

***CHAPTER 3***  
***PROJECT EVALUATION AND***  
***RECOMMENDATIONS***

## **CHAPTER 3 PROJECT EVALUATION AND RECOMMENDATIONS**

### **3-1 Project Effect**

#### **(1) Direct effects**

- ◆ Reduction of leakage volume: Water saved by the Project is estimated at about 12,600 m<sup>3</sup>/day. This amount is equivalent to 10% of the total leakage volume, 48.6 MCM, in 2000, reducing the leakage rate by 3%
- ◆ Increase in revenues: The amount of saved water represents approximately US\$ 670,000 in additional revenue per year at current tariff levels, accounted for a 7% increase in the DAWSSA's revenue in 2000, if the saved water is regarded as revenue earning water.
- ◆ Cut in repair cost: The repair costs for the distribution network are cut by reducing the frequency of leakage.

#### **(2) Indirect effects**

- ◆ Securing saved water: The amount of saved water is enough to supply 74,000 persons without exploiting new water resources.
- ◆ Reduction in secondary contamination: The Project improves any abnormally low-pressure conditions in the distribution system due to leakages and helps reduce the incidence of secondary contamination.
- ◆ Improvement of customer services: By reducing the water suspension period due to repair works, people will be supplied with a safer and more stable water supply service after the Project.

### **3-2 Recommendations**

It is judged that the Project will significantly increase the supply of safe drinking water to more inhabitants without the development of new water resources. Accordingly, it is concluded that the Project is suitable and viable for Japan's Grant Aid. Furthermore, it is expected that the replacement of distribution pipelines by Syrian side will be implemented smoothly and effectively, with due consideration to and realization of the following commitment by the concerned parties.

- ◆ Prepare the budget and to establish the organization for the implementation stage with regards to the customs clearance of materials and the replacement of

distribution pipes,

- ◆ Follow application procedures for construction permits for the pipe replacement to meet the implementation schedule, and
- ◆ Procure contractors in line with the implementation schedule.

## ***APPENDICES***

- 1 Member List of Survey Team***
- 2 Survey Itinerary***
- 3 List of Party Concerned in Syria***
- 4 Minutes of Discussion***
- 5 Cost Estimation Borne by  
the Government of Syria***
- 6 Basic Design Drawings***

***Appendix-1***  
***Member List of Survey Team***

## 1. Member List of the Study Team

Mr. Katsutoshi Ishikawa	Team Leader	Grant Aid Division Economic Cooperation Bureau Ministry of Foreign Affairs
Mr. Shigeru Otake	Coordinator	First Project Management Division, Grant Aid Management Department, Japan International Cooperation Agency
Mr. Yoshiharu Inabe	Chief Consultant/ Water Planner	Nippon Koei Co., Ltd.
Mr. Masanobu Kinoshita	Procurement Planner/ Cost Estimator	Nippon Koei Co., Ltd.

