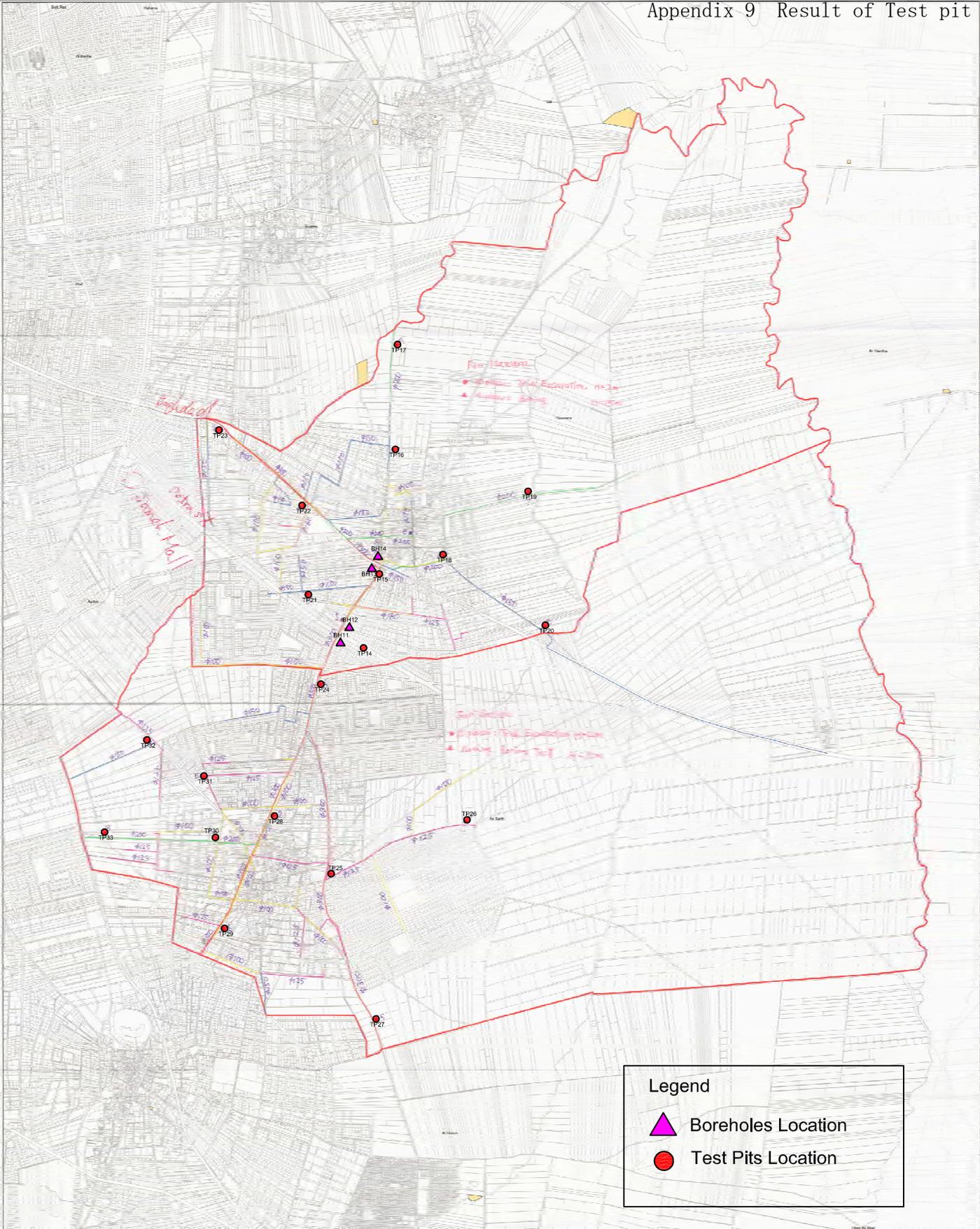


Legend

▲ Boreholes Location

● Test Pits Location



Legend

SarrhPipeTopo	150	DIAMETER	150
DIAMETER	200	100	200
	100	300	125
	125	HawaraPipeTopo	125

BOREHOLE LOG SHEET

Client : Client: JICA STUDY TEAM / TEC INTERNATIONAL CO., LTD.(TECI) **Job No.:** 35/S/03/2014

Project : THE STUDY ON WATER SECTOR FOR THE HOST COMMUNITIES OF SYRIAN REFUGEES **Borehole No.:** BH1

RIG : ATLAS COPCO **Date:** 19/02/2014

depth (m)	Elev.	Samp.	Legend	R.Q.D (%)	T.C.R (%)	SPT (N)	LITHOLOGIC DESCRIPTION
+ 0.0							Present ground surface
1			- - x				Fill Material Composed of mixture material gravels , cobbles and clayey silt material
2			(Circles)				
3			△ △ △				Dark brown Silty Clay
4			△ △ △				Mixture Composed of limestone gravels and cobbles with some clayey silt material
5			△ △ △				
6			△ △ △				Alternating Fractured Bands composed of light grey chert & yellowish white moderately weak Limestone *Highly fractured and fractures filled with silty clay soil from 2.5m to 3.5m and from 4.7m to 5.5m
7			△ △ △				
8			△ △ △				
9			△ △ △				
10			△ △ △				
11			△ △ △				
12			△ △ △				
13			△ △ △				
14			△ △ △				
15			△ △ △				
16							End of Boring

