

with weathered rock fragments are recovered. Though the sections without core recovery are recognized in the upper parts of the boreholes, there seems no clear relation between the location of no core recovery sections and their elevations.

No core recovery in these sections seem to be caused by washing out of weak weathered materials because the no core recovery sections are confirmed in the intensively weathered zones in general. In the previous reports, no core recovery sections tends to consider to be cavities. It is hardly considered that cavities or spaces will remain in intensively weathered zones.

RQD (rock quality designation), which indicate the percentage of total length of cylindric core more than 10 cm, ranges 0 % to 100 % irregularly in the young volcanic rocks. However, RQD is in rather higher ranges in the old volcanic rocks. This indicates that weathering develops irregularly on the young volcanic rocks, resulting recovery of short cylindric or fragmental cores. On the other hand, weathering is not developed much on the old volcanic rocks, resulting in long cylindric recoveries.

In this study the recovered drilled cores are divided into several types of rock classes following the rock classification shown in Table B.2.7. This rock classification is summarized for the classification of dam foundation rocks. The foundation rocks of the young volcanic series composed of basaltic to doleritic lavas are classified into CL to CH, and the old volcanic rocks are classified into CM to CH in general. These foundation rocks classified into CL to CH are common for the foundation rocks of a rock-fill type dam which has a size of the designed dam in this study.

#### 2.3.4 Seismic exploration result

Seismic exploration by refraction method was performed for 1370 m (8 lines) in total length at the TRO damsite. One line for 200 m out of the total length was carried out in the Phase-I. This observation line was aligned on the left abutment slope along the assumed dam axis.

The summary of the obtained results of p-wave velocity distributions are shown as follows:

Velocity layer	Velocity in left abutment (km/s)	Velocity in right abutment (km/s)	Assumed foundation rocks
First layer	0.3-0.5	0.3-0.6	residual soil
Second layer	0.8-1.3	1.0-1.3	intensively weathered
Third layer	2.0-2.3	2.5-3.0	slightly to moderately
Fourth layer	4.0-4.3	4.2-4.3	fresh rock zone of

A good correlation on the velocity is indicated between the left and right abutments except the velocity of the third layer. There is velocity difference of 0.5 to 0.7 km/s among both abutments in the third layer. The p-wave velocities of the third layer are 2.0 to 2.3 km/s in the left abutment and 2.5 to 3.0 km/s in the right abutment. The damsite area is underlain by basaltic to dorelitic lavas, which dip about 5 deg. to the north and clear lithologic difference is not expected between the left and the right abutments. The measured time-distance curves and p-wave velocity profiles are shown in Fig.B.2.10(1) to Fig.B.2.10(14).

The reason of a clear difference on the p-wave velocities is assumed to depend on the saturation of the foundation rocks. The rocks in the left abutment are almost above the groundwater table but the rocks in the right abutment are mostly below the groundwater table. The different condition of the saturation of foundation rocks seems to cause the different velocities.

Low velocity zones which may imply geological discontinuities are interpreted along the observation line of S-4 in two sections. The observation line, S-4, is aligned almost parallel to the river channel of the Terre Rouge river at the upper slope of the left abutment. The observation lines, S-5 and S-6, are aligned parallel to the S-4 line at the middle and lower slope of the left abutment. On the right abutment S-8 line is also aligned parallel to the S-4 line on the top of the abutment slope. The alignment of the observation lines are shown in Fig.B.2.1.

Among four parallel observation lines on both abutment slopes, low velocity zones are interpreted only along the S-4 line. This result indicate that the velocity zones which interpreted along the S-4 line dose not extend for a long

distance. The low velocity zones have a possibility of local development of weathering and disturbances.

#### 2.3.5 Permeability of foundation rocks

Lugeon test was conducted in the drilled boreholes by single packer method at 6 m interval in a general rule. The obtained Lugeon values range from  $Lu=0.1$  ( $k=1.3 \times 10^{-6}$  cm/s) to  $Lu=68$  ( $k=9.6 \times 10^{-4}$  cm/s), generally falling into  $Lu=5$  to  $Lu=20$ , which are equivalent to the lower range of  $K=10^{-4}$  cm/s to the higher range of  $K=10^{-5}$  cm/s. The confirmed permeability coefficients of the foundation rocks indicate normal range for the foundation rocks of a rock-fill dam. The results of permeability test and P-Q curves obtained from Lugeon test are shown in Table B.2.1 to Table B.2.6 and Fig.B.2.12(1) to Fig.B.2.12(15).

Higher permeability coefficients, in the range of  $10^{-3}$  cm/s (more than  $Lu=70$ ), were measured in the section between 46 m and 70 m in the borehole of TRO-(5) drilled at the top of the steep slope of the right bank, Lugeon test in these section was not able to conduct properly because of development of weathering. The reason for the higher permeability coefficients obtained from these sections seems to depend on insufficient sealing of packer installation because of weathering.

For clarifying the real condition of the weathering and permeability of the foundation rocks in this part, one borehole, TRO-(6), was drilled with the inclination of 60 deg. from the point about 20 m behind TRO-(5) to the downstream of river side. This borehole was also drilled additionally for confirming the condition of deeper foundation rocks in the right abutment because the slope inclination of the right abutment is so steep that the mobilization of drill rigs was impossible in this stage.

The permeability coefficients obtained from the borehole, TRO-(6), range uniformly in the order of  $K=10^{-4}$  cm/s in the same section in which higher permeability coefficients were measured in the borehole, TRO-(5). The facts confirmed in these boreholes seem imply local development of weathering in TRO-(5).

#### 2.3.6 Rocks at other major structure sites

Core drilling campaign in the Phase-II was concentrated into the investigation for the TRO dam axis and the boundary area between the dam reservoir and the outside areas. Seismic exploration was widely performed at the damsite area. The reason for the elimination of drilling at the major structure sites such as the spillway, the diversion tunnel, the intake gate and etc. is largely depend on the performance of the transportation of drilling equipment of the drilling contractor.

Geological condition of the major structure sites at the TRO damsite is in rather simple condition; intercalations of vesicular and less vesicular basaltic to dorelitic lavas of the young volcanic series dip gently to the north to the northwest; the young volcanic rocks overlies the old volcanic rocks unconformably near the riverbed.

Based on the rather simple condition of geology, almost the same condition of the foundation rocks which are confirmed along the dam axis will be expected at the major structure sites also. However, detail information on geological condition is recommended to obtain by additional core drilling at individual major structure sites. Construction or extension roads or other way for mobilization of drilling equipment will be inevitable for the successful completion of this work before the starting of the next investigation stage.

#### 2.3.7 Geological relation between Soreze site and TRO damsite

##### a) Geological conditions at Soreze site

The Soreze site, at which geological investigation was carried out for a dam scheme in 1970, is situated at the upstream of G.R.N.W about 1.0 km from the TRO damsite to the northeast. The geological investigation at this site reported that there are many cavities such as lava tunnels or galleries and underground drainages toward to sea would empty the reservoir as a conclusion.

Nine boreholes were drilled at the Soreze damsite in the investigation. Three boreholes were drilled by hydraulic feed type drill rigs from the top of left bank of the

G.R.N.W. within the distance of about 60 m from the edge of nearly vertical river bank. Three boreholes were also drilled by the same type of drill rigs on the top of the right abutment within the distance about 60m from the edge of almost vertical river bank also. On the other hand, three holes are heard to be drilled by a hand driller in the riverbed section because of the transportation difficulty of heavy hydraulic type drill rigs.

