

Kilwa District, Lindi Region

Division	Ward	Village	Population 1988	Estimated Population 2000	Public Water Scheme			Water committee	Water fund	Water source for domestic use as of 2000	Remarks (accessibility)	
					name of scheme covered	water source	status					
Pwani	Masoko	Kilwa Masoko (urban)	7,511	10,462	Kilwa Masoko	hand pumps bore hole	7/11 operating 1/3 operating			spring	good	
		Mkwanyule/Mtanga	976	1,359	Kilwa Masoko	spring	operating	exist	exist		good	
		Kilwa Kisiwani	636	886	Kisiwani	—	—	none	none		good	
		Mpara	1,151	1,603	Kilwa Masoko	hand pump, (BH)	not operating	exist	exist		good	
		<i>Bsangwe</i>				—	—					
		<i>Lipindi</i>				—	—					
		<i>Mtanga</i>				—	—					
		Masoko Mjini				—	—					
	Mhazi Mneoga											
	Kivinje	Kiliwa Kivinje (urban)	Kiliwa Kivinje	7,212	10,046	Kiliwa Kivinje	hand pumps	2/7 operating	exist	exist	spring	good
			Magengeni				—	—				
			Mgongeni				—	—				
		Singino	Singino	4,645	6,470	Singino	—	—	exist	none		good
			<i>Matandu *</i>			Singino	hand pump	50% operating			hand pump	good
			<i>Nangurukuru *</i>			Nangurukuru	spring	operating	exist	exist	spring	good
	Kikole	Migeregere	1,355	1,887	Migeregere	hand pump, (BH)	not operating	exist	none		poor	
		Kikole	1,593	2,219	Ruhatwa	hand pump	not operating	exist	none		poor	
		Ruhatwe	1,732	2,412	Ruhatwa	hand pump (BH)	2/5 operating not operating	exist	none		poor	
		<i>Kisangi-kimbagambara</i>				—	—				good	
		Nakisagi				—	—					
	Songosongo	Songosongo	1,491	2,077	Songosongo			exist	exist	1 cave	good	
Miteja	Miteja	Miteja	3,080	4,290	Miteja	hand pump	2/7 operating	exist	none		good	
		Mtoni	2,010	2,800	Mtoni	hand pump	not operating	exist	none		good	
		Mtukwao	1,245	1,734	Mtukwao	hand pump	not operating	exist	none		good	
		Tilawandu			Tilawandu	hand pump	not operating	exist	none		good	
	Tingi	Njia Nne/Tingi *	2,601	3,623	Tingi	hand pump BH	not operating 1/3 operating	exist	exist		good	
		Mtandango	818	1,139	Mtandango	hand pump	not operating	none	none		good	
		Njianne				—	—	exist	none			
		<i>Matapatapa</i>				—	—					
	Kinjumbi	Somanga Simu	667	929	Somanga Simu	hand pump	not operating	exist	none	dug well	good	
		Somanga Ndumbo *	2,188	3,048	Somangandumbo	hand pump	not operating	exist	none	dug well	good	
		Kinjumbi	4,817	6,710	Kinjumbi	hand pump	4/14 operating	exist	none		good	
		Malendego	323	450	Malendego	—	—	none	none		good	
		Mtyalambuko	2,918	4,064	Mtyalambuko	—	—	none	none		good	

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Miteja	Kinjumbi	Tungutini									
		Liombu									
	Mingumbi	Mingumbi *	3,728	5,193	Mingumbi	hand pump	3/14 operating	exist	exist	hand pump	good
		Chapita	2,246	3,128	Chapita	hand pump	not operating	exist	none		good
		Kililima	5,343	7,442	Kililima	hand pump	2/9 operating	exist	none		good
	Nampungo				—	—					
	Naipuli Nangombi				—	—					
	Nambomo				—	—					
Kipatimu	Chumo	Chumo	6,029	8,398	Chumo	hand pump	5/27 operating	exist	exist		good
		Namayuni	4,723	6,579	Namayuni	hand pump	1/4 operating				good
		Ingirito	2,556	3,560	Ingirito	—	—	none	none		poor
		Kinywanyu	1,659	2,311	Kinywanyu	hand pump	2/8 operating	none	none		good
		Hongwe				—	—				
		Nasema				—	—				
	Kipatimu	Kipatimu	4,077	5,679	Kipatimu	hand pump	3/19 operating	exist	exist	1 well	good
		Kibata	1,323	1,843				exist	none		
		Nandete	2,537	3,534	Nandete	hand pump	2/10 operating	exist	none		good
		Mkarango	822	1,145	Mkarango	hand pump	not operating	none	none		good
		Mtondo wa Kimwaga	2,908	4,051	Mtondo Kimwaga	hand pump	2/12 operating	none	none		good
		Mkongo				—	—	none	none		
		Hanga	1,961	2,731		—	—	none	none		
		Mwengei	2,208	3,076		—	—	none	none		
		Nandembo	944	1,315		—	—	none	none		
	Kandawale	Kandawale	1,752	2,440	Kandawale	hand pump	not operating	none	none		good
		Mtumbei Mpopera	1,375	1,915	Mtumbei	—	—	none	none		good
		Ngarambi	763	1,063	Ngarambi	—	—	none	none		good
		Namatewa	642	894	Namatewa	—	—	exist	exist		poor
Njinjo	Njinjo	Njinjo	3,809	5,306	Njinjo	hand pump	4/16 operating	none	none	1 well	poor
		Kipindimbi	2,767	3,854	Kipindimbi	hand pump	3/13 operating	exist	exist		good
		Kisima Mkika	765	1,066	Kisimamkika	hand pump	2/3 operating	none	none		good
	Miguruwe	Zinga Miguruwe	1,191	1,659	Zinga Miguruwe	hand pump	not operating	none	none		poor
		Zinga Kibaoni	751	1,046	Zinga Kibaoni	hand pump	not operating	none	none		poor
		Nakingombe	495	689	Nakingombe	hand pump	not operating	none	none		poor
	Mitole	Mitole	2,327	3,241	Mitole	hand pump	4/11 operating	none	none		good
		Mkoma	301	419	Mkoma	—	—	exist	none		
		Ngea	354	493	Ngea	—	—	exist	none		good
Nanjirinji	Nanjirinji	Nanjirinji A, B	3,050	4,248	Nanjirinji	hand pump	4/9 operating	exist	none		poor
		Nakiu	1,277	1,779	Nakiu	hand pump	2/4 operating	exist	exist		good
	Likawage	Likawage	2,077	2,893	Likawage	hand pump	2/5 operating	exist	exist	1 well	good
		Mburju				—	—	none	none		
		Liwiti	225	313	Liwiti	—	—	none	none		
	Nainokwe	451	628	Nainokwe	hand pump	not operating	none	none		good	

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Pande	Pande Mikoma	Mikoma	2,547	3,548		—	—	exist	none			
		<i>Nakimwera</i>				—	—					
		Malalani	1,031	1,436	Malalani	hand pump	operating					good
		<i>Chasi</i>				—	—					
		<i>Sanjakati</i>				—	—					
		Pande Plot	3,485	4,854	Pande Plot	hand pump, (BH)	not operating	exist	exist			good
		<i>Mbilindinyi</i>				—	—					
		<i>Kihiva</i>				—	—					
		<i>Mpotola</i>				—	—					
		<i>Msiteteme</i>				—	—					
		Namwedo	999	1,391		—	—					
		<i>Makote</i>				—	—					
		<i>Njenga</i>				—	—					
		Mtitimila	801	1,116		—	—	exist	exist			
	Nangoo	572	797		—	—						
	Songomnara			Songomnara	—	—	exist	exist	9 Reservoir		poor	
	Lihimalyoao	Lihimalyoao	2,622	3,652	Lihimalyoao	hand pump	not operating	exist	exist			good
		<i>Ngalwe</i>				—	—					
		<i>Namdalombe</i>				—	—					
		<i>Mwembe Mtungi</i>				—	—					
		Ruyaya	1,139	1,587		—	—					
		<i>Mkala</i>				—	—					
		Rushungi	944	1,315	Rushungi	hand pump	2/2 operating	exist	none			good
		Kisongo	1,717	2,392	Kisongo	hand pump	1/3 operating	exist	exist			good
	Mtandi	Namakongoro	1,053	1,467	Namakongoro	—	—	exist	none			good
		Kiranjeranje	2,196	3,059	Kiranjeranje	BH	operating	exist	exist			good
		Mbwenkuru	1,185	1,651	Mbwenkuru	hand pump	not operating	exist	none			good
		Makangaga	1,526	2,126	Makangaga	hand pump	not operating	exist	none			poor
		Mtandi	1,427	1,988	Kiranjeranje	hand pump	not operating	exist	none			good
		Kiswera	862	1,201	Kiswera	—	—	none	none			poor
Mandawa		Mandawa *	4,141	5,768	Mandawa	hand pump	not operating	exist	none	river		good
	Hoteli Tatu	1,032	1,437				exist	none				
	Kiwawa *	2,109	2,938	Kiwawa	spring	not operating	exist	none	spring		good	
	Mavuji *	2,599	3,620		hand pump	2/3 operating	exist	exist	hand pump			
	<i>Mchakama</i>				—	—	none	none				
	Kingongo				—	—	none	none				
	Mkondam				—	—	none	none				
Kilwa Total		140,118	195,169									

Population 2000 is projected assuming that the growth rate is the same as in 1978 - 1988 (2.8%).

Villages for sampling survey are marked with an asterisk * and subvillages are written in *Italic*.

Lindi Rural District, Lindi Region

Division	Ward	Village	Population 1988	Estimated Population 2000	Public Water Scheme			Water committee	Water fund	Water source for domestic use as of 2000	Remarks (accessibility)
					name of scheme covered	water source	status				
Lindi Urban	Mtanda	Kinengene	2,803	3,312	Kinengene	(BH)	not operating	exist	none	dug well	
Mtama	Mtama	Mtama (urban)									
		Masasi			Mtama	hand pump (spring)	3/7 operating not operating	exist	exist	spring	easily
		Mihogeni			Mtama	hand pump	2/14 operating	exist	exist		easily
		Majengo			Mtama	hand pump spring	3/8 operating not operating	exist	exist		easily
		Makonde			Mtama	hand pump	2/9 operating	exist	exist		easily
		Mpenda	797	942	Mtama	hand pump BH	1/4 operating operating	exist	exist		easily
		Mbalala	475	561	Nyengedi	—	—	none	none		easily
		Mkwajuni			Mtama	hand pump	operating				easily
		Nangaka	383	453	Nang'aka	—	—	none	none		easily
			Chiguruwe								
	Nyangao	Nyangao	4,923	5,817	Nyangao	hand pump BH	1/23 operating 1/2 operating	exist	exist		easily
		Mahiwa	1,525	1,802	Mahiwa	hand pump spring	not operating operating	exist	exist		easily
		Mahiwa secondary			Mahiwa secondary	hand pump	2/8 operating				easily
		Chiwerere	945	1,117	Chiwerere	hand pump	not operating	exist	exist		easily
		Namangale	3,109	3,673	Namangale	hand pump	2/6 operating	exist	exist		easily
		Mawilo	427	505	Mawilo	hand pump	operating	exist	none		
		Mnamba	901	1,065	Mnamba	—	—				easily
		Nyengedi	Nyengedi *	3,563	4,210	Nyengedi	hand pump (BH)	not operating	exist	none	stream
	Kilimanjaro		946	1,118	Kilimanjaro	river	not operating	exist	exist		not accessible in rain season
	Mtumbya		1,159	1,369	Mtumbya	river	not operating	exist	exist		rain season
	Luwale		832	983	Nyengedi	BH	not operating	none	none		easily
	Mtua	Longa	2,235	2,641	Muta	hand pump	5/6 operating	exist	none		easily
		Kilimahewa (Mtua) *	3,775	4,460	Muta	hand pump	not operating	exist	none	stream	easily
	Namupa	Namupa	2,158	2,550	Namupa	hand pump	not operating	exist	exist		
		Ndawa	511	604	Ndawa	—	—	none	none		easily
		Mihima	1,291	1,525	Mihima	—	—	exist	exist		not accessible in rain season
		Namboka			Namboka	hand pump	operating				easily
		Hamamba									
Sudi	Sudi	Sudi	2,209	2,610	Sudi	hand pump	operating	exist	exist		easily
		Madangwa *	2,211	2,612	Madangwa	hand pump	not operating	exist	exist	spring	easily
		Pangatena	1,424	1,683	Pangatena	spring	not operating	exist	exist		easily
		Mtegu	966	1,141	Madangwa	hand pump	operating	exist	exist		easily
		Njonjo	918	1,085	Njonjo	hand pump	1/3 operating	exist	exist		easily
		Hingawali *	2,354	2,781	Hingawali	—	—	exist	none	Traditional pits	easily