SPLIT SPOON

CORE SAMPLE

PERCUSSION

TUBE SAMPLE

BOREHOLE LOG SHEET	
Client :Client: JICA STUDY TEAM / TEC INTERNATIONAL CO., LTD.(TEC)	Job No.: 35/S/03/2014
Project :THE STUDY ON WATER SECTOR FOR THE HOST COMMUNITIES OF SYRIAN REFUGEES	Borehole No.: BH2
RIG : ATLAS COPCO	Date: 19/02/2014

depth (m)	Elev.	Samp.	Legend	R.Q.D (%)	T.C.R (%)	SPT (N)	LITHOLOGIC DESCRIPTION	
+ 0.0							Present ground surface	
1			- - X -°- X -				Basecourse Material Silty Clay Dark brown damp stiff mixed with limestone gravels	
2			- () - () ()				Mixture Composed of limestone gravels and cobbles with some clayey silt material	
3			△ △ △				<p>Alternating Fractured Bands composed of light grey chert & yellowish white moderately weak Limestone</p> <p>*Mainly Chert from 7.0m to 8.2m</p>	
4			△ △ △					
5			△ △ △					
6			△ △ △					
7			△ △ △					
8			△ △ △					
9			△ △ △					
10			△ △ △					
11			△ △ △					
12			△ △ △					
13			△ △ △					
14			△ △ △					
15			△ △ △					
End of Boring								
SPLIT SPOON		CORE SAMPLE		PERCUSSION		TUBE SAMPLE		

BOREHOLE LOG SHEET	
Client :Client: JICA STUDY TEAM / TEC INTERNATIONAL CO., LTD.(TEC)	Job No.: 35/S/03/2014
Project :THE STUDY ON WATER SECTOR FOR THE HOST COMMUNITIES OF SYRIAN REFUGEES	Borehole No.: BH3
RIG : ATLAS COPCO	Date: 19/02/2014

depth (m)	Elev.	Samp.	Legend	R.Q.D (%)	T.C.R (%)	SPT (N)	LITHOLOGIC DESCRIPTION
+ 0.0							Present ground surface
1		X	X				Fill Material Composed of silty clay soil origin material and limetone gravels
2		X	X				Silty Clay Dark brown damp firm mixed with some limestone gravels *more concentration of gravels from 2.0m to 3.0m
3		X	X				
4		X	X				
5		X	X				Mixture Composed of reddish brown moist Marly Clay and light grey chert gravels and cobbles
6		X	X				
7		X	X				
8		X	X				
9		X	X				
10		X	X				
11		X	X				
12		X	X				
13		X	X				
14		X	X				
15		X	X				End of Boring
		SPLIT SPOON	CORE SAMPLE	PERCUSSION	TUBE SAMPLE		

BOREHOLE LOG SHEET

Client :Client: JICA STUDY TEAM / TEC INTERNATIONAL CO., LTD.(TEC) **Job No.: 35/S/03/2014**

Project :THE STUDY ON WATER SECTOR FOR THE HOST COMMUNITIES OF SYRIAN REFUGEES **Borehole No.: BH4**

RIG : ATLAS COPCO **Date: 20/02/2014**

depth (m)	Elev.	Samp.	Legend	R.Q.D (%)	T.C.R (%)	SPT (N)	LITHOLOGIC DESCRIPTION
+ 0.0							Present ground surface
1			X				Fill Material Composed of silty clay soil origin material and limetone gravels
2			X				
3			X				Silty Clay Dark brown damp very stiff mixed with chert and limestone gravels
4			X				
5			X				Mixture Composed of reddish brown moist Marly Clay and light grey chert gravels
6			X				
7			X				
8			X				
9			X				
10			X				
11			X				
12			X				
13			X				
14			X				
15			X				End of Boring
		SPLIT SPOON	CORE SAMPLE	PERCUSSION	TUBE SAMPLE		

BOREHOLE LOG SHEET

Client : Client: JICA STUDY TEAM / TEC INTERNATIONAL CO., LTD.(TEC) **Job No.:** 35/S/03/2014

Project : THE STUDY ON WATER SECTOR FOR THE HOST COMMUNITIES OF SYRIAN REFUGEES **Borehole No.:** BH5

RIG : ATLAS COPCO **Date:** 20/02/2014

depth (m)	Elev.	Samp.	Legend	R.Q.D (%)	T.C.R (%)	SPT (N)	LITHOLOGIC DESCRIPTION
+ 0.0							Present ground surface
1			- - X O				Fill Material Composed of clayey silt soil and limestone gravels and cobbles
2			X . X X				Silty Clay Dark brown damp stiff mixed with limestone gravels
3			X . X X				Mixture Composed of chert and limestone gravels and cobbles with clayey silt material
4			X . X X				
5			X . X X				Marly Clay yellowish brown to light brown stiff damp, with some limestone gravels
6			X . X X				
7			X . X X				
8			X . X X				
9			X . X X				
10			X . X X				
11			X . X X				
12			X . X X				
13			X . X X				
14			X . X X				
15			X . X X				End of Boring
		SPLIT SPOON	CORE SAMPLE			PERCUSSION	TUBE SAMPLE

BOREHOLE LOG SHEET

Client :Client: JICA STUDY TEAM / TEC INTERNATIONAL CO., LTD.(TEC) **Job No.: 35/S/03/2014**

