diameter (cm)	100	Total Depth (m)	4.72	Water Level (m)	3.64		
Water Use/ Yield	1. Drinking water ②, 2. Washing water ③, 3. Others (cooking)					2,3		
	No. of User	500	Volume	15 Gallon / day / person	Total	7500 Gallon / day		
Dry-up Condition	1. No dry-up ②, 2. Dry-up in dry season (3 months), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					2		
Water Quality	Temperature	27.9 °C	pH	5.37	E.C	0.053 mS/cm		
	TDS	34 mg/L	Salt	0.0 ppt	Turbidity	0.0 NTU		
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					1	
Contamina- tion	1. Oil Contamination (a. Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) ② Other contamination (blowing dust, leaves) 3. Any contamination cannot be perceived					2		
	Countermeasure for contamination	Chlorination 4 times/year						
	Disease by water							
Other Resident Consciousness								
								
Remarks								


WELL INVENTORY (for Exploratory Well Drilling)					OWJ7-7	
					Survey Date	30 Oct. 2009
Registered Well No.			Zone	Paynesville	Community	Duport Road South, Zubah Town
Location	Easting	314509	Northing	692720	Elevation	11 m
Construction	Year	2004	Provider	Mr. Solomon Tupodeh		
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, ⑤ Block, 6. Concrete	Well head height (m)	0.71
	Casing	① Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others	
	Diameter (cm)	150	Total Depth (m)	7.45	Water Level (m)	4.85
Water Use/ Yield	① Drinking water, ② Washing water, 3. Others ()					1,2
	No. of User	500	Volume	15 Gallon / day / person	Total	7500 Gallon / day
Dry-up Condition	1. No dry-up, 2. Dry-up in dry season (1 week level goes down in dry season (2 months), 3. Sometimes dry-up by drawing, ④ Water level goes down by drawing					4
Water Quality	Temperature	27.6 °C	pH	4.86	E.C	0.045 mS/cm
	TDS	29 mg/L	Salt	0.0 ppt	Turbidity	0.0 NTU
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty				1
Contamina- tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination () ③ Any contamination cannot be perceived					3
	Countermeasure for contamination	Chlorination 24 times/year				
	Disease by water					
Other Resident Consciousness						
						
Remarks						


WELL INVENTORY (for Exploratory Well Drilling)					OWJ7-8			
					Survey Date	30 Oct. 2009		
Registered Well No.			Zone	Paynesville	Community	Duport Road South, Zubah Town		
Location	Easting	314605	Northing	692745	Elevation	10 m		
Construction	Year	2004	Provider	Mr. Alex				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head height (m)	0.65		
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others			
	Diameter (cm)	80	Total Depth (m)	8.42	Water Level (m)	4.95		
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others (cooking)					2,3		
	No. of User	100	Volume	10 Gallon / day / person	Total	1000 Gallon / day		
Dry-up Condition	1. No dry-up, ② Dry-up in dry season (2 months), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					2		
Water Quality	Temperature	28.1 °C	pH	5.70	E.C	0.082 mS/cm		
	TDS	41 mg/L	Salt	0.0 ppt	Turbidity	14.6 NTU		
	Others	1. Clean, ② Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					2	
Contamina- tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt. ②)Other contamination (dust, leaves blowing) 3. Any contamination cannot be perceived					2		
	Countermeasure for contamination							
	Disease by water							
Other Resident Consciousness								
								
Remarks								


WELL INVENTORY (for Exploratory Well Drilling)					OWJ7-9	
					Survey Date	30 Oct. 2009
Registered Well No.	UNICEF 3751	Zone	Paynesville	Community	Duport Road South, Zubah Town	
Location	Easting	314686	Northing	692768	Elevation	12 m
Construction	Year	1998	Provider	UNICEF		
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, ⑤ Block, 6. Concrete	Well head high (m)	
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	① Hand pump well, 2. Draw well, 3. Others	
	Diameter (cm)	80	Total Depth (m)		Water Level (m)	
Water Use/ Yield	① Drinking water, ② Washing water, 3. Others ()					1,2
	No. of User	500	Volume	15 Gallon / day / person	Total	7,500 Gallon / day
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (1 week), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (2 months), 5. Water level goes down by drawing					1
Water Quality	Temperature	28.5 °C	pH	5.03	E.C	0.72 mS/cm
	TDS	47 mg/L	Salt	0.0 ppt	Turbidity	0.0 NTU
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty				
Contamina- tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination ()					3
	Countermeasure for contamination	Chlorination 24 times/year				
	Disease by water					
Other Resident Consciousness						
						
Remarks						


J-8 AREA





WELL INVENTORY (for Exploratory Well Drilling)					OWJ8-1			
					Survey Date	31 Oct. 2009		
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Thinkers Village OF		
Location	Easting	316522	Northing	691051	Elevation	7 m		
Construction	Year	2009	Provider	Mr. Saviel Kyne				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	0.55		
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others			
	Diameter (cm)	76	Total Depth (m)	3.72	Water Level (m)	1.20		
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others ()					2,3		
	No. of User	9	Volume	15 Gallon / day / person	Total	135 Gallon / day		
Dry-up Condition	1. No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (6 months), 5. Water level goes down by drawing					4		
Water Quality	Temperature	26.1 °C	pH	6.47	E.C	0.216 mS/cm		
	TDS	140 mg/L	Salt	0.0 ppt	Turbidity	0.0 NTU		
	Others	1. Clean, 2. Cloudy, ③ Colored (④ Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					3	
Contamina- tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) ② Other contamination (blowing dust, leaves)					2		
	Countermeasure for contamination	Chlorination 3 times/year						
	Disease by water							
Other Resident Conscious-ness								
								
Remarks								


WELL INVENTORY (for Exploratory Well Drilling)					OWJ8-2	
					Survey Date	31 Oct. 2009
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Thinkers Village OF
Location	Easting	316660	Northing	690867	Elevation	7 m
Construction	Year	2007	Provider	Mr. York Bashir		
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, ⑤ Block, 6. Concrete	Well head height (m)	0.35
	Casing	① Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others	
	Diameter (cm)	125	Total Depth (m)	4.75	Water Level (m)	3.04
Water Use/ Yield	① Drinking water ② Washing water, 3. Others ()					1,2
	No. of User	50	Volume	15 Gallon / day / person	Total	750 Gallon / day
Dry-up Condition	1. No dry-up, ② Dry-up in dry season (4 months), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					2
Water Quality	Tempera-true	26.6 °C	pH	5.38	E.C	0.024 mS/cm
	TDS	15 mg/L	Salt	0.0 ppt	Turbidity	14.8 NTU
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty				1
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) ② Other contamination (blowing dust, leaves, plastic bag) 3.Any contamination cannot be perceived					2
	Countermeasure for contamination					
	Disease by water					
Other Resident Conscious-ness						
						
Remarks						


WELL INVENTORY (for Exploratory Well Drilling)					OWJ8-3	
					Survey Date	31 Oct. 2009
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Thinkers Village OF
Location	Easting	316700	Northing	691014	Elevation	7 m
Construction	Year	2007	Provider	Mr. James Gweh		
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, ⑤ Block, 6. Concrete	Well head hight (m)	0.20
	Casing	① Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well ② Draw well, 3. Others	
	Diameter (cm)	130	Total Depth (m)	3.10	Water Level (m)	1.83
Water Use/ Yield	1. Drinking water ② Washing water ③ Others ()					2,3
	No. of User	50	Volume	13 Gallon / day / person	Total	650 Gallon / day
Dry-up Condition	1. No dry-up ② Dry-up in dry season (4 months), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					2
Water Quality	Tempera-true	27.0 °C	pH	4.94	E.C	0.029 mS/cm
	TDS	18 mg/L	Salt	0.0 ppt	Turbidity	15.5 NTU
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty				
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) ② Other contamination (flogs/ blowing dust, leaves)					2
	Countermeasure for contamination					
	Disease by water					
Other Resident Conscious-ness						
						
Remarks						


WELL INVENTORY (for Exploratory Well Drilling)					OWJ8-4			
					Survey Date	31 Oct. 2009		
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Thinkers Village OF		
Location	Easting	316673	Northing	691190	Elevation	5 m		
Construction	Year	2009	Provider	Mr. Ernest Davids				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	0.60		
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others			
	Diameter (cm)	76	Total Depth (m)	4.50	Water Level (m)	1.38		
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others ()					2,3		
	No. of User	50	Volume	13 Gallon / day / person	Total	650 Gallon / day		
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (1 week), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					1		
Water Quality	Tempera-true	27.6 °C	pH	6.26	E.C	0.101 mS/cm		
	TDS	65 mg/L	Salt	0.0 ppt	Turbidity	14.1 NTU		
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					1	
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt. ② Other contamination (mosquitos, fleas)					2		
	Countermeasure for contamination	Chlorination 1 time since construction						
	Disease by water							
Other Resident Conscious-ness								
								
Remarks								


WELL INVENTORY (for Exploratory Well Drilling)					OWJ8-5	
					Survey Date	31 Oct. 2009
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Thinkers Village OF
Location	Easting	316687	Northing	691268	Elevation	5 m
Construction	Year	2009	Provider	Mr. Fallah Fatoma		
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	1.10
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others	
	Diameter (cm)	80	Total Depth (m)	4.20	Water Level (m)	1.45
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others (cooking)					2,3
	No. of User	50	Volume	15 Gallon / day / person	Total	750 Gallon / day
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (1 week level goes down in dry season (4 monthes), 3. Sometimes dry-up by drawing, 4. Water level goes down by drawing					1
Water Quality	Tempera-true	27.8 °C	pH	6.86	E.C	0.128 mS/cm
	TDS	83 mg/L	Salt	0.0 ppt	Turbidity	13.0 NTU
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty				1
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination ()					3
	③ Any contamination cannot be perceived					
	Countermeasure for contamination					
Disease by water						
Other Resident Conscious-ness						
						
Remarks	New well constructed on Apr. 16, 2009					


WELL INVENTORY (for Exploratory Well Drilling)					OWJ8-6			
					Survey Date	31 Oct. 2009		
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Thinkers Village OF		
Location	Easting	316634	Northing	691344	Elevation	5 m		
Construction	Year	2000	Provider	Mrs. Jeny				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head height (m)	0.89		
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others			
	Diameter (cm)	78	Total Depth (m)	3.67	Water Level (m)	1.04		
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others (cooking)					2,3		
	No. of User	150	Volume	15 Gallon / day / person	Total	2250 Gallon / day		
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					1		
Water Quality	Tempera-true	28.0	°C	pH	6.90	E.C	0.065 mS/cm	
	TDS	42	mg/L	Salt	0.0	ppt	Turbidity	0.0 NTU
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					1	
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination () ③ Any contamination cannot be perceived					3		
	Countermeasure for contamination							
	Disease by water							
Other Resident Conscious-ness								
								
Remarks								


WELL INVENTORY (for Exploratory Well Drilling)					OWJ8-7	
					Survey Date	31 Oct. 2009
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Thinkers Village OF
Location	Easting	316548	Northing	691246	Elevation	10 m
Construction	Year	2006	Provider	Mr. Franklin O. Siakor		
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	0.50
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others	
	Diameter (cm)	80	Total Depth (m)	6.92	Water Level (m)	3.13
Water Use/ Yield	① Drinking water, ② Washing water, 3. Others ()					1,2
	No. of User	500	Volume	15 Gallon / day / person	Total	7500 Gallon / day
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					1
Water Quality	Tempera-true	28.1 °C	pH	6.82	E.C	0.220 mS/cm
	TDS	142 mg/L	Salt	0.0 ppt	Turbidity	0.0 NTU
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty				
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination () ③ Any contamination cannot be perceived					3
	Countermeasure for contamination	Chlorination 4 times/year				
	Disease by water					
Other Resident Conscious-ness						
						
Remarks						

WELL INVENTORY (for Exploratory Well Drilling)					OWJ8-8	
					Survey Date	31 Oct. 2009
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Thinkers Village OF
Location	Easting	316430	Northing	691102	Elevation	6 m
Construction	Year	2009	Provider	Ms. Roselyn Lawrence		
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, ⑤ Block, 6. Concrete	Well head hight (m)	0.60
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others	
	Diameter (cm)	80	Total Depth (m)	6.54	Water Level (m)	1.68
Water Use/ Yield	1. Drinking water, ② Washing water, 3. Others ()					2
	No. of User	150	Volume	15 Gallon / day / person	Total	2250 Gallon / day
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (4 months), 5. Water level goes down by drawing					1
Water Quality	Tempera-true	28.1 °C	pH	8.37	E.C	0.197 mS/cm
	TDS	127 mg/L	Salt	0.0 ppt	Turbidity	6.1 NTU
	Others	1. Clean, 2. Cloudy, ③ Colored (④ Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty				3
Contamina-tion	1. Oil Contamination (a. Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt), 2. Other contamination (blowing dust, leaves) 3. Any contamination cannot be perceived					2
	Countermeasure for contamination	Chlorination often				
	Disease by water					
Other Resident Conscious-ness						
						