Poor geological condition is reported as the result of this geological investigation; cavities of 0.15 m to 1.22 m in size are reported in seven boreholes out of the total nine boreholes; groundwater tables observed in the boreholes are reported more or less in equilibrium with the water level in the river in low flow condition; Lugeon test results by the double packer method, by which water leakage is apt to increase through packers and borehole wall, indicate to exceed  $Lu=50$  and more than  $Lu=100$  though the detail test results are not available.

Then, the investigation report for Soreze site pointed out the following:

- 1) The young series lava contains many cavities, and it may be reasonably thought that a certain number corresponds to the "lava tunnel".
- 2) It is likely that underground drainage towards the sea would empty the reservoir due to high permeability of the left bank consisting of the young series lava.
- 3) Fault hypothesis

A fault hypothesis is made in the investigation report as follows:

Fig.B.2.13 shows a geological section at Soreze Gorge. In corehole 2, the old lava appears at EL.102.4 m, while in corehole 7 on the right bank, it appears at EL. 61.9 m above sea level. Corehole 4 was drilled down to EL. 66 m, but did not encounter the series. Drawing a straight line between the two corehole 2 and 7 goes well above EL. 66 m. This indicates that the variation in

the two levels of lava flow is not gradual.

In conjunction with the above, observations of the topography on both sides of the river banks led to the hypothesis of a possible fault oriented in the angle formed by the direction North South and North West-South East.

b) Geological conditions at TRO and NWO sites

Two boreholes, NWO-1 and NWO-2, of 160 m in total depth were drilled at the NWO damsite which situated at about 2.5 km northeast of the TRO damsite, about 1.5 km downstream of the Soreze site. This damsite is selected as one of the damsite for the alternative study that was made in the Phase-I. The recovered core samples from these boreholes are almost the same type of lavas which are recovered from the boreholes drilled at the TRO damsite.

The core recovery of these two boreholes are nearly 100 % except intensively weathered parts. R.Q.D of the recovered core samples ranges irregularly as it ranges at the TRO damsite. The borehole, NWO-2, was drilled on the top of the right abutment at about 60 m from the edge of the vertical cliff of the river flank. In this borehole core samples were not recovered from the section between 7.7 m and 9.0 m of the intensively weathered zone. This section seems not to be a cavity or a lava tunnel because there is no any report that rod falling or water loss was occurred.

The permeability test results in these boreholes ranges rather higher ranges of  $Lu=46.5$  at most in the shallow parts and the values in the deeper parts range less than 30, mostly less than 10. These values range in almost the same order confirmed in boreholes at the TRO damsite.

The seismic explorations carried out TRO and NWO sites confirm no existence of geological fault in both sites.

c) Study Team's view on the geology at Soreze site in relation to TRO site

1) Lava tunnel

It is difficult to conclude the reason why the geological condition much poorer than those at the NWO and TRO damsites was found at the Soreze site, because the Soreze site is situated between the NWO and TRO damsites and almost same geological condition is expected at those sites in general. However, it can be said at least, based on the investigation carried out at the Soreze site, that the existence of continuous openings like lave tunnel would be very rare even at the Soreze site as explained below:

Lugeon value is converted into the permeability coefficient by the following equation:

$$K = \frac{Lu \times \ln(L/r)}{120 \ n} \times 10^{-3}$$

where, K: Permeability coefficient (cm/s),  
Lu: Lugeon value,  
L: Length of test section (500 cm),  
r: Radium of test hole (3 cm)

Thus, the Lugeon value of Lu=100 to 150, which is assumed to be the highest value measured at the Soreze site, corresponds to  $1.35 \times 10^{-3}$  to  $2.0 \times 10^{-3}$  cm/s in permeability coefficient.

Although the permeability coefficient of  $1.35 \times 10^{-3}$  to  $2.0 \times 10^{-3}$  cm/s belongs to the geology with higher permeability, the value is still in a reasonable range that it can be improved by grouting and withstand as the foundation of a rockfill dam. Assuming that the cavities encountered in boring investigations at the Soreze site are continuous openings, the above value of permeability coefficient will not be obtained: that is, such a continuous opening will make it impossible to carry out the Lugeon test since the necessary pressure for Lugeon test can not be obtained due to too excessive leakage, coming to a conclusion that the cavities will not be continuous.

The following also suggests that continuous openings seem not to exist often at the Soreze site: The river flanks between the NWO site and upstream area of Soreze site are composed almost of vertical cliffs without overburden materials and vegetation, making direct observation of the steep slope possible. Assuming there exist continuous openings very often in the area, some outlets of the continuous openings should appear on the steep slopes. Since any outlets of continuous cavity or lava tunnel are not found on the steep slopes, the concerned cavities or lava tunnels seem not to exist often, if any, including the TRO, Soreze and NWO sites.

2) Underground drainage from the left bank at Soreze site

The investigation report of the Soreze damsite also states that it is likely that underground drainage towards the sea from the left bank would empty the reservoir due to high permeability of the left bank consisting of the young lava.

As for the above opinion, the Team considers as follows:

Fig.B.2.14 shows the profile between the Soreze damsite and the sea together with the existing groundwater levels. The existing groundwater levels were found based on the water level data in the existing coreholes. (Ref. Hydrology year Book, 1981-1982-1983, Hydrology Section, CWA)

The existing groundwater level shown in Fig.B.2.14 indicates the followings:

- The portion with high permeability as investigated at the Soreze damsite will be limited to near the bank which is subject to a severe weathering.

The impermeability increases to an usual condition while moving away from the bank.

- No loss of water will occur under the reservoir water level lower than EL. 150 m. The reservoir will gain some water under the above condition.



- Some leakage may occur under the reservoir water level higher than EL. 150 as shown with dotted line in Fig.B.2.14. However, the amount of leakage may be small in consideration of a small water head and the usual geological condition inside the bank.

### 3) Fault hypothesis

#### Signs due to fault

Two cases of sign are conceivable to be caused due to a fault as follows:

Case (1): Horizontal layers are cut and slip along the fault, forming a discontinuity of layers. A sketch of this sign is shown in Fig.B.2.15(a).

Case (2): Some area sinks due to tensions acting on both sides as shown in Fig.B.2.15(b).

#### Possibility of Case (1) at Soreze site

As seen in Fig.B.2.13, the ground levels of both banks are kept at a same level. Besides that, three (3) lines showing the top of clay layers in both banks are also kept at the same level.

The above evidently clarifies that the Case (1) is not caused at Soreze site.

#### Possibility of Case (2) at Soreze site

Assuming that the Case (2) was caused at Soreze site, the river discharge would concentrate in the caved portion, forming the river channel there. Then, it should be considered that the Grand River North West was created by the above Case (2). Therefore, the Team considers that the fault has to appear in the riverbed of NWO site or TRO site if the Case (2) of fault occurred at Soreze site.

However, since the geological investigations at NWO and TRO sites confirm that such a fault does not exist there, it is reasonable to consider that there is no

Case (2) of fault at Soreze site.