***Appendix-2***  
***Survey Itinerary***

## 2. Survey Itinerary

No.	Date	Team Member	Stay	Activity
1	12/ 6 (THU)	ISHIKAWA / OTAKE / INABE / KINOSHITA	Paris	Tokyo – Paris
2	12/ 7 (FRI)	ISHIKAWA / OTAKE / INABE / KINOSHITA	Damascus	Paris – Damascus, Meeting with JICA Syria Office
3	12/ 8 (SAT)	ISHIKAWA / OTAKE / INABE / KINOSHITA	Damascus	DAWSSA, Adra Stockyard
4	12/ 9 (SUN)	ISHIKAWA / OTAKE / INABE / KINOSHITA	Damascus	Embassy of Japan, JICA Syria Office, State Planning Commission, and Ministry of Housing and Utilities
5	12/10 (MON)	ISHIKAWA / OTAKE / INABE / KINOSHITA	Damascus	Discussion on Inception Report, and Submission of Questionnaire, Visit to Figh Spring and Wali Reservoir
6	12/11 (TUE)	ISHIKAWA / OTAKE INABE / KINOSHITA	Damascus	Meeting with EDWSSR Meeting with DAWSSA
7	12/12 (WED)	ISHIKAWA / OTAKE / INABE / KINOSHITA	Damascus	Signing Minutes of Discussion, Report to Embassy of Japan, and JICA Syria Office
8	12/13 (THU)	ISHIKAWA / OTAKE INABE / KINOSHITA		Damascus – Paris – Tokyo
			Damascus	Field Survey and Data Collection
9	12/14 (FRI)	ISHIKAWA / OTAKE INABE / KINOSHITA		Arrival at Tokyo
			Damascus	Field Survey
10	12/15 (SAT)	INABE / KINOSHITA	Damascus	Field Survey and Data Collection
11	12/16 (SUN)	INABE / KINOSHITA	Damascus	Team Meeting
12	12/17 (MON)	INABE / KINOSHITA	Damascus	Field Survey and Data Collection
13	12/18 (TUE)	INABE / KINOSHITA	Damascus	Field Survey and Data Collection
14	12/19 (WED)	INABE / KINOSHITA	Damascus	Field Survey and Data Collection
15	12/20 (THU)	INABE / KINOSHITA	Damascus	Field Survey and Data Collection
16	12/21 (FRI)	INABE / KINOSHITA	Damascus	Team Meeting
17	12/22 (SAT)	INABE / KINOSHITA	Damascus	Discussion on Results of Field Survey
18	12/23 (SUN)	INABE / KINOSHITA	Damascus	Discussion on Results of Field Survey
19	12/24 (MON)	INABE / KINOSHITA	Damascus	Report to Embassy of Japan and JICA Office
20	12/25 (TUE)	INABE / KINOSHITA		Damascus – Paris – Tokyo
21	12/26 (WED)	INABE / KINOSHITA		Arrival at Tokyo



### ***Appendix-3***

#### ***List of Party Concerned in Syria***

### **3. List of Party Concerned in Syria**

#### **State Planning Commission**

- |   |                     |
|---|---------------------|
| 1. Director of Technical & Scientific Cooperation | Mr. Bassam Al Sibai |
| 2. Deputy Director                                | Mr. Hamad Kreidi    |

#### **Ministry of Housing and Utilities**

- |                                      |                      |
|--------------------------------------|----------------------|
| 1. Director of Planning & Statistics | Eng. Mazen Al-Lahham |
|--------------------------------------|----------------------|

#### **Damascus City Water Supply and Sewerage Authority (DAWSSA)**

- |                            |                      |
|----------------------------|----------------------|
| 1. General Director        | Eng. Mwafak Khallouf |
| 2. Deputy General Director | Eng. Khaled Shalak   |
| 3. Planning Director       | Ms. Najat Naboulsi   |
| 4. Construction Director   | Eng. Hosam Huraiden  |
| 5. Expert Engineer         | Eng. Husam Kassab    |

#### **Embassy of Japan**

- |                    |                     |
|--------------------|---------------------|
| 1. Ambassador      | Mr. Kishichiro Amae |
| 2. First Secretary | Mr. Seizo Matsura   |

#### **JICA Syria Office**

- |                                      |                       |
|--------------------------------------|-----------------------|
| 1. Resident Representative           | Mr. Katsuhiko Ozawa   |
| 2. Assistant Resident Representative | Mr. Teruhiko Kawabata |

***Appendix-4***  
***Minutes of Discussion***

## ATTACHMENT

### 1. Objective

The Objective of the Project is to contribute the reduction of water losses in the water distribution network by supplying the necessary materials to replace the leaking distribution mains.

### 2. Project site

The Project Site is shown as Annex I.

### 3. Responsible and Implementing Agency

(1) Responsible Agency of the Project is Ministry of Housing and Utilities.

(2) Implementing Agency of the Project is Damascus City Water Supply and Sewerage Authority (DAWSSA).

### 4. Items requested by Syrian side

After discussion with the Team, the items finally requested by the Syrian side are shown in ANNEX II

Both sides agreed that as the result of the study, minor modification on quantity might be made for practical formation of distribution networks.

### 5. Japan's Grant Aid Scheme

The Syrian side has understood the system of Japan's Grant Aid Programme in ANNEX III as explained by the Team and will take the necessary measures described in ANNEX IV for smooth implementation of the Project.