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Sudi	Nachunyu	Nachunyu *	3,236	3,824	Nachunyu	spring hand pump	3/15 operating not operating	exist	exist	dug well	easily	
		Pangaboi	728	860	Pangaboi	hand pump (BH)	1/3 operating not operating	exist	exist		easily	
		Nampungu	690	815	Simana			exist	exist			
		Mmumbu	828	978	Mmumbu		operating	exist	exist	hand dug wells	easily	
		Navanga	1,713	2,024	Navanga			exist	exist		easily	
		<i>Mongomongo</i>										
		Shuka	711	840	Shuka		operating	none	none	hand dug wells	easily	
		Mnali	1,582	1,869	Mnali			none	none		easily	
Nyangamara	Nyangamara	Nyangamara *	3,407	4,026	Kitere Nyangamara	BH	operating	exist	exist		Planned to supply to Nahukahuka and Litipu.	
		Litipu	998	1,179	Kitere Nyangamara	hand pump	not operating	exist	exist		easily	
		Madingo	1,812	2,141	Madingo			exist	exist		not accessible in rain season	
	Nahukahuka	Nahukahuka	1,866	2,205	Kitere Nyangamara	hand pump BH	not operating operating	exist	exist	rain water	easily	
		Linoha	973	1,150	Kitere Nyangamara	hand pump BH	2/4 operating operating	exist	exist	rain water	easily	
		Lipome	553	653	Kitere Nyangamara	BH	operating	exist	exist		easily	
		Mbawala	597	705	Kitere Nyangamara	hand pump BH	1/2 operating operating	exist	exist		easily	
	Mandwanga	Mandwanga	932	1,101	Mandwanga	hand pump	not operating	exist	exist		easily	
		Lindwandwali	690	815	Lindwandwali			exist	exist		easily	
		Chiuta	1,738	2,054	Chiuta			exist	exist		easily	
		Malungo	1,497	1,769	Malungo	hand pump	not operating	exist	exist		easily	
			1,303	1,540				none	none		easily	
	Mingoyo	Mingoyo	Mnazimmoja *			Mnazimmoja	hand pump BH	1/2 operating not operating	exist	exist		easily
			Tulieni *						exist	exist		
			Mingoyo			Mnazimmoja			exist	exist		easily
			Mkwaya	1,674	1,978	Mnazimmoja	BH	operating	exist	exist		easily
Ruaha			822	971	Ruaha	hand pump	not operating	exist	exist			
Kiwalala		Kiwalala *	1,989	2,350	Kiwalala	spring	not operating	exist	none	dug well	easily	
		Narunyu	2,241	2,648	Narunyu	hand pump	3/18 operating	none	none		easily	
		Mmangawanga	673	795	Mmangawanga			none	none		easily	
		Mahumbika	2,512	2,968	Mnazimmoja	hand pump	operating	none	none		easily	
		Ruo	2,051	2,423	Ruo	hand pump	operating	none	none		not accessible in rain season	
Mnolela		Mpembe	1,354	1,600	Mpembe			none	none			
		Mnolela *	1,178	1,392	Mnazimmoja	(BH)	not operating	exist	exist		easily	
		Namunda	1,305	1,542	Mnazimmoja	BH	operating	exist	exist		easily	
		Simana	2,186	2,583	Simana	spring	operating	exist	exist		easily	
		Ruhokwe	1,679	1,984	Mnazimmoja	BH	operating	exist	exist		easily	
Zingatia *	2,305	2,723	Mnazimmoja	(BH)	not operating	exist	exist	river	easily			

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Milola	Milola	Milola – East (Mashariki)	2,666	3,150	Milola	hand pump	not operating	exist	exist		easily
		Milola – West (Chikwikwi)	2,308	2,727	Milola	spring	operating	exist	exist		easily
		Lageza Mwendo	623	736	Milola	spring	operating	exist	exist		easily
		Namtamba	1,084	1,281	Namtamba	—	—	exist	exist		not accessible
	Kiwawa	Kiwawa	1,776	2,098	Kiwawa	hand pump	not operating	none	none		not accessible in
		Mputwa	805	951	Mputwa	—	—	none	none	(stream river	rain season
	Rutamba	Rutamba ya Sasa *	3,666	4,332	Rutamba	hand pump	12/15	none	none	hand pump	easily
		Rutamba ya Zamani	2,424	2,864	Rutamba	hand pump	12/19	exist	exist		easily
		Ruhoma	731	864	Ruhoma	hand pump	operating	exist	exist		not easily
		Ruchemi	548	647		—	—	none	none		
Chitonji					spring	operating	none	none			
Kinyope		2,190	2,588	Milola	hand pump	not operating	exist	exist		easily	
Rondo	Mnara	Makangara	858	1,014	Makangara	—	—	none	none		easily
		Mnara	1,540	1,820	Rondo	stream river	operating	exist	exist	rain water	easily
		<i>Rondo Anglican College</i>									
		Mtene	2,437	2,879	Rondo	stream river	operating	exist	exist	rain water	easily
	Chiponda	Mtakuja	822	971	Rondo	stream river	operating	exist	exist	rain water	easily
		Mkanga II *	1,727	2,041	Mkanga	(spring)	not operating	exist	exist	spring	
		Rondo-Chiponda	1,308	1,545	Rondo	stream river	not operating	none	none	rain water	easily
		Ntauna	1,050	1,241	Rondo	stream river	not operating	exist	exist	rain water	easily
		Chiodya *	1,677	1,981	Rondo	stream river	not operating	exist	exist	rain water	easily
		Mihanga			Rondo	—	—	none	none		easily
Ngapa	Ngapa	Ngapa	2,733	3,229	Ngapa	hand pump	4/8 operating	exist	none		easily
		Mbuyuni	2,706	3,197	Mbuyuni	hand pump	4/8 operating	exist	none		easily
		Mkupama	1,797	2,123	Mkupama	hand pump	3/8 operating	none	none		easily
	Tandangongoro	Tandangongoro	747	883	Tandangongoro	hand pump	1/3 operating	exist	exist		easily
		Narunyu	1,181	1,395	Narunyu	hand pump	3/18 operating	exist	none		easily
		Mkanga	681	805	Mkanga	stream	not operating	none	none	(spring)	not accessible in rain season
Mchinga	Mchinga	Nandambi	945	1,117	Nandambi	—	—	none	none		easily
		Mchinga I	2,103	2,485	Mchinga I	hand pump	2/8 operating	exist	exist		easily
		Mchinga II *	2,254	2,663	Mchinga II	hand pump	10/14	exist	exist	hand pump	easily
		Mtumbikile	901	1,065	Mtumbikile	hand pump	3/6 operating	exist	none		easily
		Kilangala	3,462	4,091	Kilangala	hand pump	not operating	exist	none		easily
		Mnimbila	1,367	1,615	Mnimbila	hand pump	not operating	none	none		easily
		<i>Likahaku</i>				—	—				
	Ruvu	255	301	Ruvu	hand pump	not operating	exist	none		not accessible in rain season. New scheme under construction covering Ruvu, Maloo, Kilolombwani.	
	Kilolombwani	Maloo			Kilolombwani /Maloo	hand pump (BH)	not operating	exist	exist		
		Kilolombwani *	1,255	1,483	Kilolombwani /Maloo	hand pump (BH)	not operating	exist	exist	river	
Kijiweni		1,561	1,844	Kijiweni	hand pump	5/6 operating	exist	exist			
Mvuleni		2,438	2,881	Mvuleni	hand pump	2/11 operating	exist	exist		not accessible in rain season	
Dimba		758	896	Dimba	—	—	exist	none			
Mnangole	560	662	Mnang'ole	—	—	exist	none				

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Mchinga	Mbanja	Likongo *	1,098	1,297	Kikwetu	river	not operating	exist	none	stream	easily
		<i>Mitoto</i>				—	—				
		Mitwero				spring	operating	exist	exist		
		Mbanja	1,490	1,761	Kikwetu	hand pump, stream river	operating	exist	exist		easily
		<i>Kikwetu</i>			Kikwetu	stream river		exist	none		easily
Mipingo	Mipingo	Mipingo	644	761	Mipingo	(BH)	not operating	exist	none		
		Matapwa	1,110	1,312	Mipingo	hand pump	6/11 operating	none	none		not accessible in rain season
		Lihimilo	943	1,114	Lihimilo	—	—				
		Namkongo	1,885	2,227	Namkongo	(BH)	not operating	exist	exist		not easily not easily
		Mnyangara	1,762	2,082	Mnyangala	—	—	exist	exist		
	Kitomanga	Kitomanga	2,243	2,650	Kitomanga	hand pump (BH)	operating not operating	exist	exist		easily
		Mkuwajuni	1,485	1,755	Mkuwajuni			exist	exist		easily
Nangaru	Matimba	Likwaya	494	584	Likwaya	—	—	exist	none		easily
		Moka	1,088	1,286	Moka	hand pump	3/6 operating	exist	none		easily
		Kikomolela	2,433	2,875	Kikomolela	hand pump	7/10 operating	exist	none		not accessible in rain season
		Matimba	542	640	Matimba	hand pump	4/6 operating	exist	none		
	Chikonji	Nanyanje	1,041	1,230	Nanyanje	hand pump	operating	exist	none		easily
		Jangwani	677	800	Nanyanje	hand pump	2/3 operating	exist	none		easily
		Chikonji *	3,068	3,625	Chikonji	hand pump (BH)	not operating	exist	exist	dug well	easily
			<i>Mwiwi</i>								
	Nangaru	Mkumbamosi	2,080	2,458	Nangaru	hand pump	4/12 operating	exist	exist		not accessible in rain season
		Muungano	2,243	2,650	Nangaru	hand pump	4/8 operating	exist	exist		
Makumba		545	644	Makumba	hand pump	1/3 operating	exist	exist		not accessible in rain season	
Nangaru				—	—	—	exist	exist			
Lindi Rural Total			172,675	204,026							

Population 2000 is projected assuming that the growth rate is the same as in 1978 - 1988 (1.4%).

Villages for sampling survey are marked with an asterisk * and subvillages are written in *Italic*.