### Conclusion

Both possibilities of conceivable cases of fault have been denied as mentioned, coming to a conclusion that it is reasonable to consider that no fault exists at Soreze site.

Consequently, the Team considers that there is a concave of old series lava in the riverbed of Soreze site.

The existence of such a concave or high relief of old series lava is very often in the area. The deep deposit at the Guibies damsite where the old series lava is reached at the depth of 80 to 100 m indicates an example of the high relief of old series lava.

The frequent existences of the concave or high relief of old series lava are understandable in consideration of the history of old series lava in the area, which is as seen in Fig.B.2.16

As seen in Fig.B.2.16, the high reliefs of old series lava are very common in the area, and it is considered reasonable to assume that a concave of old series lava exists in the riverbed of Soreze site.

## 2.4 Engineering Geology

### 2.4.1 Permeability of foundation rock

The obtained Lugeon values mostly range less than  $Lu=20$ , which is equivalent to  $K=3 \times 10^{-4}$  cm/s, in the boreholes drilled at the TRO damsite. Very high Lugeon values more than  $Lu=100$  were measured in the borehole, TRO-(5) which is very close to the steep river bank of the right abutment. The reason of the high Lugeon values in the borehole is assumed to depend on inappropriate ways of testing, because 10 m long test section was selected instead of the specified test section of 5 m to 6 m in the weathered zones and packers for Lugeon test were not installed adequately in weathered zones also, and these condition seems to have caused a lot of water leakage.

It is considered that the borehole, TRO(5), was the first borehole in the Phase-I investigation and appropriate testing failed to conduct for Lugeon test.

For the purpose of confirming the real permeability of the foundation rocks by careful testing and collection of further geological information, one inclined borehole, TRO-(6), was drilled at about 20 m behind TRO-(5) with the direction to the river channel. The obtained Lugeon values in the TRO-(6) range mostly in the order less than  $Lu=30$  in general or even less than  $Lu=10$  in the deeper portions. Relatively higher Lugeon values between  $Lu=40$  to  $Lu=50$  were measured in several sections in the upper portions.

Except for the very high Lugeon values which were obtained in TRO-(5), the Lugeon values in the boreholes at the TRO damsite range less than  $Lu=50$ . This Lugeon value is equivalent to the permeability coefficient of about  $K=7 \times 10^{-4}$  cm/s. The Lugeon values less than 50 or the permeability coefficient smaller than the order of  $K=1 \times 10^{-4}$  cm/s are considered to be quite normal values for foundation rocks of a rock-fill dam. The foundation rocks which have the permeability less than  $Lu=50$  or  $K=1 \times 10^{-4}$  cm/s are considered possible to be treated by normal grouting using cement milk without abnormal difficulties. In this connection the target Lugeon values after treatment by grouting is  $Lu=5$  for a rock-fill dam generally.

Judging from the obtained permeability of the foundation rocks and the design criteria for the grouting, the foundation rocks of the TRO damsite will be treated by normal grouting. The condition for groutability is recommended to confirm by a test grouting in the foundation rocks at the TRO damsite.

Based on the Lugeon test results, the diagrams, P-Q curves, showing the relation between yielding pressure and water leakage during Lugeon test are drawn in the Fig.B.2.12(1) to Fig.B.2.12(15). According to the obtained P-Q curves, there is no clear refracting points, which indicate the point sudden increase of water leakage by breaking of rocks or opening of joints or cracks. Clear refracting points will imply the critical pressure for the foundation rocks.

The most diagrams does not show any refraction and curves are in tight condition but there are slight refracting points at about

5 kg/sq.cm on the results obtained from TRO-(1) and TRO-(6). However, the refraction of the diagrams is very weak and the curves are in tight condition, and the critical points does not appear within the yielded pressure in general.

#### 2.4.2 Mechanical strength of foundation rock

In this stage mechanical tests on the foundation rocks are not conducted except uniaxial compressive test with bulk density test on recovered core samples from the boreholes, TRO-(2) and TRO-(6). The test results are summarized as follows:

Sample No.	Borehole No.	Depth (m)	Bulk density (kg/cu.m)	Compressive strength (kg/sq.cm)
1	TRO-2	21.0-21.3	2015	72.4
2	TRO-2	46.4-46.6	2672	1255.6
3	TRO-2	50.1-50.3	2801	>1275.0
4	TRO-2	67.9-68.0	2672	957.8
5	TRO-3	8.5- 8.8	2464	334.6
6	TRO-3	12.6-12.6	2547	495.7

The smallest compressive strength of 72.4 kg/sq.cm was measured on the sample of vesicular basaltic lavas belong to the young volcanic rocks. The vesicles of this sample is left fresh and empty without any filling of foreign materials. Large compressive strengths more than 950 kg/sq.cm were measured on the samples of less vesicular doleritic lavas belonging to the young volcanic series. Medium ranges of the strengths from 300 kg/sq.cm to 500 kg/sq.cm were measured on the samples of vesicular basaltic lavas of the old volcanic series.

The bulk density of the samples were measured in the tendency that the smallest bulk densities of 2.0 was obtained for the sample of which compressive capacity was smallest, medium bulk densities of 2.4 to 2.5 for the samples with medium compressive strength and larger bulk densities of 2.7 to 2.8 were measured on the samples with larger compressive strength.

In this stage strength of the foundation rocks were only measured on the recovered core samples. Bearing or shearing capacities of the total foundation rocks are not examined. However, the dam foundation rocks will withstand the designed dam structure without serious problems judging from the obtained uniaxial compressive strength and the observation of composition of foundation rocks in the dam abutment.

For the conformation of the total strength of the foundation rocks will be recommended by the in-situ loading and shearing test in excavated test adits in the next stage.

#### 2.4.3 Foundation excavation

According to the results of core drilling, seismic exploration and field reconnaissance, thick talus deposits or scree deposits for about 15 m in the maximum depth are confirmed to overlie the lower slope, 120 m to 160 m in elevation, of the left abutment. The slope surrounding the borehole, TR0-(2) at 207 m in elevation, there is a development of talus and scree deposits for about 15 m in the maximum depth also. These materials were derived from the outcrops of basaltic lavas in upper slopes, the materials are composed of the mixtures of gravel of lavas and calyey soil materials.

The talus and scree deposits are in loose condition. Weathering on the rocks develops in some extents below these materials. WEathering on the surface zones of foundation rocks is also developed for about 5 m to 10 m.

Loose materials have to be removed from the impervious core zones, for avoiding unequal settlement, high water leakage through these materials and other unexpected phenomena on the dam body. Excavation of the foundation rocks will be made for smooth contact between foundation rocks and impervious core materials.

The right bank of the dam abutment is very steep, especially the slope above 205 m in elevation inclines about 80 deg. and partly vertical. Lavas crop out continuously in this slope for about 40 m in height until top of the bank slope.

The slope below about 205 m inclines 45 deg. on an average. The slope in this section overlain by talus and scree deposits for 2 m to 3 m on an average. The materials overlying this slope are

derived from the outcrops of lavas in the upper slope. These materials are in loose condition and they have to be removed from the impervious core zone. Weathering on the foundation rocks below these loose materials seems to be developed for some extents.

Foundation excavation of the impervious core zone is to secure reliable contact between impervious core materials and foundation rocks with removing loose materials. Taking the geological condition of the damsite and requirement of the foundation excavation into consideration, the depth for the foundation excavation will be 5 m to 15 m on the left abutment slope and about 5 m on the right abutment.