Project :THE STUDY ON WATER SECTOR FOR THE HOST COMMUNITIES OF SYRIAN REFUGEES **Borehole No.: BH6**

RIG : ATLAS COPCO **Date: 20/02/2014**

depth (m)	Elev.	Samp.	Legend	R.Q.D (%)	T.C.R (%)	SPT (N)	LITHOLOGIC DESCRIPTION
+ 0.0							Present ground surface
1							Fill Material Composed of clayey silt soil and limestone gravels and cobbles
2							
3							
4							Silty Clay Brown dry very stiff mixed with high percentage of chert and limestone gravels
5							Mixture Composed of light brown clayey silt and limestone and chert gravels and cobbles *Mainly gravels and cobbles from 5.0m to 7.5m and below 10.0m
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							End of Boring
		SPLIT SPOON	CORE SAMPLE	PERCUSSION	TUBE SAMPLE		

BOREHOLE LOG SHEET

Client :Client: JICA STUDY TEAM / TEC INTERNATIONAL CO., LTD.(TEC) **Job No.: 35/S/03/2014**

Project :THE STUDY ON WATER SECTOR FOR THE HOST COMMUNITIES OF SYRIAN REFUGEES **Borehole No.: BH7**

RIG : ATLAS COPCO **Date: 22/02/2014**

depth (m)	Elev.	Samp.	Legend	R.Q.D (%)	T.C.R (%)	SPT (N)	LITHOLOGIC DESCRIPTION	
+0.0							Present ground surface	
1		X	- σ X - - o X - - ° X -				Silty Clay Dark brown dry stiff mixed with basalt and limestone gravels	
2		X	X X X				<p>Clayey Silt Dark brown to greyish brown very stiff mixed with black basalt gravels cobbles and boulders</p> <p>*more concentration of basalt boulders from 6.0m to 9.0m</p>	
3		X	X X					
4		X	X X					
5		X	X X					
6		X	X X					
7		X	X X					
8		X	X X					
9		X	X X					
10		X	X X					
11		X	X X					
12		X	X X					
13		X	X X					
14		X	X X					
15		X	X X					End of Boring
		SPLIT SPOON	CORE SAMPLE			PERCUSSION		TUBE SAMPLE

BOREHOLE LOG SHEET

Client :Client: JICA STUDY TEAM / TEC INTERNATIONAL CO., LTD.(TEC) **Job No.: 35/S/03/2014**

Project :THE STUDY ON WATER SECTOR FOR THE HOST COMMUNITIES OF SYRIAN REFUGEES **Borehole No.: BH8**

RIG : ATLAS COPCO **Date: 22/02/2014**

depth (m)	Elev.	Samp.	Legend	R.Q.D (%)	T.C.R (%)	SPT (N)	LITHOLOGIC DESCRIPTION	
+0.0							Present ground surface	
1		X	- σ X - - o X - - o X -				Silty Clay Dark brown dry stiff mixed with basalt and limestone gravels	
2		X	X X X				<p>Clayey Silt Dark brown to greyish brown very stiff mixed with black basalt gravels cobbles and boulders</p> <p>*more concentration of basalt boulders from 6.5m to 8.5m</p>	
3		X	X X					
4		X	X X					
5		X	X X					
6		X	X X					
7		X	X X					
8		X	X X					
9		X	X X					
10		X	X X					
11		X	X X					
12		X	X X					
13		X	X X					
14		X	X X					
15		X	X X					End of Boring
		SPLIT SPOON	CORE SAMPLE			PERCUSSION		TUBE SAMPLE

BOREHOLE LOG SHEET

Client :Client: JICA STUDY TEAM / TEC INTERNATIONAL CO., LTD.(TEC) **Job No.: 35/S/03/2014**

Project :THE STUDY ON WATER SECTOR FOR THE HOST COMMUNITIES OF SYRIAN REFUGEES **Borehole No.: BH9**

RIG : ATLAS COPCO **Date: 22/02/2014**

depth (m)	Elev.	Samp.	Legend	R.Q.D (%)	T.C.R (%)	SPT (N)	LITHOLOGIC DESCRIPTION	
+0.0							Present ground surface	
1							Fill Material Composed of clayey silt soil and limestone gravels and cobbles	
2							Silty Clay Dark brown dry stiff mixed with some limestone gravels	
3								
4							Basalt Black cobbles and boulders with light brown clayey silt material	
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15							End of Boring	
		SPLIT SPOON	CORE SAMPLE	PERCUSSION	TUBE SAMPLE			

BOREHOLE LOG SHEET

Client :Client: JICA STUDY TEAM / TEC INTERNATIONAL CO., LTD.(TEC) **Job No.: 35/S/03/2014**

Project :THE STUDY ON WATER SECTOR FOR THE HOST COMMUNITIES OF SYRIAN REFUGEES **Borehole No.: BH10**

RIG : ATLAS COPCO **Date: 23/02/2014**

depth (m)	Elev.	Samp.	Legend	R.Q.D (%)	T.C.R (%)	SPT (N)	LITHOLOGIC DESCRIPTION
+ 0.0							Present ground surface
1							Fill Material Composed of clayey silt soil and limestone gravels and cobbles
2			X - X X 				<p>Clayey Silt Greyish brown dry very stiff mixed with black basalt gravels</p> <p>*mixed with black basalt cobbles and boulders from 6.0m to 9.0m</p>
3			X - X X 				
4			X - X X 				
5			X - X X 				
6			X - X X 				
7							
8							
9							
10							
11							
12							
13							
14							
15							
End of Boring							
		SPLIT SPOON	CORE SAMPLE	PERCUSSION		TUBE SAMPLE	

BOREHOLE LOG SHEET

Client : Client: JICA STUDY TEAM / TEC INTERNATIONAL CO., LTD.(TECI) **Job No.:** 35/S/03/2014