### 6. Schedule of the Study

- (1) The consultants of the Team will proceed to further studies in Syria until 25 December 2001.
- (2) JICA will complete the final report and send it to the Government of Syria around April 2002.



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## 7. Other relevant issues

The followings were discussed and confirmed by both sides.

(1) The following phasing was confirmed is appropriate.

- 1) First Year : Kafarsouseh, Bagdad, Berzeh
- 2) Second Year : Mezzeh, Midan

(2) Allocation of budget and staff:

The Syrian side will allocate the necessary budget and staff for implementation of the Project.

(3) Installation of material:

The Syrian side will complete the installation of materials to be provided under the Project promptly.

(4) Stockyard and Garage:

The Syrian side will prepare the stockyard and garage exclusively for the materials procured by the Project.

(5) Soft Component:

It is necessary for the Project to include the soft component to support the expansion of training activities for ensuring high quality of operation and maintenance of the Project in the future.

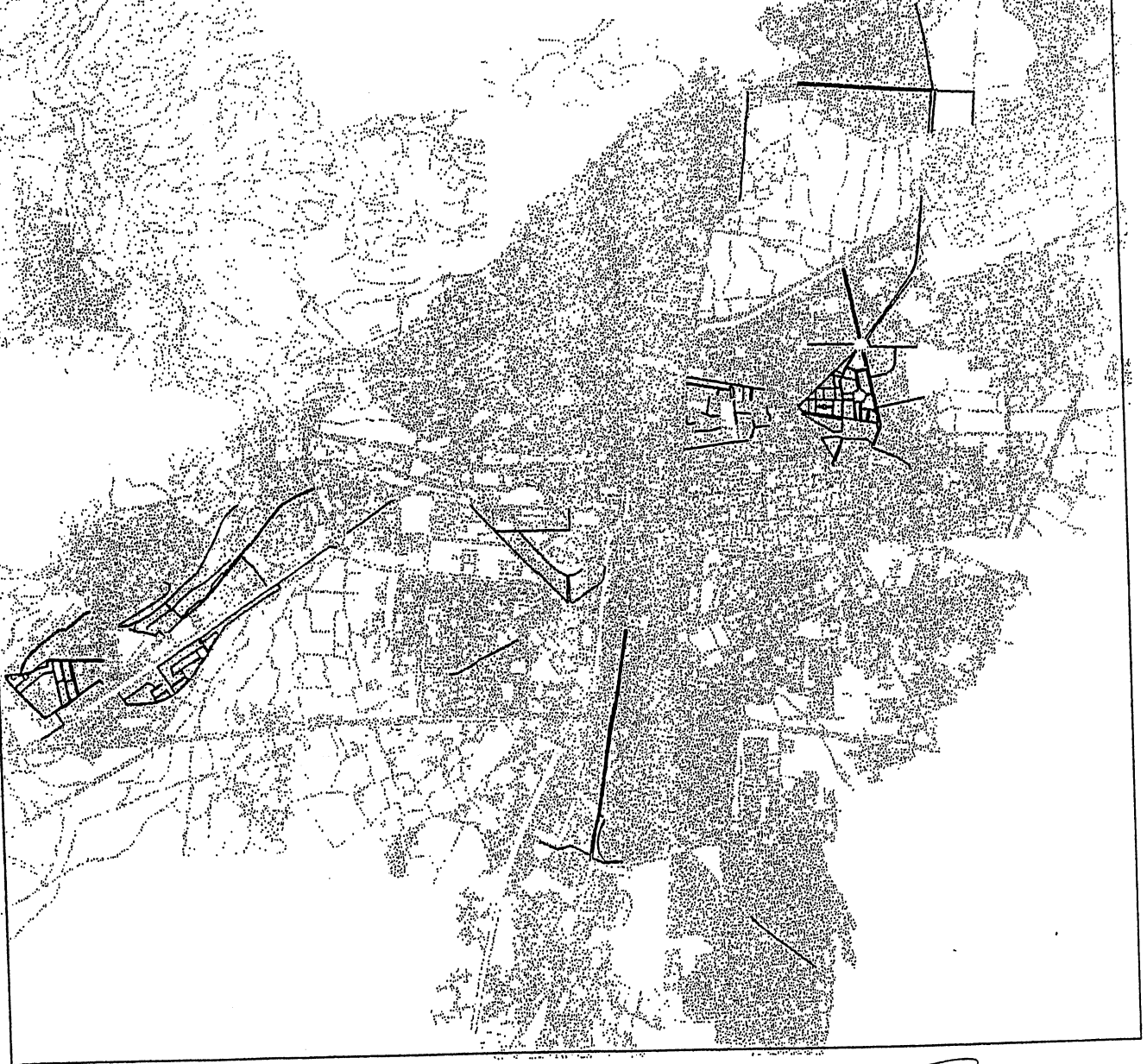
(6) Visibility:

The Syrian side will take necessary measures to secure high visibility of the Project, such as plates for advertisement of the donor during the construction works.



# ANNEX-I

## REPLACEMENT PROJECT PHASE II



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## ANNEX-II

## LIST OF PIPE LENGTH

YEAR	AREA		TOTAL (km)
1 <sup>st</sup> year	K	Kafarsouseh	5.8
	B	Bagdad	23.0
	Z	Berzeh	9.7
2 <sup>nd</sup> year	M	Mezzeh	23.1
	I	Midan	6.9
TOTAL (km)			68.5



## Annex-III

### Japan's Grant Aid Programme

#### 1. Grant Aid Procedures

(1) Japan's Grant Aid Program is executed through the following procedures.

- **Application** (A request made by the recipient country)
- **Study** (Basic Design Study conducted by JICA)
- **Appraisal & Approval** (Appraisal by the Government of Japan and Approval the Cabinet of Japan)
- **Determination** (Exchange of Notes between the Governments of Japan and the recipient country)
- **Implementation** (Implementation of the Project)

(2) Firstly, the application or request for a Grant Aid project submitted by a recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to determine whether or not it is suitable for Japan's Grant Aid. If the request is deemed suitable, the Government of Japan entrusts a study on the request to JICA (Japan International Cooperation Agency).

Secondly, JICA conducts the study (Basic Design Study) using (a) Japanese consulting firm(s). If the backgrounds and objective of the requested project are not clear, a Preparatory Study is conducted prior to a Basic Design Study.

Thirdly, the Government of Japan appraises the project to see whether or not it is suitable for Japan's Grant Aid Programme, based on the Basic Design Study Report prepared by JICA, and the results are then submitted to the Cabinet for an approval.

Fourthly, the project, once approved by the Cabinet, becomes official when pledged by the Exchange of Notes signed by the Governments of Japan and recipient country.

Finally, for the implementation of the project, JICA will assist the recipient country in such matters as preparing tenders, contract and so on.

#### 2. Basic Design Study


(1) Contents of the study

The purpose of the Study (Preparatory / Basic Design Study) conducted on a project requested by JICA is to provide a basic document necessary for appraisal of the Project by the Japanese Government. The contents of the Study are as follows:

- a) To confirm background, objectives, and benefits of the Project and also institutional capacity of agencies concerned of the recipient country necessary for Project implementation.
- b) To evaluate appropriateness of the Project for the Grant Aid Scheme from a technical, social and economic point of view.
- c) To confirm items agreed on by the both parties concerning the basic concept of the Project.
- d) To prepare a basic design of the Project.
- e) To estimate costs involved in the Project.

Final project components are subject to approval by the Government of Japan and therefore may differ from an original request.

Implementing the project, the Government of Japan requests the recipient country to



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take necessary measures involved which is itemized on Exchange of Notes.

(2) Selection of Consultants

For smooth implementation of the Study, JICA uses (a) registered consultant firm(s) registered. JICA selects (a) firm(s) through proposals submitted by firms that are interested. The firm(s) selected carry (ies) out a Basic Design Study and write(s) a report, based upon terms of reference set by JICA.  
The consultant firm(s) used for the Study is (are) recommended by JICA to the recipient country to also work on the Project's implementation after the Exchange of Notes, in order to maintain technical consistency.

(3) Status of a Preparatory Study in the Grant Aid Programme

A Preparatory Study is conducted during the second step of a project formulation & preparation as mentioned above.