The surface stripping for the foundation of rock embankment zone will be 1.5 to 2.0 m in depth which will remove all organic or harmful materials.

For judgment of the proper depth for foundation excavation, additional core drilling and trench excavation in the abutment slopes will be required.

#### 2.4.4 Foundation treatment

The dam foundation of the TRO damsite is composed of volcanic rocks and the foundation rocks will withstand the designed dam structure without serious problems. Based on this ground, the foundation treatment will be required only for improvement of the foundation rocks on permeability characteristics.

According to the results of the permeability test, the permeability of the foundation rocks ranges less than  $Lu=50$ , in other word, smaller than  $K=7 \times 10^{-4}$  cm/s, mostly smaller ranges of  $10^{-4}$  to  $10^{-6}$  cm/s. Judging from the obtained order of the permeability of the foundation rocks, the foundation rocks will be improved by normal grouting without special treatments such as providing cut-off walls and impervious blanket. The groutability of the foundation rocks will be examined by test grouting with actual grouting into the foundation rocks at the damsite.

Since core drilling in investigation stages will not confirm the whole foundation condition perfectly, grouting holes in the construction stage will act as pilot holes or check holes. If high permeability is confirmed, additional grouting will be

performed in the actual works. Grout gallery will be required for the case if additional grouting is required after starting of embankment the dam body.

#### 2.4.5 Water tightness of the dam foundation rocks and rocks surrounding reservoir

##### a) Lava tunnel or Lava tube

Since the possibility of developments of lava tunnels near study area and faults along the G.R.N.W were supposed by the previous study reports, the geological investigation of this stage was concentrated not only into the investigation of foundation rocks of the major structure sites but also confirmation of remarkable geological phenomena such as developments of lava tunnels or cavities and geological discontinuities.

With paying attention to the above mentioned reports, boreholes were drilled not only at damsite but in the area surrounding the reservoir for confirming geological phenomena, permeability of the rocks surrounding reservoir, groundwater level in boreholes and so on. For this purpose three boreholes for 320 m ( TR0-1, TR0-(1), TR0-(7) ) were drilled in the area surrounding the reservoir.

Lava tunnels or lava tubes are considered to be created by draining of liquid lavas after solidification of the upper surface. In the study area lavas were erupted repeatedly in many successions with the thickness of 5 m to 20 m of each lava band and were flown to the direction of the north to the northwest along the present topographic inclination of the gentle plateau. Lava tunnels or lava tubes may frequently be directed to the same direction of the maximum topographic inclination if they are present, although the lava tunnel is possible to direct to east and west or to the northwest. Taking these mentioned bases into consideration, geological study have been carried out.

Through the geological reconnaissance in the reservoir area and along the major tributaries of G.R.N.W, any typical lava tunnel was not found. Water springs which may imply the water outlet from lava tunnels or large scale of continuous

cavities are not confirmed also. Several concaved shapes in the rock outcrop surfaces are found occasionally in outcrops of lavas along the river channels, however, these concaved shapes seem to be developed by erosion of river flows or by weathering mainly. The bottoms of concaved surface of slopes are easily confirmed within shallow extent.

Weathered porous lavas are found in the upper most part of lava formation beside the waterfall near the confluence between G.R.N.W and the Moka river. Though the continuance is not clear, development of spaces like beehives are seen in the vertical slope composed of light brownish weathered lavas. However, water drains are not observed from these spaces even these spaces are located below the water level of the Moka river. The development of these spaces in rocks seems, as a result, to be limited locally in this part.

A particular study with regard to the lava tunnel or lava tube in the damsite or reservoir area is made in Annex (B-1) attached to this Appendix-B. This study tries to verify the water tightness of dam and reservoir through examinations on all possible cases of continuous lava tunnel or lava tube in the damsite and reservoir area. The study also includes the examinations on countermeasures in the event that such a continuous lava tunnel or lava tube will exist in the damsite or reservoir area by any chance.

As see, all the studies and investigations indicate that the continuous openings to cause an excessive leakage are not likely to exist in the damsite and reservoir area. However, in some parts of the study, reliance is based mainly on visual inspection, which cannot be said to have been carried out as much in detail as necessary due to thick vegetation or inaccessibility of the steep slopes. Therefore, for a further detailed confirmation, it is stressed that a very detailed field reconnaissance in the reservoir area by providing footpaths will be required at the next detailed design stage.

b) Water tightness without lava tunnel or lava tube

Measurement of groundwater table in boreholes was made on the assumption that there are abnormal phenomena if there are



lava tunnels or predominant spaces which may drain water directly to the sea from the reservoir. With regard to this matter water draining under the present riverbed was confirmed not to exist by direct measurement of river flows.

The measurement of groundwater level in the right bank area of the TRO damsite was conducted in the boreholes, TRO-3, TRO-(5) and TRO-(6). The borehole, TRO-(6), is inclined borehole with 60 deg. from the horizontal plane to the direction of the Terre Rouge river channel. The measured depths of groundwater tables are -49.1 m in TRO-3, -63.2 m in TRO-(5) based on the measurement in December 1988. The groundwater source of the right bank of the damsite is considered to be the river flow of the Moka river. Smooth curve of the groundwater table is obtained by connecting the water tables of the Moka river, the Terre Rouge river and the measured groundwater levels in these boreholes. The groundwater table is drawn on the attached Fig.B.2.6(1) to Fig.B.2.6(3).

The groundwater table line from the Moka to the boreholes, TRO-3 and TRO-(5), is very gently decreased and it inclines steeply from the borehole, TRO-(5) to the riverbed of the Terre Rouge river. The topographic slope of the section between TRO-(5) and the Terre Rouge river is very steep, and the rapid drawdown of the groundwater table is considered to be natural.

The normal changes of groundwater table in the right bank seem to indicate that the rocks in the right bank area are composed of water tight rocks, and the presence of lava tunnels or tubes is hardly estimated.

On the other hand, the only possible groundwater source of the left bank of TRO damsite is assumed to be the river water above the Balfor waterfall of the Plaines Wilhems river because this left bank has a shape of a rather narrow peninsular plateau jutting out to the north, and the groundwater source is not expected from other places.

Along this peninsula 5 boreholes, TRO-(7), TRO-(1), TRO-1, TRO-(2), TRO-(3) were drilled from the south to the north. Groundwater level of -23.4 m was measured in the small well,

SW39A, drilled by C.W.A beside the Balfor waterfall. The groundwater level is estimated to decrease from this small well to the north direction with draining the water to the Plaines Wilhems river and the Terre Rouge river. The riverbed elevation of the Plaines Wilhems is higher than the Terre Rouge at the both sides of the peninsula in this connection.

Groundwater Table in Boreholes in December 1988

Borehole No.	Elevation of groundwater table (m)
SW39A	242.2
TRO-(7)	234.6
TRO-(1)	182.8
TRO-1	134.5
TRO-(2)	136.7
TRO-(3)	128.1

Groundwater table, which is not natural groundwater table but from injected water by drilling and Lugeon test, in TRO-(7) was confirmed in shallow parts from the starting of the drilling; however, the groundwater table is decreasing gradually with the progress of drilling works. This condition imply the favorable condition of water tightness of the rocks surrounding the boreholes. The drawn down of the groundwater level is 113.1 m in the distance of about 1,250 m in the concerned peninsular without any water supply on the way.