Project : THE STUDY ON WATER SECTOR FOR THE HOST COMMUNITIES OF SYRIAN REFUGEES **Borehole No.:** BH13

RIG : ATLAS COPCO **Date:** 23/02/2014

depth (m)	Elev.	Samp.	Legend	R.Q.D (%)	T.C.R (%)	SPT (N)	LITHOLOGIC DESCRIPTION
+ 0.0							Present ground surface
1			-o- x - -o- x - -o- x - -o- x -				Silty Clay Dark brown dry stiff mixed with some limestone gravels
2			-o- x - -o- x - -o- x - -o- x -				
3			~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~				Marly Clay Yellowish brown to reddish brown stiff moist mixed with limestone gravels * wet from 2.8m to 5.0m
4			~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~				
5			~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~				
6			~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~				
7			~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~				
8			~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~				
9			~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~				
10			~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~				
11			~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~				
12			~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~				
13			~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~				
14			~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~				
15			~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~				
End of Boring							
		SPLIT SPOON	CORE SAMPLE	PERCUSSION		TUBE SAMPLE	
							

BOREHOLE LOG SHEET

Client : Client: JICA STUDY TEAM / TEC INTERNATIONAL CO., LTD.(TECI) **Job No.:** 35/S/03/2014

Project : THE STUDY ON WATER SECTOR FOR THE HOST COMMUNITIES OF SYRIAN REFUGEES **Borehole No.:** BH14

RIG : ATLAS COPCO **Date:** 23/02/2014

depth (m)	Elev.	Samp.	Legend	R.Q.D (%)	T.C.R (%)	SPT (N)	LITHOLOGIC DESCRIPTION
+ 0.0							Present ground surface
1							Silty Clay Dark brown damp stiff mixed with some limestone gravels
2							Mixture Material Composed of limestone and chert gravels and some cobbles with light broewen moist marly clay soil
3							Marly Clay Yellowish brown to reddish brown damp stiff mixed with limestone and chert gravels
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							End of Boring
		SPLIT SPOON	CORE SAMPLE			PERCUSSION	TUBE SAMPLE

Test Pits Lithology

Client: JICA STUDY TEAM / TEC INTERNATIONAL CO., LTD.(TECI)

Project : THE STUDY ON WATER SECTOR FOR THE HOST COMMUNITIES OF SYRIAN REFUGEES

Location : Irbid **Job No. : 35/S/03/2014**

Test Pits No.:2

Depth = 0.8

depth (m)	Legend	LITHOLOGIC DESCRIPTION	Summary of Labtest Results												
			M.C (%)	Bulk & Dry Density		Atterberg Limits			Seive Analysis				S.G	Class.	
				γ_b	γ_d	LL	PL	PI	G	Sa	SI	Cl			
+ 0.0															
0.2		Fill Material composed of silty clay and limestone origin material													
0.4															
0.6															
0.8		Rock Material (Limestone) End of Test Pit													
1.0															
1.2															
1.4															
1.6															
1.8															
2.0															

Where :

G : Gravels Percentage

Sa: Sand Percentage

SI : Silt Percentage

Cl : Clay Percentage

S.G : Specific gravity

Class.: Classification according to AASHTOO Classification system

Test Pits Lithology

Client: JICA STUDY TEAM / TEC INTERNATIONAL CO., LTD.(TECI)

Project : THE STUDY ON WATER SECTOR FOR THE HOST COMMUNITIES OF SYRIAN REFUGEES

Location : Irbid **Job No. : 35/S/03/2014**

Test Pits No.:3

Depth = 2.0

depth (m)	Legend	LITHOLOGIC DESCRIPTION	Summary of Labtest Results																								
			M.C (%)	Bulk & Dry Density		Atterberg Limits			Seive Analysis				S.G	Class.													
γ_b	γ_d	LL		PL	PI	G	Sa	SI	Cl																		
+ 0.0																											
0.2	X	Brown moist firm Silty Clay mixed with limestone some gravels	11.6	1.81	1.62	42	24	18	3	13	35	49		A7													
0.4	X																										
0.6	X																										
0.8	X																										
1.0	X																										
1.2	X																										
1.4	X																										
1.6	X																										
1.8	X																										
2.0	X																										
End of Test Pit																											

Where :

G : Gravels Percentage

Sa: Sand Percentage

SI : Silt Percentage

Cl : Clay Percentage

S.G : Specific gravty

Class.: Classification according to AASHTOO Classification system

Test Pits Lithology

Client: JICA STUDY TEAM / TEC INTERNATIONAL CO., LTD.(TECI)

Project : THE STUDY ON WATER SECTOR FOR THE HOST COMMUNITIES OF SYRIAN REFUGEES

Location : Irbid **Job No. : 35/S/03/2014**

Test Pits No.:4

Depth = 2.0

depth (m)	Legend	LITHOLOGIC DESCRIPTION	Summary of Labtest Results											
			M.C (%)	Bulk & Dry Density		Atterberg Limits			Seive Analysis				S.G	Class.
				γ_b	γ_d	LL	PL	PI	G	Sa	SI	Cl		
+ 0.0														
0.2		Fill Material composed of limestone and marl origin material												
0.4														
0.6														
0.8		Dark brown damp stiff Silty Clay mixed with limestone some gravels												
1.0														
1.2			8.1	1.74	1.612	46.0	24.0	22.0	2.0	18.0	26.0	54.0	2.6	A7
1.4														
1.6														
1.8														
2.0														
			End of Test Pit											

Where :

G : Gravels Percentage

Sa: Sand Percentage

SI : Silt Percentage

Cl : Clay Percentage

S.G : Specific gravty

Class.: Classification according to AASHTOO Classification system

Test Pits Lithology

Client: JICA STUDY TEAM / TEC INTERNATIONAL CO., LTD.(TECI)