Remarks						

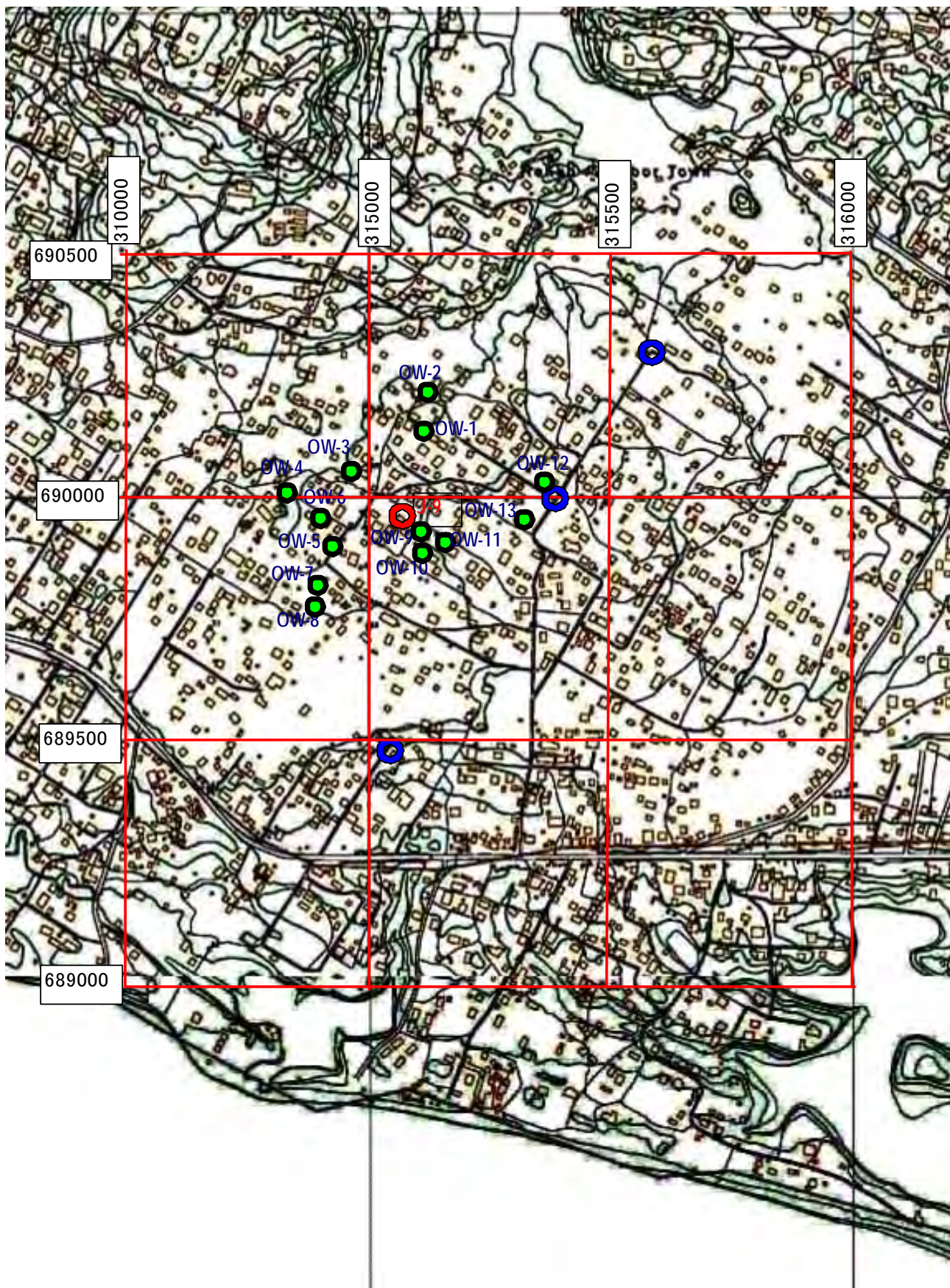
WELL INVENTORY (for Exploratory Well Drilling)					OWJ8-9			
					Survey Date	31 Oct. 2009		
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Thinkers Village OF		
Location	Easting	316350	Northing	691114	Elevation	6 m		
Construction	Year	2008	Provider	Mrs. Roseline Libah				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	0.90		
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others			
	Diameter (cm)	78	Total Depth (m)	4.30	Water Level (m)	1.70		
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others (cooking)					2,3		
	No. of User	50	Volume	12 Gallon / day / person	Total	600 Gallon / day		
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					1		
Water Quality	Tempera-true	28.1 °C	pH	7.37	E.C	0.309 mS/cm		
	TDS	201 mg/L	Salt	0.1 ppt	Turbidity	35.3 NTU		
	Others	1. Clean, 2. Cloudy, ③ Colored (Yellowish, ⑥ Brownish, Reddish, Other ()), ④ Dirty, 5. Salty					3,4	
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt), ② Other contamination (blowing dust, leaves) 3. Any contamination cannot be perceived					2		
	Countermeasure for contamination	Chlorination often						
	Disease by water							
Other Resident Conscious-ness								
								
Remarks								


WELL INVENTORY (for Exploratory Well Drilling)					OWJ8-10	
					Survey Date	31 Oct. 2009
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Thinkers Village OF
Location	Easting	316220	Northing	690974	Elevation	8 m
Construction	Year	2006	Provider	Mr. Takpor		
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, ⑤ Block, 6. Concrete	Well head hight (m)	0.40
	Casing	① Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others	
	Diameter (cm)	140	Total Depth (m)	4.49	Water Level (m)	1.87
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others ()					2,3
	No. of User	12	Volume	7 Gallon / day / person	Total	84 Gallon / day
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (6 months), 5. Water level goes down by drawing					1
Water Quality	Tempera-true	27.9 °C	pH	7.44	E.C	0.180 mS/cm
	TDS	117 mg/L	Salt	0.0 ppt	Turbidity	16.4 NTU
	Others	1. Clean, ② Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty				
Contamina-tion	1. Oil Contamination (a. Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt), ② Other contamination (blowing dust, leaves/ mold)					2
	Countermeasure for contamination					
	Disease by water					
Other Resident Conscious-ness						
						
Remarks						


WELL INVENTORY (for Exploratory Well Drilling)					OWJ8-11	
					Survey Date	31 Oct. 2009
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Thinkers Village OF
Location	Easting	316286	Northing	690914	Elevation	7 m
Construction	Year	2009	Provider	Mr. Korlu K. Soco		
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	0.60
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others	
	Diameter (cm)	80	Total Depth (m)	6.80	Water Level (m)	2.62
Water Use/ Yield	① Drinking water, ② Washing water, 3. Others ()					1,2
	No. of User	50	Volume	15 Gallon / day / person	Total	7500 Gallon / day
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (6 months), 5. Water level goes down by drawing					1
Water Quality	Tempera-true	27.9 °C	pH	7.06	E.C	0.129 mS/cm
	TDS	84 mg/L	Salt	0.0 ppt	Turbidity	0.0 NTU
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty				
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination (③. Any contamination cannot be perceived					3
	Countermeasure for contamination	Chlorination 4 times/year				
	Disease by water					
Other Resident Conscious-ness						
						
Remarks						


WELL INVENTORY (for Exploratory Well Drilling)					OWJ8-12			
					Survey Date	31 Oct. 2009		
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Thinkers Village OF		
Location	Easting	316277	Northing	690903	Elevation	7 m		
Construction	Year	2004	Provider	Mr. Garyah Tomeh				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block ⑥ Concrete	Well head hight (m)	0.55		
	Casing	1. Nothing, 2. Block ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well ② Draw well, 3. Others			
	Diameter (cm)	85	Total Depth (m)	5.62	Water Level (m)	2.78		
Water Use/ Yield	① Drinking water, ② Washing water, 3. Others ()					1,2		
	No. of User	500	Volume	11 Gallon / day / person	Total	5500 Gallon / day		
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (6 months), 5. Water level goes down by drawing					1		
Water Quality	Tempera-true	28.3	°C	pH	6.43	E.C	0.043 mS/cm	
	TDS	28	mg/L	Salt	0.0	ppt	Turbidity	0.0 NTU
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					1	
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination (③. Any contamination cannot be perceived					3		
	Countermeasure for contamination	Chlorination 48 times/year						
	Disease by water							
Other Resident Conscious-ness								
								
Remarks								


J-9 AREA




WELL INVENTORY (for Exploratory Well Drilling)					OWJ9-1			
					Survey Date	02 Nov. 2009		
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Kendeh Town OF		
Location	Easting	315155	Northing	690129	Elevation	7 m		
Construction	Year	2007	Provider	Mr. John Lebbie				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	0.68		
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others			
	Diameter (cm)	65	Total Depth (m)	4.60	Water Level (m)	1.14		
Water Use/ Yield	① Drinking water, ② Washing water, 3. Others ()					1,2		
	No. of User	500	Volume	15 Gallon / day / person	Total	7500 Gallon / day		
Dry-up Condition	1. No dry-up, ② Dry-up in dry season (1 week), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					2		
Water Quality	Tempera-true	26.9 °C	pH	6.19	E.C	0.411 mS/cm		
	TDS	267 mg/L	Salt	0.1 ppt	Turbidity	3.3 NTU		
	Others	1. Clean, ② Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					1	
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination ()					3		
	Countermeasure for contamination	Chlorination 3 times/year						
	Disease by water							
Other Resident Conscious-ness								
								
Remarks								


WELL INVENTORY (for Exploratory Well Drilling)					OWJ9-2			
					Survey Date	02 Nov. 2009		
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Kendeh Town OF		
Location	Easting	315153	Northing	690216	Elevation	6 m		
Construction	Year	2006	Provider	Mr. Garmin Jackson				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head high (m)	0.75		
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others			
	Diameter (cm)	70	Total Depth (m)	3.91	Water Level (m)	1.03		
Water Use/ Yield	① Drinking water, ② Washing water, 3. Others ()					1,2		
	No. of User	500	Volume	15 Gallon / day / person	Total	7500 Gallon / day		
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (4 months), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					1		
Water Quality	Temperature	26.6 °C	pH	6.09	E.C	0.174 mS/cm		
	TDS	113 mg/L	Salt	0.0 mg/L	Turbidity	11.9 NTU		
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					1	
Contamina- tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination ()					3		
	Countermeasure for contamination	Chlorination 3 times/year						
	Disease by water							
Other Resident Consciousness								
								
Remarks								


WELL INVENTORY (for Exploratory Well Drilling)					OWJ9-3		
					Survey Date	02 Nov. 2009	
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Kendeh Town OF	
Location	Easting	315016	Northing	690047	Elevation	7 m	
Construction	Year	2007	Provider	Mr. Pa Nelson			
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, ⑤ Block, 6. Concrete	Well head hight (m)	0.16	
	Casing	① Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well ② Draw well, 3. Others		
	Diameter (cm)	105	Total Depth (m)	2.37	Water Level (m)	0.26	
Water Use/ Yield	1. Drinking water ②, 2. Washing water ③, 3. Others (cooking)					2,3	
	No. of User	50	Volume	13 Gallon / day / person	Total	650 Gallon / day	
Dry-up Condition	1. No dry-up ② Dry-up in dry season (4 months), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					2	
Water Quality	Tempera-true	27.3 °C	pH	6.26	E.C	0.190 mS/cm	
	TDS	123 mg/L	Salt	0.0 mg/L	Turbidity	16.1 NTU	
	Others	1. Clean, 2. Cloudy, ③ Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					3
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt) ② Other contamination (blowing dust, leaves) 3. Any contamination cannot be perceived					2	
	Countermeasure for contamination						
	Disease by water						
Other Resident Conscious-ness							
							
Remarks							


WELL INVENTORY (for Exploratory Well Drilling)					OWJ9-4		
					Survey Date	02 Nov. 2009	
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, KendeH Town OF	
Location	Easting	314832	Northing	690002	Elevation	6 m	
Construction	Year	2008	Provider	Mr. Isac			
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head high (m)	0.89	
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	① Hand pump well, 2. Draw well, 3. Others		
	Diameter (cm)	75	Total Depth (m)	3.62	Water Level (m)	1.05	
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others ()					2,3	
	No. of User	50	Volume	15 Gallon / day / person	Total	750 Gallon / day	
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (1 week), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					1	
Water Quality	Temperature	27.4 °C	pH	6.66	E.C	0.312 mS/cm	
	TDS	202 mg/L	Salt	0.1 mg/L	Turbidity	12.6 NTU	
	Others	1. Clean, ② Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					2
Contamina- tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination () ③					3	
	Countermeasure for contamination						
	Disease by water						
Other Resident Consciousness							
							
Remarks							


WELL INVENTORY (for Exploratory Well Drilling)					OWJ9-5			
					Survey Date	02 Nov. 2009		
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Kendeh Town OF		
Location	Easting	314979	Northing	689892	Elevation	7 m		
Construction	Year	2009	Provider	Mr. Prince Klonkpiah				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	0.82		
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others			
	Diameter (cm)	77	Total Depth (m)	6.16	Water Level (m)	1.16		
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others (cooking)					2,3		
	No. of User	50	Volume	15 Gallon / day / person	Total	250 Gallon / day		
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (1 week level goes down in dry season (4 monthes), 3. Sometimes dry-up by drawing, 4. Water level goes down by drawing					1		
Water Quality	Tempera-true	28.1 °C	pH	6.94	E.C	0.216 mS/cm		
	TDS	140 mg/L	Salt	0.0 mg/L	Turbidity	16.2 NTU		
	Others	1. Clean, 2. Cloudy, ③ Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					3	
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt. ② Other contamination (blowing dust, leaves) 3. Any contamination cannot be perceived					2		
	Countermeasure for contamination							
	Disease by water							
Other Resident Conscious-ness	Water becomes including fine soil after heavy rain.							
								
Remarks								


WELL INVENTORY (for Exploratory Well Drilling)					OWJ9-6		
					Survey Date	02 Nov. 2009	
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Kendeh Town OF	
Location	Easting	314957	Northing	689946	Elevation	7 m	
Construction	Year	2008	Provider	Mr. Lahai Lasana (Senator)			
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	0.47	
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others		
	Diameter (cm)	77	Total Depth (m)	4.70	Water Level (m)	0.75	
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others (cooking)					2,3	
	No. of User	20	Volume	15 Gallon / day / person	Total	300 Gallon / day	
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (1 week), 5. Water level goes down by drawing					1	
Water Quality	Tempera-true	28.3	°C	pH	6.87	E.C	0.404 mS/cm
	TDS	262	mg/L	Salt	0.1 ppt	Turbidity	0.0 NTU
	Others	1. Clean, 2. Cloudy, ③ Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					3
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination () ③ Any contamination cannot be perceived					3	
	Countermeasure for contamination						
	Disease by water						
Other Resident Conscious-ness							
							
Remarks							


WELL INVENTORY (for Exploratory Well Drilling)					OWJ9-7			
					Survey Date	02 Nov. 2009		
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Kendeh Town OF		
Location	Easting	314950	Northing	689813	Elevation	7 m		
Construction	Year	2005	Provider	Mr. Myer J. Johnson				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, ⑤ Block, 6. Concrete	Well head hight (m)	0.61		
	Casing	1. Nothing, ② Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others			
	Diameter (cm)	90	Total Depth (m)	4.16	Water Level (m)	0.82		
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others ()					2,3		
	No. of User	50	Volume	15 Gallon / day / person	Total	750 Gallon / day		
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					1		
Water Quality	Tempera-true	28.2 °C	pH	6.84	E.C	0.622 mS/cm		
	TDS	398 mg/L	Salt	0.1 ppt	Turbidity	50.1 NTU		
	Others	1. Clean, 2. Cloudy, ③ Colored (Yellowish, ④ Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					3	
Contamina-tion	1. Oil Contamination (a. Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) ② Other contamination (muddy condition)					2		
	Countermeasure for contamination	Boiling for bathing use						
	Disease by water							
Other Resident Conscious-ness								
								