The observed features concerning the groundwater levels indicate the rocks surrounding the reservoir of the left bank at TRO damsite is in fair water tight condition. Decreasing of groundwater table from the Balfor waterfall to the TRO-(3) beside the Terre Rouge river channel through TRO-(7), TRO-(1), TRO-1 and TRO-(2) without any abnormal disturbance seems to indicate no development of any subsurface drainages such as lava tunnels or tubes in this area.

Annex (B-2) attached to this Appendix-B examines the groundwater level and leakage before and after the dam

construction. As seen, the examination reveals that the present low groundwater level in the left bank of damsite is quite reasonable (i.e. the present low groundwater level is not due to an unusual geological condition).

The proposed damsite including the reservoir area is composed of the young volcanic lava bands which are considerably subject to weathering. Then, worries about piping or abutment failure through the weathered portions subject to future reservoir water pressure arise. A French geologist presented his view that the junction of old and young series lava is not established on the left bank, where it may be dipping downwards and may cause problems. The French geologist also pointed out that the geological discontinuity may exist in the area and that overall geological conditions in the area should be made clear.

This subject is examined and discussed as follows:

It is agreed that the overall geological conditions in the area have to be made clearer. The test adittings, boring investigations and detailed reconnaissance in the area at the detailed design stage should carefully take the above clarification into consideration. At this stage, however, the Study Team has an opinion that this kind of problem, in principle, is possible to be solved by a proper cement grouting. The curtain grouting to be carried out in the dam foundation will fill all voids in the foundation and consolidate the weathered patches so as to prevent an excessive seepage through the foundation. Numerous rockfill dams have been successfully and satisfactorily constructed in the same or worse geological conditions, provided with the foundation treatment as mentioned. Moreover, taking into consideration that the boring investigations in the damsite confirm a considerable impermeability in the weathered portions including the junction of old and young series lavas, it is judged that the safety of the dam foundation will be possible to be secured by the usual curtain cement grouting.

The case of TRO site will have to discuss the seepage through the weathered layers in the left bank of reservoir, because the left bank shapes a peninsular having the river channel in both sides. This subject is examined below:

Fig. B.2.17 and B.2.18 show the sections of left bank of reservoir. Fig. b.2.18 illustrates the water level conditions and hydraulic gradients before and after the dam construction. In Section A-A, the change of hydraulic gradient between before and after the dam construction will negligibly be small because the riverbed elevation of River Plaines Wilhems is higher than that of River Terre Rouge, although the direction of seepage flow will become reverse. The above means nearly no change in the degree of water pressure between before and after the dam construction, and thus, it is judged that the piping or abutment failure will not arise in the portion.

In Section B-B and C-C, the hydraulic gradients after the dam construction will be steeper than those in present: from 1/420 to 1/23.3 in Section B-B and from 1/120 to 1/54.5 in Section C-C. However, the above hydraulic gradients after the dam construction will nearly be equal to or less than the present hydraulic gradient in Section A-A, or will be much less than the present hydraulic gradient of 1/8.5 arising in Section D-D. Since any piping or abutment failure does not occur in the area at present, it will be reasonable to judge that no problem will arise after the dam construction. In section D-D, the condition will shift to a safety side after the dam construction as seen in Fig. B.2.18.

In this connection, the matter is also confirmed by Bleigh's formula which gives the condition under which a piping does not occur.

Bleigh's formula is as follows: (it is noted that this formula is used in the design of a floating dam)

$$L = C^C h$$

Where,

L : Seepage length (creep length) which does not cause a piping,

h : Water head difference, and

$C^C$ : Creep ratio

The value of  $C^C$  is given in accordance with the properties of foundation materials as follows:

Foundation Materials	Creep Ratio $C^C$
Very fine sand or silt	18.0
Fine sand	15.0
Coarse sand	12.0
Sand and gravel	9.0
Gravel with boulders	4.0 - 6.0

The left bank of TRO site consists of rock even if it is partially subject to intensive weathering, and therefore,  $C^C = 9.0$  (sand and gravel) at least is considered applicable.

Thus, the seepage length to be required not to cause the piping is calculated as follows:

Section	$C^C$	h (m)	Required Length (L) (m)	Actual Seepage Length (m)
Section A-A	9.0	21	189	430
Section B-B	9.0	18	162	420
Section C-C	9.0	11	99	600

As seen, the actual seepage length is much longer than the length required by Bleigh's formula, implying a sufficient safety for the piping is ensured.

For reference, assuming the most conservative case that the foundation material consists of very fine sand or silt, the comparison between the required seepage length and the actual one will be as follows:

Section	$C^C$	h (m)	Required Length (L) (m)	Actual Seepage Length (m)
Section A-A	18.0	21	378	430
Section B-B	18.0	18	324	420
Section C-C	18.0	11	198	600

It is considered that the above examination results suggest no piping or abutment failure may not occur after the construction of dam, although the situation or extension of the weathered portions are required to be confirmed more in

detail in the next detailed design stage.

The following fact also suggests that the leakage from the reservoir through the left bank will not be likely to occur:

Table B.2.8 shows the groundwater levels measured in the boreholes in April and May, 1989. The boreholes TRO-1, (2) and (3) are located in the left abutment of the damsite. The boreholes TRO-(1) and (7) are located in the left bank of the reservoir. As seen, the groundwater levels in TRO-(1) and (7) are kept higher than the reservoir high water level of EL.189.0 m, where the leakage from the reservoir will not occur on the basis of the hydraulic theory. A sharp change of groundwater level is seen between the borehole TRO-(1) and 1. The reason for this sharp change of groundwater level should be clarified by the test adittings at the detailed design stage.

#### 2.4.6 Seismic risk analysis

For the study of seismic risk analysis, earthquake data were tried to collect from British Geological Survey. However, no earthquake data is available in the rectangle area of 500 km x 500 km which surrounding Mauritius. British Geological Survey states that the seismicity of the concerned area is undoubtedly low but it may appear lower than it actually is owing to poor instrumental coverage of an oceanic area.

No earthquake epicenters are recorded in an area within 500 kilometers from the project site, according to the world-wide earthquake data of British Geological Survey which covers periods since the beginning of the 20th century for a large part of the world. while this is no doubt a proof of low seismicity in this area, the absence of record may to some extent reflect a poor system for seismological monitoring in this area, considering some hearsay evidences of rare earthquake in the parts felt in the island of Maruritius and Reunion.

It is accordingly recommendable to assume a peak horizontal acceleration of earthquake between 0.02 g and 0.05 g for design of a dam.

## 2.5 Further Geological Investigation

For collection of further information on geological condition of the main structure sites including the dam, the spillway, the diversion tunnel, the intake structure, etc. and for further detailed confirmation of possibility of lava tunnel or lava tube in the damsite and reservoir area, the following further geological investigation will be required.