Ruangwa District, Lindi Region

Division	Ward	Village	Population 1988	Estimated Population 2000	Public Water Scheme			Water committee	Water fund	Water source for domestic use as of 2000	Remarks (accessibility)
					name of scheme covered	water source	status				
Ruangwa	Ruangwa	Ruangwa *	6,539	7,726		BH	operating	exist	exist	BH	
		<i>Kilimahewa</i>			Ruangwa			exist	exist		easily
		<i>Nachingwea</i>			Ruangwa	hand pump	5/18 operating	exist	exist		easily
		<i>Dodoma</i>			Ruangwa		1/2 operating	exist	exist		easily
		<i>Likangara</i>			Ruangwa			exist	exist		easily
		<i>Mchangani</i>			Ruangwa			exist	exist		easily
		Mandarawe	958	1,132	Mandarawe	hand pump	2/6 operating	exist	exist	Natural spring without	easily
		Nachinyimba	900	1,063	Nachinyimba	hand pump	not operating	exist	exist		easily
	Nandenje	863	1,020	Nandenje	hand pump	not operating	exist	exist		easily	
	Mbekenyerera	Mbekenyerera	2,132	2,519	Mbekenyerera	hand pump	5/7 operating	exist	exist		easily
		Mkutingome	1,574	1,860	Mkutingome	hand pump	2/3 operating	exist	exist		easily
		Namikulo	1,895	2,239	Namikulo	hand pump	2/7 operating	exist	exist		easily
		Namilema	862	1,019	Namilema	hand pump	4/8 operating	exist	exist		easily
		Chunyu	1,194	1,411	Chunyu	hand pump	3/9 operating	exist	exist		easily
		Naunambe	2,039	2,409	Naunambe	hand pump	5/7 operating	exist	exist		easily
	Malolo	Nangumbu	4,944	5,842	Nangumbu	hand pump	10/21 operating	exist	exist		easily
		Malolo	1,470	1,737	Malolo	hand pump	4/6 operating	exist	exist		easily
		Nanganga	968	1,144	Nanganga	hand pump	not operating	none	none	(stream river)	easily
		Michenga	2,616	3,091	Michenga	hand pump (BH)	2/9 operating not operating	exist	exist	spring	easily
	Likunja	Likunja	2,095	2,475	Likunja	hand dug well	operating	exist	none		easily
		<i>Mpara</i>			Mpara	hand pump	5/14 operating				difficult with rains
		<i>Mnawa</i>	574	678	Mnawa	hand pump	1/3 operating				easily
		Kitandi *	2,227	2,631	Kitandi	hand pump	1/2 operating	exist	none	hand pump	easily
		Chilangalile *	498	588	Chilangalile	(BH)	4/10 operating	exist	none	river	easily
		<i>Mtimbo-Lindi</i>	359	424	Mtimbo-Lindi	hand pump	not operating	exist	none		easily
		Mitope	1,049	1,239	Mkowe	hand pump	1/3 operating	exist	none	spring	easily
	Makanjiro	Makanjiro	856	1,011	Makanjiro	hand pump	not operating	exist	exist		easily
		<i>Mbangara</i>	425	502	Mbangara	BH	operating	none	none		with difficult
		<i>Chikoko</i>			Chinokole						
		Chinokole	419	495	/ Chikoko	hand pump	2/4 operating	none	none		easily

Ruangwa District, Lindi Region

Ruangwa	Narun'gombe	Narun'gombe	1,761	2,081	Narungombe	hand pump	2/4 operating	exist	none		easily
		<i>Nachiungo</i>				—	—	exist			
		Machang'anja	838	990	Machnag'anja	—	—	exist	none		difficult with rains
		Liuguru	1,612	1,905	Liuguru	hand pump (BH)	not operating	exist	none		difficult with rains
	Namichiga	Mihewe	1,102	1,302	Mihewe	hand pump	not operating	exist	none		easily
		Namichiga	2,218	2,621	Namichiga	hand pump	1/9 operating	exist	none		easily
		Nandandara	925	1,093	Nandandara	hand pump	1/3 operating	exist	none		with difficult
Matambalale		2,276	2,689	Matambalale	hand pump	3/6 operating	exist			easily	
Mnacho	Mnacho	Ngau	2,445	2,889	Mnacho	spring	operating	exist	exist		easily
		Nandagala	3,211	3,794	Mnacho	spring	operating	exist	exist		easily
		Namahema	1,850	2,186	Namahema	hand pump	2/5 operating	exist	exist		easily
		Chimbila A	2,692	3,181	Mnacho	hand pump	2/4 operating	none	none		easily
		<i>Chimbila B</i>			Mnacho			none	none		easily
		Manokwe	609	720				none	none		
	Luchelegwa	Luchelegwa *	1,608	1,900	Luchelegwa	hand pump	operating	exist	exist	hand pump	easily
		Chinongwe *	2,984	3,526	Chinongwe	hand pump	not operating	exist	exist	Traditional well	easily
		Litama	746	881	Litama	hand pump	not operating	exist	exist		easily
		Nandanga	1,020	1,205	Nandanga	hand pump	not operating	exist	exist		
		Likwachu			Likwachu	hand pump	not operating	exist	exist		easily
		Ipingo			Ipingo	—	—	exist	none		easily
	Nkowe	Nkowe	3,197	3,777	Nkowe	hand pump	3/8 operating	exist	exist		easily
		Kipindimbi	1,358	1,605	Kipindimbi	hand pump	2/4 operating	exist	exist		difficult during rains
		Chienjele	2,536	2,996	Chienjele	hand pump	1/2 operating	exist	exist		easily
Mibure		1,492	1,763	Mibure	hand pump	operating	exist	exist		easily	
Namakuku		1,127	1,332	Chienjele	hand pump	1/3 operating	exist	exist		easily	
Ngimbwa		827	977	Ngimbwa			exist	exist		easily	
Mandawa	Mandawa	Nahanga	1,609	1,901	Mandawa	spring	operating	exist	none		easily
		Lichwachwa	385	455	Lichwachwa	(spring)	not operating	exist	none	spring	with difficult
		Mchichili (Mandawa) *	2,242	2,649	Mandawa	(spring)	operating	exist	exist	spring	easily
		Chikundi	745	880	Mandawa	spring	operating	exist	exist		easily
		Chibula/Mihuru	1,549	1,830	Lichwachwa	—	—	exist	exist		easily
	Mtondo	Mtondo	1,271	1,502	Mandawa	spring	operating	exist	exist		difficult with rains
		Muhuru						exist	none		
	Nambilanje	Mkaranga	1,051	1,242	Mkaranga	hand pump	2/6 operating	exist	none		difficult with rains
		Nanjuru	721	852	Nanjuru	hand pump	operating	exist	none		difficult with rains
		Nambilanje	1,070	1,264	Nambilanje	—	—	exist	none		easily
Rwanga Total		86,533	102,244								

Population 2000 is projected assuming that the growth rate is same as in 1978 - 1988 (1.4%).

Villages for sampling survey are marked with an asterisk * and subvillages are written in *Italic*.

Nachingwea District, Lindi Region

Division	Ward	Village	Population 1988	Estimated Population 2000	Public Water Scheme			Water committee	Water fund (TShs)	Water source for domestic use as of 2000	Remarks (accessibility)	
					name of scheme covered	water source	status					
Kilimarondo	Kilimarondo	Kilimarondo	1,279	1,358	Kilimarondo	hand pump (BH)	7/10 operating not operating	exist	10,000		fair	
		<i>Sebuleni</i>				—	—					
		<i>Niapeje</i>				—	—					
		<i>Namakono</i>				—	—					
		<i>Anuru</i>				—	—					
		Nanjihi	867	920	Nanjihi	hand pump (BH)	operating not operating	exist	none		fair	
		Namatunu	824	875	Namatunu	—	—	exist	none		fair	
		Kiegei	Kiegei	2,058	2,185	Kiegei	hand pump (BH)	5/8 operating not operating	exist	none		fair
			<i>Itula</i> <i>Namanga</i>				— —	— —				
		Matekwe	Matekwe	2,986	3,170	Matekwe	hand pump (BH)	1/6 operating not operating	exist	47,238		fair
			<i>Majonanga</i>									
		Mbondo	Mbondo	1,347	1,430	Mbondo	hand pump (BH)	operating not operating	exist	10,000		fair
			Chimbendenga	1,353	1,436	Chimbendenga	hand pump (BH)	operating not operating	exist	34,752		fair
			Nakalonji	615	653	Nahimba	stream river	not operating	exist	7,000		fair
	Nahimba		689	731	Nahimba	hand pump	3/4 operating	exist	6,000		fair	
Lionja	Lionja	Lionja A	2,585	2,744	Lionja	hand pump (BH)	5/7 operating not operating	exist	91,015		OK	
		Lionja B	1,686	1,790	Lionja	(BH)	not operating	exist	81,922		OK	
		Ngunichile	2,530	2,686		—	—	exist	99,740		OK	
	Nditi	Nditi	1,998	2,121	Nditi	hand pump	operating	exist	80,000		fair	
		<i>Mianzini</i> <i>Mtamailulu</i>				— —	— —					
		Namanja	821	872	Namanja			exist	30,000		fair	
	Namikango	Namikango *	1,841	1,955	Namikango	BH	operating	exist	exist	BH	OK	
		Nangunde	1,026	1,089	Namikango		operating	exist	exist			
Mnero	Namapwia	Namapwia	1,246	1,323	Namapwia	hand pump	operating	exist	100,000		fair	
		Likongowele	1,324	1,406	Likongowele	—	—	exist	143,385		fair	
	Kipara	Kipara Mnero	690	733	Kipara Mnero	hand pump	1/2 operating	exist	30,000		fair	
		Nambalapala	1,533	1,628	Nambalapala	hand pump	operating	exist	99,000		fair	
		Mwandila	1,042	1,106	Mwandila	hand pump	4/6 operating	exist	116,113		fair	
	Mnero Ngongo	Mnero Ngongo	2,636	2,799	Mnero Ngongo	hand pump (BH)	6/10 operating not operating	exist	30,000		OK	
		Kitandi	1,116	1,185		—	—	none	none		OK	
		Mpute	540	573		—	—	exist	none			
	Mnero Miembeni	Mnero Miembeni *	1,896	2,013	Mnero Miembeni	hand pump (BH)	2/9 operating not operating		86,250	hand pump	OK	

Nachingwea District, Lindi Region

Mnero	Mnero Miembeni	Mkonjela *	1,559	1,655	Ruponda	hand pump	not operating	exist	63,000	hand pump (Mandawa)	OK
		Namkula	1,140	1,210	Namkula	hand pump	operating	exist	70,000		fair
		Ntila	1,109	1,177	Ruponda	hand pump	10/14 operating	exist	101,785		OK
Ruponda	Ruponda	Ruponda	2,079	2,207	Ruponda	hand pump (BH)	3/11 operating not operating	exist	61,225		OK
		Namanga	1,550	1,646	Namanga/ Ruponda branch	hand pump (BH)	1/7 operating not operating	exist	34,700		OK
		Mandawa	753	799	Ruponda	BH hand pump	operating	exist	13,000		OK
	Chiola	Chiola *	1,594	1,692	Chiola	hand pump (BH)	1/4 operating not operating	exist	123,900	hand pump	OK
		Mtimbo	842	894	Chiola			exist	81,900		OK
		<i>Nachingwea</i> Chingunduli	794	843	Ruponda	hand pump	1/2 operating	exist	20,000		fair
	Marambo	Marambo *	2,777	2,948	Ruponda	hand pump	2/7 operating	exist	none		OK
		Ikungu	983	1,044	Rupota	hand pump (BH)	operating not operating	exist	15,000		OK
		Rupota	1,070	1,136	Rupota	BH	operating	exist	none		OK
		Litula	1,060	1,125	Ruponda			exist	none		fair
		<i>Nandile</i> <i>Mtaawa Chingunduli</i> <i>Chanika</i> <i>Mchanamo</i>									
	Mkoka	Mkoka *	1,615	1,715	Mkoka	BH hand pump	operating	exist	130,000		fair
		Rweje *	1,295	1,375	Rweje	hand pump (BH)	not operating	exist	150,000	Traditional well	fair
		Likwela	667	708	Likwela	hand pump	operating	exist	100,000		fair
Nambambo Kijini	Nambambo	10,188	10,816	Nachingwea	BH	4/18 operating	exist			OK	
	Namatula	3,516	3,733	Nachingwea	hand pump	1/11 operating	exist	2,000	hand pump	OK	
	Kilimani Hewa	4,162	4,419				exist				
	Stesheni	Stesheni	2,358	2,503	Nachingwea			exist	none		OK
		Chemchem	1,920	2,038				exist	none		fair
		Songambebe	1,862	1,977	Songambebe	hand pump	not operating	exist	none		OK
	Nangowe	Nangowe Shuleni	1,389	1,475	Nangowe Shuleni	hand pump	not operating	exist	none		OK
		Nangowe Matangini *	2,374	2,520	Nachingwea			exist	70,000		OK
		Mwenge	1,013	1,075	Mwenge	hand pump (BH)	operating not operating	exist	900		OK
		Matangim									
	Mitumbati	1,767	1,876	Mitumbati	hand pump (BH)	2/3 operating not operating	exist	none		fair	
Nambambo	Naipanga	Naipanga *	5,066	5,378	Naipanga	hand pump (BH)	not operating	exist	161,000	Traditional well	OK
		Chiumbati Shuleni	1,051	1,116	Chiumbati Shuleni			exist	33,000		fair
		Chiumbati Miembeni	1,147	1,218	Chiumbati Miembeni	hand pump	not operating	exist			fair
	Mkotokuyama	Mkotokuyama *	829	880	Mkotokuyama	BH	2/3 operating	exist	70,000	hand pump	OK
		Mandai	1,108	1,176	Mkotokuyama			exist	101,000		OK