Remarks								


WELL INVENTORY (for Exploratory Well Drilling)					OWJ9-8			
					Survey Date	02 Nov. 2009		
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Kendeh Town OF		
Location	Easting	314941	Northing	689772	Elevation	8 m		
Construction	Year	2007	Provider	Ms. Paulue Sharbeh				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	0.80		
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others			
	Diameter (cm)	75	Total Depth (m)	4.15	Water Level (m)	1.18		
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others ()					2,3		
	No. of User	50	Volume	15 Gallon / day / person	Total	750 Gallon / day		
Dry-up Condition	1. No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					4		
Water Quality	Tempera-true	28.0	°C	pH	7.13	E.C	0.585 mS/cm	
	TDS	375	mg/L	Salt	0.1	mg/L	Turbidity	0.0 NTU
	Others	1. Clean, 2. Cloudy, ③ Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					3	
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) ② Other contamination (blowing dust, leaves, grasses) 3. Any contamination cannot be perceived					2		
	Countermeasure for contamination							
	Disease by water							
Other Resident Conscious-ness								
								
Remarks								

WELL INVENTORY (for Exploratory Well Drilling)					OWJ9-9			
					Survey Date	02 Nov. 2009		
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Kendeh Town OF		
Location	Easting	315143	Northing	689923	Elevation	8 m		
Construction	Year	2009	Provider	Mr. Robert Vamvo				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	0.95		
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others			
	Diameter (cm)	75	Total Depth (m)	3.63	Water Level (m)	1.19		
Water Use/ Yield	① Drinking water, ② Washing water, 3. Others (cooking)					1,2		
	No. of User	100	Volume	15 Gallon / day / person	Total	1500 Gallon / day		
Dry-up Condition	1. No dry-up, 2. Dry-up in dry season (level goes down in dry season (2 months), 3. Sometimes dry-up by drawing, 4. Water level goes down by drawing), 5. Water level goes down by drawing					4		
Water Quality	Tempera-true	28.0 °C	pH	6.85	E.C	0.167 mS/cm		
	TDS	109 mg/L	Salt	0.0 mg/L	Turbidity	0.0 NTU		
	Others	1. Clean, 2. Cloudy, ③ Colored (Yellowish, Brownish, Reddish, Other ()), ④ Dirty, 5. Salty					3	
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt), ② Other contamination (blowing dust, leaves) 3. Any contamination cannot be perceived					2		
	Countermeasure for contamination	Chlorination once in former times						
	Disease by water							
Other Resident Conscious-ness								
								
Remarks								

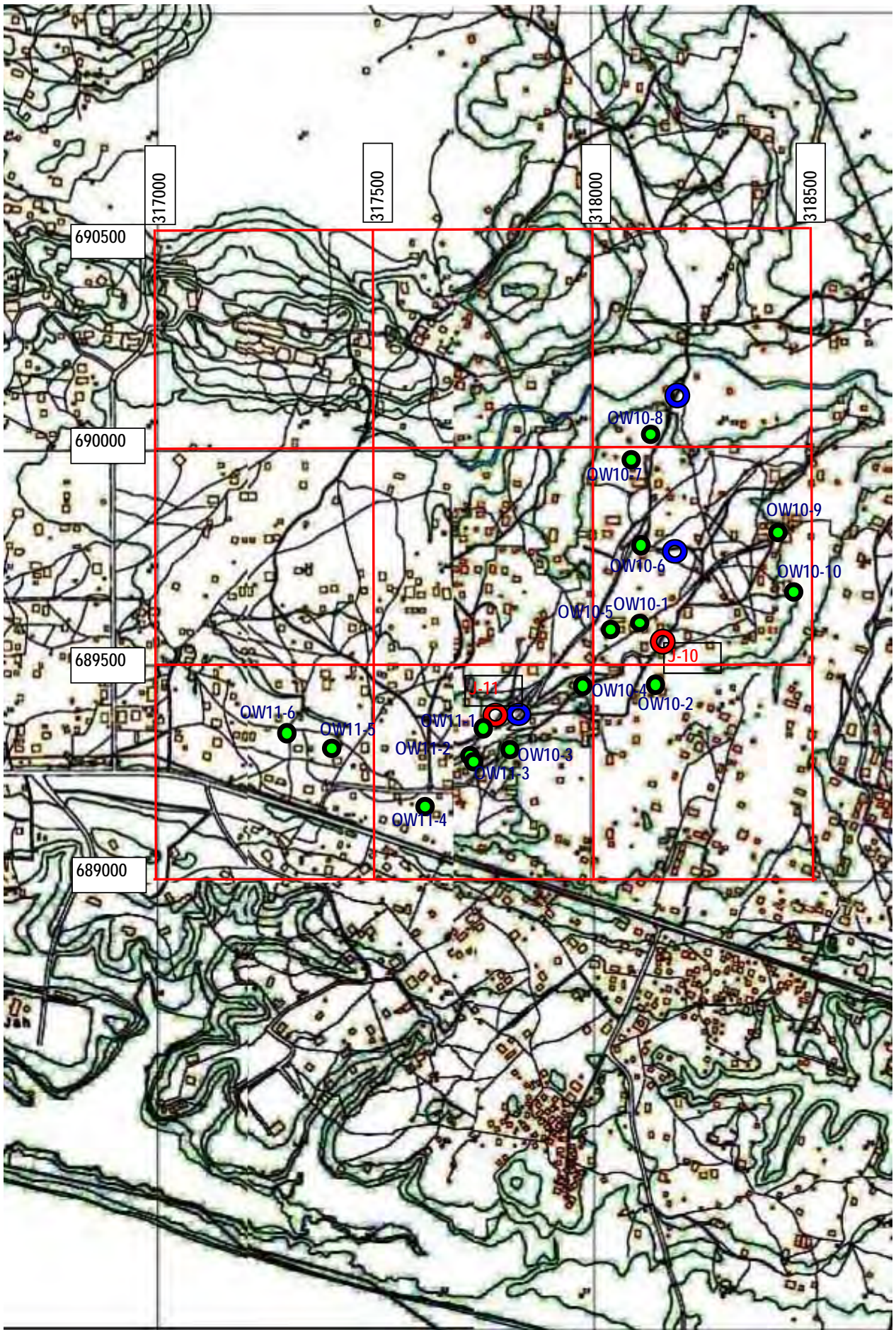
WELL INVENTORY (for Exploratory Well Drilling)					OWJ9-10	
					Survey Date	02 Nov. 2009
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Kendeh Town OF
Location	Easting	315147	Northing	689873	Elevation	8 m
Construction	Year	2005	Provider	Mother Mary Ahmed		
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	0.51
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others	
	Diameter (cm)	84	Total Depth (m)	3.76	Water Level (m)	0.62
Water Use/ Yield	1. Drinking water, 2. Washing water, 3. Others ()					
	No. of User	no use	Volume	Gallon / day / person	Total	Gallon / day
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (6 months), 5. Water level goes down by drawing					1
Water Quality	Tempera-true	27.7 °C	pH	6.91	E.C	0.270 mS/cm
	TDS	175 mg/L	Salt	0.1 mg/L	Turbidity	6.4 NTU
	Others	1. Clean, 2. Cloudy, ③ Colored (④ Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty				3
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) ② Other contamination (muddy and rusty) 3. Any contamination cannot be perceived					2
	Countermeasure for contamination					
	Disease by water					
Other Resident Conscious-ness	Water has foam					
						
Remarks	No use					


WELL INVENTORY (for Exploratory Well Drilling)					OWJ9-11	
					Survey Date	02 Nov. 2009
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Kendeh Town OF
Location	Easting	315187	Northing	689894	Elevation	8 m
Construction	Year	2009	Provider	Mr. Lawrence Randall		
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	0.58
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others	
	Diameter (cm)	85	Total Depth (m)	6.04	Water Level (m)	0.95
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others ()					2,3
	No. of User	500	Volume	15 Gallon / day / person	Total	7500 Gallon / day
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (6 months), 5. Water level goes down by drawing					1
Water Quality	Tempera-true	28.7 °C	pH	6.84	E.C	1.000 mS/cm
	TDS	0.641 mg/L	Salt	0.3 ppt	Turbidity	13.9 NTU
	Others	1. Clean, 2. Cloudy, ③ Colored (④ Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty				
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination ()					3
	Countermeasure for contamination					
	Disease by water					
Other Resident Conscious-ness						
						
Remarks						


WELL INVENTORY (for Exploratory Well Drilling)					OWJ9-12		
					Survey Date	02 Nov. 2009	
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Kendeh Town OF	
Location	Easting	315376	Northing	690016	Elevation	8 m	
Construction	Year	2006	Provider	Mr. Augustine Saydee			
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	1.00	
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others		
	Diameter (cm)	70	Total Depth (m)	3.75	Water Level (m)	1.41	
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others ()					2,3	
	No. of User	500	Volume	15 Gallon / day / person	Total	7500 Gallon / day	
Dry-up Condition	1. No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (6 months), 5. Water level goes down by drawing					4	
Water Quality	Tempera-true	29.4	°C	pH	6.85	E.C	0.309 mS/cm
	TDS	200	mg/L	Salt	0.1 mg/L	Turbidity	4.2 NTU
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					1
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt. ② Other contamination (blowing leaves) 3. Any contamination cannot be perceived					2	
	Countermeasure for contamination	Chlorination every 2 weeks					
	Disease by water						
Other Resident Conscious-ness							
							
Remarks							

WELL INVENTORY (for Exploratory Well Drilling)					OWJ9-13		
					Survey Date	02 Nov. 2009	
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Kendeh Town OF	
Location	Easting	315335	Northing	689938	Elevation	9 m	
Construction	Year	1999	Provider				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	0.63	
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others		
	Diameter (cm)	76	Total Depth (m)	3.53	Water Level (m)	0.73	
Water Use/ Yield	1. Drinking water, ②. Washing water, ③. Others (cooking)					2,3	
	No. of User	20	Volume	15 Gallon / day / person	Total	300 Gallon / day	
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					1	
Water Quality	Tempera-true	28.1	°C	pH	6.85	E.C	0.360 mS/cm
	TDS	234	mg/L	Salt	0.1 mg/L	Turbidity	53.0 NTU
	Others	1. Clean, 2. Cloudy, ③ Colored (Yellowish, Brownish, Reddish, Other ()), ④ Dirty, 5. Salty					3,4
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) ② Other contamination (blowing dust, leaves/ muddy) 3. Any contamination cannot be perceived					2	
	Countermeasure for contamination	Chlorination 1 time/ year in dry season					
	Disease by water						
Other Resident Conscious-ness	Water has mold.						
							
Remarks							

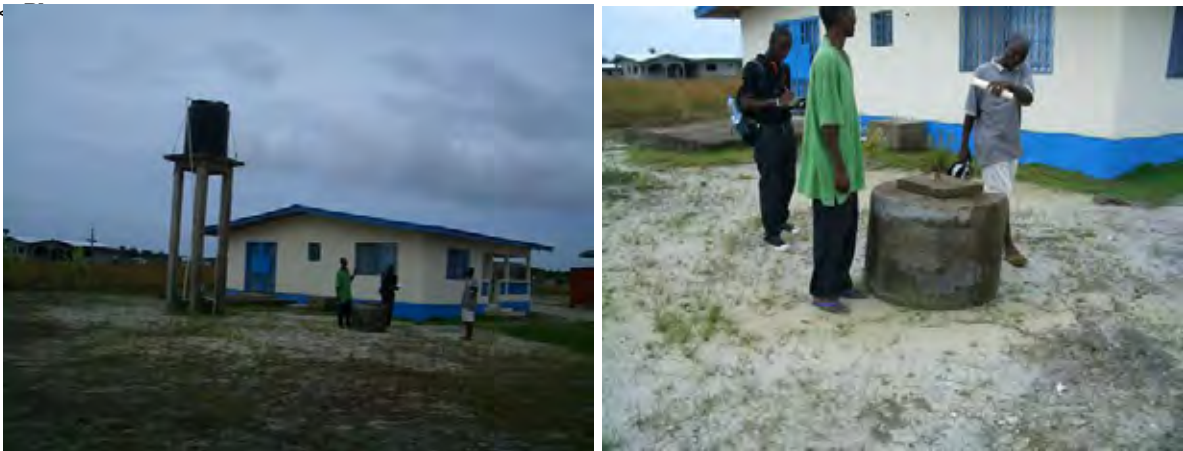
J-10·J-11 AREA





WELL INVENTORY (for Exploratory Well Drilling)					OWJ10-1	
					Survey Date	03 Nov. 2009
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Ghengbah Town
Location	Easting	318115	Northing	689591	Elevation	5 m
Construction	Year	2009	Provider	Mr. Zayzay		
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	1.00
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others	
	Diameter (cm)	75	Total Depth (m)	1.71	Water Level (m)	1.00
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others (Bathing)					2,3
	No. of User	25	Volume	8 Gallon / day / person	Total	200 Gallon / day
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (1 week), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					1
Water Quality	Temperature	25.8 °C	pH	7.29	E.C	0.199 mS/cm
	TDS	129 mg/L	Salt	0.0 ppt	Turbidity	16.3 NTU
	Others	1. Clean, 2. Cloudy, ③ Colored (Yellowish, ⑥ Brownish, Reddish, Other ()), 4. Dirty, 5. Salty				
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt. ② Other contamination (blowing dust, muddy) 3.Any contamination cannot be perceived					2
	Countermeasure for contamination					
	Disease by water					
Other Resident Consciousness						
						
Remarks						


WELL INVENTORY (for Exploratory Well Drilling)					OWJ10-2	
					Survey Date	03 Nov. 2009
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Ghengbah Town
Location	Easting	318148	Northing	689446	Elevation	5 m
Construction	Year	2008	Provider	Mr. Miller		
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head height (m)	0.30
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others	
	Diameter (cm)	78	Total Depth (m)	2.25	Water Level (m)	0.30
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others (cooking, bathing)					2,3
	No. of User	25	Volume	8 Gallon / day / person	Total	200 Gallon / day
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (4 months), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					1
Water Quality	Temperature	29.1 °C	pH	7.10	E.C	0.118 mS/cm
	TDS	76 mg/L	Salt	0.0 ppt	Turbidity	25.0 NTU
	Others	1. Clean, ② Cloudy, ③ Colored (Yellowish, ④ Brownish, Reddish, Other ()), 4. Dirty, 5. Salty				2,3
Contamina- tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) ②. Other contamination (rusty, smell,)					2
	Countermeasure for contamination	Chlorination 6 times/year				
	Disease by water					
Other Resident Conscious-ness	Little itchy on skin after bathing					
						