A result of the study will be utilized in Japan to decide if the Project is to be suitable for a Basic Design Study.

Based on the result of the Basic Study, the Government would proceed to the stage of decision making process (appraisal and approval).

It is important to notice that at the stage of Preparatory Study, no commitment is made by the Japanese side concerning the realization of the Project in the scheme of Grant Aid Programme.

**3. Japan's Grant Aid Scheme**

(1) What is Grant Aid?

The Grant Aid Programme provides a recipient country with non-reimbursable funds needed to procure the facilities, equipment and services for economic and social development of the country under the following principles in accordance with the relevant laws and regulations of Japan. Grant Aid is not a form of donation or such.

(2) Exchange of Notes (E/N)

Japan's Grant Aid is extended in accordance with the Notes exchanged by the two Governments concerned, in which the objectives of the Project, period of execution, conditions and amount of the Grant Aid, etc., are confirmed.

(3) Period

"The period of the Grant Aid" means the one fiscal year that the Cabinet approves the Project for. Within the fiscal year, all procedures such as exchanging of the Notes, concluding contracts with (a) consultant firm(s) and (a) contractor(s) and final payment to them must be completed.

(4) Purchase of the Products and or Services

Under the Grant Aid, in principle, Japanese products and services including transport or those of the recipient country are to be purchased.

When the two Governments deem it necessary, the Grant Aid may be used for the purchase of the products or services of a third country.

However, the prime contractors, namely, consulting constructing and procurement firms, are limited to "Japanese nationals". (The term "Japanese nationals" means persons of Japanese nationality or Japanese corporations controlled by persons of Japanese nationality.)

(5) Necessity of "Verification"

The Government of recipient country or its designated authority will conclude

contracts denominated in Japanese yen with Japanese nationals. The Government of Japan shall verify those contracts. This "Verification" is deemed necessary to secure accountability to Japanese taxpayers.

(6) Undertakings required of the Government of the Recipient Country  
(As described in Annex-IV)

(7) Proper Use

The recipient country is required to maintain and use the facilities constructed and the equipment purchased under the Grant Aid properly and effectively and to assign staff necessary for this operation and maintenance as well as to bear all the expenses other than those covered by the Grant Aid.

(8) Re-export

The products purchased under the Grant Aid should not be re-exported from the recipient country.

(9) Banking Arrangements (B/A)

a) The Government of the recipient country or its designated authority shall open an account in the name of the Government of the recipient country in a bank in Japan (hereinafter referred to as "the Bank"). The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by the Government of the recipient country or its designated authority under the contracts verified.

b) The payments will be made when the Bank presents payment requests to the Government of Japan under an Authorization to Pay issued by the Government of the recipient country or its designated authority.



#### Annex-IV

#### Necessary Measures to be taken by the Government of the Syrian Arab Republic

Following necessary measures should be taken by the on condition that the Grant Aid by the Government of Japan is extended to the Project:

1. To provide data and information necessary for the Project.
2. To secure land for the sites fo the Project.
3. To clear the sites prior to commencement of the construction.
4. To provide facilities for distribution of electricity, water supply, drainage and other incidental facilities outside the side.
5. To bear commissions to the Japanese foreign exchange bank for its banking services based upon the Banking Arrangement, namely the advising commission of the "Authorization to Pay" and payment commission.
6. To ensure prompt unloading, tax exemption, customs clearance at the port of disembarkation and prompt internal transportation therein of the materials and equipment for the Project purchased under the Grant Aid.
7. To exempt Japanese juridical and physical nationals engaged in the Project from customs duties, internal taxes and other fiscal levies which may be imposed in Syria with respect to the supply of the products and services under the verified contracts.
8. To accord Japanese nationals whose services may be required in connection with the supply of the products and the services under the verified contract such facilities as may be necessary for their entry into Syria and stay therein for the performance of their work in accordance with the relevant laws and regulations of the Syrian Arab Republic.
9. To assign the necessary staff and secure the necessary budget for operation and maintenance of the materials purchased under the Project.
10. To maintain and use properly and effectively the materials provided under the Project
11. To maintain and use properly and effectively the facilities constructed under the Project
12. To coordinate and solve any issues related to the Project which may be raised from the their parties or inhabitants in the Project area during implementation of the Project.
13. To bear all the expenses, other than those to be borne by the Japan's Grant Aid within the scope of the Project.