Liwale District, Lindi Region

Division	Ward	Village	Population 1988	Estimated Population 2000	Public Water Scheme			Water committee	Water fund	Water source for domestic use as of 2000	Remarks (accessibility)
					name of scheme covered	water source	status				
Kibutuka	Kibutuka	Kibutuka	1,113	1,568	Kibutuka	hand pump BH	not operating				good
		<i>Kibuta A, B</i>						exist	exist		
		Ngumbu	1,241	1,749	Ngumbu	hand pump	3/5 operating	exist	none		good
	Mirui	Mirui	1,628	2,294	Mirui	hand pump	not operating	exist	exist		good
	Kiangara	Naujombo	787	1,109	Naujombo	hand pump BH	operating	exist	exist		fair
		Kipelele	605	853	Kipelele	BH	not operating	exist	exist		fair
		Kiangara *	1,463	2,062	Kiangara	hand pump BH	not operating operating	exist	exist		
		Kitogoro	1,432	2,018	Kitogoro	hand pump BH	not operating	exist	exist		good
	Nangano	Nangano	594	837	Nangano	hand pump	not operating	exist	none		good
		<i>Namatula Nahoro</i>	997	1,405	Nahoro	BH	not operating	exist	none		good
Barikiwa	Makata	Makata *	1,310	1,846	Makata	hand pump	2/7 operating	exist	none	hand pump, (stream/river), rain water harvesting	good
		Mkundi	982	1,384	Mkundi	hand pump	2/4 operating	exist	none		good
		Mpengere	623	878	Mpengere	hand pump	2/4 operating	exist	none		good
	Mlembwe	Mlembwe	1,611	2,270	Mlembwe	—	—	exist	none		good
		Ndapata	736	1,037	Ndapata	—	—	exist	none	(stream/river)	fair
	Barikiwa	Barikiwa	1,800	2,537	Barikiwa	hand pump	not operating	exist	exist		good
		Ndunyungu *	562	792	Ndunyungo	hand pump	1/5 operating	exist	exist	river	good
		Chiumbuko	1,213	1,709	Chiumbuko	—	—	exist	none		
	Mkutano	Mkutano *	666	939	Mkutano	hand pump	2/5 operating	exist	exist	hand pump	good
		Kikulyungu	969	1,366	Kikulyungu	hand pump	not operating	exist	exist		good
Liwale	Liwale Mjini	Liwale Town	11,862	16,716	Liwale urban			exist			
		<i>Likongwele</i>			Liwale urban	river	operating	exist	exist		good
		<i>Mungurumo</i>			Liwale urban	river	operating	exist	exist		good
		<i>Makonjiganga</i>			Liwale urban	river hand pump	operating not operating	exist	exist		good
		<i>Naluleo</i>	517	729	Liwale urban	river	not operating	exist	exist		good
		<i>Nagando</i>			Liwale urban			exist	exist		good
		Kipule *	1,793	2,527	Kipule	river	not operating	exist	none	(stream/river)	
		Mangirikiti *	1,025	1,444	Mangirikiti	hand pump	not operating	exist	none	(stream/river)	good

Liwale District, Lindi Region

Liwale	Liwale B	Liwale B	1,218	1,716	Liwale urban	river	operating	exist	exist		good
		Mikunya *	1,926	2,714	Mikunya	hand pump BH	not operating	exist	exist	dug well	good
	Kimambi	Kimambi	988	1,392	Kimambi	hand pump	2/4 operating	exist	none		good
	Mihumo	Mihumo *	1,853	2,611	Mihumo	hand pump	not operating	exist	none	stream/river	good
		Likombora *	898	1,265	Likombora	hand pump	not operating	exist	none	(stream/river)	good
	Mbaya	Mbaya	1,268	1,787	Kichonda	hand pump	not operating	exist	none	(stream/river)	good
		Kichonda	436	614	/Mbaya			exist	none		
		Namihu	662	933	Namihu			exist	none		good
		Nduruka	1,079	1,521	Nduruka	hand pump	not operating	exist	none		good
	Mpigamiti	Mpigamiti	2,140	3,016	Mpigamiti	hand pump	2/5 operating	exist	none	(stream/river)	good
		<i>Mpigamiti A</i>				—	—				
		<i>Mpigamiti B</i>				—	—				
		<i>Mpigamiti C</i>				—	—				
	Ngongowele	Ngongowele	1,535	2,163	Ngongowele	hand pump	not operating	exist	none		good
		Ngunja *	833	1,174	Ngunja	hand pump	not operating	exist	none	(stream/river)	good
Lilombe		1,856	2,616	Lilombe	hand pump	2/4 operating	exist	none		good	
	Mtawatawa			Mtawatawa	—	—	exist	none		good	
Liwale Total			52,221	73,592							

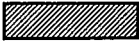

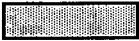
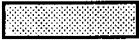
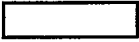
Population 2000 is projected assuming that the growth rate is the same as in 1978 - 1988 (2.9%).

Villages for sampling survey are marked with an asterisk * and subvillages are written in *Italic*.

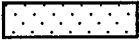
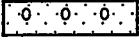



2. Well logs

GEOLOGICAL SYMBOLS IN DRILLING HOLE AND WELL LOGGING PROFILES

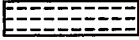

NON CONSOLIDATED ROCKS

	clay
	fine sand
	medium sand
	coarse sand
	gravel

CONSOLIDATED ROCKS

	Sandstone
	Conglomerate
	Limestone
	Shale (Mudstone)
	Gneiss

SUPPLEMENTARY SYMBOLS

	screen
	static water level

Drilling Log Report

Region: LINDI

Construction Date:

2/9/2000

BH No		JL-1	District	Mnolela /Lindi Rural	Coordinates	E: 580940	S: 8869680																																				
Screen	Ωm	SWL	Strata	Lithology	Remarks																																						
	150			0 fine sand (red) fine sand (white)	Discharge was too small.																																						
	900			5 fine sand (brown)																																							
				10 medium sand (light grey) fine sand (light grey)																																							
				15 coarse sand (light grey)																																							
				20 medium sand (light grey)																																							
				25 weathered limestone (yellow - white)																																							
				30 coarse sand with medium sand layer																																							
				35 weathered limestone (yellow - white)																																							
				40 dark - blue clay with coarse sand layer																																							
				45 dark - blue clay (stiff)																																							
				50 dark - blue clay with fine sand layer	<table border="1"> <thead> <tr> <th colspan="2">Drilled Hole & Pumping Test Result</th> </tr> </thead> <tbody> <tr> <td>Ground Level (m)</td> <td>160.00</td> </tr> <tr> <td>Drilled Depth (GL-m)</td> <td>131.00</td> </tr> <tr> <td>Casing Bottom (GL-m)</td> <td>129.84</td> </tr> <tr> <td>Static Water Level (m)</td> <td>65.73</td> </tr> <tr> <td>Drawdown (m)</td> <td>21.50</td> </tr> <tr> <td>Discharge (m3/h)</td> <td>0.50</td> </tr> <tr> <td>Specific Capacity (m3/h/m)</td> <td>0.02</td> </tr> <tr> <td>Transmissivity</td> <td>-</td> </tr> <tr> <th colspan="2">WATER QUALITY</th> </tr> <tr> <td>Temperature</td> <td>28</td> </tr> <tr> <td>pH</td> <td>7.2</td> </tr> <tr> <td>E.C. (μS/cm)</td> <td>3910</td> </tr> <tr> <td>Iron (mg/l)</td> <td>0.03</td> </tr> <tr> <td>Flouride (mg/l)</td> <td>1.57</td> </tr> <tr> <td>Sulphate (mg/l)</td> <td>530</td> </tr> <tr> <td>Chloride (mg/l)</td> <td>364</td> </tr> <tr> <td>TDS (mg/l)</td> <td>2168</td> </tr> </tbody> </table>			Drilled Hole & Pumping Test Result		Ground Level (m)	160.00	Drilled Depth (GL-m)	131.00	Casing Bottom (GL-m)	129.84	Static Water Level (m)	65.73	Drawdown (m)	21.50	Discharge (m3/h)	0.50	Specific Capacity (m3/h/m)	0.02	Transmissivity	-	WATER QUALITY		Temperature	28	pH	7.2	E.C. (μS/cm)	3910	Iron (mg/l)	0.03	Flouride (mg/l)	1.57	Sulphate (mg/l)	530	Chloride (mg/l)	364	TDS (mg/l)	2168
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				105 dark - blue tuff clay																																							
				110																																							
				115 Weathered shale (dark blue clay) Weathered sandstone																																							
				120																																							
				125 Weathered shale with sandstone layer																																							
				130 Weathered shale (dark blue)																																							
				135																																							
				140																																							

SWL
-65.70

9

5

10

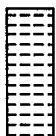
Drilling Log Report Sheet

Region: LINDI

Construction Date:

5/10/2000

BH No		JL-2	District Kilangala /Lindi Rural		Coordinates	E: 563937	S: 8924994
Screen	Ωm	SWL	Strata	Lithology	Remarks		
	2	(+0.5)		0 loam with silt and clay brown fine - medium sand 5 yellow coarse sand with clay coarse sand and clay with gravel	Artesian Well. The bottom of the hole was corrapsed due to the strong water pressure. Main aquifer formation is altention of sandstone and limestone.		
	380		10 light brown gravels with clay				
			15				
			20				
			25				
			30				
			35				
			40				
			45				
			50				
			55				
			60				
			65				
			70				
			75				
			80 bluish grey stiff clay yelliwish brown stiff clay				
			85 brown stiff clay				
			90				
			95				
			100				
			105				
			110				
			115 brown clay brown sand with clay				
			120 soft limestone with clay				
			125 clay and gravels				
			130 clay with sand and gravels limestone with clay				
			135				
			140				
				Drilled Hole & Pumping Test Result			
				Ground Level (m)	115.00		
				Drilled Depth (GL-m)	132.00		
				Casing Bottom (GL-m)	94.50		
				Static Water Level (m)	+0.5		
				Drawdown (m)	58.50		
				Discharge (m3/h)	3.90		
				Specific Capacity (m3/h/m)	0.07		
				Transmissivity			
				WATER QUALITY			
				Temperature	31		
				pH	8		
				E.C. (μS/cm)	1090		
				Iron (mg/l)	0.03		
				Flouride (mg/l)	0.2		
				Sulphate (mg/l)	5		
				Chloride (mg/l)	47.4		
				TDS (mg/l)	776		



Drilling Log Report Sheet

Region: LINDI

Construction Date:

8/10/2000

BH No	JL-3	District	Pande Plot /Kilwa	Coordinates	E: 561700	S: 8990200																																				
Screen	Ωm	SWL	Strata	Lithology	Remarks																																					
	47			0	Electric conductivity was high at the end of drilling. The main aquifer is recent marine sand layer																																					
				5																																						
				10																																						
				15																																						
				20																																						
				25																																						
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				140																																						

Drilling Log Report Sheet

Region: LINDI

Construction Date:

25/9/2000

BH No	JL-4	District	Ndomoni /Nachingwea	Coordinates	E: 479600	S: 8836100
Screen	Ωm	SWL	Strata	Lithology	Remarks	
				0	yellowish brown clay	The hole was abandoned due to the high electric conductivity.
				5	brown sand and clay	
				10	reddish brown sand and clay	
				15	sandstone /coarse sand	
				20	weathered brown gneiss	
				25	black gneiss brown gneiss	
				30	brown gneiss (fresh) brown gneiss	
				35	yellow gneiss sandy weathered gneiss	
				40		
				45		
				50	black gneiss (fresh) black gneiss	
				55	dark brown gneiss	
				60		
				65	black gneiss white gneiss	
				70		
				75	white gneiss	
				80		
				85		
				90		
				95		
				100		
				105		
				110		
				115		
				120		
				125		
				130		
				135		
				140		

Drilled Hole & Pumping Test Results	
Ground Level (m)	310.00
Drilled Depth (GL-m)	76.50
Casing Bottom (GL-m)	
Static Water Level (m)	
Drawdown (m)	
Discharge (m ³ /h)	
Specific Capacity (m ³ /h/m)	
Transmissivity	
WATER QUALITY	
Temperature	
pH	
E.C. (μS/cm)	
Iron (mg/l)	
Flouride (mg/l)	
Sulphate (mg/l)	
Chloride (mg/l)	
TDS (mg/l)	

Drilling Log Report Sheet

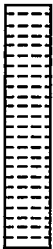
Region: LINDI

Construction Date:

4/9/2000

BH No		JL-5	District Chinongwe /Ruangwa		Coordinates	E: 490302	S: 8841852																																				
Screen	Ωm	SWL	Strata	Lithology	Remarks																																						
			0	sandy clay	Struk fresh fissure water in the small fissure zone, detected by horizontal georesistivity sounding.																																						
			5	clayey sand																																							
			10	yellow clay coarse sand																																							
			15	medium sand coarse sand																																							
			20																																								
			25	yellowish brown weathered gneiss fragments with clay																																							
			30																																								
			35	black weathered gneiss																																							
			40																																								
			45	gneiss (black)																																							
			50	weathered gneiss with coarse sandy particles	<table border="1"> <tr> <th colspan="2">Drilled Hole & Pumping Test Result</th> </tr> <tr> <td>Ground Level (m)</td> <td>290.00</td> </tr> <tr> <td>Drilled Depth (GL-m)</td> <td>62.00</td> </tr> <tr> <td>Casing Bottom (GL-m)</td> <td></td> </tr> <tr> <td>Static Water Level (m)</td> <td>6.80</td> </tr> <tr> <td>Drawdown (m)</td> <td>48.00</td> </tr> <tr> <td>Discharge (m³/h)</td> <td>3.20</td> </tr> <tr> <td>Specific Capacity (m³/h/m)</td> <td>0.07</td> </tr> <tr> <td>Transmissivity</td> <td></td> </tr> <tr> <th colspan="2">WATER QUALITY</th> </tr> <tr> <td>Temperature</td> <td></td> </tr> <tr> <td>pH</td> <td>7.9</td> </tr> <tr> <td>E.C. (μS/cm)</td> <td>1320</td> </tr> <tr> <td>Iron (mg/l)</td> <td>0.05</td> </tr> <tr> <td>Flouride (mg/l)</td> <td>1.67</td> </tr> <tr> <td>Sulphate (mg/l)</td> <td>73</td> </tr> <tr> <td>Chloride (mg/l)</td> <td>160</td> </tr> <tr> <td>TDS (mg/l)</td> <td>605</td> </tr> </table>			Drilled Hole & Pumping Test Result		Ground Level (m)	290.00	Drilled Depth (GL-m)	62.00	Casing Bottom (GL-m)		Static Water Level (m)	6.80	Drawdown (m)	48.00	Discharge (m ³ /h)	3.20	Specific Capacity (m ³ /h/m)	0.07	Transmissivity		WATER QUALITY		Temperature		pH	7.9	E.C. (μS/cm)	1320	Iron (mg/l)	0.05	Flouride (mg/l)	1.67	Sulphate (mg/l)	73	Chloride (mg/l)	160	TDS (mg/l)	605
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			135																																								
			140																																								

▼
-6.80



Drilling Log Report Sheet

Region: MTWARA

Construction Date:

16/9/2000

BH No	JM-1	District Ziwani /Mtwara Rural	Coordinates	E: 636328	S: 8856582
Screen	Ωm	SWL	Strata	Lithology	Remarks
	460			0	Good yeild well. Mostly fine - coarse sand
				5	
				10	
				15	
	16			20	
				25	
				30	
				35	
				40	
				45	
				50	
				55	
				60	
				65	
				70	
				75	
				80	
				85	
				90	
				95	
				100	
				105	
				110	
				115	
				120	
				125	
				130	
				135	
				140	
					Drilled Hole & Pumping Test Result
					Ground Level (m) 60.00
					Drilled Depth (GL-m) 68.00
					Casing Bottom (GL-m) 64.70
					Static Water Level (m) 40.60
					Drawdown (m) 2.42
					Discharge (m3/h) 27.00
					Specific Capacity (m3/h/m) 11.16
					Transmissivity
					WATER QUALITY
					Temperature 26
					pH 7.1
					E.C. (μS/cm) 1549
					Iron (mg/l) 1.96
					Flouride (mg/l) 0.24
					Sulphate (mg/l) 100
					Chloride (mg/l) 200
					TDS (mg/l) 712

Drilling Log Report Sheet

Region: MTWARA

Construction Date:

27/8/2000

BH No		JM-2	District	Mbawala /Mtwara Rural	Coordinates	E: 622240	S: 8845040
Screen	Ωm	SWL	Strata	Lithology	Remarks		
			0	dark brown sand	Discharge was too small.		
			5	brown fine sand			
	64		10	fine grained sandstone			
				medium grained sandstone			
			15	weathered medium grained sandstone			
			20				
			25				
			30				
			35				
			40				
			45	midium grained sandstone			
			0.0	coarse grained sandstone with conglomerate			
			0.0	50 sandstone and conglomerate			
			0.0	55 sandstone and conglomerate with clay layer			
	6		60				
			65				
			70				
			75	weathered medium grained sandstone			
			80				
			85				
			90	weathered medium grained sandstone with siltstone brown medium grained sandstone			
			95	brown coarse grained sandstone			
			100				
			105	brown sand and gravel brown coarse sand and gravel			
			110				
		▼ -112.00	115				
			120	brown silty sand with gravel			
	12		125				
			130				
			135				
			140				

Drilled Hole & Pumping Test Result	
Ground Level (m)	150.00
Drilled Depth (GL-m)	120.00
Casing Bottom (GL-m)	118.80
Static Water Level (m)	112.00
Drawdown (m)	
Discharge (m3/h)	
Specific Capacity (m3/h/m)	
Transmissivity	
WATER QUALITY	
Temperature	
pH	
E.C. (μS/cm)	
Iron (mg/l)	
Flouride (mg/l)	
Sulphate (mg/l)	
Chloride (mg/l)	
TDS (mg/l)	

Drilling Log Report Sheet

Region: MTWARA

Construction Date:

8/9/2000

BH No	JM-3	District	Arusha Chini /Mtwara Rural	Coordinates	E: 624711	S: 8827956
Screen	Ωm	SWL	Strata	Lithology	Remarks	
	80			0	Good aquifer at GL-60m - 72m.	
				5		
	10			10		
				15		
				20		
				25		
				30		
	15			35		
		-40.21		40		
				45		
				50		
	8			55		
				60		
				65		
	18			70		
				75		
				80		
				85		
				90		
				95		
				100		
				105		
				110		
				115		
				120		
				125		
				130		
				135		
				140		
Drilled Hole & Pumping Test Results						
Ground Level (m)		40.00				
Drilled Depth (GL-m)		84.00				
Casing Bottom (GL-m)		80.40				
Static Water Level (m)		40.21				
Drawdown (m)		12.09				
Discharge (m ³ /h)		25.00				
Specific Capacity (m ³ /h/m)		2.07				
Transmissivity						
WATER QUALITY						
Temperature		27.5				
pH		7.4				
E.C. (μS/cm)		700				
Iron (mg/l)		0.01				
Flouride (mg/l)		nd				
Sulphate (mg/l)		nd				
Chloride (mg/l)		85				
TDS (mg/l)		346				

Drilling Log Report Sheet

Region: MTWARA

Construction Date:

6/9/2000

BH No	JM-4	District	Litehu /Tandahimba	Coordinates	E: 555800	S: 8837700
Screen	Ωm	SWL	Strata	Lithology	Remarks	
	630			0	Dry hole.	
	160			5		
				10		
				15		
				20	brown sandy clay	
				25		
				30		
				35		
				40	brown sand mixed with dark grey clay	
				45		
				50		
				55		
	8			60		
				65		
				70		
				75		
				80	black clay	
				85		
				90		
				95	clay (black - brown)	
				100	black clay with sand	
				105		
				110	black clay	
				115		
	16			120	clay (black - brown)	
				125		
				130	black - brown clay with particles of sand	
				135		
				140	mixture of black clay, brown clay and sand layer (continues to 142.50m)	
Drilled Hole & Pumping Test Results						
Ground Level (m)					310.00	
Drilled Depth (GL-m)						
Casing Bottom (GL-m)						
Static Water Level (m)						
Drawdown (m)						
Discharge (m ³ /h)						
Specific Capacity (m ³ /h/m)						
Transmissivity						
WATER QUALITY						
Temperature						
pH						
E.C. (μS/cm)						
Iron (mg/l)						
Flouride (mg/l)						
Sulphate (mg/l)						
Chloride (mg/l)						
TDS (mg/l)						

Drilling Log Report Sheet

Region: MTWARA

Construction Date:

8/9/2000

BH No	JM-5	District	Nanyambu /Masasi	Coordinates	E: 443800	S:8767620
Screen	Ωm	SWL	Strata	Lithology	Remarks	
		▼ -6.80			Drilling was made on the fissure of N - S direction. Strong anomaly has been detected by the geo-resistivity sounding.	
			0	top soil and medium - coarse sand		
			5	coarse sand with gravels and grey soil		
			10			
			15	weathered grey gneiss weathered brownish grey gneiss		
			20	partially weathered brown gneiss		
			25			
			30	brown gneiss		
			35			
			40			
			45	dark grey - brown weathered gneiss		
			50	brown gneiss partially weathered dark brown gneiss		
			55	brown gneiss dark weathered gneiss		
			60			
			65	brown gneiss		
			70	dark brown gneiss		
			75		Drilled Hole & Pumping Test Results	
				Ground Level (m)	290.00	
				Drilled Depth (GL-m)	62.00	
				Casing Bottom (GL-m)		
				Static Water Level (m)	6.80	
				Drawdown (m)	54.80	
				Discharge (m ³ /h)	3.20	
				Specific Capacity (m ³ /h/m)	0.07	
				Transmissivity		
				WATER QUALITY		
				Temperature	27.5	
				pH	7.5	
				E.C. (μS/cm)	1040	
				Iron (mg/l)	0.02	
				Flouride (mg/l)	1	
				Sulphate (mg/l)	45	
				Chloride (mg/l)	4.7	
				TDS (mg/l)	405	
			110			
			115			
			120			
			125			
			130			
			135			
			140			