Remarks						


WELL INVENTORY (for Exploratory Well Drilling)					OWJ10-3			
					Survey Date	03 Nov. 2009		
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Ghengbah Town		
Location	Easting	317828	Northing	689301	Elevation	6 m		
Construction	Year	2008	Provider	Mrs. Hanna Kaba				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	0.70		
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others			
	Diameter (cm)	77	Total Depth (m)	3.15	Water Level (m)	1.20		
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others (bathing)					2,3		
	No. of User	500	Volume	18 Gallon / day / person	Total	9000 Gallon / day		
Dry-up Condition	1. No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, ④ Water level goes down in dry season (3 months), 5. Water level goes down by drawing					4		
Water Quality	Tempera-true	27.1 °C	pH	6.68	E.C	0.201 mS/cm		
	TDS	130 mg/L	Salt	0.0 ppt	Turbidity	17.1 NTU		
	Others	1. Clean, ② Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					2	
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt), ② Other contamination (blowing dust, leaves) 3. Any contamination cannot be perceived					2		
	Countermeasure for contamination	Chlorination 4 times since well construction						
	Disease by water							
Other Resident Conscious-ness	Smell, muddy							
								
Remarks								


WELL INVENTORY (for Exploratory Well Drilling)					OWJ10-4	
					Survey Date	03 Nov. 2009
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Ghengbah Town
Location	Easting	317985	Northing	689445	Elevation	6 m
Construction	Year	2008	Provider	Mr. Morris Boweh		
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head height (m)	0.65
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	① Hand pump well, 2. Draw well, 3. Others	
	Diameter (cm)	77	Total Depth (m)	4.67	Water Level (m)	0.65
Water Use/ Yield	1. Drinking water, ② Washing water, 3. Others ()					2
	No. of User	10	Volume	8 Gallon / day / person	Total	80 Gallon / day
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (1 week), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					1
Water Quality	Temperature	27.2 °C	pH	7.11	E.C	0.266 mS/cm
	TDS	172 mg/L	Salt	0.1 ppt	Turbidity	14.1 NTU
	Others	1. Clean, ② Cloudy, ③ Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty				2,3
Contamina- tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt), ② Other contamination (foamy) 3. Any contamination cannot be perceived					2
	Countermeasure for contamination	Chlorination sometimes				
	Disease by water					
Other Resident Consciousness	Silty sometimes					
						
Remarks						


WELL INVENTORY (for Exploratory Well Drilling)					OWJ10-5	
					Survey Date	03 Nov. 2009
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Ghengbah Town
Location	Easting	318047	Northing	689579	Elevation	5 m
Construction	Year	2006	Provider	Mr. Andrew		
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	0.71
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others	
	Diameter (cm)	75	Total Depth (m)	3.05	Water Level (m)	0.77
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others (cooking)					2,3
	No. of User	150	Volume	15 Gallon / day / person	Total	2250 Gallon / day
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (1 week), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					1
Water Quality	Temperature	21.6 °C	pH	6.78	E.C	0.427 mS/cm
	TDS	278 mg/L	Salt	0.1 mg/L	Turbidity	10.6 NTU
	Others	1. Clean, ② Cloudy, ③ Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty				2,3
Contamina- tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt), ② Other contamination (coming up tadpols) 3. Any contamination cannot be perceived					2
	Countermeasure for contamination					
	Disease by water					
Other Resident Consciousness						
						
Remarks						


WELL INVENTORY (for Exploratory Well Drilling)					OWJ10-6			
					Survey Date	03 Nov. 2009		
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Ghengbah Town		
Location	Easting	318114	Northing	689766	Elevation	4 m		
Construction	Year	2006	Provider	Mr. Abu Kamara				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	0.83		
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others			
	Diameter (cm)	77	Total Depth (m)	5.90	Water Level (m)	0.93		
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others (cooking)					2,3		
	No. of User	250	Volume	15 Gallon / day / person	Total	3750 Gallon / day		
Dry-up Condition	1. No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, ④ Water level goes down in dry season (2 months), 5. Water level goes down by drawing					4		
Water Quality	Tempera-true	27.8	°C	pH	6.57	E.C	0.113 mS/cm	
	TDS	73	mg/L	Salt	0.0	ppt	Turbidity	0.0 NTU
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					1	
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination (③ Any contamination cannot be perceived					3		
	Countermeasure for contamination	Chlorination often						
	Disease by water							
Other Resident Conscious-ness								
								
Remarks	Water is used for drinking before.							


WELL INVENTORY (for Exploratory Well Drilling)					OWJ10-7			
					Survey Date	03 Nov. 2009		
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Ghengbah Town		
Location	Easting	318094	Northing	689969	Elevation	4 m		
Construction	Year	2009	Provider	Mr. Teakon Williams				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, ⑤ Block, 6. Concrete	Well head hight (m)	0.35		
	Casing	① Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others			
	Diameter (cm)	130	Total Depth (m)	3.28	Water Level (m)	1.42		
Water Use/ Yield	① Drinking water, ② Washing water, 3. Others ()					1,2		
	No. of User	250	Volume	15 Gallon / day / person	Total	3750 Gallon / day		
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					1		
Water Quality	Tempera-true	27.6 °C	pH	5.70	E.C	0.164 mS/cm		
	TDS	107 mg/L	Salt	0.0 ppt	Turbidity	0.0 NTU		
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					1	
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination (③. Any contamination cannot be perceived					3		
	Countermeasure for contamination	Chlorination 12 times/year						
	Disease by water							
Other Resident Conscious-ness								
								
Remarks								


WELL INVENTORY (for Exploratory Well Drilling)					OWJ10-8			
					Survey Date	03 Nov. 2009		
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Ghengbah Town		
Location	Easting	318144	Northing	690018	Elevation	4 m		
Construction	Year	2005	Provider	Ms. Yenay				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	0.65		
	Casing	1. Nothing, 2. Block ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others			
	Diameter (cm)	75	Total Depth (m)	5.10	Water Level (m)	1.35		
Water Use/ Yield	① Drinking water, 2. Washing water, 3. Others ()					1		
	No. of User	500	Volume	10 Gallon / day / person	Total	5000 Gallon / day		
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					1		
Water Quality	Tempera-true	26.3	°C	pH	7.15	E.C	0.217 mS/cm	
	TDS	141	mg/L	Salt	0.0	mg/L	Turbidity	0.0 NTU
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					1	
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination () ③					3		
	Countermeasure for contamination	Chlorination 12 times/year						
	Disease by water							
Other Resident Conscious-ness								
								
Remarks	Water is used by entire community as drinking water.							


WELL INVENTORY (for Exploratory Well Drilling)					OWJ10-9	
					Survey Date	03 Nov. 2009
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Ghengbah Town
Location	Easting	318425	Northing	689794	Elevation	4 m
Construction	Year	2007	Provider	Mr. Eleanor Gbah		
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	0.48
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others	
	Diameter (cm)	80	Total Depth (m)	4.30	Water Level (m)	0.55
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others (cooking, bathing)					2,3
	No. of User	50	Volume	15 Gallon / day / person	Total	750 Gallon / day
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					1
Water Quality	Tempera-true	28.3 °C	pH	7.23	E.C	0.431 mS/cm
	TDS	280 mg/L	Salt	0.1 mg/L	Turbidity	13.9 NTU
	Others	1. Clean, 2. Cloudy, ③ Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty				
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt), ② Other contamination (rusty and muddy)					2
	Countermeasure for contamination					
	Disease by water					
Other Resident Conscious-ness						
						
Remarks						


WELL INVENTORY (for Exploratory Well Drilling)					OWJ10-10		
					Survey Date	03 Nov. 2009	
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Ghengbah Town	
Location	Easting	318456	Northing	689661	Elevation	4 m	
Construction	Year	2007	Provider	Mr. Sheikh			
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	0.96	
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others		
	Diameter (cm)	75	Total Depth (m)	3.58	Water Level (m)	1.23	
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others (cooking, bathing)					2,3	
	No. of User	250	Volume	15 Gallon / day / person	Total	3750 Gallon / day	
Dry-up Condition	1. No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (2 months), 5. Water level goes down by drawing					4	
Water Quality	Tempera-true	27.5 °C	pH	7.04	E.C	0.207 mS/cm	
	TDS	135 mg/L	Salt	0.0 ppt	Turbidity	1.6 NTU	
	Others	1. Clean, 2. Cloudy, ③ Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					3
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt. ② Other contamination (leaves, grass)					2	
	Countermeasure for contamination						
	Disease by water						
Other Resident Conscious-ness	Water has foam						
							
Remarks	No use						


WELL INVENTORY (for Exploratory Well Drilling)					OW11-1			
					Survey Date	27 Feb. 2010		
Registered Well No.			Zone		Community	Rihab/Borbor Town, Ghengbah Town		
Location	Easting	317745	Northing	689351	Elevation	6 m		
Construction	Year	2007	Provider	Mr. Tiezee Gartor				
Well Type/ Dimension	Type	1. Dug well/ 2. Drilled well/ 3. Others		Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, 6. Concrete	Well head hight (m)	0.05	
	Casing	1. Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, 2. Draw well, 3. Others			
	Diameter (cm)	70	Total Depth (m)	1.06	Water Level (m)	0.92		
Water Use/ Yield	1. Drinking water, 2. Washing water, 3. Others ()					2		
	No. of User	15	Volume	5 Gallon / day / person	Total	75 Gallon / day		
Dry-up Condition	1. No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					2		
Water Quality	Tempera-true	31.25	°C	pH	7.14	E.C	0.539 mS/m	
	TDS	345	mg/L	Salt	0.1 ppt	Turbidity	77 NTU	
	Others	1. Clean, 2. Cloudy, 3. Colored Yellowish, Brownish, Reddish, Other (), 4. Dirty, 5. Salty, (Dust and leaves)					5	
Contamina-tion	1. Oil Contamination (a. Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination ()					3		
	Countermeasure for contamination	Chlorination every month						
	Disease by water							
Other Resident Consciousness								
								
Remarks								

WELL INVENTORY (for Exploratory Well Drilling)					OW11-2	
					Survey Date	27 Feb. 2010
Registered Well No.			Zone		Community	Rihab/Borbor Town, Ghengbah Town
Location	Easting	317721	Northing	689282	Elevation	6 m
Construction	Year	2007	Provider	Mr. Sundaway Nuka		
Well Type/ Dimension	Type	1. Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, 6. Concrete	Well head hight (m)	0.20
	Casing	1. Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, 2. Draw well, 3. Others	
	Diameter (cm)	80	Total Depth (m)	3.22	Water Level (m)	1.10
Water Use/ Yield	1. Drinking water, 2. Washing water, 3. Others ()					2
	No. of User	35	Volume	15 Gallon / day / person	Total	525 Gallon / day
Dry-up Condition	1. No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					2
Water Quality	Temperature	29.81 °C	pH	7.50	E.C	2.59 mS/m
	TDS	1.66 mg/L	Salt	0.8 ppt	Turbidity	0.8 NTU
	Others	1. Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty, (Dust and leave				4
Contamina- tion	1. Oil Contamination (a. Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination ()					3
	Countermeasure for contamination	No chlorination				
	Disease by water					
Other Resident Consciousness						
						
Remarks						

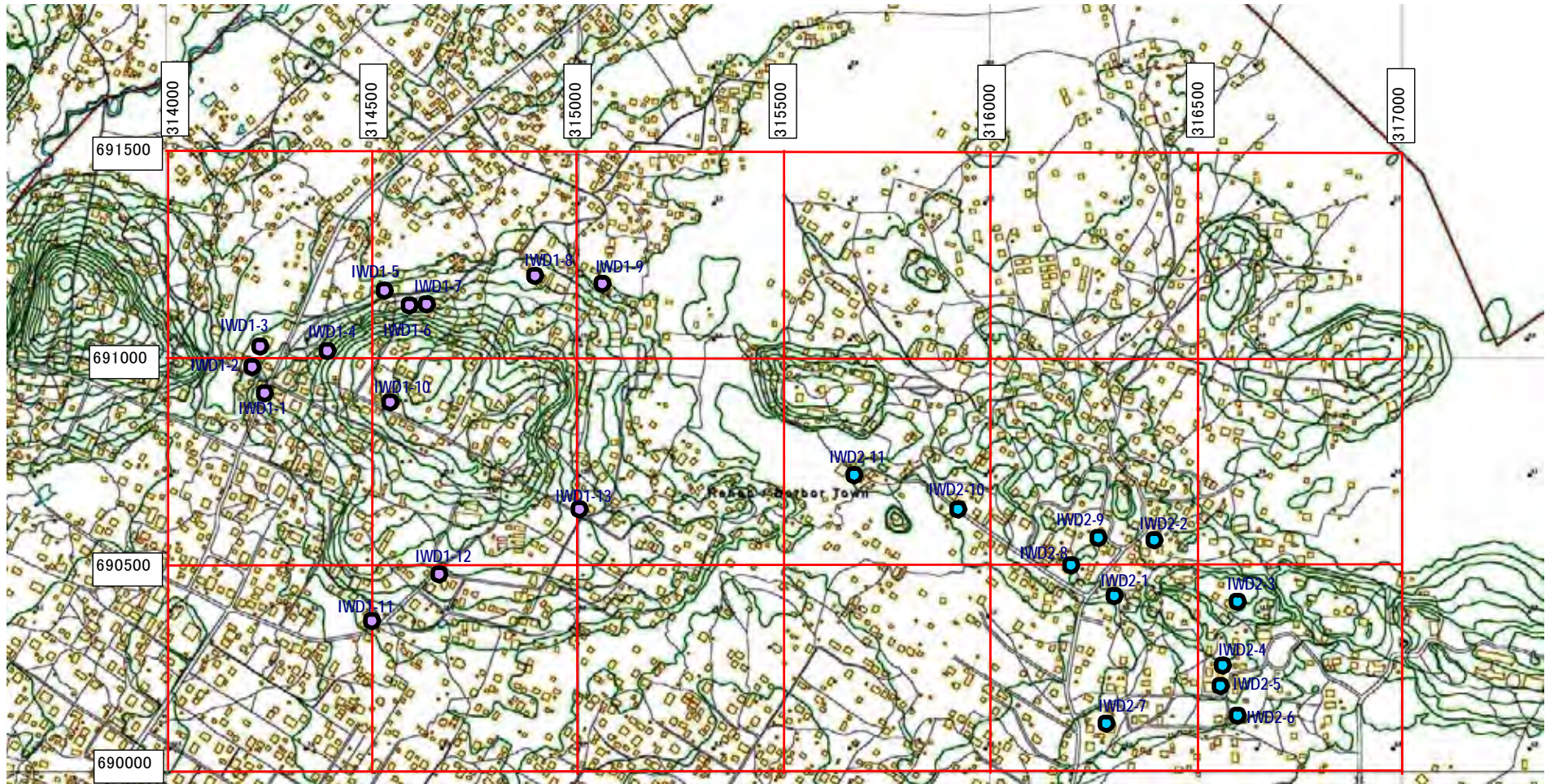
WELL INVENTORY (for Exploratory Well Drilling)					OW11-3		
					Survey Date	27 Feb. 2010	
Registered Well No.			Zone		Community	Rihab/Borbor Town, Ghengbah Town	
Location	Easting	317720	Northing	689281	Elevation	6 m	
Construction	Year	2009	Provider	Mrs. Kanvee Adams			
Well Type/ Dimension	Type	1. Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, 6. Concrete	Well head hight (m)	0.65	
	Casing	1. Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, 2. Draw well, 3. Others		
	Diameter (cm)	90	Total Depth (m)	3.77	Water Level (m)	1.54	
Water Use/ Yield	1. Drinking water, 2. Washing water, 3. Others ()					2	
	No. of User	170	Volume	20 Gallon / day / person	Total	3400 Gallon / day	
Dry-up Condition	1. No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					4	
Water Quality	Tempera-true	29.38	°C	pH	6.78	E.C	0.316 mS/m
	TDS	206	mg/L	Salt	0.1 ppt	Turbidity	8.8 NTU
	Others	1. Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty, (Dust and leave					3
Contamina- tion	1. Oil Contamination (a. Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination ()					3	
	Countermeasure for contamination	Chlorination every week					
	Disease by water						
Other Resident Consciousness							
							