- a) Additional core drilling with field tests for collection of further information of the main structure sites and the surrounding areas
- b) Excavation of test trenches for direct observation of development of weathering and talus or scree deposits
- c) Excavation of test adits for direct observation of foundation rocks and in-situ rock tests
- d) In-situ rock shear test and loading test for collection of information on strength of the foundation rocks
- e) Test grouting for confirmation of groutability of the foundation rocks
- f) Laboratory test on recovered core samples for collection of information on physical and mechanical properties
- g) Provision of footpaths in the reservoir area and detailed reconnaissance
- h) Construction of extension roads for mobilization and transportation of equipment for further geological investigation





## ***TABLES***



TABLE B.1.1 PERMEABILITY TEST RESULTS IN BOREHOLE, GUB-1

## PERMEABILITY TEST

## PORT LOUIS WATER SUPPLY

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (ft)	GWL (cm)	Gh (cm)	FL (kg/cm2)	TH (cm)	TH*	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Lu
GUB-1		16.00		4.50				1540.00	0.00	1540.00	1.54	2.90	48.33				1.27E-03		
GUB-1		22.00		4.50				1540.00	0.00	1540.00	1.54	2.50	41.67				1.09E-03		
GUB-1		28.00		4.50				1540.00	0.00	1540.00	1.54	2.70	45.00				1.18E-03		
GUB-1		34.00		4.50				1540.00	0.00	1540.00	1.54	4.00	66.67				1.75E-03		
GUB-1		40.00		4.50				1540.00	0.00	1540.00	1.54	0.25	4.17				1.09E-04		
GUB-1		46.00		4.50				1539.00	0.00	1539.00	1.54	5.50	91.67				2.41E-03		
GUB-1		52.00		4.50				1524.00	0.00	1524.00	1.52	4.50	75.00				1.99E-03		



TABLE 1.2 PERMEABILITY TEST RESULTS IN BOREHOLE, TR0-1 (2/5)

## PERMEABILITY TEST

## PORT LOUIS WATER SUPPLY

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	CWL (ft)	CWL (cm)	Gh (cm)	FL (kg/cm2)	TH (cm)	TH*	***			Q2/TH (cm2/min)	K (cm/sec)	Lu
														Q1 (l/min)	Q2 (cc/min)	C			
TRO-1/3	73.6	78.0	440.0	3.9	10.0	0.7	689.7	184.4	5532.0	104.0	0.0	6325.7	6.3	53.1	53100.0	2.85E-05	8.4	2.39E-04	19.1
	73.6	78.0	440.0	3.9	40.0	2.8	2758.6	184.4	5532.0	104.0	0.0	8394.6	8.4	66.1	66100.0	2.85E-05	7.9	2.24E-04	17.9
	73.6	78.0	440.0	3.9	70.0	4.8	4827.6	184.4	5532.0	104.0	0.0	10463.6	10.5	65.4	65400.0	2.85E-05	6.3	1.78E-04	14.2
	73.6	78.0	440.0	3.9	50.0	3.4	3448.3	184.4	5532.0	104.0	0.0	9084.3	9.1	55.6	55600.0	2.85E-05	6.1	1.74E-04	13.9
	73.6	78.0	440.0	3.9	30.0	2.1	2069.0	184.4	5532.0	104.0	0.0	7705.0	7.7	50.5	50500.0	2.85E-05	6.6	1.87E-04	14.9
	73.6	78.0	440.0	3.9	10.0	0.7	689.7	184.4	5532.0	104.0	0.0	6325.7	6.3	---	---	2.85E-05	---	---	---
AVERAGE																		2.00E-04	16.0
HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	CWL (ft)	CWL (cm)	Gh (cm)	FL (kg/cm2)	TH (cm)	TH*	***			Q2/TH (cm2/min)	K (cm/sec)	Lu
														Q1 (l/min)	Q2 (cc/min)	C			
TRO-1/4	79.0	84.0	500.0	3.9	20.0	1.4	1379.3	184.4	5532.0	64.0	0.0	6975.3	7.0	55.3	55300.0	2.57E-05	7.9	2.04E-04	15.9
	79.0	84.0	500.0	3.9	40.0	2.8	2758.6	184.4	5532.0	64.0	0.0	8354.6	8.4	66.6	66600.0	2.57E-05	8.0	2.05E-04	15.9
	79.0	84.0	500.0	3.9	70.0	4.8	4827.6	184.4	5532.0	64.0	0.0	10423.6	10.4	70.0	70000.0	2.57E-05	6.7	1.73E-04	13.4
	79.0	84.0	500.0	3.9	100.0	6.9	6896.6	184.4	5532.0	64.0	0.0	12492.6	12.5	98.4	98400.0	2.57E-05	7.9	2.03E-04	15.8
	79.0	84.0	500.0	3.9	70.0	4.8	4827.6	184.4	5532.0	64.0	0.0	10423.6	10.4	89.5	89500.0	2.57E-05	8.6	2.21E-04	17.2
	79.0	84.0	500.0	3.9	40.0	2.8	2758.6	184.4	5532.0	64.0	0.0	8354.6	8.4	67.8	67800.0	2.57E-05	8.1	2.09E-04	16.2
	79.0	84.0	500.0	3.9	20.0	1.4	1379.3	184.4	5532.0	64.0	0.0	6975.3	7.0	59.0	59000.0	2.57E-05	8.5	2.18E-04	16.9
AVERAGE																		2.01E-04	15.6

TABLE B.1.2 PERMEABILITY TEST RESULTS IN BOREHOLE, TR0-1 (3/5)

## PERMEABILITY TEST

## PORT LOUIS WATER SUPPLY

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (ft)	GWL (cm)	Gh (cm)	FL (kg/cm2)	TH (cm)	TH*	Q1 (l/mdn)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Lu	
																				***
TRO-1/5	85.0	90.0	500.0	3.9	20.0	1.4	1379.3	232.0	6960.0	64.0	0.0	8403.3	8.4	58.3	58300.0	2.57E-05	6.9	1.79E-04	13.9	
	85.0	90.0	500.0	3.9	40.0	2.8	2758.6	232.0	6960.0	64.0	0.0	9782.6	9.8	67.8	67800.0	2.57E-05	6.9	1.78E-04	13.9	
	85.0	90.0	500.0	3.9	70.0	4.8	4827.6	232.0	6960.0	64.0	0.0	11851.6	11.9	76.4	76400.0	2.57E-05	6.4	1.66E-04	12.9	
	85.0	90.0	500.0	3.9	100.0	6.9	6896.6	232.0	6960.0	64.0	0.0	13920.6	13.9	85.0	85000.0	2.57E-05	6.1	1.57E-04	12.2	
	85.0	90.0	500.0	3.9	70.0	4.8	4827.6	232.0	6960.0	64.0	0.0	11851.6	11.9	76.3	76300.0	2.57E-05	6.4	1.66E-04	12.9	
	85.0	90.0	500.0	3.9	40.0	2.8	2758.6	232.0	6960.0	64.0	0.0	9782.6	9.8	68.8	68800.0	2.57E-05	7.0	1.81E-04	14.1	
	85.0	90.0	500.0	3.9	20.0	1.4	1379.3	232.0	6960.0	64.0	0.0	8403.3	8.4	59.1	59100.0	2.57E-05	7.0	1.81E-04	14.1	
	AVERAGE																	1.69E-04	13.1	
HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (ft)	GWL (cm)	Gh (cm)	FL (kg/cm2)	TH (cm)	TH*	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Lu	
	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	
	TRO-1/6	91.0	96.0	500.0	3.9	20.0	1.4	1379.3	242.0	7260.0	75.0	0.0	8714.3	8.7	48.0	48000.0	2.57E-05	5.5	1.42E-04	11.0
		91.0	96.0	500.0	3.9	40.0	2.8	2758.6	242.0	7260.0	75.0	0.0	10093.6	10.1	63.0	63000.0	2.57E-05	6.2	1.61E-04	12.5
		91.0	96.0	500.0	3.9	70.0	4.8	4827.6	242.0	7260.0	75.0	0.0	12162.6	12.2	71.3	71300.0	2.57E-05	5.9	1.51E-04	11.7
		91.0	96.0	500.0	3.9	100.0	6.9	6896.6	242.0	7260.0	75.0	0.0	14231.6	14.2	81.0	81000.0	2.57E-05	5.7	1.46E-04	11.4
		91.0	96.0	500.0	3.9	70.0	4.8	4827.6	242.0	7260.0	75.0	0.0	12162.6	12.2	71.4	71400.0	2.57E-05	5.9	1.51E-04	11.7
		91.0	96.0	500.0	3.9	40.0	2.8	2758.6	242.0	7260.0	75.0	0.0	10093.6	10.1	62.5	62500.0	2.57E-05	6.2	1.59E-04	12.4
91.0		96.0	500.0	3.9	20.0	1.4	1379.3	242.0	7260.0	75.0	0.0	8714.3	8.7	55.3	55300.0	2.57E-05	6.3	1.63E-04	12.7	
AVERAGE																	1.50E-04	11.7		