Project : THE STUDY ON WATER SECTOR FOR THE HOST COMMUNITIES OF SYRIAN REFUGEES

Location : Irbid **Job No. : 35/S/03/2014**

Test Pits No.:6

Depth = 2.0

depth (m)	Legend	LITHOLOGIC DESCRIPTION	Summary of Labtest Results												
			M.C (%)	Bulk & Dry Density		Atterberg Limits			Seive Analysis				S.G	Class.	
γ_b	γ_d	LL		PL	PI	G	Sa	SI	Cl						
+ 0.0															
0.2		Fill Material composed of dark brown silty clay soil and limestone gravels													
0.4		Fill Material composed of dark brown silty clay soil and limestone gravels													
0.6		Dark brown damp stiff Silty Clay mixed with limestone some gravels	9.0	1.69	1.55	51	27	24	6	8	26	60	2.56	A7	
1.0		Rock Material (Limestone)													
1.2															
1.4															
1.6															
1.8															
2.0															
End of Test Pit															

Where :

G : Gravels Percentage

S.G : Specific gravty

Sa: Sand Percentage

Class.: Classifiication according to AASHTOO Classification system

Sl : Silt Percentage

Cl : Clay Percentage

Test Pits Lithology

Client: JICA STUDY TEAM / TEC INTERNATIONAL CO., LTD.(TECI)

Project : THE STUDY ON WATER SECTOR FOR THE HOST COMMUNITIES OF SYRIAN REFUGEES

Location : Irbid **Job No. : 35/S/03/2014**

Test Pits No.:7

Depth = 2.0

depth (m)	Legend	LITHOLOGIC DESCRIPTION	Summary of Labtest Results												
			M.C (%)	Bulk & Dry Density		Atterberg Limits			Seive Analysis				S.G	Class.	
				γ_b	γ_d	LL	PL	PI	G	Sa	SI	CI			
+ 0.0															
0.2	X	Brown moist firm Silty Clay mixed with limestone some gravels	12.4	1.80	1.604	52	26	26	4.5	7.5	25	63	2.61	A7	
0.4	X														
0.6	X														
0.8	X														
1.0	X														
1.2	X														
1.4	X														
1.6	X														
1.8	X														
2.0	X														
		End of Test Pit													

Where :

G : Gravels Percentage S.G : Specific gravty

Sa: Sand Percentage Class.: Classification according to AASHTOO Classification system

SI : Silt Percentage

CI : Clay Percentage

Test Pits Lithology

Client: JICA STUDY TEAM / TEC INTERNATIONAL CO., LTD.(TECI)

Project : THE STUDY ON WATER SECTOR FOR THE HOST COMMUNITIES OF SYRIAN REFUGEES

Location : Irbid **Job No. : 35/S/03/2014**

Test Pits No.:8

Depth = 2.0

depth (m)	Legend	LITHOLOGIC DESCRIPTION	Summary of Labtest Results																								
			M.C (%)	Bulk & Dry Density		Atterberg Limits			Seive Analysis				S.G	Class.													
				γ_b	γ_d	LL	PL	PI	G	Sa	SI	Cl															
+ 0.0																											
0.2	X — ○	Brown to reddish brown moist Silty Clay mixed with some limestone gravels	11.7	1.778	1.592	48	23	25	3	10	28	59	A7	A7													
0.4	X — ○																										
0.6	X — ○																										
0.8	X — ○																										
1.0	X — ○																										
1.2	X — ○																										
1.4	X — ○																										
1.6	X — ○																										
1.8	X — ○																										
2.0	X — ○																										
															End of Test Pit												

Where :

G : Gravels Percentage

Sa: Sand Percentage

SI : Silt Percentage

Cl : Clay Percentage

S.G : Specific gravty

Class.: Classification according to AASHTOO Classification system

Test Pits Lithology

Client: JICA STUDY TEAM / TEC INTERNATIONAL CO., LTD.(TECI)

Project : THE STUDY ON WATER SECTOR FOR THE HOST COMMUNITIES OF SYRIAN REFUGEES

Location : Irbid

Job No. : 35/S/03/2014

Test Pits No.:9

Depth = 2.0

depth (m)	Legend	LITHOLOGIC DESCRIPTION	Summary of Labtest Results											
			M.C (%)	Bulk & Dry Density		Atterberg Limits			Seive Analysis				S.G	Class.
				γ_b	γ_d	LL	PL	PI	G	Sa	Sl	Cl		
+ 0.0														
0.2	x ○ —	Dark brown damp stiff Silty Clay mixed with limestone some gravels	10.0	1.719	1.563	42	20	22	4	16	29	51		A7
0.4	x ○ —	Brown damp stiff Silty Clay mixed with little amount of limestone gravels												
0.6	x —													
0.8	x —													
1.0	x —													
1.2	x —													
1.4	x —													
1.6	x —													
1.8	x —													
2.0	x —													

Where :

G : Gravels Percentage

S.G : Specific gravity

Sa: Sand Percentage

Class.: Classification according to AASHTOO Classification system

Sl : Silt Percentage

Cl : Clay Percentage

Test Pits Lithology

Client: JICA STUDY TEAM / TEC INTERNATIONAL CO., LTD.(TECI)