Remarks							


WELL INVENTORY (for Exploratory Well Drilling)					OW11-4			
					Survey Date	27 Feb. 2010		
Registered Well No.			Zone		Community	Rihab/Borbor Town, Ghengbah Town		
Location	Easting	317618	Northing	689167	Elevation	6 m		
Construction	Year	2008	Provider	Mrs. Kanvee Adams				
Well Type/ Dimension	Type	1. Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, 6. Concrete	Well head height (m)	0.90		
	Casing	1. Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well 2. Draw well, 3. Others			
	Diameter (cm)	80	Total Depth (m)	3.89	Water Level (m)	1.28		
Water Use/ Yield	1. Drinking water 2. Washing water, 3. Others ()					2		
	No. of User	30	Volume	3 Gallon / day / person	Total	60 Gallon / day		
Dry-up Condition	1. No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing 4. Water level goes down in dry season (), 5. Water level goes down by drawing					4		
Water Quality	Temperature	28.91	°C	pH	6.46	E.C	0.347 mS/m	
	TDS	225	mg/L	Salt	0.1	ppt	Turbidity	23.4 NTU
	Others	1. Clean 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty, (Dust and leave					2	
Contamina- tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination ()					3		
	Countermeasure for contamination	Chlorination at twice a monyh						
	Disease by water							
Other Resident Consciousness								
								
Remarks								

WELL INVENTORY (for Exploratory Well Drilling)					OW11-5		
					Survey Date	27 Feb. 2010	
Registered Well No.			Zone		Community	Rihab/Borbor Town, Ghengbah Town	
Location	Easting	317405	Northing	689306	Elevation	6 m	
Construction	Year	28 Jan. 2010	Provider	Mr. Manama Gruy			
Well Type/ Dimension	Type	1. Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, 6. Concrete	Well head hight (m)	0.85	
	Casing	1. Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well 2. Draw well, 3. Others		
	Diameter (cm)	90	Total Depth (m)	2.05	Water Level (m)	1.66	
Water Use/ Yield	1. Drinking water 2. Washing water, 3. Others ()					2	
	No. of User	100	Volume	4 Gallon / day / person	Total	400 Gallon / day	
Dry-up Condition	1. No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					4	
Water Quality	Temperature	29.83	°C	pH	6.50	E.C	0.218 mS/m
	TDS	142	mg/L	Salt	0 ppt	Turbidity	2.3 NTU
	Others	1. Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty, (Dust and leave					1
Contamina- tion	1. Oil Contamination (a. Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination ()					3	
	Countermeasure for contamination	Chlorination at 2 times a week					
	Disease by water						
Other Resident Consciousness							
							
Remarks							


WELL INVENTORY (for Exploratory Well Drilling)					OW11-6		
					Survey Date	27 Feb. 2010	
Registered Well No.			Zone		Community	Rihab/Borbor Town, Ghengbah Town	
Location	Easting	317299	Northing	689339	Elevation	6 m	
Construction	Year	2008	Provider	Mr. James Wolo			
Well Type/ Dimension	Type	1. Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, 6. Concrete	Well head hight (m)	0.73	
	Casing	1. Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, 2. Draw well, 3. Others		
	Diameter (cm)	90	Total Depth (m)	2.79	Water Level (m)	1.57	
Water Use/ Yield	1. Drinking water, 2. Washing water, 3. Others ()					2	
	No. of User	100	Volume	4 Gallon / day / person	Total	400 Gallon / day	
Dry-up Condition	1. No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					2	
Water Quality	Temperature	29.63	°C	pH	6.40	E.C	0.194 mS/m
	TDS	126	mg/L	Salt	0 ppt	Turbidity	5 NTU
	Others	1. Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty, (Dust and leave					1
Contamina- tion	1. Oil Contamination (a. Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination ()					3	
	Countermeasure for contamination	Chlorination weekly					
	Disease by water						
Other Resident Consciousness							
							
Remarks							


DIABASE INTRUSION AREA





WELL INVENTORY (for Exploratory Well Drilling)					IWD1-1		
					Survey Date	4 Nov. 2009	
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Rihab	
Location	Easting	3142235	Northing	690914	Elevation	10	m
Construction	Year	2006	Provider	Mr. Geoge Gibson			
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, ⑤ Block, 6. Concrete	Well head hight (m)	0.31	
	Casing	① Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others		
	Diameter (cm)	90	Total Depth (m)	8.27	Water Level (m)	5.58	
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others ()						2,3
	No. of User	500	Volume	15 Gallon / day / person	Total	7500 Gallon / day	
Dry-up Condition	1. No dry-up, ② Dry-up in dry season (2-4 hours), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing						2
Water Quality	Tempera-true	26.4	°C	pH	6.55	E.C	0.031 mS/cm
	TDS	20	mg/L	Salt	0.0	ppt	Turbidity (19.0) NTU
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					1
Contamina-tion	1. Oil Contamination (a. Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination ()						3
	Countermeasure for contamination	Chlorination 1 times/week (every Saturday)					
	Disease by water						
Other Resident Conscious-ness							
							
Remarks	Highly weathered Diabase Portion						


WELL INVENTORY (for Exploratory Well Drilling)					IWD1-2	
					Survey Date	4 Nov. 2009
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Rihab
Location	Easting	314205	Northing	690976	Elevation	8 m
Construction	Year	2005	Provider	Mr. David L. Sumo		
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, ⑤ Block, 6. Concrete	Well head height (m)	0.55
	Casing	① Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others	
	Diameter (cm)	80	Total Depth (m)	5.65	Water Level (m)	2.70
Water Use/ Yield	1. Drinking water ② Washing water, ③ Others ()					2,3
	No. of User	500	Volume	15 Gallon / day / person	Total	7500 Gallon / day
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (4 months), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					1
Water Quality	Temperature	26.8 °C	pH	5.77	E.C	0.040 mS/cm
	TDS	25 mg/L	Salt	0.0 ppt	Turbidity	(26.8) NTU
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty				
Contamina- tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination ()					3
	Countermeasure for contamination	Chlorination 24 times/year				
	Disease by water					
Other Resident Consciousness						
						
Remarks						


WELL INVENTORY (for Exploratory Well Drilling)					IWD1-3			
					Survey Date	4 Nov. 2009		
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Rihab		
Location	Easting	314220	Northing	691033	Elevation	8 m		
Construction	Year	1975	Provider	Mr. Jalarry Jallah				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	1.13		
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others			
	Diameter (cm)	78	Total Depth (m)	8.15	Water Level (m)	3.48		
Water Use/ Yield	① Drinking water ② Washing water ③ Others (cooking)					1,2		
	No. of User	500	Volume	15 Gallon / day / person	Total	7500 Gallon / day		
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (4 months), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					1		
Water Quality	Temperature	26.6 °C	pH	5.70	E.C	0.077 mS/cm		
	TDS	50 mg/L	Salt	0.0 ppt	Turbidity	(16.6) NTU		
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					1	
Contamina- tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination () ③					3		
	Countermeasure for contamination	Chlorination 12 times/year						
	Disease by water							
Other Resident Consciousness								
								
Remarks	Water is used by community for drinking.							


WELL INVENTORY (for Exploratory Well Drilling)					IWD1-4		
					Survey Date	4 Nov. 2009	
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Rihab	
Location	Easting	314383	Northing	691011	Elevation	16	m
Construction	Year	2002	Provider	Mr. Brewer Norris			
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, ⑤ Block, 6. Concrete	Well head height (m)	0.50	
	Casing	① Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others		
	Diameter (cm)	100	Total Depth (m)	7.85	Water Level (m)	5.25	
Water Use/ Yield	① Drinking water, ② Washing water, 3. Others ()						1,2
	No. of User	500	Volume	15 Gallon / day / person	Total	7500 Gallon / day	
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (1 week), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing						1
Water Quality	Temperature	26.4 °C	pH	5.84	E.C	0.045 mS/cm	
	TDS	29 mg/L	Salt	0.0 ppt	Turbidity	(53.2) NTU	
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					
Contamina- tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination ()						3
	Countermeasure for contamination	Chlorination often					
	Disease by water						
Other Resident Consciousness							
							
Remarks							


WELL INVENTORY (for Exploratory Well Drilling)					IWD1-5			
					Survey Date	4 Nov. 2009		
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Rihab		
Location	Easting	314525	Northing	691161	Elevation	8	m	
Construction	Year	2005	Provider	Mr. Alphonso Quiwonkpa				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, ⑤ Block, 6. Concrete		Well head hight (m)	0.10	
	Casing	① Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well ② Draw well, 3. Others			
	Diameter (cm)	120	Total Depth (m)	5.50	Water Level (m)	3.30		
Water Use/ Yield	① Drinking water ② Washing water, 3. Others (cooking)						1,2	
	No. of User	500	Volume	15 Gallon / day / person	Total	7500 Gallon / day		
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (1 week level goes down in dry season (4 monthes), 3. Sometimes dry-up by drawing, 4. Water level goes down by drawing						1	
Water Quality	Tempera-true	26.9	°C	pH	5.30	E.C	0.062 mS/cm	
	TDS	40	mg/L	Salt	0.0	ppt	Turbidity (34.4) NTU	
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					1	
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination (roots) ③ Any contamination cannot be perceived						2	
	Countermeasure for contamination	Chlorination 12 times/year						
	Disease by water							
Other Resident Conscious-ness								
								
Remarks								


WELL INVENTORY (for Exploratory Well Drilling)					IWD1-6			
					Survey Date	4 Nov. 2009		
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Rihab		
Location	Easting	314579	Northing	691127	Elevation	13	m	
Construction	Year	2008	Provider	Mrs. Ellen				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, ⑤ Block, 6. Concrete		Well head hight (m)	0.30	
	Casing	① Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others			
	Diameter (cm)	110	Total Depth (m)	9.35	Water Level (m)	7.99		
Water Use/ Yield	① Drinking water, ② Washing water, 3. Others (cooking)						1,2	
	No. of User	500	Volume	15 Gallon / day / person	Total	7500 Gallon / day		
Dry-up Condition	1. No dry-up, ② Dry-up in dry season (3 months), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing						2	
Water Quality	Tempera-true	27.0	°C	pH	5.18	E.C	0.056 mS/cm	
	TDS	36	mg/L	Salt	0.0	ppt	Turbidity 30.9 NTU	
	Others	1. Clean, 2. Cloudy, ③ Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					3	
Contamina-tion	1. Oil Contamination (a. Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination (blowing leaves, grass)						2	
	Countermeasure for contamination							
	Disease by water							
Other Resident Conscious-ness								
								
Remarks								


WELL INVENTORY (for Exploratory Well Drilling)					IWD1-7	
					Survey Date	4 Nov. 2009
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Rihab
Location	Easting	314624	Northing	691127	Elevation	13 m
Construction	Year	2000	Provider	Mr. Raymond		
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	0.72
	Casing	1. Nothing, 2. Block ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others	
	Diameter (cm)	80	Total Depth (m)	9.02	Water Level (m)	8.30
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others (cooking, bathing)					2,3
	No. of User	500	Volume	8 Gallon / day / person	Total	4000 Gallon / day
Dry-up Condition	1. No dry-up, ② Dry-up in dry season (3 months), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					2
Water Quality	Temperature	27.2 °C	pH	5.27	E.C	0.050 mS/cm
	TDS	32 mg/L	Salt	0.0 ppt	Turbidity	1.9 NTU
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty				
Contamina- tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination () ③. Any contamination cannot be perceived					3
	Countermeasure for contamination	Chlorination 12 times/year				
	Disease by water					
Other Resident Consciousness						
						
Remarks						


WELL INVENTORY (for Exploratory Well Drilling)					IWD1-8		
					Survey Date	4 Nov. 2009	
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Rihab	
Location	Easting	314895	Northing	691194	Elevation	9 m	
Construction	Year	2008	Provider	Mr. Amos Lah			
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, ⑤ Block, 6. Concrete	Well head hight (m)	0.52	
	Casing	① Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others		
	Diameter (cm)	120	Total Depth (m)	7.30	Water Level (m)	3.37	
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others (cooking, bathing)					2,3	
	No. of User	500	Volume	15 Gallon / day / person	Total	7500 Gallon / day	
Dry-up Condition	1. No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, ④ Water level goes down in dry season (2 months), 5. Water level goes down by drawing					4	
Water Quality	Tempera-true	26.8 °C	pH	5.32	E.C	0.040 mS/cm	
	TDS	25 mg/L	Salt	0.0 ppt	Turbidity	36.0 NTU	
	Others	1. Clean, 2. Cloudy, ③ Colored (Yellowish, ④ Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					3
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination (blowing plastic bags, rags)					2	
	Countermeasure for contamination						
	Disease by water						
Other Resident Conscious-ness	Bathing with water makes itchy on skin.						
							