3. Test Drilling Record

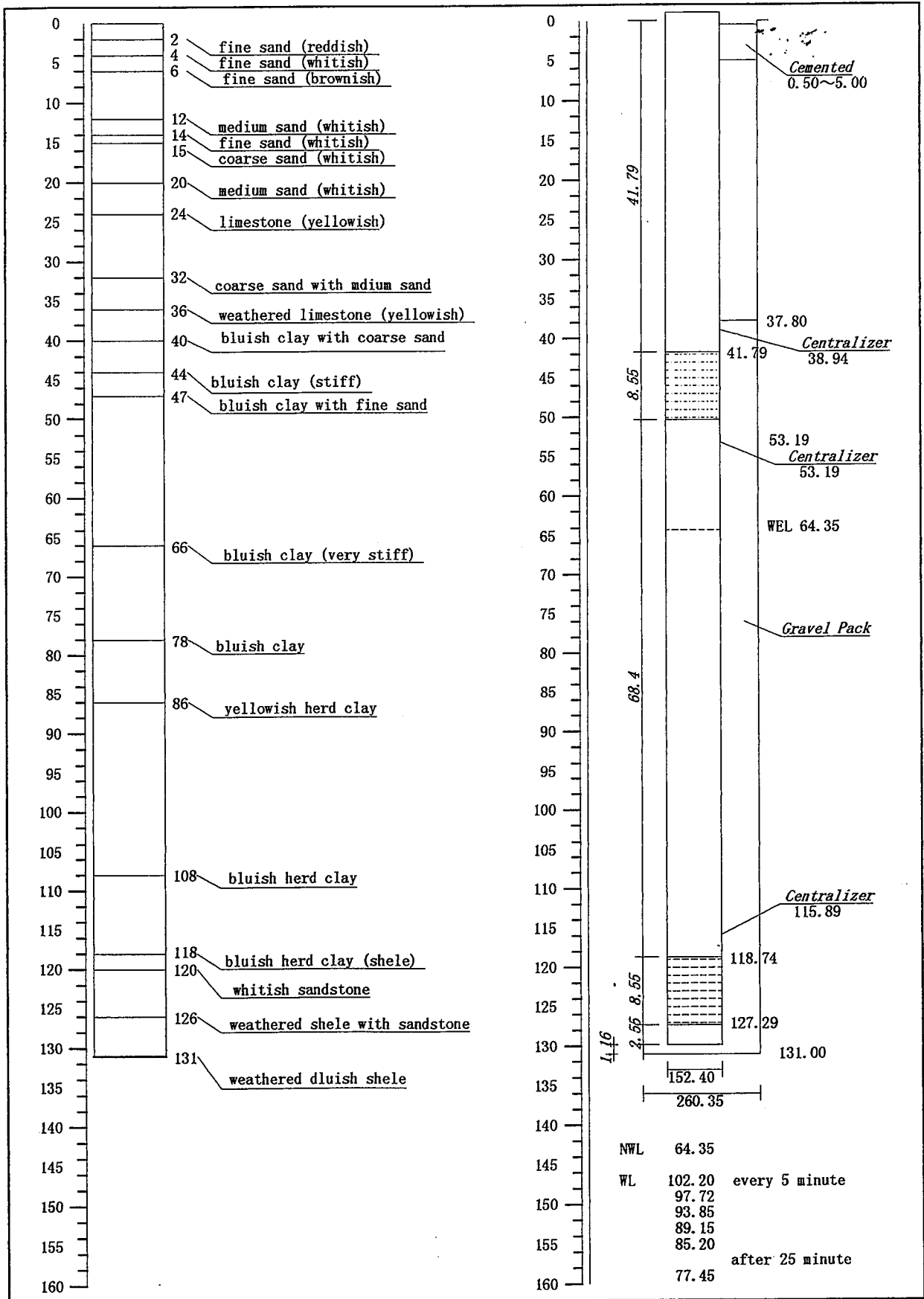
The Study On Water Supply And Sanitation In Lindi And Mtwara Regions.

Well No, JL-1

Date: 2 / 9 / 2000 (WHO)

Site Name: Mnolela / Mingoyo / Lindi
Village Division District

(Lindi Region)



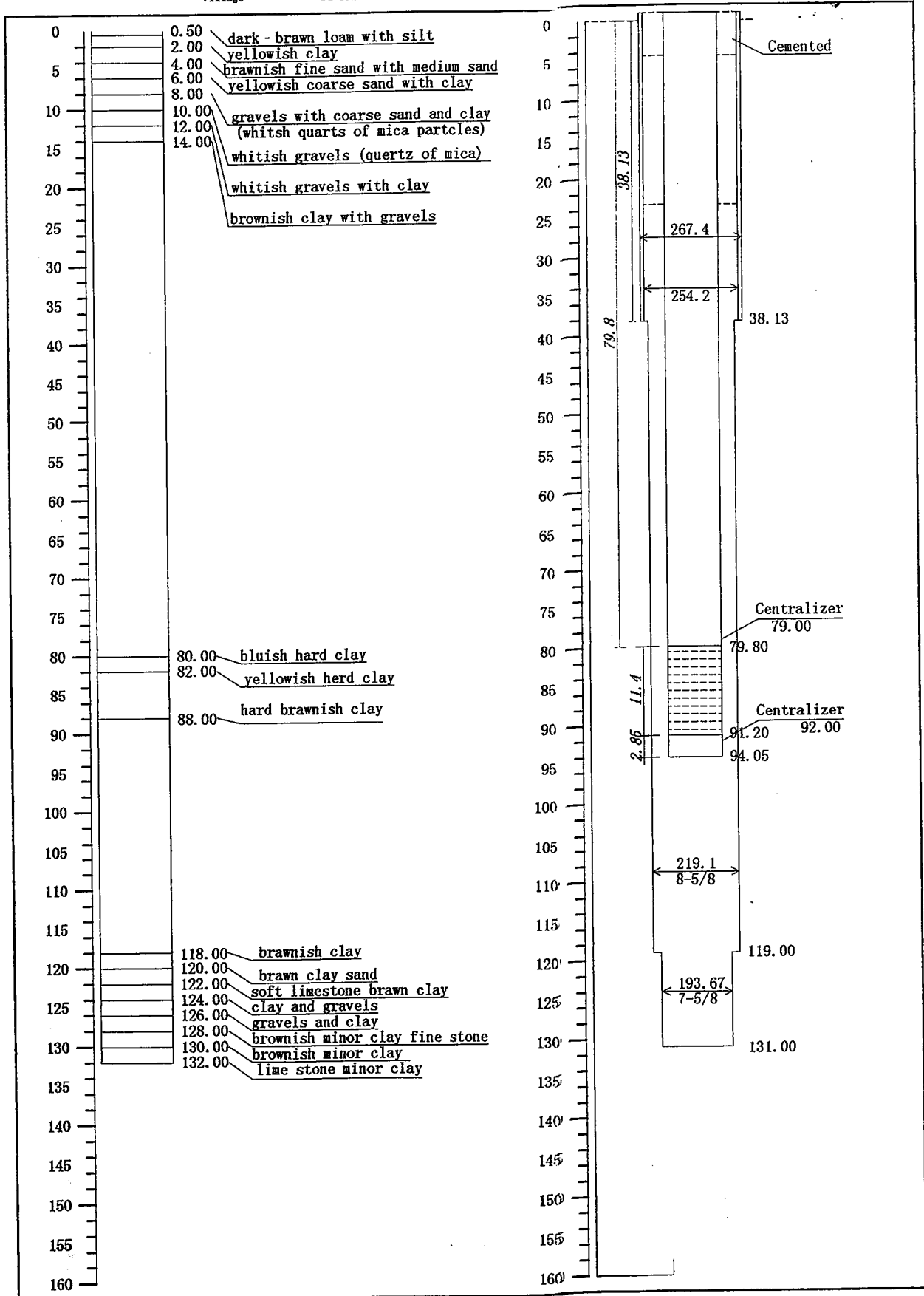
The Study On Water Supply And Sanitation In Lindi And Mtwara Regions.

Well No, JL-2

Date : 5 / 10 / 2000 (THU)

Site Name : Kilangala / Mchinga / Ruangwa
Village Division District

(Mtwara Region)



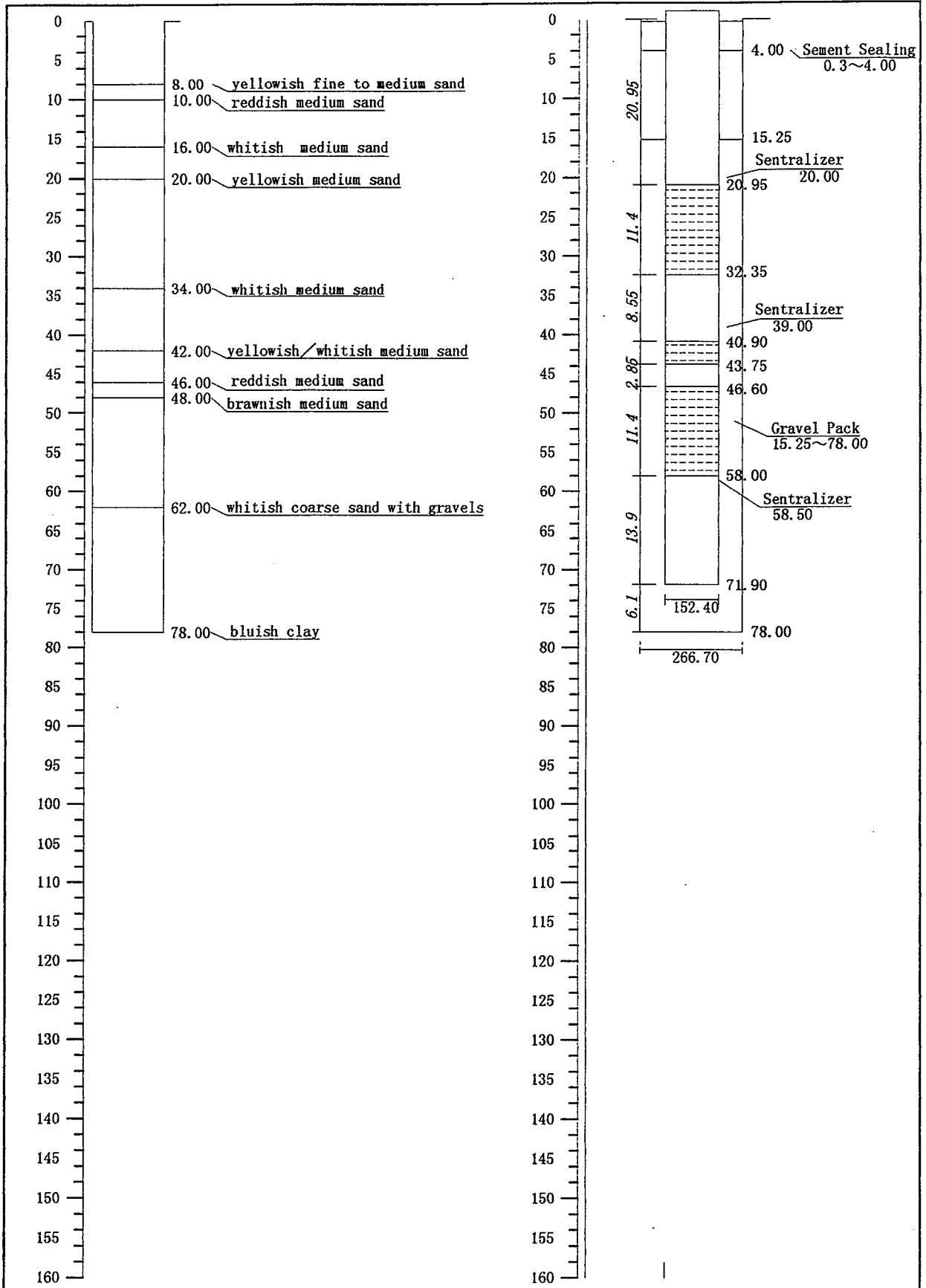
The Study On Water Supply And Sanitation In Lindi And Mtwara Regions.