Project : THE STUDY ON WATER SECTOR FOR THE HOST COMMUNITIES OF SYRIAN REFUGEES

Location : Irbid **Job No. : 35/S/03/2014**

Test Pits No.:10

Depth = 2.0

depth (m)	Legend	LITHOLOGIC DESCRIPTION	Summary of Labtest Results												
			M.C (%)	Bulk & Dry Density		Atterberg Limits			Seive Analysis				S.G	Class.	
				γ_b	γ_d	LL	PL	PI	G	Sa	SI	Cl			
+ 0.0															
0.2		Fill Material composed of dark brown moist silty clay soil with some limestone gravels													
0.4															
0.6		Fill Material composed of limestone gravels and cobbels and reddish brown silty clay													
0.8															
1.0		Dark brown moist stiff Silty Clay mixed with some limestone gravels													
1.2															
1.4															
1.6															
1.8															
2.0															
			End of Test Pit												

Where :

G : Gravels Percentage

S.G : Specific gravity

Sa: Sand Percentage

Class.: Classification according to AASHTOO Classification system

SI : Silt Percentage

Cl : Clay Percentage

Test Pits Lithology

Client: JICA STUDY TEAM / TEC INTERNATIONAL CO., LTD.(TECI)

Project : THE STUDY ON WATER SECTOR FOR THE HOST COMMUNITIES OF SYRIAN REFUGEES

Location : Irbid

Job No. : 35/S/03/2014

Test Pits No.:11

Depth = 2.0

depth (m)	Legend	LITHOLOGIC DESCRIPTION	Summary of Labtest Results											
			M.C (%)	Bulk & Dry Density		Atterberg Limits			Seive Analysis				S.G	Class.
				γ_b	γ_d	LL	PL	PI	G	Sa	SI	CI		
+ 0.0														
0.2	X ○	Dark brown damp stiff Silty Clay mixed with limestone some gravels	7.5	1.732	1.611	47	22	25	4	20	22	53	2.55	A7
0.4	X ○													
0.6	X ○													
0.8	X ○													
1.0	X ○	Brown damp firm Silty Clay mixed with some limestone gravels	7.0	1.711	1.599	42	22	20	2	18	31	49		A7
1.2	X ○													
1.4	X ○													
1.6	X ○													
1.8	X ○													
2.0	X ○													
End of Test Pit														

Where :

G : Gravels Percentage

Sa: Sand Percentage

SI : Silt Percentage

CI : Clay Percentage

S.G : Specific gravity

Class.: Classification according to AASHTOO Classification system

Test Pits Lithology

Client: JICA STUDY TEAM / TEC INTERNATIONAL CO., LTD.(TECI)

Project : THE STUDY ON WATER SECTOR FOR THE HOST COMMUNITIES OF SYRIAN REFUGEES

Location : Irbid **Job No. : 35/S/03/2014**

Test Pits No.:12

Depth = 2.0

depth (m)	Legend	LITHOLOGIC DESCRIPTION	Summary of Labtest Results																								
			M.C (%)	Bulk & Dry Density		Atterberg Limits			Seive Analysis				S.G	Class.													
				γ_b	γ_d	LL	PL	PI	G	Sa	SI	Cl															
+ 0.0																											
0.2	X	Brown damp firm Silty Clay mixed with some limestone gravels	8.3	1.710	1.579	45	20	25	2	17	30	51	A7														
0.4	X																										
0.6	X																										
0.8	X																										
1.0	X																										
1.2	X																										
1.4	X																										
1.6	X																										
1.8	X																										
2.0	X																										
														End of Test Pit													

Where :

G : Gravels Percentage

S.G : Specific gravty

Sa: Sand Percentage

Class.: Classification according to AASHTOO Classification system

SI : Silt Percentage

Cl : Clay Percentage

Test Pits Lithology

Client: JICA STUDY TEAM / TEC INTERNATIONAL CO., LTD.(TECI)

Project : THE STUDY ON WATER SECTOR FOR THE HOST COMMUNITIES OF SYRIAN REFUGEES

Location : Irbid **Job No. : 35/S/03/2014**

Test Pits No.:13

Depth = 2.0

depth (m)	Legend	LITHOLOGIC DESCRIPTION	Summary of Labtest Results																						
			M.C (%)	Bulk & Dry Density		Atterberg Limits			Seive Analysis				S.G	Class.											
γ_b	γ_d	LL		PL	PI	G	Sa	SI	CI																
+ 0.0																									
0.2	X	Brown damp firm Silty Clay mixed with some limestone gravels	10.1	1.787	1.623	43	24	19	1	16	28	55	A7												
0.4	X																								
0.6	X																								
0.8	X																								
1.0	X																								
1.2	X																								
1.4	X																								
1.6	X																								
1.8	X																								
2.0	X																								
End of Test Pit																									

Where :

G : Gravels Percentage

Sa: Sand Percentage

SI : Silt Percentage

CI : Clay Percentage

S.G : Specific gravity

Class.: Classification according to AASHTOO Classification system

Test Pits Lithology

Client: JICA STUDY TEAM / TEC INTERNATIONAL CO., LTD.(TECI)

Project : THE STUDY ON WATER SECTOR FOR THE HOST COMMUNITIES OF SYRIAN REFUGEES

Location : Irbid **Job No. : 35/S/03/2014**

Test Pits No.:15

Depth = 2.0

depth (m)	Legend	LITHOLOGIC DESCRIPTION	Summary of Labtest Results																								
			M.C (%)	Bulk & Dry Density		Atterberg Limits			Seive Analysis				S.G	Class.													
				γ_b	γ_d	LL	PL	PI	G	Sa	SI	Cl															
+ 0.0																											
0.2	X ○	Dark brown damp stiff Silty Clay mixed with limestone gravels	13.3	1.771	1.563	46	23	23	5	11	23	61	2.56	A7													
0.4	X ○																										
0.6	X ○																										
0.8	X ○																										
1.0	X ○	Brown damp stiff Silty Clay mixed with very little amount of limestone gravels	9.9	1.778	1.618	40	21	19	4	113	27	56		A6													
1.2	X ○																										
1.4	X ○																										
1.6	X ○																										
1.8	X ○																										
2.0	X ○																										
End of Test Pit																											