Remarks							


WELL INVENTORY (for Exploratory Well Drilling)					IWD1-9	
					Survey Date	4 Nov. 2009
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Rihab
Location	Easting	315060	Northing	691175	Elevation	6 m
Construction	Year	2006	Provider	Mr. Tweh		
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, ⑤ Block, 6. Concrete	Well head hight (m)	0.15
	Casing	① Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others	
	Diameter (cm)	140	Total Depth (m)	3.50	Water Level (m)	1.70
Water Use/ Yield	1. Drinking water, ② Washing water, 3. Others (cooking)					2
	No. of User	250	Volume	15 Gallon / day / person	Total	3750 Gallon / day
Dry-up Condition	1. No dry-up, ② Dry-up in dry season (6 months), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					2
Water Quality	Tempera-true	27.2 °C	pH	4.85	E.C	0.035 mS/cm
	TDS	23 mg/L	Salt	0.0 ppt	Turbidity	2.8 NTU
	Others	1. Clean, ② Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty				
Contamina-tion	1. Oil Contamination (a. Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt), ② Other contamination (blowing dust, leaves) 3. Any contamination cannot be perceived					2
	Countermeasure for contamination	Chlorination 3 times since well construction				
	Disease by water					
Other Resident Conscious-ness						
						
Remarks						


WELL INVENTORY (for Exploratory Well Drilling)					IWD1-10			
					Survey Date	4 Nov. 2009		
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Rihab		
Location	Easting	314541	Northing	690887	Elevation	27 m		
Construction	Year	2008	Provider	Mr. Emmet Payne				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	0.45		
	Casing	1. Nothing, 2. Block ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well ②, Draw well, 3. Others			
	Diameter (cm)	85	Total Depth (m)	7.85	Water Level (m)	5.50		
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others ()					2,3		
	No. of User	200	Volume	15 Gallon / day / person	Total	3000 Gallon / day		
Dry-up Condition	1. No dry-up, ② Dry-up in dry season (6 months), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					2		
Water Quality	Tempera-true	26.8	°C	pH	5.25	E.C	0.073 mS/cm	
	TDS	47	mg/L	Salt	0.0	ppt	Turbidity	17.9 NTU
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					1	
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt) ②. Other contamination (tadpols, mold)					2		
	Countermeasure for contamination							
	Disease by water							
Other Resident Conscious-ness								
								
Remarks								


WELL INVENTORY (for Exploratory Well Drilling)					IWD1-11			
					Survey Date	4 Nov. 2009		
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Rihab		
Location	Easting	314415	Northing	690355	Elevation	8 m		
Construction	Year	2007	Provider	Mrs. Deddeh B. Cooper				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	0.80		
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others			
	Diameter (cm)	77	Total Depth (m)	4.73	Water Level (m)	1.65		
Water Use/ Yield	① Drinking water, ② Washing water, 3. Others ()					1,2		
	No. of User	500	Volume	15 Gallon / day / person	Total	7500 Gallon / day		
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (6 months), 5. Water level goes down by drawing					1		
Water Quality	Tempera-true	27.3	°C	pH	5.55	E.C	0.057 mS/cm	
	TDS	36	mg/L	Salt	0.0	ppt	Turbidity	13.7 NTU
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					1	
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination (③)					3		
	Countermeasure for contamination	Chlorination 24 times/year						
	Disease by water							
Other Resident Conscious-ness								
								
Remarks								


WELL INVENTORY (for Exploratory Well Drilling)					IWD1-12			
					Survey Date	4 Nov. 2009		
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Rihab		
Location	Easting	314667	Northing	690473	Elevation	15 m		
Construction	Year	2007	Provider	Mr. Nyan Evato				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	0.72		
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well ② Draw well, 3. Others			
	Diameter (cm)	75	Total Depth (m)	7.65	Water Level (m)	2.64		
Water Use/ Yield	① Drinking water, ② Washing water, 3. Others ()					1,2		
	No. of User	500	Volume	15 Gallon / day / person	Total	7500 Gallon / day		
Dry-up Condition	1. No dry-up, ② Dry-up in dry season (6 months), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					2		
Water Quality	Tempera-true	27.6 °C	pH	6.25	E.C	0.096 mS/cm		
	TDS	62 mg/L	Salt	0.0 ppt	Turbidity	15.3 NTU		
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					1	
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt. ② Other contamination (blowing dry grass)					2		
	Countermeasure for contamination	Chlorination 24 times/year						
	Disease by water							
Other Resident Conscious-ness								
								
Remarks								


WELL INVENTORY (for Exploratory Well Drilling)					IWD1-13	
					Survey Date	4 Nov. 2009
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Rihab
Location	Easting	315006	Northing	690627	Elevation	16 m
Construction	Year	2009	Provider	Mr. Sherman		
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	0.20
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others	
	Diameter (cm)	78	Total Depth (m)	7.58	Water Level (m)	2.85
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others ()					2,3
	No. of User	500	Volume	15 Gallon / day / person	Total	7500 Gallon / day
Dry-up Condition	1. No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, ④ Water level goes down in dry season (), 5. Water level goes down by drawing					4
Water Quality	Tempera-true	27.3 °C	pH	5.66	E.C	0.048 mS/cm
	TDS	31 mg/L	Salt	0.0 ppt	Turbidity	10.4 NTU
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), ④ Dirty, 5. Salty				
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination () ③					3
	Countermeasure for contamination					
	Disease by water					
Other Resident Conscious-ness						
						
Remarks						


WELL INVENTORY (for Exploratory Well Drilling)					IWD2-1			
					Survey Date	6 Nov. 2009		
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Thinkers village OF		
Location	Easting	316305	Northing	690414	Elevation	9	m	
Construction	Year	2006	Provider	Mr. Borbor Garpue				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, ⑤ Block, 6. Concrete		Well head hight (m)	0.67	
	Casing	① Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well ② Draw well, 3. Others			
	Diameter (cm)	100	Total Depth (m)	4.79	Water Level (m)	1.45		
Water Use/ Yield	① Drinking water, ② Washing water, 3. Others ()						1,2	
	No. of User	500	Volume	15 Gallon / day / person	Total	7500 Gallon / day		
Dry-up Condition	1. No dry-up, ② Dry-up in dry season (2-4 hours), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing						2	
Water Quality	Tempera-true	26.9	°C	pH	5.80	E.C	0.033 mS/cm	
	TDS	21	mg/L	Salt	0.0	ppt	Turbidity (82.0) NTU	
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					1	
Contamina-tion	1. Oil Contamination (a. Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination ()						3	
	Countermeasure for contamination	Chlorination 1 times/week (every week)						
	Disease by water							
Other Resident Conscious-ness								
								
Remarks	Highly weathered Diabase Portion							


WELL INVENTORY (for Exploratory Well Drilling)					IWD2-2			
					Survey Date	6 Nov. 2009		
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Thinkers village OF		
Location	Easting	316390	Northing	690554	Elevation	9 m		
Construction	Year	2005	Provider	Mrs. Sarah Tuah				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, ⑤ Block, 6. Concrete	Well head hight (m)	0.40		
	Casing	① Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others			
	Diameter (cm)	130	Total Depth (m)	4.58	Water Level (m)	2.85		
Water Use/ Yield	① Drinking water, ② Washing water, 3. Others ()					1,2		
	No. of User	500	Volume	15 Gallon / day / person	Total	7500 Gallon / day		
Dry-up Condition	1. No dry-up, ② Dry-up in dry season (6 months), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					2		
Water Quality	Tempera-true	26.9 °C	pH	5.42	E.C	0.022 mS/cm		
	TDS	14 mg/L	Salt	0.0 ppt	Turbidity	(27.8) NTU		
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					1	
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination ()					3		
	Countermeasure for contamination	Chlorination 12 times/year						
	Disease by water							
Other Resident Conscious-ness								
								
Remarks								


WELL INVENTORY (for Exploratory Well Drilling)					IWD2-3			
					Survey Date	6 Nov. 2009		
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Thinkers village OF		
Location	Easting	316604	Northing	690403	Elevation	12 m		
Construction	Year	2007	Provider	Mr. Cliver Kluo				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	0.00		
	Casing	① Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others			
	Diameter (cm)	105	Total Depth (m)	8.62	Water Level (m)	3.03		
Water Use/ Yield	1. Drinking water, ②. Washing water, ③. Others (cooking, bathing)					2,3		
	No. of User	250	Volume	15 Gallon / day / person	Total	3750 Gallon / day		
Dry-up Condition	1. No dry-up, ②. Dry-up in dry season (few day), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					2		
Water Quality	Tempera-true	26.1 °C	pH	5.70	E.C	0.027 mS/cm		
	TDS	17 mg/L	Salt	0.0 ppt	Turbidity	(46.1) NTU		
	Others	1. Clean, ② Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					2	
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.), ②. Other contamination (trash) 3. Any contamination cannot be perceived					2		
	Countermeasure for contamination	Chlorination 12 times/year						
	Disease by water							
Other Resident Conscious-ness								
								
Remarks								


WELL INVENTORY (for Exploratory Well Drilling)					IWD2-4			
					Survey Date	6 Nov. 2009		
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Thinkers village OF		
Location	Easting	316561	Northing	690245	Elevation	11 m		
Construction	Year	2009	Provider	Mrs. Rachel Mensah				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, ⑤ Block, 6. Concrete	Well head hight (m)	0.42		
	Casing	① Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others			
	Diameter (cm)	100	Total Depth (m)	4.53	Water Level (m)	3.25		
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others (bathing)					2,3		
	No. of User	500	Volume	15 Gallon / day / person	Total	7500 Gallon / day		
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (1 week), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					1		
Water Quality	Tempera-true	28.1 °C	pH	5.60	E.C	0.064 mS/cm		
	TDS	42 mg/L	Salt	0.0 ppt	Turbidity	(94.0) NTU		
	Others	1. Clean, ② Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					2	
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) ② Other contamination (foamy) 3. Any contamination cannot be perceived					2		
	Countermeasure for contamination							
	Disease by water							
Other Resident Conscious-ness	Formy							
								
Remarks								


WELL INVENTORY (for Exploratory Well Drilling)					IWD2-5			
					Survey Date	6 Nov. 2009		
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Thinkers village OF		
Location	Easting	316558	Northing	690200	Elevation	10 m		
Construction	Year	2004	Provider	Mr. Janjay Davis				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, ⑤ Block, 6. Concrete	Well head hight (m)	0.70		
	Casing	① Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well ② Draw well, 3. Others			
	Diameter (cm)	110	Total Depth (m)	4.18	Water Level (m)	2.74		
Water Use/ Yield	1. Drinking water ②, 2. Washing water ③, 3. Others (cooking)					2,3		
	No. of User	500	Volume	15 Gallon / day / person	Total	7500 Gallon / day		
Dry-up Condition	1. No dry-up ②, 2. Dry-up in dry season (2 months), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					2		
Water Quality	Tempera-true	27.9 °C	pH	5.58	E.C	0.119 mS/cm		
	TDS	77 mg/L	Salt	0.0 ppt	Turbidity	12.7 NTU		
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					1	
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt) ②. Other contamination (blowing leaves, ants)					2		
	Countermeasure for contamination	Chlorination 2 times/week						
	Disease by water							
Other Resident Conscious-ness								
								
Remarks								


WELL INVENTORY (for Exploratory Well Drilling)					IWD2-6		
					Survey Date	6 Nov. 2009	
Registered Well No.		Life water 07-020	Zone	Paynesville	Community	Rihab/BorBor Town, Thinkers village OF	
Location	Easting	316601	Northing	690125	Elevation	8 m	
Construction	Year	2007	Provider	Mrs. Emmanuel Gee			
Well Type/ Dimension	Type	1. Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block/ 6. Concrete	Well head hight (m)	0.30	
	Casing	1. Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, 2. Draw well, 3. Others		
	Diameter (cm)		Total Depth (m)	12.2	Water Level (m)		
Water Use/ Yield	1. Drinking water/ 2. Washing water, 3. Others (cooking)						1,2
	No. of User	500	Volume	15 Gallon / day / person	Total	7500 Gallon / day	
Dry-up Condition	1. No dry-up/ 2. Dry-up in dry season (3 months), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing						2
Water Quality	Tempera-true	28.7	°C	pH	5.16	E.C	0.016 mS/cm
	TDS	10	mg/L	Salt	0.0	ppt	Turbidity
	Others	1. Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					
Contamina-tion	1. Oil Contamination (a. Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination ()						3
	Countermeasure for contamination	Chlorination 1 times/week (every Saturday)					
	Disease by water						
Other Resident Conscious-ness							
							
Remarks							

WELL INVENTORY (for Exploratory Well Drilling)					IWD2-7	
					Survey Date	6 Nov. 2009
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Thinkers village OF
Location	Easting	316282	Northing	690111	Elevation	8 m
Construction	Year	2008	Provider	Mr. Andrew		
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	0.60
	Casing	1. Nothing, 2. Block ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well ②, Draw well, 3. Others	
	Diameter (cm)	75	Total Depth (m)	3.20	Water Level (m)	0.90
Water Use/ Yield	1. Drinking water ② Washing water ③ Others (cooking, bathing)					2,3
	No. of User	25	Volume	15 Gallon / day / person	Total	375 Gallon / day
Dry-up Condition	1. No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, ④ Water level goes down in dry season (2 months), 5. Water level goes down by drawing					4
Water Quality	Tempera-true	28.1 °C	pH	6.45	E.C	0.215 mS/cm
	TDS	140 mg/L	Salt	0.0 ppt	Turbidity	7.1 NTU
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty				
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) ② Other contamination (blowing dust, leaves) 3. Any contamination cannot be perceived					2
	Countermeasure for contamination					
	Disease by water					
Other Resident Conscious-ness						
						
Remarks						

WELL INVENTORY (for Exploratory Well Drilling)					IWD2-8			
					Survey Date	6 Nov. 2009		
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Thinkers village OF		
Location	Easting	316201	Northing	690496	Elevation	10 m		
Construction	Year	2009	Provider	Mrs. Delicia Berry				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	0.56		
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others			
	Diameter (cm)	73	Total Depth (m)	7.55	Water Level (m)	2.70		
Water Use/ Yield	① Drinking water, ② Washing water, 3. Others (cooking, bathing)					1,2		
	No. of User	500	Volume	15 Gallon / day / person	Total	7500 Gallon / day		
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					1		
Water Quality	Tempera-true	27.8	°C	pH	7.52	E.C	0.053 mS/cm	
	TDS	34	mg/L	Salt	0.0 ppt	Turbidity	6.2 NTU	
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					1	
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination () ③					3		
	Countermeasure for contamination	Chlorination every 2 weeks						
	Disease by water							
Other Resident Conscious-ness								
								
Remarks								

WELL INVENTORY (for Exploratory Well Drilling)					IWD2-9			
					Survey Date	6 Nov. 2009		
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Thinkers village OF		
Location	Easting	316265	Northing	690564	Elevation	11 m		
Construction	Year	2009	Provider	Mrs. Pamela Sawyer				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, ⑤ Block, 6. Concrete	Well head hight (m)	0.52		
	Casing	① Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well, ② Draw well, 3. Others			
	Diameter (cm)	120	Total Depth (m)	5.40	Water Level (m)	2.45		
Water Use/ Yield	1. Drinking water, ② Washing water, ③ Others (cooking)					2,3		
	No. of User	250	Volume	15 Gallon / day / person	Total	3750 Gallon / day		
Dry-up Condition	① No dry-up, 2. Dry-up in dry season (6 months), 3. Sometimes dry-up by drawing, 4. Water level goes down in dry season (), 5. Water level goes down by drawing					1		
Water Quality	Tempera-true	27.8 °C	pH	6.56	E.C	0.034 mS/cm		
	TDS	22 mg/L	Salt	0.0 ppt	Turbidity	8.0 NTU		
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					1	
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination () ③					3		
	Countermeasure for contamination	Chlorination every 2 weeks						
	Disease by water							
Other Resident Conscious-ness								
								
Remarks	Well is less than 1 year old.							