**DAMASCUS CITY WATER SUPPLY & SEWERAGE AUTHORITY**

El-Nassr Street, Damascus Syrian Arab Republic

Number : / 1 / 15

Date : / 2 / 1 / 2002

**To JICA Syria Office Urgent**

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Mr. Katsutoshi ISHIKAWA  
Team Leader  
Implementation Review Study Team  
Japan International Cooperation Agency

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**Re: The Project for Rehabilitation of Water Distribution Pipelines In  
Damascus City (Phase II)**

With reference to the minutes of discussions held on December 12, 2001 regarding the captioned project, we would like to request you the following modifications of distribution pipeline length and phasing according to the result of our recent review.

- 1) Total pipe length: 68.5 km to 75.1 km including additional pipe length in Midan and Mezeh area.
- 2) Phasing: Midan area is changed from 2<sup>nd</sup> year to 1<sup>st</sup> year due to urgent request of pipe replacement.

In accordance with the above modification, the final proposed pipe length is summarized as the following table.

Year	Area	Total (km)
1 <sup>st</sup> year	K Kafarsouseh	5.8
	B Bagdad	23.0
	Z Berzeh	9.7
	I Midan	11.5
2 <sup>nd</sup> year	M Mezzeh	25.1
Total (km)		75.1

Your kind consideration and acceptance on this matter would be highly appreciated.

Sincerely yours,

General director

En. Muwafak Khallouf

Copy to: Mr. M. Bassam Al Sibai  
State Planning Commission

***Appendix-5***  
***Cost Estimation Borne by***  
***the Government of Syria***

### **Cost Estimation Borne by the Government of Syria**

Unit: Million SL

Year	2003	2004	2005
Pipe Laying Works	97.5	70.0	37.0
Inland Transportation Cost	2.5	2.0	-
Total	100.0	72.0	37.0

Note: The budget for the year 2005 is appropriated for contingency.

***Appendix-6***  
***Basic Design Drawings***

## DRAWING LIST

DRAWING NO.	TITLE
NK-00	GENERAL PLAN
NK-01	DETAIL OF REPLACEMENT PIPELINES (1/19) : Key map 3
NK-02	DETAIL OF REPLACEMENT PIPELINES (2/19) : Key map 4
NK-03	DETAIL OF REPLACEMENT PIPELINES (3/19) : Key map 4'
NK-04	DETAIL OF REPLACEMENT PIPELINES (4/19) : Key map 8
NK-05	DETAIL OF REPLACEMENT PIPELINES (5/19) : Key map 9
NK-06	DETAIL OF REPLACEMENT PIPELINES (6/19) : Key map 13
NK-07	DETAIL OF REPLACEMENT PIPELINES (7/19) : Key map 14
NK-08	DETAIL OF REPLACEMENT PIPELINES (8/19) : Key map 17
NK-09	DETAIL OF REPLACEMENT PIPELINES (9/19) : Key map 18
NK-10	DETAIL OF REPLACEMENT PIPELINES (10/19) : Key map 19
NK-11	DETAIL OF REPLACEMENT PIPELINES (11/19) : Key map 20
NK-12	DETAIL OF REPLACEMENT PIPELINES (12/19) : Key map 22
NK-13	DETAIL OF REPLACEMENT PIPELINES (13/19) : Key map 23
NK-14	DETAIL OF REPLACEMENT PIPELINES (14/19) : Key map 24
NK-15	DETAIL OF REPLACEMENT PIPELINES (15/19) : Key map 25
NK-16	DETAIL OF REPLACEMENT PIPELINES (16/19) : Key map 28
NK-17	DETAIL OF REPLACEMENT PIPELINES (17/19) : Key map 31
NK-18	DETAIL OF REPLACEMENT PIPELINES (18/19) : Key map 36
NK-19	DETAIL OF REPLACEMENT PIPELINES (19/19) : Key map 37