Where :

G : Gravels Percentage

S.G : Specific gravty

Sa: Sand Percentage

Class.: Classification according to AASHTOO Classification system

SI : Silt Percentage

Cl : Clay Percentage

Test Pits Lithology

Client: JICA STUDY TEAM / TEC INTERNATIONAL CO., LTD.(TECI)

Project : THE STUDY ON WATER SECTOR FOR THE HOST COMMUNITIES OF SYRIAN REFUGEES

Location : Irbid **Job No. : 35/S/03/2014**

Test Pits No.:16

Depth = 0.5

depth (m)	Legend	LITHOLOGIC DESCRIPTION	Summary of Labtest Results											
			M.C (%)	Bulk & Dry Density		Atterberg Limits			Seive Analysis				S.G	Class.
				γ_b	γ_d	LL	PL	PI	G	Sa	SI	Cl		
+ 0.0														
0.2	x — o — x — o —	Dark brown damp stiff Silty Clay mixed with limestone gravels	8.7	1.724	1.586	44	24	20	3.5	16	24	57		A7
0.4		Rock Material (Limestone)												
0.6		End of Test Pit												
0.8														
1.0														
1.2														
1.4														
1.6														
1.8														
2.0														

Where :

G : Gravels Percentage

Sa: Sand Percentage

SI : Silt Percentage

Cl : Clay Percentage

S.G : Specific gravty

Class.: Classification according to AASHTOO Classification system

Test Pits Lithology

Client: JICA STUDY TEAM / TEC INTERNATIONAL CO., LTD.(TECI)

Project : THE STUDY ON WATER SECTOR FOR THE HOST COMMUNITIES OF SYRIAN REFUGEES

Location : Irbid **Job No. : 35/S/03/2014**

Test Pits No.:17

Depth = 2.0

depth (m)	Legend	LITHOLOGIC DESCRIPTION	Summary of Labtest Results																								
			M.C (%)	Bulk & Dry Density		Atterberg Limits			Seive Analysis				S.G	Class.													
				γ_b	γ_d	LL	PL	PI	G	Sa	SI	CI															
+ 0.0																											
0.2	X	Reddish brown dry very stiff Silty Clay mixed with limestone gravels	5.1	1.669	1.588	40	18	22	6	15	30	49	2.57	A6													
0.4	X																										
0.6	X																										
0.8	X																										
1.0	X																										
1.2	X																										
1.4	X																										
1.6	X																										
1.8	X																										
2.0	X																										
End of Test Pit																											

Where :

G : Gravels Percentage

Sa: Sand Percentage

SI : Silt Percentage

CI : Clay Percentage

S.G : Specific gravity

Class.: Classification according to AASHTOO Classification system

Test Pits Lithology

Client: JICA STUDY TEAM / TEC INTERNATIONAL CO., LTD.(TECI)

Project : THE STUDY ON WATER SECTOR FOR THE HOST COMMUNITIES OF SYRIAN REFUGEES

Location : Irbid **Job No. : 35/S/03/2014**

Test Pits No.:18

Depth = 1.6

depth (m)	Legend	LITHOLOGIC DESCRIPTION	Summary of Labtest Results											
			M.C (%)	Bulk & Dry Density		Atterberg Limits			Seive Analysis				S.G	Class.
				γ_b	γ_d	LL	PL	PI	G	Sa	Sl	Cl		
+ 0.0														
0.2		Brown damp stiff Silty Clay mixed with limestone gravels	7.9	1.727	1.601	41	21	20	3	17	30	50		A7
0.4														
0.6														
0.8														
1.0														
1.2		Reddish brown to yellowish brown Marly Clay mixed with high percentage of limestone gravels and cobbles	7.5	1.743	1.621	39	16	23	5	12	28	55		A6
1.4														
1.6		Rock Material (Limestone) End of Test Pit												
1.8														
2.0														

Where :

G : Gravels Percentage

Sa: Sand Percentage

Sl : Silt Percentage

Cl : Clay Percentage

S.G : Specific gravity

Class.: Classification according to AASHTOO Classification system

Test Pits Lithology

Client: JICA STUDY TEAM / TEC INTERNATIONAL CO., LTD.(TECI)

Project : THE STUDY ON WATER SECTOR FOR THE HOST COMMUNITIES OF SYRIAN REFUGEES

Location : Irbid **Job No. : 35/S/03/2014**

Test Pits No.:19

Depth = 2.0

depth (m)	Legend	LITHOLOGIC DESCRIPTION	Summary of Labtest Results																								
			M.C (%)	Bulk & Dry Density		Atterberg Limits			Seive Analysis				S.G	Class.													
γ_b	γ_d	LL		PL	PI	G	Sa	SI	Cl																		
+ 0.0																											
0.2		Fill Material composed of dark brown silty clay soil and limestone gravels																									
0.4	X —	Brown damp stiff Silty Clay mixed with very little amount of limestone gravels	8.0	1.74	1.61	48	24	24	3	15	26	57		A7													
0.6	X —																										
0.8	X —																										
1.0	X —																										
1.2	X —																										
1.4	X —																										
1.6	X —																										
1.8	X —																										
2.0	X —																										
															End of Test Pit												