WELL INVENTORY (for Exploratory Well Drilling)					IWD2-10			
					Survey Date	6 Nov. 2009		
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Thinkers village OF		
Location	Easting	315928	Northing	690630	Elevation	10 m		
Construction	Year	2008	Provider	Mr. Reuben Johnson				
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete	Well head hight (m)	0.60		
	Casing	① Nothing, 2. Block, 3. Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	1. Hand pump well ② Draw well, 3. Others			
	Diameter (cm)	105	Total Depth (m)	4.50	Water Level (m)	2.20		
Water Use/ Yield	① Drinking water, ② Washing water, 3. Others ()					1,2		
	No. of User	500	Volume	15 Gallon / day / person	Total	7500 Gallon / day		
Dry-up Condition	1. No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, ④ Water level goes down in dry season (2 months), 5. Water level goes down by drawing					4		
Water Quality	Tempera-true	28.4	°C	pH	5.67	E.C	0.065 mS/cm	
	TDS	42	mg/L	Salt	0.0 ppt	Turbidity	0.0 NTU	
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty					1	
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination () ③					3		
	Countermeasure for contamination	Chlorination 1 time/week (every Saturday)						
	Disease by water							
Other Resident Conscious-ness								
								
Remarks								

WELL INVENTORY (for Exploratory Well Drilling)					IWD2-11				
					Survey Date	6 Nov. 2009			
Registered Well No.			Zone	Paynesville	Community	Rihab/BorBor Town, Thinkers village OF			
Location	Easting	315675	Northing	690717	Elevation	6 m			
Construction	Year	2006	Provider	Mr. Jastina Allison					
Well Type/ Dimension	Type	① Dug well/ 2. Drilled well/ 3. Others	Well Head	1. Nothing, 2. Tire, 3. Drum, 4. Stone masonry, 5. Block, ⑥ Concrete		Well head hight (m)			
	Casing	1. Nothing, 2. Block, ③ Concrete colgate, 4. PVC casing with Screen (m), 5. Steel casing with Screen (m)		Equipment	① Hand pump well, 2. Draw well, 3. Others				
	Diameter (cm)	65	Total Depth (m)	12.00	Water Level (m)				
Water Use/ Yield	① Drinking water, ② Washing water, 3. Others ()						1,2		
	No. of User	500	Volume	15 Gallon / day / person	Total	7500 Gallon / day			
Dry-up Condition	1. No dry-up, 2. Dry-up in dry season (), 3. Sometimes dry-up by drawing, ④. Water level goes down in dry season (few hours), 5. Water level goes down by drawing						4		
Water Quality	Tempera-true	29.0	°C	pH	5.69	E.C	0.065 mS/cm		
	TDS	44	mg/L	Salt	0.0	ppt	Turbidity 0.0 NTU		
	Others	① Clean, 2. Cloudy, 3. Colored (Yellowish, Brownish, Reddish, Other ()), 4. Dirty, 5. Salty						1	
Contamina-tion	1.Oil Contamination(a.Oil always mixes with well water. b. Although an oil mixing is confirmed in early morning, it eases by drawing. c. Although an oil film is confirmed at early morning, it disappears by drawing. d. An oil smell is felt.) 2. Other contamination () ③						3		
	Countermeasure for contamination	Chlorination 6 time/year							
	Disease by water								
Other Resident Conscious-ness									
									
Remarks									

Appendix-2

Record of 2nd Inventory Survey

WELL INVENTORY							J-6 Area			
(2nd Time Observation for Exploratory Well Drilling)							Survey Date	25 Feb. 2010		
Well No.	J - 6	J - 6	J - 6	J - 6	J - 6	J - 6	J - 6	J - 6	J - 6	
OW Well No.	OW6-1	OW6-2	OW6-3	OW6-4	OW6-5	OW6-6	OW6-7	OW6-8	OW6-9	
Observation time	9:42	9:59	10:04	10:08	10:11	10:12	10:15	10:21	10:18	
Well head high (m)	0.60	0.85	0.58	0.53	0.40	0.45	0.45	0.30	0.95	
Water Level (m)	4.00	2.11	0.98	2.84	2.12		3.11	3.16	4.25	
Water										
Temperatrue (°C)	29.1	28.7	28.9	27.9	28.6		28.8	28.4	28.8	
pH	6.50	5.99	6.40	6.46	6.59		6.67	6.73	6.35	
E.C (mS/cm)	0.285	0.182	0.271	0.149	0.154		0.153	0.138	0.094	
TDS (mg/L)	185	118	176	97	100		99	90	60	
Turbidity (NTU)	3.9	8.1	60.9	8.2	4.1		370.0	37.5	22.9	
Remarks			Salt; 0.1 ppt			Locked				
Well No.	J - 6	J - 6	J - 6	J - 6	J - 6	J - 6	J - 6	J - 6	J - 6	
OW Well No.	OW6-10	OW6-11	OW6-12	OW6-13	OW6-14	OW6-15	OW6-16	OW6-17	OW6-18	
Observation time	9:50			9:45	9:48	9:50	10:38	10:36	10:45	
Well head high (m)	0.00	1.10	0.45	0.60	0.45	0.50	0.40	0.62	0.45	
Water Level (m)	3.25			3.05	2.88	2.80	3.40	4.81	6.60	
Water										
Temperatrue (°C)	28.0			28.4	28.2	29.2	28.4	27.5	29.6	
pH	6.40			6.00	5.94	5.74	5.90	6.23	5.82	
E.C (mS/cm)	0.168			0.099	0.207	0.413	0.200	0.209	0.097	
TDS (mg/L)	109			63	134	268	130	136	620	
Turbidity (NTU)	125.0			12.4	22.4	3.4	2.3	12.6	0.0	
Remarks		Hand Pump Well	Dry up							

WELL INVENTORY							J-8 Area			
(2nd Time Observation for Exploratory Well Drilling)							Survey Date	26 Feb. 2010		
Well No.	J - 8	J - 8	J - 8	J - 8	J - 8	J - 8	J - 8	J - 8	J - 8	
OW Well No.	OW8-1	OW8-2	OW8-3	OW8-4	OW8-5	OW8-6	OW8-7	OW8-8	OW8-9	
Observation time	11:14	11:21	11:26	11:30	11:34	11:39	11:45	11:53	11:56	
Well head hight (m)	0.55	0.35	0.20	0.60	1.10	0.89	0.50	0.60	0.90	
Water Level (m)	3.41	4.71	2.94	2.28	2.54	2.70	5.25	2.80	2.84	
Water										
Temperatrue (°C)	29.1	27.7		28.8	28.8	28.9	31.8	29.8	28.8	
pH	7.03	6.04		6.56	6.83	6.52	7.03	6.91	6.53	
E.C (mS/cm)	0.412	0.030		0.078	0.075	0.040	0.102	0.156	0.244	
TDS (mg/L)	268	19		50	49	26	66	101	158	
Turbidty (NTU)	56.4	12.2		13.3	1.9	12.7	12.8	5.0	2.8	
Remarks	Salt; 0.1 ppt		Almost dry up							
Well No.	J - 8	J - 8	J - 8							
OW Well No.	OW8-10	OW8-11	OW8-12							
Observation time	12:04		12:08							
Well head hight (m)	0.60		0.40							
Water Level (m)	3.75		4.37							
Water										
Temperatrue (°C)	28.7		28.5							
pH	6.96		6.42							
E.C (mS/cm)	0.297		0.083							
TDS (mg/L)	193		54							
Turbidty (NTU)	20.6		7.0							
Remarks	Salt; 0.1 ppt	Locked								

WELL INVENTORY (2nd Time Observation for Exploratory Well Drilling)							J-9 Area		
							Survey Date	26 Feb. 2010	
Well No.	J - 9	J - 9	J - 9	J - 9	J - 9	J - 9	J - 9	J - 9	J - 9
OW Well No.	OW9-1	OW9-2	OW9-3	OW9-4	OW9-5	OW9-6	OW9-7	OW9-8	OW9-9
Observation time	9:51	9:55	10:02	10:07	10:12	10:19	10:28	10:29	10:35
Well head height (m)	0.68	0.75	0.16	0.89	0.82	0.47	0.61	0.80	0.95
Water Level (m)	2.08	1.85	1.68	1.78	3.31	2.48	1.89	3.64	2.49
Water									
Temperatrue (°C)	28.1	27.8	28.2	28.7	28.5	28.7	28.7	28.2	28.2
pH	5.32	6.09	4.70	6.31	6.24	6.60	6.68	6.69	5.91
E.C (mS/cm)	0.296	0.223	0.255	0.332	0.137	0.168	0.351	0.302	0.103
TDS (mg/L)	192	145	166	216	89	109	228	196	67
Turbidity (NTU)	0.6	17.5	82.0	13.1	17.3	9.0	58.3	66.4	5.9
Remarks	Salt; 0.1 ppt			Salt; 0.1 ppt			Salt; 0.1 ppt	Salt; 0.1 ppt	
Well No.	J - 9	J - 9	J - 9	J - 9					
OW Well No.	OW9-10	OW9-11	OW9-12	OW9-13					
Observation time	10:38	10:41	10:50	10:54					
Well head height (m)	0.51	0.58	1.00	0.63					
Water Level (m)	2.05	1.94	2.73	3.09					
Water									
Temperatrue (°C)	28.1	28.5	29.3	28.5					
pH	6.14	6.65	6.00	5.72					
E.C (mS/cm)	0.203	0.624	0.143	0.196					
TDS (mg/L)	132	400	93	127					
Turbidity (NTU)	6.8	11.9	17.0	12.2					
Remarks		Salt; 0.1 ppt							

WELL INVENTORY							Diabase Intrusion-2 Area			
(2nd Time Observation for Exploratory Well Drilling)							Survey Date	28 Feb. 2010		
Group No.	IWD-2	IWD-2	IWD-2	IWD-2	IWD-2	IWD-2	IWD-2	IWD-2	IWD-2	
OW Well No.	IWD2-1	IWD2-2	IWD2-3	IWD2-4	IWD2-5	IWD2-6	IWD2-7	IWD2-8	IWD2-9	
Observation time	9:59	9:51	10:07			10:15	10:20	4:40	9:46	
Well head hight (m)	0.67	0.40	0.00	0.42	0.70	0.30	0.60	0.56	0.52	
Water Level (m)	3.34	3.33	7.45				2.46	7.04	5.43	
Water										
Temperatrue (°C)	28.7	27.8	27.7			29.1	29.2	27.8	27.7	
pH	6.14	6.35	6.20			5.62	6.41	7.62	7.15	
E.C (mS/cm)	0.042	0.022	0.033			0.015	0.268	0.090	0.044	
TDS (mg/L)	27	14	21			9	186	58	28	
Turbidty (NTU)	1.4	10.1	89.3			0.0	11.9	14.2	51.4	
Remarks				Dry up	Dry up	Hand Pump Well				
Group No.	IWD-2	IWD-2								
OW Well No.	IWD2-10	IWD2-11								
Observation time	10:35	10:38								
Well head hight (m)	0.60									
Water Level (m)	3.21									
Water										
Temperatrue (°C)	28.9									
pH	6.43									
E.C (mS/cm)	0.059									
TDS (mg/L)	38									
Turbidty (NTU)	4.3									
Remarks		Hand Pump Well, Locked								

Appendix-3

Results of Water Quality Analysis

Test Report

Report No. F11-2009-3876E

Date 17-Mar-10

YACHIYO ENGINEERING Co, Ltd.

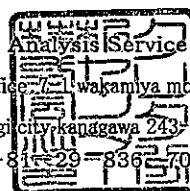


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Examination: The Master Plan Study on Urban Facilities Restoration and Improvement in Montovia in the Republic of Liberia (JICA Project)

Sample name	J-5
Analysis date	23-Feb-10

analyte	analysis results	detection limit	Analysis Method	analyte	analysis results	detection limit	Analysis Method
1 pH(19°C)	7.4	-	Glass Electrode	27 Cyanide	0.001 less	0.001 less	Ion Chromatography
2 Turbidity	29.2	0.2 less	transmitted beam	28 Lead	0.001 less	0.001 less	ICP-MS
3 Color	56.8	0.5 less	transmitted beam	29 Mercury	0.00005 less	0.00005 less	Atomic absorption spectrophotometer
4 Alkalinity-OH	2 less	2 less	Titrimetry	30 Boron	0.1 less	0.1 less	ICP-MS
5 Alkalinity-CO	2 less	2 less	Titrimetry	31 Brium	0.07 less	0.07 less	ICP-MS
6 Alkalinity-HCO	62	2 less	Titrimetry	32 Molybdenum	0.007 less	0.007 less	ICP-MS
7 Calcium	14	1 less	Atomic absorption spectrophotometer	33 Nickel	0.010	0.001 less	ICP-MS
8 Magnesium	4	1 less	Atomic absorption spectrophotometer	34 Flouride	0.32	0.08 less	Ion Chromatography
9 Total Hardness	53	1 less	Atomic absorption spectrophotometer		-blank-		
10 Li	-1.09	-	-				
11 Potassium	6.2	0.1 less	Atomic absorption spectrophotometer				
12 Sodium	10.7	0.1 less	Atomic absorption spectrophotometer				
13 Chlorides	2.2	0.2 less	Ion Chromatography				
14 SO42-	6.5	1.0 less	Ion Chromatography				
15 TDS	171	1 less	gravimetric method				
16 NH4-N	0.08	0.05 less	absorptiometry				
17 NO3-N	0.5 less	0.5 less	Ion Chromatography				
18 NO2-N	0.5 less	0.5 less	Ion Chromatography				
19 Silica	93	2.0 less	absorptiometry				
20 Iron	2.40	0.01 less	Atomic absorption spectrophotometer				
21 Manganese	0.217	0.005 less	ICP-MS				
22 Arsenic	0.007	0.001 less	ICP-MS				
23 Selenium	0.001 less	0.001 less	ICP-MS				
24 Copper	0.01 less	0.01 less	ICP-MS				
25 Caddmium	0.001 less	0.001 less	ICP-MS				
26 Chromium	0.005 less	0.005 less	ICP-MS				

client	SINPEI SUGAWARA
address	Kurita Analysis Service Co. Ltd.