Well No, JL-3

Site Name : Pande Plot / Pande / Masasi
Village Division District

Date : 8 / 10 / 2000 (SUN)

(Lindi Regions)



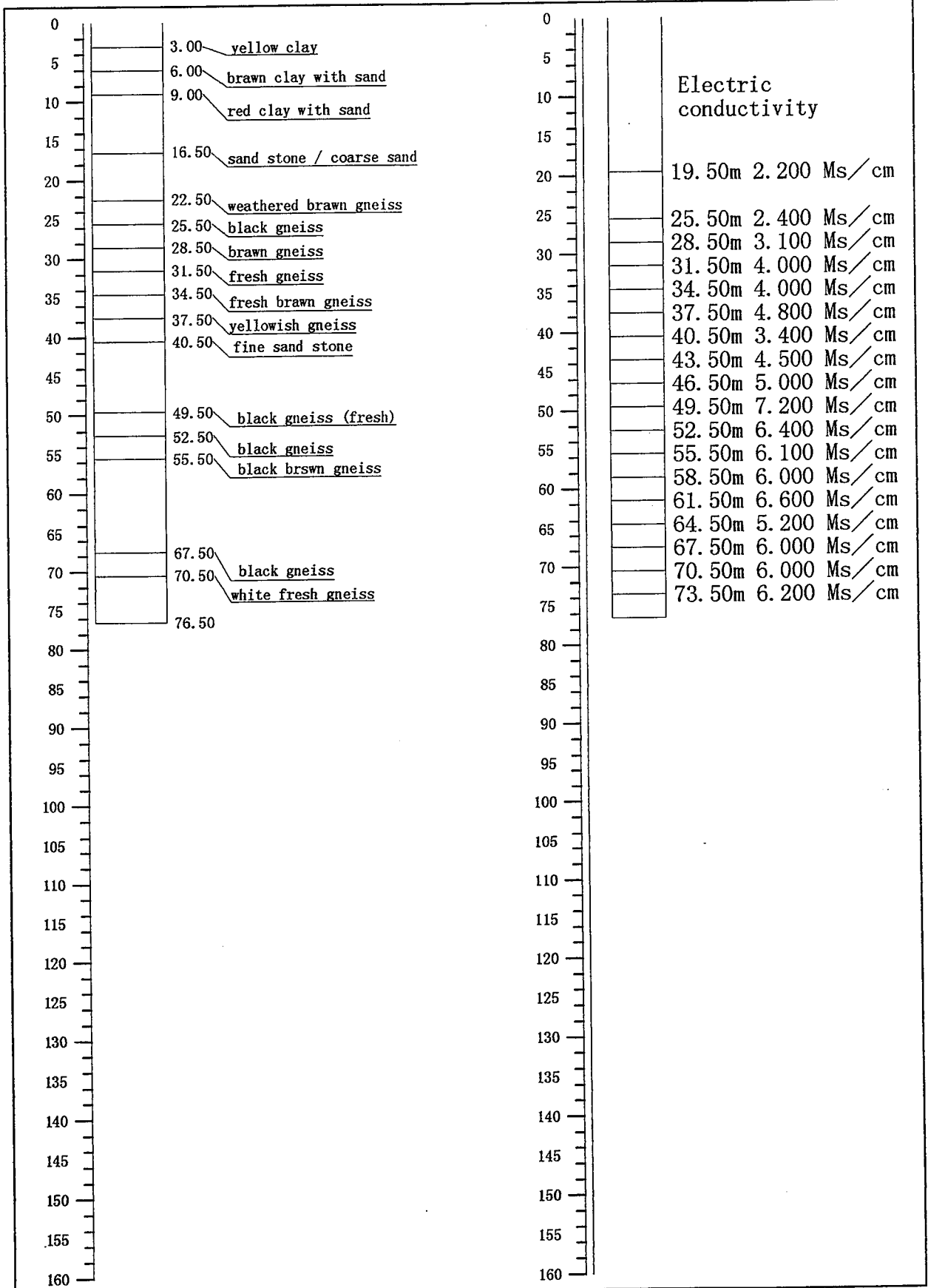
The Study On Water Supply And Sanitation In Lindi And Mtwara Regions.

Well No, JL-4

Date: 25/9/2000

Site Name: Ndomoni / Nambanbo / Nachingwea
Village Division District

(Lindi Region)

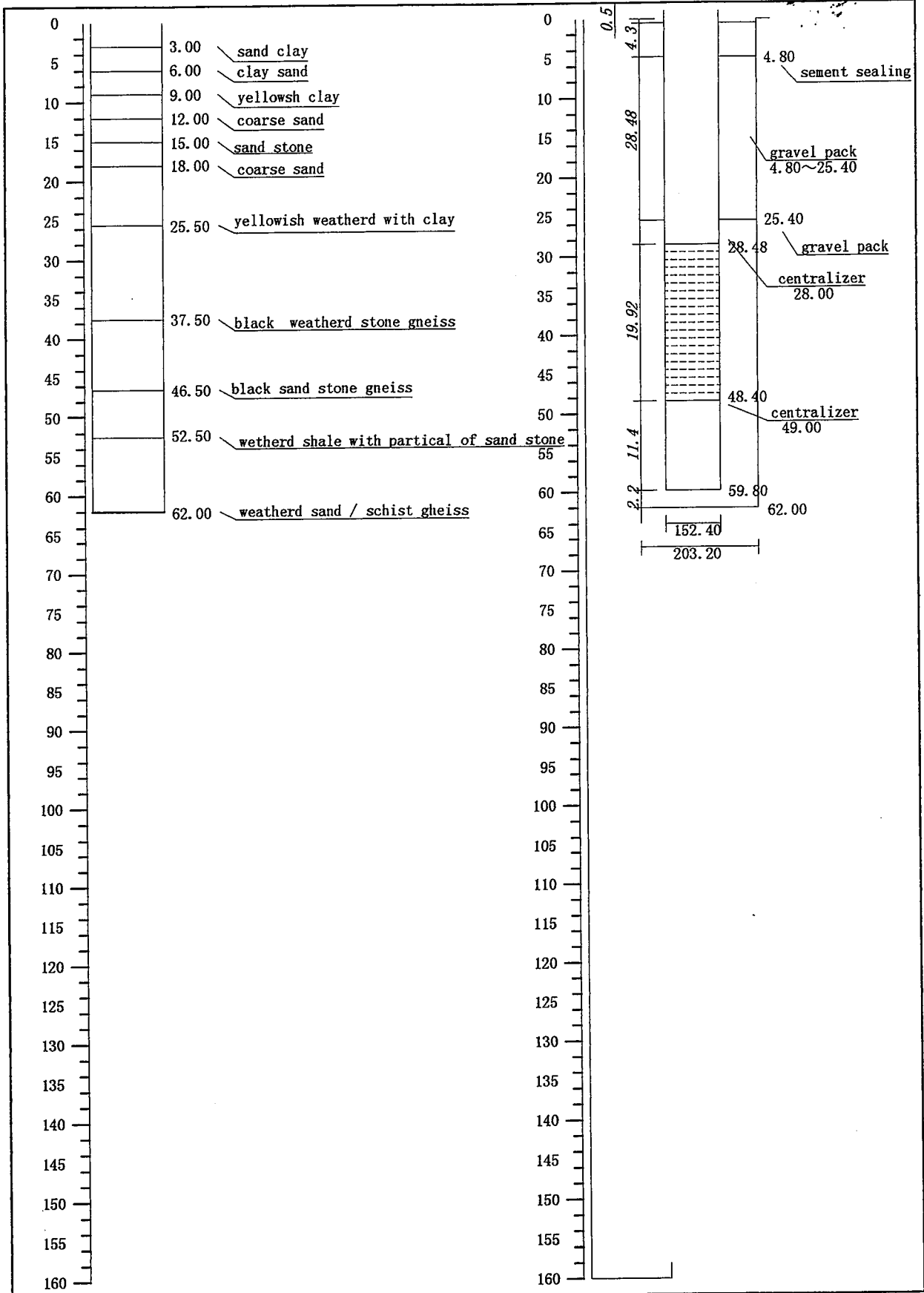


The Study On Water Supply And Sanitation In Lindi And Mtwara Regions.

Well No, JL-5

Site Name : Chinongwe / Mnacho / Ruangwa
Village Division District

Dare : 4 / 9 / 2000 (WED)
 (Lindi Region)



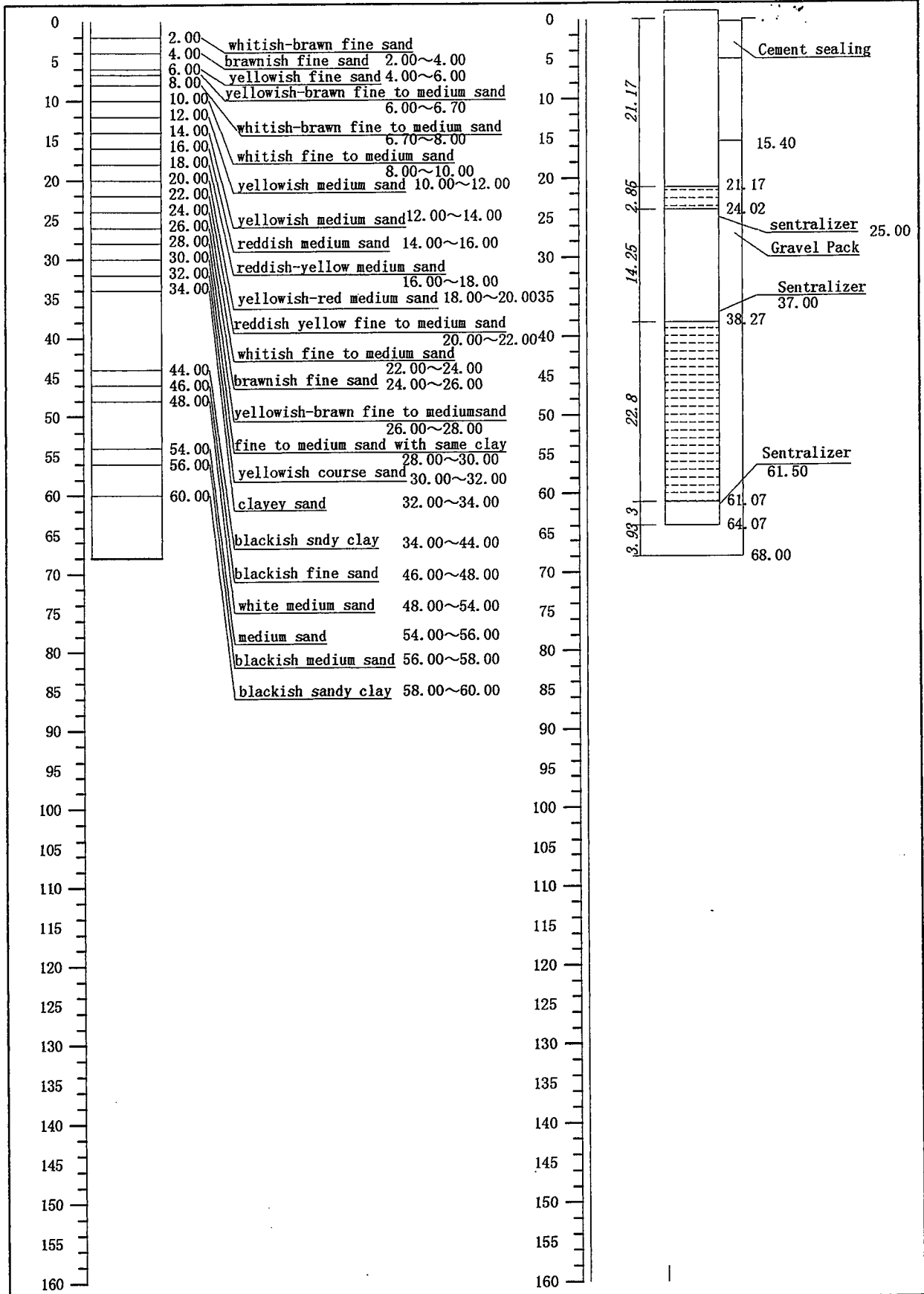
The Study On Water Supply And Sanitation In Lindi And Mtwara Regions.