TABLE B.1.2 PERMEABILITY TEST RESULTS IN BOREHOLE, TR0-1 (4/5)

## PERMEABILITY TEST

## PORT LOUIS WATER SUPPLY

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (ft)	GWL (cm)	Ch (cm)	FL (kg/cm2)	TH (cm)	TH* (kg/cm2)(l/min)	***	Q1 (cc/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Lu
														***						
TR0-1/7	97.0	102.0	500.0	3.9	20.0	1.4	1379.3	252.0	7560.0	75.0	0.0	9014.3	9.0	49.7	49700.0	2.57E-05	5.5	1.42E-04	11.0	
	97.0	102.0	500.0	3.9	40.0	2.8	2758.6	252.0	7560.0	75.0	0.0	10393.6	10.4	56.4	56400.0	2.57E-05	5.4	1.40E-04	10.9	
	97.0	102.0	500.0	3.9	70.0	4.8	4827.6	252.0	7560.0	75.0	0.0	12462.6	12.5	64.3	64300.0	2.57E-05	5.2	1.33E-04	10.3	
	97.0	102.0	500.0	3.9	100.0	6.9	6896.6	252.0	7560.0	75.0	0.0	14531.6	14.5	71.7	71700.0	2.57E-05	4.9	1.27E-04	9.9	
	97.0	102.0	500.0	3.9	70.0	4.8	4827.6	252.0	7560.0	75.0	0.0	12462.6	12.5	64.1	64100.0	2.57E-05	5.1	1.32E-04	10.3	
	97.0	102.0	500.0	3.9	40.0	2.8	2758.6	252.0	7560.0	75.0	0.0	10393.6	10.4	55.5	55500.0	2.57E-05	5.3	1.37E-04	10.7	
	97.0	102.0	500.0	3.9	20.0	1.4	1379.3	252.0	7560.0	75.0	0.0	9014.3	9.0	49.4	49400.0	2.57E-05	5.5	1.41E-04	11.0	
AVERAGE																	1.35E-04	10.5		
HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (ft)	GWL (cm)	Ch (cm)	FL (kg/cm2)	TH (cm)	TH* (kg/cm2)(l/min)	***	Q1 (cc/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Lu
TR0-1/8	102.0	108.0	600.0	3.9	20.0	1.4	1379.3	---	11440.0	84.0	0.0	12903.3	12.9	2.5	2500.0	2.23E-05	0.2	4.31E-06	0.3	
	102.0	108.0	600.0	3.9	40.0	2.8	2758.6	---	11440.0	84.0	0.0	14282.6	14.3	2.7	2700.0	2.23E-05	0.2	4.21E-06	0.3	
	102.0	108.0	600.0	3.9	70.0	4.8	4827.6	---	11440.0	84.0	0.0	16351.6	16.4	3.3	3300.0	2.23E-05	0.2	4.49E-06	0.3	
	102.0	108.0	600.0	3.9	100.0	6.9	6896.6	---	11440.0	84.0	0.0	18420.6	18.4	3.8	3800.0	2.23E-05	0.2	4.59E-06	0.3	
	102.0	108.0	600.0	3.9	70.0	4.8	4827.6	---	11440.0	84.0	0.0	16351.6	16.4	3.0	3000.0	2.23E-05	0.2	4.08E-06	0.3	
	102.0	108.0	600.0	3.9	40.0	2.8	2758.6	---	11440.0	84.0	0.0	14282.6	14.3	2.5	2500.0	2.23E-05	0.2	3.89E-06	0.3	
	102.0	108.0	600.0	3.9	20.0	1.4	1379.3	---	11440.0	84.0	0.0	12903.3	12.9	2.0	2000.0	2.23E-05	0.2	3.45E-06	0.3	
AVERAGE																	4.34E-06	0.3		

TABLE B.1.2 PERMEABILITY TEST RESULTS IN BOREHOLE, TR0-1 (5/5)

## PERMEABILITY TEST

## PORT LOUIS WATER SUPPLY

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (ft)	GWL (cm)	Gh (cm)	FL (kg/cm2)	TH (cm)	TH*	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Lu
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TABLE B.1.3 PERMEABILITY TEST RESULTS IN BOREHOLE, NW0-1 (1/5)

## PERMEABILITY TEST

## PORT LOUIS WATER SUPPLY

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (ft)	GWL (cm)	Gh (cm)	FL (kg/cm2)	TH (cm)	TH*	***		C	Q2/TH (cm2/min)	K (cm/sec)	Lu		
														Q1 (l/min)	Q2 (cc/min)						
NW0-1																					
		5.00	3.90	710.00	10.00	720.00	0.72	42.80	713.33									4.62E-02			
		5.00	3.90	710.00	10.00	720.00	0.72	91.20	1520.00									9.84E-02			
		5.00	3.90	710.00	10.00	720.00	0.72	140.40	2340.00									1.52E-01			
		5.00	3.90	710.00	10.00	720.00	0.72	192.60	3210.00									2.08E-01			
		5.00	3.90	710.00	10.00	720.00	0.72	243.40	4056.67									2.63E-01			
	5.00	3.90	710.00	10.00	720.00	0.72	292.40	4873.33									3.16E-01				
(OPEN-END CONSTANT HEAD)																					
NW0-1	7.00	10.00	300.00	3.90	0.00	0.00	0.00		710.00	10.00	720.00	0.72	74.96	74960.00	3.84E-05	104.11	4.00E-03	347.04			
	(NPT without pump pressure)																				
NW0-1/1	8.00	13.00	500.00	2.80	20.00	1.38	1379.31	---	708.00	180.00	0.00	2267.31	2.27	67.00	67000.00	2.75E-05	29.55	8.12E-04	59.10		
	8.00	13.00	500.00	2.80	40.00	2.76	2758.62	---	708.00	410.00	0.00	3876.62	3.88	82.90	82900.00	2.75E-05	21.38	5.88E-04	42.77		
	8.00	13.00	500.00	2.80	60.00	4.14	4137.93	---	708.00	410.00	0.00	5255.93	5.26	100.00	100000.00	2.75E-05	19.03	5.23E-04	38.05		
	8.00	13.00	500.00	2.80	40.00	2.76	2758.62	---	708.00	410.00	0.00	3876.62	3.88	89.00	89000.00	2.75E-05	22.96	6.31E-04	45.92		
AVERAGE																			6.39E-04	46.46	

