

(3) 技術協議書（現地調査時）

TECHNICAL NOTE

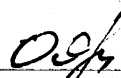
ON THE BASIC DESIGN STUDY ON THE PROJECT FOR IMPROVEMENT OF WATER SUPPLY FACILITIES AT UPPER WATER SOURCE AREA IN ULAANBAATAR IN MONGOLIA

AGREED UPON BETWEEN
USAG
AND
JICA STUDY TEAM

9 JULY 2003



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After a series of discussions during the field survey in Ulaanbaatar from 2nd June 2003 through 10th July 2003, the following points were agreed between Water Supply & Sewerage System Co. of Ulaanbaatar (USAG) and JICA Study Team (Team). Based on the agreement, the Team will further analyze the results of field survey in consultation with JICA and concerned parties in Japan and will prepare a draft final report which includes the layout and design of facilities and/or equipment for the Project.

1. Requested items

The requested items are shown in Table 1.

Table 1

Category	Item	Number	Remarks
Construction	• Wells and conveyance pipe	16 wells	
Rehabilitation	• Pumps of Upper Water Source Area Pump Station (Including surge tanks)	6 sets	
	• Pumps of Central Water Source Area Pump Station	2 sets	
Equipment	• Heat insulators for well equipment (Existing and new wells)	39 + 16 sets	
Soft components	<ul style="list-style-type: none"> • Enforcement of financial management <ul style="list-style-type: none"> ➢ Financial management improvement • Enforcement of operation and maintenance <ul style="list-style-type: none"> ➢ Electric Technician ➢ Mechanical Technician ➢ Pipe Technician ➢ Leakage detection • Water quality monitoring • Enforcement of campaign and education <ul style="list-style-type: none"> ➢ Water saving ➢ Water source preservation 		
JICA training program	<ul style="list-style-type: none"> • Financial management training • Engineer training etc. 		

* Team will assess the appropriateness of the request and will report the findings to JICA.

2. Target year

The target year for the Project is agreed to be 2010.

3. Water demand projection

The service population and water supply amount at the target year is agreed as follows based on "Ulaanbaatar Master Plan 2020" and USAG data:

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Service population:	995,000 persons
Daily average water supply amount:	209,500 m ³ /day
Daily maximum water supply amount:	240,000 m ³ /day FF42

4. Well capacity and location

The total existing water source of USAG is 222,000 m³/day. The shortage amount of 18,000 m³/day will be covered by new well development at Upper Water Source Area. The number of wells is agreed to be 16 and its location is shown in Appendix-1.

5. Related laws/regulations clearance for land procurement, construction and EIA

1) Water right

USAG has already got water right of approximately 90,000m³/day intake in the area of 20 km around the existing wells.

2) Land procurement

The proposed site of wells and conveyance pipe construction is the protected area for water source conservation, though USAG has land use right in the area. USAG can construct wells, well pump houses and conveyance pipe with no permissions.

3) EIA

USAG applies to get the EIA approval before the end of 2003.

6. Implementing Concept

The project team, which will be organized in USAG shall be consistently in charge of the Project implementation from the detailed design stage. The project team shall be responsible for the following work:

- ① Reception of the City Council for the Project
- ② Liaison and adjustment with the divisions concerned department/agency of Ulaanbaatar and/or Mongolia
- ③ Liaison and cooperation with the international agencies and/or private company concerned with the Project
- ④ Collection of designing and bidding works as the counterparts of the Japanese consultant
- ⑤ Assurance of staff required for an additional survey and test, if any
- ⑥ Implement procedures such as Tax exemption, B/A, A/P, etc.