analyst	

Test Report

Report No. F11-2009-3261E

Date 2010/2/26

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Examination: The Master Plan Study on Urban Facilities Restoration and Improvement in Montovia in the Republic of Liberia (JICA Project)

Sample name	J-6
Analysis date	—

analyte	analysis results	detection limit	Analysis Method	analyte	analysis results	detection limit	Analysis Method
1 pH(16°C)	7.7	-	Glass Electrode	27 Cyanide	0.001 less	0.001 less	Ion Chromatography
2 Turbidity	2.6	0.2 less	transmitted beam	28 Lead	0.001 less	0.001 less	ICP-MS
3 Color	42.1	0.5 less	transmitted beam	29 Mercury	0.00005 less	0.00005 less	Atomic absorption spectrophotometer
4 Alkalinity—OH	2 less	2 less	Titrimetry	30 Boron	0.1 less	0.1 less	ICP-MS
5 Alkalinity—CO	2 less	2 less	Titrimetry	31 Brium	0.07 less	0.07 less	ICP-MS
6 Alkalinity—HCO	94	2 less	Titrimetry	32 Molybdenum	0.007 less	0.007 less	ICP-MS
7 Calcium	20.5	1 less	Atomic absorption spectrophotometer	33 Nickel	0.019	0.001 less	ICP-MS
8 Magnesium	7.1	1 less	Atomic absorption spectrophotometer	34 Flouride	0.15	0.08 less	Ion Chromatography
9 Total Hardness	80	1 less	Atomic absorption spectrophotometer		-blank-		
10 Li	-0.46	-	-				
11 Potassium	3.6	0.1 less	Atomic absorption spectrophotometer				
12 Sodium	10.7	0.1 less	Atomic absorption spectrophotometer				
13 Chlorides	2.6	0.2 less	Ion Chromatography				
14 SO ₄ ²⁻	14.9	1.0 less	Ion Chromatography				
15 TDS	206	1 less	gravimetric method				
16 NH ₄ -N	0.07	0.05 less	absorptiometry				
17 NO ₃ -N	0.5 less	0.5 less	Ion Chromatography				
18 NO ₂ -N	0.5 less	0.5 less	Ion Chromatography				
19 Silica	82	2.0 less	absorptiometry				
20 Iron	0.85	0.01 less	Atomic absorption spectrophotometer				
21 Manganese	0.110	0.005 less	ICP-MS				
22 Arsenic	0.011	0.001 less	ICP-MS				
23 Selenium	0.001 less	0.001 less	ICP-MS				
24 Copper	0.01 less	0.01 less	ICP-MS				
25 Caddmium	0.001 less	0.001 less	ICP-MS				
26 Chromium	0.005 less	0.005 less	ICP-MS				

client	SINPEI SUGAWARA
address	Kurita Analysis Service Co. Ltd.

analyst	

Test Report

Report No. F11-2009-3359-1E
Date 2010/2/26

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Examination: The Master Plan Study on Urban Facilities Restoration and Improvement in Montovia in the Republic of Liberia (JICA Project)

Sample name	J-7
Analysis date	2010/1/9

analyte	analysis results	detection limit	Analysis Method	analyte	analysis results	detection limit	Analysis Method
1 pH(16°C)	8.0	-	Glass Electrode	27 Cyanide	0.001 less	0.001 less	Ion Chromatography
2 Turbidity	1.6	0.2 less	transmitted beam	28 Lead	0.002	0.001 less	ICP-MS
3 Color	0.7	0.5 less	transmitted beam	29 Mercury	0.00005 less	0.00005 less	Atomic absorption spectrophotometer
4 Alkalinity--OH	2 less	2 less	Titrimetry	30 Boron	0.2	0.1 less	ICP-MS
5 Alkalinity--CO	2 less	2 less	Titrimetry	31 Brium	0.09	0.07 less	ICP-MS
6 Alkalinity--HCO	161	2 less	Titrimetry	32 Molybdenum	0.007 less	0.007 less	ICP-MS
7 Calcium	19.7	1 less	Atomic absorption spectrophotometer	33 Nickel	0.017	0.001 less	ICP-MS
8 Magnesium	6.5	1 less	Atomic absorption spectrophotometer	34 Flouride	0.53	0.08 less	Ion Chromatography
9 Total Hardness	76	1 less	Atomic absorption spectrophotometer		-blank-		
10 Li	0.05	-	-				
11 Potassium	6.0	0.1 less	Atomic absorption spectrophotometer				
12 Sodium	23.0	0.1 less	Atomic absorption spectrophotometer				
13 Chlorides	1.9	0.2 less	Ion Chromatography				
14 SO ₄ ²⁻	13.7	1.0 less	Ion Chromatography				
15 TDS	212	1 less	gravimetric method				
16 NH ₄ -N	0.12	0.05 less	absorptiometry				
17 NO ₃ -N	0.5 less	0.5 less	Ion Chromatography				
18 NO ₂ -N	0.5 less	0.5 less	Ion Chromatography				
19 Silica	43	2.0 less	absorptiometry				
20 Iron	0.01	0.01 less	Atomic absorption spectrophotometer				
21 Manganese	0.012	0.005 less	ICP-MS				
22 Arsenic	0.017	0.001 less	ICP-MS				
23 Selenium	0.001 less	0.001 less	ICP-MS				
24 Copper	0.10	0.01 less	ICP-MS				
25 Caddmium	0.001 less	0.001 less	ICP-MS				
26 Chromium	0.005 less	0.005 less	ICP-MS				

client	SINPEI SUGAWARA
address	Kurita Analysis Service Co. Ltd.

analyst	

Test Report

Report No. F11-2009-3462E

Date 2010/2/26

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Examination: The Master Plan Study on Urban Facilities Restoration and Improvement in Montovia in the Republic of Liberia (JICA Project)

Sample name	J-8
Analysis date	2010/1/22

analyte	analysis results	detection limit	Analysis Method	analyte	analysis results	detection limit	Analysis Method
1 pH(16°C)	5.2	-	Glass Electrode	27 Cyanide	0.001 less	0.001 less	Ion Chromatography
2 Turbidity	0.4	0.2 less	transmitted beam	28 Lead	0.001 less	0.001 less	ICP-MS
3 Color	0.5 less	0.5 less	transmitted beam	29 Mercury	0.00005 less	0.00005 less	Atomic absorption spectrophotometer
4 Alkalinity-OH	2 less	2 less	Titrimetry	30 Boron	0.1 less	0.1 less	ICP-MS
5 Alkalinity-CO	2 less	2 less	Titrimetry	31 Brium	0.07 less	0.07 less	ICP-MS
6 Alkalinity-HCO	6	2 less	Titrimetry	32 Molybdenum	0.007 less	0.007 less	ICP-MS
7 Calcium	1 less	1 less	Atomic absorption spectrophotometer	33 Nickel	0.001 less	0.001 less	ICP-MS
8 Magnesium	1 less	1 less	Atomic absorption spectrophotometer	34 Flouride	0.08 less	0.08 less	Ion Chromatography
9 Total Hardness	1 less	1 less	Atomic absorption spectrophotometer		-blank-		
10 Li	-5.8 less	-	-				
11 Potassium	0.2	0.1 less	Atomic absorption spectrophotometer				
12 Sodium	1.9	0.1 less	Atomic absorption spectrophotometer				
13 Chlorides	2.7	0.2 less	Ion Chromatography				
14 SO ₄ ²⁻	1.0 less	1.0 less	Ion Chromatography				
15 TDS	16	1 less	gravimetric method				
16 NH ₄ -N	0.05 less	0.05 less	absorptiometry				
17 NO ₃ -N	0.5 less	0.5 less	Ion Chromatography				
18 NO ₂ -N	0.5 less	0.5 less	Ion Chromatography				
19 Silica	13	2.0 less	absorptiometry				
20 Iron	0.01 less	0.01 less	Atomic absorption spectrophotometer				
21 Manganese	0.007	0.005 less	ICP-MS				
22 Arsenic	0.001 less	0.001 less	ICP-MS				
23 Selenium	0.001 less	0.001 less	ICP-MS				
24 Copper	0.01 less	0.01 less	ICP-MS				
25 Caddmium	0.001 less	0.001 less	ICP-MS				
26 Chromium	0.005 less	0.005 less	ICP-MS				

client	SINPEI SUGAWARA
address	Kurita Analysis Service Co. Ltd.

analyst	

Test Report

Report No. F11-2009-3359-2E

Date 2010/2/26

YACHIYO ENGINEERING Co, Ltd.



Kurita Analysis Service Co. Ltd.

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Examination: The Master Plan Study on Urban Facilities Restoration and Improvement in Montovia in the Republic of Liberia (JICA Project)

Sample name	J-9
Analysis date	2010/1/11

analyte	analysis results	detection limit	Analysis Method	analyte	analysis results	detection limit	Analysis Method
1 pH(16°C)	8.0	-	Glass Electrode	27 Cyanide	0.001 less	0.001 less	Ion Chromatography
2 Turbidity	2.0	0.2 less	transmitted beam	28 Lead	0.001 less	0.001 less	ICP-MS
3 Color	16.5	0.5 less	transmitted beam	29 Mercury	0.00005 less	0.00005 less	Atomic absorption spectrophotometer
4 Alkalinity-OH	2 less	2 less	Titrimetry	30 Boron	0.1 less	0.1 less	ICP-MS
5 Alkalinity-CO	2 less	2 less	Titrimetry	31 Brium	0.07 less	0.07 less	ICP-MS
6 Alkalinity-HCO	143	2 less	Titrimetry	32 Molybdenum	0.007 less	0.007 less	ICP-MS
7 Calcium	44.5	1 less	Atomic absorption spectrophotometer	33 Nickel	0.033	0.001 less	ICP-MS
8 Magnesium	5.2	1 less	Atomic absorption spectrophotometer	34 Flouride	0.15	0.08 less	Ion Chromatography
9 Total Hardness	133	1 less	Atomic absorption spectrophotometer		-blank-		
10 Li	0.35	-	-				
11 Potassium	3.1	0.1 less	Atomic absorption spectrophotometer				
12 Sodium	7.4	0.1 less	Atomic absorption spectrophotometer				
13 Chlorides	9.2	0.2 less	Ion Chromatography				
14 SO ₄ ²⁻	1.0 less	1.0 less	Ion Chromatography				
15 TDS	214	1 less	gravimetric method				
16 NH ₄ -N	0.12	0.05 less	absorptiometry				
17 NO ₃ -N	0.5 less	0.5 less	Ion Chromatography				
18 NO ₂ -N	0.5 less	0.5 less	Ion Chromatography				
19 Silica	73	2.0 less	absorptiometry				
20 Iron	0.53	0.01 less	Atomic absorption spectrophotometer				
21 Manganese	0.104	0.005 less	ICP-MS				
22 Arsenic	0.005	0.001 less	ICP-MS				
23 Selenium	0.001 less	0.001 less	ICP-MS				
24 Copper	0.01 less	0.01 less	ICP-MS				
25 Caddmium	0.001 less	0.001 less	ICP-MS				
26 Chromium	0.005 less	0.005 less	ICP-MS				

client	SINPEI SUGAWARA
address	Kurita Analysis Service Co. Ltd.

analyst	

Test Report

Report No. F11-2009-3621E

Date 2010/3/1

YACHIYO ENGINEERING Co, Ltd.

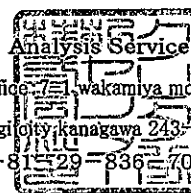


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Examination: The Master Plan Study on Urban Facilities Restoration and Improvement in Montovia in the Republic of Liberia (JICA Project)

Sample name	J-11
Analysis date	2010/2/3

analyte	analysis results	detection limit	Analysis Method	analyte	analysis results	detection limit	Analysis Method
1 pH(16°C)	8.1	-	Glass Electrode	27 Cyanide	0.001 less	0.001 less	Ion Chromatography
2 Turbidity	0.2 less	0.2 less	transmitted beam	28 Lead	0.001 less	0.001 less	ICP-MS
3 Color	1.2	0.5 less	transmitted beam	29 Mercury	0.00005 less	0.00005 less	Atomic absorption spectrophotometer
4 Alkalinity-OH	2 less	2 less	Titrimetry	30 Boron	0.1 less	0.1 less	ICP-MS
5 Alkalinity-CO	2 less	2 less	Titrimetry	31 Brium	0.07 less	0.07 less	ICP-MS
6 Alkalinity-HCO	87	2 less	Titrimetry	32 Molybdenum	0.007 less	0.007 less	ICP-MS
7 Calcium	2	1 less	Atomic absorption spectrophotometer	33 Nickel	0.003	0.001 less	ICP-MS
8 Magnesium	1	1 less	Atomic absorption spectrophotometer	34 Flouride	0.18	0.08 less	Ion Chromatography
9 Total Hardness	10	1 less	Atomic absorption spectrophotometer		-blank-		
10 Li	-1.1	-	-				
11 Potassium	2.4	0.1 less	Atomic absorption spectrophotometer				
12 Sodium	1.9	0.1 less	Atomic absorption spectrophotometer				
13 Chlorides	3.6	0.2 less	Ion Chromatography				
14 SO ₄ ²⁻	1.0 less	1.0 less	Ion Chromatography				
15 TDS	169	1 less	gravimetric method				
16 NH ₄ -N	0.10	0.05 less	absorptiometry				
17 NO ₃ -N	0.5 less	0.5 less	Ion Chromatography				
18 NO ₂ -N	0.5 less	0.5 less	Ion Chromatography				
19 Silica	65	2.0 less	absorptiometry				
20 Iron	0.08	0.01 less	Atomic absorption spectrophotometer				
21 Manganese	0.035	0.005 less	ICP-MS				
22 Arsenic	0.001 less	0.001 less	ICP-MS				
23 Selenium	0.001 less	0.001 less	ICP-MS				
24 Copper	0.01 less	0.01 less	ICP-MS				
25 Caddmium	0.001 less	0.001 less	ICP-MS				
26 Chromium	0.005 less	0.005 less	ICP-MS				

client	SINPEI SUGAWARA
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