Where :

G : Gravels Percentage

S.G : Specific gravty

Sa: Sand Percentage

Class.: Classification according to AASHTOO Classification system

SI : Silt Percentage

Cl : Clay Percentage

Test Pits Lithology

Client: JICA STUDY TEAM / TEC INTERNATIONAL CO., LTD.(TECI)

Project : THE STUDY ON WATER SECTOR FOR THE HOST COMMUNITIES OF SYRIAN REFUGEES

Location : Irbid **Job No. : 35/S/03/2014**

Test Pits No.:20

Depth = 2.0

depth (m)	Legend	LITHOLOGIC DESCRIPTION	Summary of Labtest Results																								
			M.C (%)	Bulk & Dry Density		Atterberg Limits			Seive Analysis				S.G	Class.													
γ_b	γ_d	LL		PL	PI	G	Sa	SI	CI																		
+ 0.0																											
0.2	X	Reddish brown moist very stiff Silty Clay mixed with limestone gravels	10.0	1.752	1.593	45	20	25	6.5	16	27	51	2.55	A7													
0.4	X																										
0.6	X																										
0.8	X																										
1.0	X																										
1.2	X																										
1.4	X																										
1.6	X																										
1.8	X																										
2.0	X																										
															End of Test Pit												

Where :

G : Gravels Percentage

Sa: Sand Percentage

SI : Silt Percentage

CI : Clay Percentage

S.G : Specific gravity

Class.: Classification according to AASHTOO Classification system

Test Pits Lithology

Client: JICA STUDY TEAM / TEC INTERNATIONAL CO., LTD.(TECI)

Project : THE STUDY ON WATER SECTOR FOR THE HOST COMMUNITIES OF SYRIAN REFUGEES

Location : Irbid **Job No. : 35/S/03/2014**

Test Pits No.:22

Depth = 2.0

depth (m)	Legend	LITHOLOGIC DESCRIPTION	Summary of Labtest Results																								
			M.C (%)	Bulk & Dry Density		Atterberg Limits			Seive Analysis				S.G	Class.													
				γ_b	γ_d	LL	PL	PI	G	Sa	Sl	Cl															
+ 0.0																											
0.2	X	Dark brown dry stiff Silty Clay mixed with limestone some gravels	6.3	1.671	1.572	46	26	20	6.5	16	24	54		A7													
0.4	X																										
0.6	X																										
0.8	X																										
1.0	X																										
1.2	X																										
1.4	X																										
1.6	X														Brown moist firm Silty Clay mixed with little amount of limestone gravels	15.3	1.82	1.58	45	23	22	2	14	22	62	2.58	A7
1.8	X																										
2.0	X																										
	X																										
		End of Test Pit																									

Where :

G : Gravels Percentage

S.G : Specific gravty

Sa: Sand Percentage

Class.: Classification according to AASHTOO Classification system

Sl : Silt Percentage

Cl : Clay Percentage

Test Pits Lithology

Client: JICA STUDY TEAM / TEC INTERNATIONAL CO., LTD.(TECI)

Project : THE STUDY ON WATER SECTOR FOR THE HOST COMMUNITIES OF SYRIAN REFUGEES

Location : Irbid

Job No. : 35/S/03/2014

Test Pits No.:23

Depth = 2.0

depth (m)	Legend	LITHOLOGIC DESCRIPTION	Summary of Labtest Results											
			M.C (%)	Bulk & Dry Density		Atterberg Limits			Seive Analysis				S.G	Class.
				γ_b	γ_d	LL	PL	PI	G	Sa	SI	CI		
+ 0.0														
0.2	X O	Dark brown dry stiff Silty Clay mixed with limestone gravels	4.9	1.690	1.611	40	22	18	8	11	29	52		A6
0.4	X O													
0.6	X O													
0.8	X O													
1.0	X O	Brown moist firm Silty Clay mixed with little amount of limestone gravels	16.1	1.882	1.621	44	25	19	2	15	30	53		A7
1.2	X O													
1.4	X O													
1.6	~ O	Light brown damp Marly Clay with limestone gravels												
1.8		Rock Material (Limestone)												
2.0		End of Test Pit												

Where :

G : Gravels Percentage

S.G : Specific gravty

Sa: Sand Percentage

Class.: Classification according to AASHTOO Classification system

SI : Silt Percentage

CI : Clay Percentage

Test Pits Lithology

Client: JICA STUDY TEAM / TEC INTERNATIONAL CO., LTD.(TECI)

Project : THE STUDY ON WATER SECTOR FOR THE HOST COMMUNITIES OF SYRIAN REFUGEES

Location : Irbid **Job No. : 35/S/03/2014**

Test Pits No.:27

Depth = 1.5

depth (m)	Legend	LITHOLOGIC DESCRIPTION	Summary of Labtest Results											
			M.C (%)	Bulk & Dry Density		Atterberg Limits			Seive Analysis				S.G	Class.
				γ_b	γ_d	LL	PL	PI	G	Sa	SI	Cl		
+ 0.0														
0.2		Brown damp Silty Clay mixed with little amount of limestone gravels	11.6	1.77	1.584	47	26	21	3	11	24	62	A7	
0.4														
0.6														
0.8														
1.0														
1.2														
1.4		Yelooish white moderatly weak fractured limestone												
1.6														
1.8														
2.0														
		End of Test Pit												

Where :

G : Gravels Percentage

Sa: Sand Percentage

SI : Silt Percentage

Cl : Clay Percentage

S.G : Specific gravty

Class.: Classification according to AASHTOO Classification system