Well No, JM-1

Date : 16 / 9 / 2000 (SAT)

Site Name: Ziwani / Ziwani / Mtwara
Village Division District

(Mtwara Region)



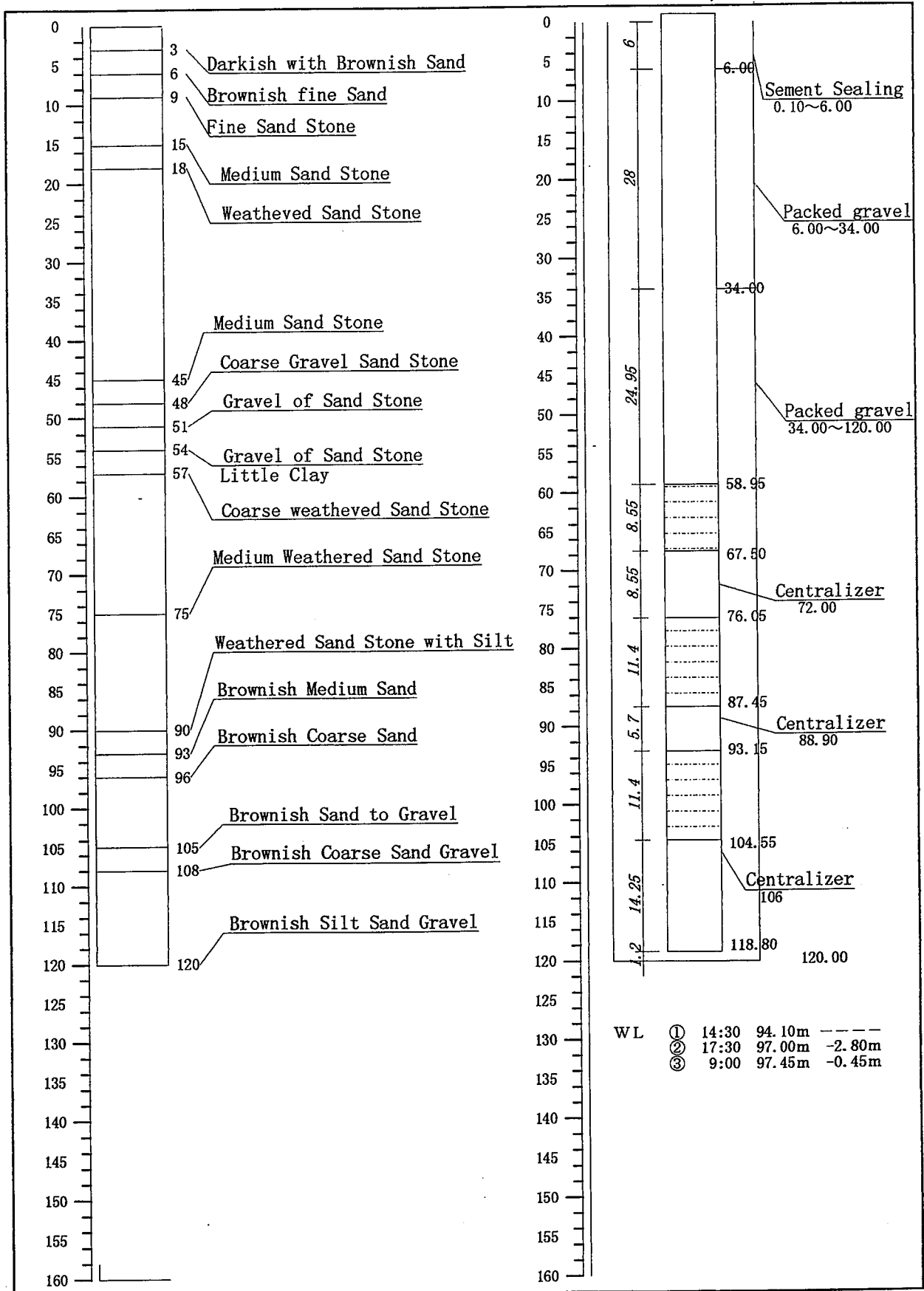
The Study On Water Supply And Sanitation In Lindi And Mtwara Regions.

Well No, JM-2

Date: 27 / 8 / 2000 (SUN)

Site Name: Mbawala / Mtwara / Mtwara
Village Division District

(Mtwara Region)



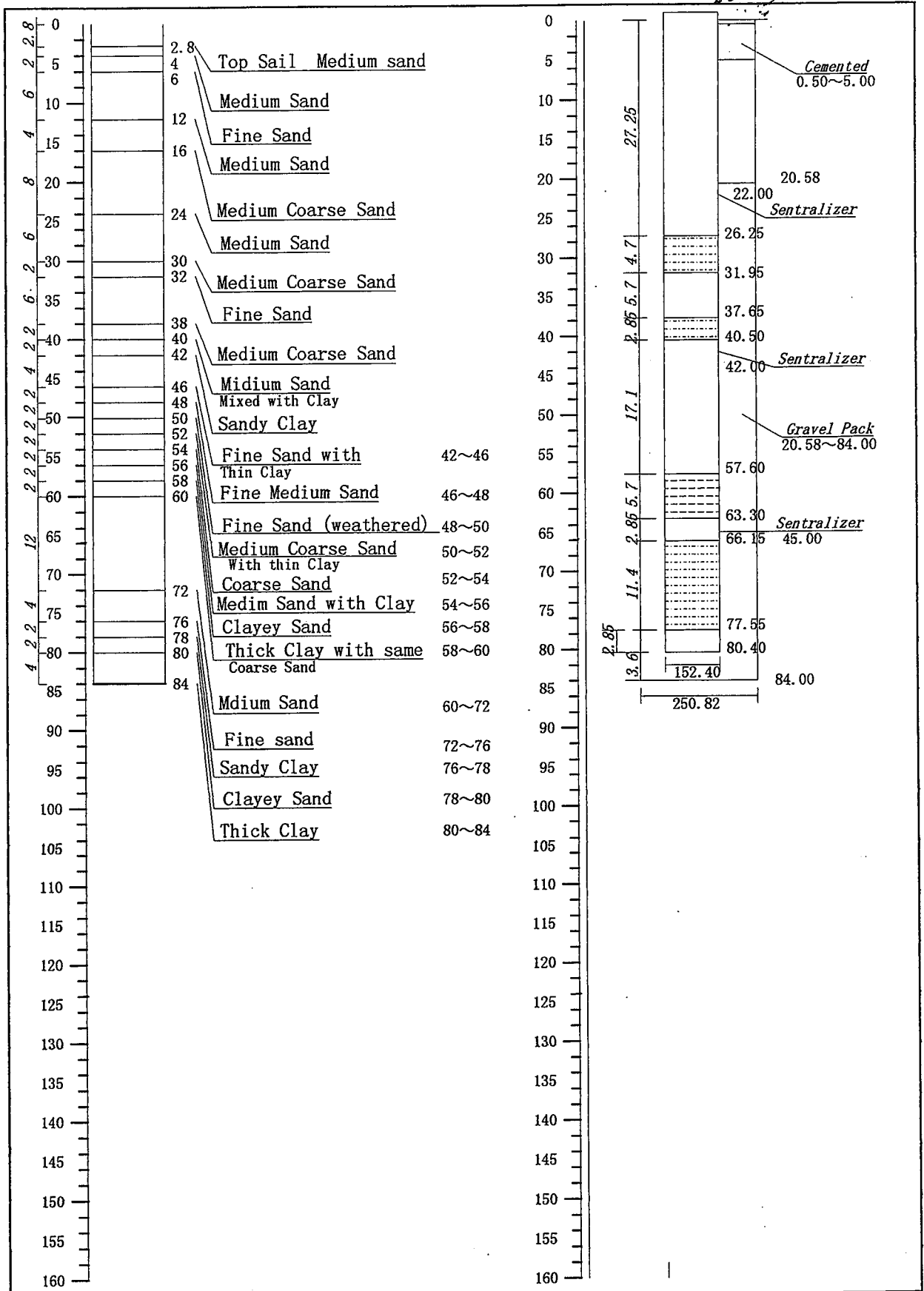
The Study On Water Supply And Sanitation In Lindi And Mtwara Regions.

Well No, JM-3

Date: 8 / 9 / 2000 (Fri)

Site Name : Arusha Chini / Kitaya / Mtwara
Village Division District

(Mtwara Region)



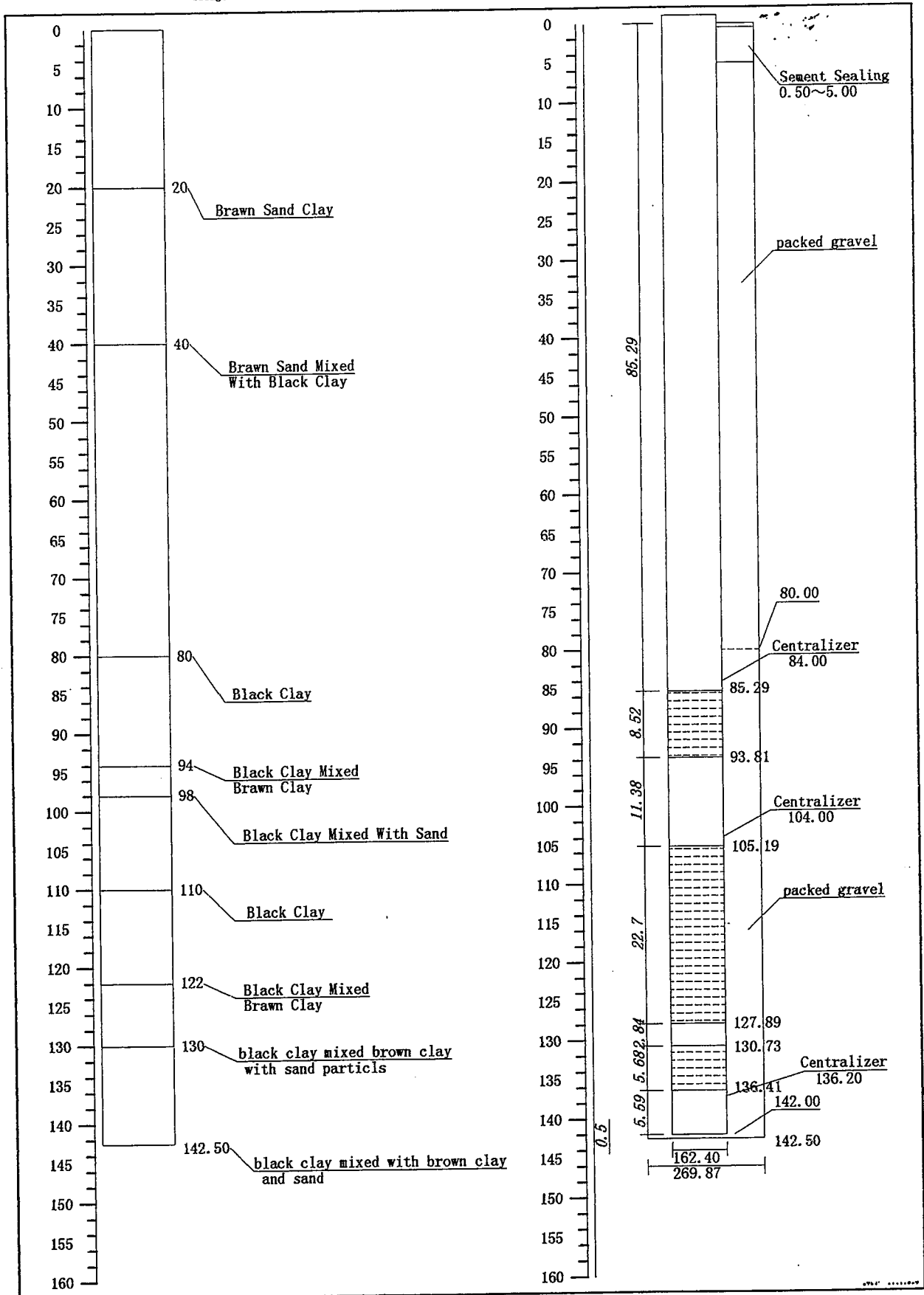
The Study On Water Supply And Sanitation In Lindi And Mtwara Regions.

Well No, JM-4

Date: 6 / 9 / 2000 (WED)

Site Name: Litehu / Litehu / Tandahimba
Village Division District

(Mtwara Region)



The Study On Water Supply And Sanitation In Lindi And Mtwara Regions.

Date : 8 / 9 / 2000 ()

Well No, JM-5

Site Name : Nanyumbu / Nanyumbu / Masasi
Village Division District

(Mtwara Regions)

