# 12. Pumping Test

Pumping test results conducted during JICA M/P and F/S are fully utilized for the Project. Supplemental test results conducyed under the Study are shown here.

Central Hydrogeological Engineering Geological Union Hydrogeological Engineering Geological Union Division 704

#### Pumptest data recorded at Borehole D2

Pumping test: Yield test - Steps draw down test - Constant yield test
Area: EaDRăng township - EaHleo - Đaklak province

Project:

Co-ordinate: X: Y:

Borehole depth (m): 120 m
Staic water level (BGL): 14.5 m
Diameter of discharged water pipe: 70 mm
Depth of pump setting 72 m

Features of water bearing layer:

Started date: 2005/2/11 Completed date: 2005/5/11

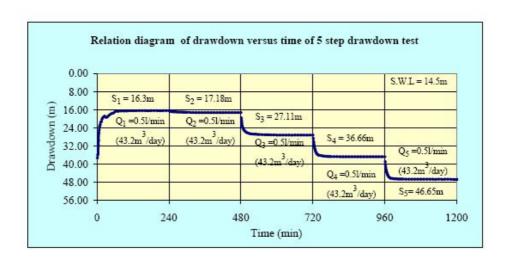
#### Summary of test pumping:

Notations of water bearing layer	Pumping test order	Pumping rate Q (1/s)	Draw down S (m)	static water level (m)	specific discharge (1/sm)	Pumping duration (h)	Recovery time (h)	Quantity & sampling taken
	Yield test	2.50	47.67	14.50	0.052	4		91
	Stepl	0.50	16.3		0.031	4		
	Step 2	1.00	17.18		0.058	4		3.2
	Step 3	1.50	27.11		0.055	4		
	Step 4	2.00	36.66		0.055	4		
	Step 5	2.50	46.65	8	0.054	4		01 bacterium sampling
	Constant yield test	2.00	44.32	14.50	0.045	24	2	01 chemical sampling.

General evaluation

The capacity of this well is not considered the affection of the other two wells. Safe yield is 2.5 L/s (without pumping of other 02 wells)

Pumping leader Project manager



vate	rloo Hy	drogeolog	gic			ng test analy			Date:	17.11.2005	TS, Page 1		
	olumbia S Onterio Car					rawdown-m ER & JACO		ir a	Project: JiCa				
	746-1798					ined aquifer			Evalua	ated by: Mr N	guyen Luu		
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		Transmiss	sivity [m²/o	d]. 4.55 x	(10 <sup>1</sup>								
		Hydraulic	conductiv	ity [m/d]:	6.51 x 1	0-1							
		Aquifer thi	ckness (n	70.000	)								
		Aquifer thickness [m]: 70.000											

Hydrogeological Engineering Geological Union Division 704 Director

Mr. Nguyen Luu

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### Central Hydrogeological Engineering Geological Union Hydrogeological Engineering Geological Union Division 704

### Pumptest data recorded at Borehole G3

Pumping test: Yield test - Steps drawdown test - Constant yield test

Area: Chu Ty township- Duc Co-Gia Lai province

Project:

Co-ordinate: X: Y:

Borehole depth (m): 120 m
Staic water level (BGL): 10 m
Diameter of discharged water pipe: 73 mm
Depth of pump setting 44 m

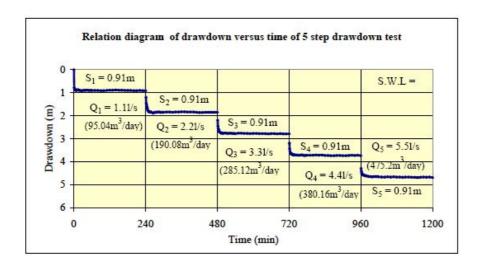
Features of water bearing layer:

Started date: Wednesday, May 11, 2005 Completed date: Monday, July 11, 2005

Summary of test pumping:

Notations of water bearing layer	Pumping test order	Pumping rate Q (1/s)	Drawdown S (m)	static water level (m)	specific discharge q (l/sm)	Pumping duration (h)	Recovery time (h)	Quantity & sampling taken
	Yield test	5.50	4.72	10.00	1.165	4	1	
	Stepl	1.10	0.91		1.209	4		
	Step 2	2.20	1.85		1.189	4		
	Step 3	3.30	2.79		1.183	4		
	Step 4	4.40	3.74		1.176	4		
	Step 5	5.50	4.69		1.173	4		01 bacterium sampling
	Constant yield test	5.50	4.8	10	1.146	24	2	01 chemical sampling.

General evaluation



mbia St	rogeologic			ing test analy			Date:	17.11.2005	TS, Page 1
180 Columbia St. W. Waterloo, Ontario, Canada ph. (519)746-1798				Drawdown-m			Proje	ct Jica	
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Hydrogeological Engineering Geological Union Division 704 Director

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Mr. Nguyen Luu

## Central Hydrogeological Engineering Geological Union Hydrogeological Engineering Geological Union Division 704

#### Pumptest data recorded at Kien Duc Borehole

Pumping test: Yield test - Steps draw down test - Constant yield test

Area: Kien Duc township - DakR'lap district - Dak Nong province

Project:

Co-ordinate: X: Y:

Borehole depth (m): 143 m
Staic water level (BGL): 38 m
Diameter of discharged water pipe: 60 mm
Depth of pump setting 70 m

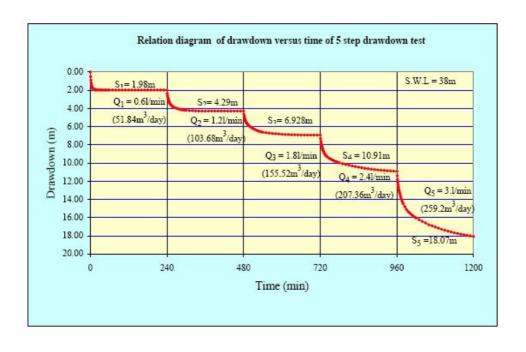
Features of water bearing layer:

Started date : 3/11/2005 Completed date : 6/11/2005

Summary of test pumping:

Notations of water bearing layer	Pumping test order	Pumping rate Q (1/s)	Draw down S (m)	static water level (m)	specific discharge (l/sm)	Pumping duration (h)	Recovery time (h)	Quantity & sampling taken
	Yield test	3.10	17.21	38.00	0.180	4	4	
	Step1	0.60	1.98	38.00	0.303	4		
	Step 2	1.20	4.29	38.00	0.280	4		
	Step 3	1.80	6.92	38.00	0.260	4	5	
	Step 4	2.40	10.91	38.00	0.220	4		
	Step 5	3.00	18.07	38.00	0.166	4		
	Constant yield test	2.40	14.78	38.00	0.162	24	7	

General evaluation



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		Hydraulic cond										
		Aquifer thickne	ess [m]: 80.00	00								

Hydrogeological Engineering Geological Union Division 704 Director

Mr. Nguyen Luu

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