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6. Undertakings to be taken by each side

Item	Kinds	Mongolia	Japan
Heat insulators for well equipment (Existing and new wells)	Procurement of equipment to Upper Water Source Pump Station		○
	Installation	○	
Wells and conveyance pipe	Procurement of equipment		○
	Construction of wells and well houses		○
	Installation of well equipment		○
	Land procurement	○	
	Fence construction	○	
	Electricity distribution line construction	○	
	EIA	○	
Pump rehabilitation	Pump Removal	○	
	Procurement		○
	Installation		○

Attachment:

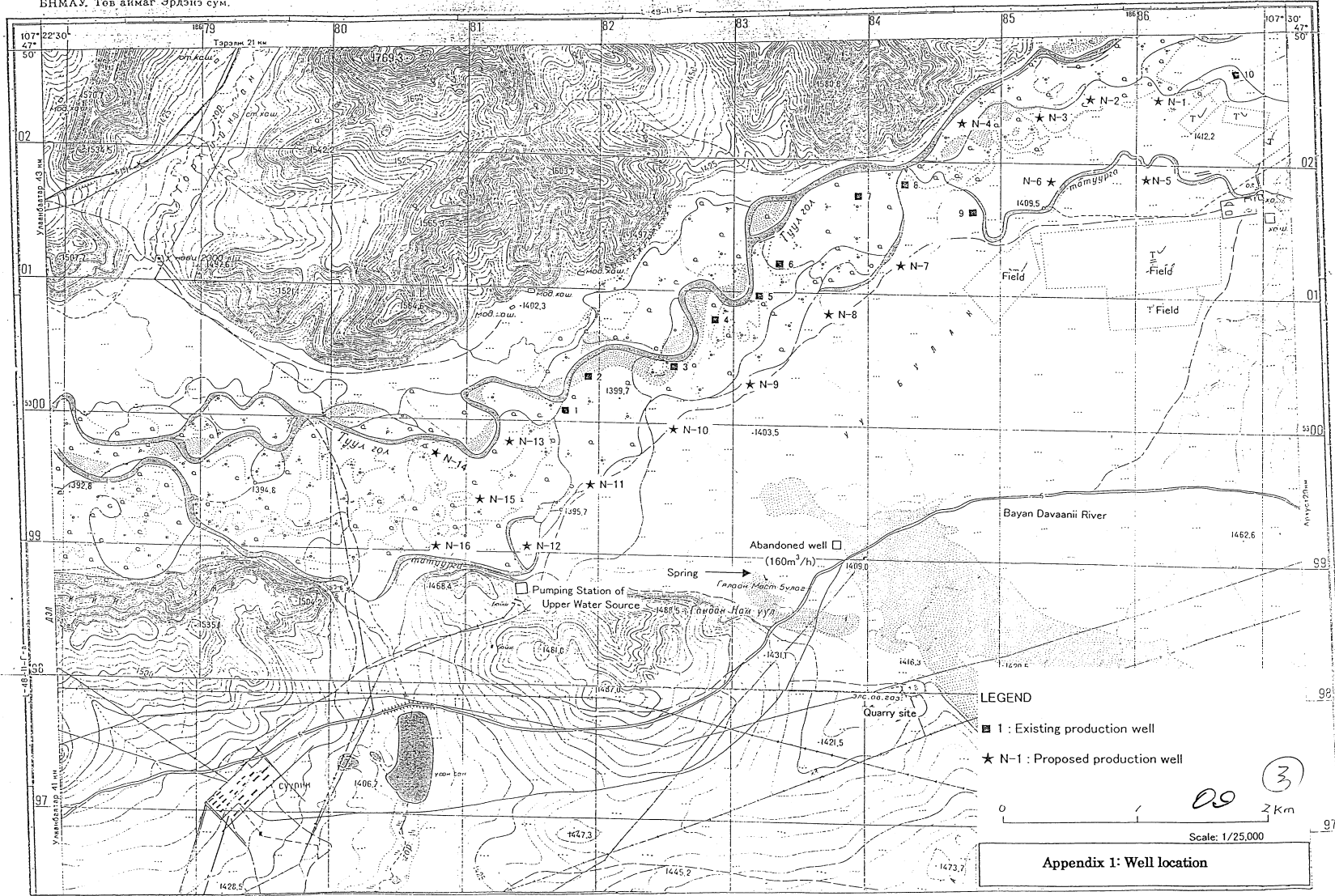
Appendix 1: Well location

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[-48-11-]-6 (ШАНД УУЛ)

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Appendix 1: Well location