TABLE B.1.3 PERMEABILITY TEST RESULTS IN BOREHOLE, NW0-1 (2/5)

## PERMEABILITY TEST

## PORT LOUIS WATER SUPPLY

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (ft)	GWL (cm)	Gh (cm)	FL (kg/cm2)	TH (cm)	TH*	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Lu
NW0-1/2	14.50	19.00	450.00	2.80	20.00	1.38	1379.31	---	772.00	240.00	0.00	2391.31	2.39	50.00	60000.00	2.99E-05	25.09	7.51E-04	55.76
	14.50	19.00	450.00	2.80	40.00	2.76	2758.62	---	772.00	240.00	0.00	3770.62	3.77	80.00	80000.00	2.99E-05	21.22	6.35E-04	47.15
	14.50	19.00	450.00	2.80	60.00	4.14	4137.93	---	772.00	240.00	0.00	5149.93	5.15	84.00	84000.00	2.99E-05	16.31	4.88E-04	36.25
	14.50	19.00	450.00	2.80	40.00	2.76	2758.62	---	772.00	240.00	0.00	3770.62	3.77	95.00	95000.00	2.99E-05	25.19	7.54E-04	55.99
	14.50	19.00	450.00	2.80	20.00	1.38	1379.31	---	772.00	240.00	0.00	2391.31	2.39	101.00	101000.00	2.99E-05	42.24	1.26E-03	93.86
AVERAGE																	7.78E-04	57.80	
***																			
HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (ft)	GWL (cm)	Gh (cm)	FL (kg/cm2)	TH (cm)	TH*	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Lu
***																			
NW0-1/3	20.50	25.00	450.00	2.80	20.00	1.38	1379.31	---	772.00	217.00	0.00	2368.31	2.37	50.90	50900.00	2.99E-05	21.49	6.43E-04	47.76
	20.50	25.00	450.00	2.80	40.00	2.76	2758.62	---	772.00	217.00	0.00	3747.62	3.75	64.00	64000.00	2.99E-05	17.08	5.11E-04	37.95
	20.50	25.00	450.00	2.80	70.00	4.83	4827.59	---	772.00	217.00	0.00	5816.59	5.82	83.70	83700.00	2.99E-05	14.39	4.31E-04	31.98
	20.50	25.00	450.00	2.80	100.00	6.90	6896.55	---	772.00	217.00	0.00	7885.55	7.89	98.80	98800.00	2.99E-05	12.53	3.75E-04	27.84
	20.50	25.00	450.00	2.80	70.00	4.83	4827.59	---	772.00	217.00	0.00	5816.59	5.82	83.30	83300.00	2.99E-05	14.32	4.29E-04	31.82
	20.50	25.00	450.00	2.80	40.00	2.76	2758.62	---	772.00	217.00	0.00	3747.62	3.75	73.80	73800.00	2.99E-05	19.69	5.89E-04	43.76
	20.50	25.00	450.00	2.80	20.00	1.38	1379.31	---	772.00	217.00	0.00	2368.31	2.37	49.20	49200.00	2.99E-05	20.77	6.22E-04	46.17
AVERAGE																	4.78E-04	35.47	

TABLE B.1.3 PERMEABILITY TEST RESULTS IN BOREHOLE, NW0-1 (3/5)

## PERMEABILITY TEST

## PORT LOUIS WATER SUPPLY

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (ft)	GWL (cm)	Gh (cm)	FL (kg/cm2)	TH (cm)	TH*	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Lu
NW0-1/4	25.00	31.00	600.00	2.80	20.00	1.38	1379.31	---	772.00	84.00	0.00	2235.31	2.24	1.90	1900.00	2.37E-05	0.85	2.02E-05	1.42
	25.00	31.00	600.00	2.80	40.00	2.76	2758.62	---	772.00	84.00	0.00	3614.62	3.61	3.80	3800.00	2.37E-05	1.05	2.49E-05	1.75
	25.00	31.00	600.00	2.80	70.00	4.83	4827.59	---	772.00	84.00	0.00	5683.59	5.68	27.10	27100.00	2.37E-05	4.77	1.13E-04	7.95
	25.00	31.00	600.00	2.80	100.00	6.90	6896.55	---	772.00	84.00	0.00	7752.55	7.75	22.50	22500.00	2.37E-05	2.90	6.88E-05	4.84
	25.00	31.00	600.00	2.80	70.00	4.83	4827.59	---	772.00	84.00	0.00	5683.59	5.68	27.30	27300.00	2.37E-05	4.80	1.14E-04	8.01
	25.00	31.00	600.00	2.80	40.00	2.76	2758.62	---	772.00	84.00	0.00	3614.62	3.61	22.50	22500.00	2.37E-05	6.22	1.48E-04	10.37
	25.00	31.00	600.00	2.80	20.00	1.38	1379.31	---	772.00	84.00	0.00	2235.31	2.24	17.60	17600.00	2.37E-05	7.87	1.87E-04	13.12
AVERAGE																	6.82E-05	4.79	
***																			
NW0-1/5	31.00	37.00	600.00	2.80	20.00	1.38	1379.31	---	815.00	94.00	0.00	2288.31	2.29	0.70	700.00	2.37E-05	0.31	7.25E-06	0.51
	31.00	37.00	600.00	2.80	40.00	2.76	2758.62	---	815.00	94.00	0.00	3667.62	3.67	0.90	900.00	2.37E-05	0.25	5.82E-06	0.41
	31.00	37.00	600.00	2.80	70.00	4.83	4827.59	---	815.00	94.00	0.00	5736.59	5.74	1.15	1150.00	2.37E-05	0.20	4.75E-06	0.33
	31.00	37.00	600.00	2.80	100.00	6.90	6896.55	---	815.00	94.00	0.00	7805.55	7.81	1.50	1500.00	2.37E-05	0.19	4.56E-06	0.32
	31.00	37.00	600.00	2.80	70.00	4.83	4827.59	---	815.00	94.00	0.00	5736.59	5.74	1.10	1100.00	2.37E-05	0.19	4.55E-06	0.32
	31.00	37.00	600.00	2.80	40.00	2.76	2758.62	---	815.00	94.00	0.00	3667.62	3.67	0.85	850.00	2.37E-05	0.23	5.50E-06	0.39
	31.00	37.00	600.00	2.80	20.00	1.38	1379.31	---	815.00	94.00	0.00	2288.31	2.29	0.55	550.00	2.37E-05	0.24	5.70E-06	0.40
AVERAGE																	5.39E-06	0.38	

TABLE B.1.3 PERMEABILITY TEST RESULTS IN BOREHOLE, NWO-1 (4/5)

## PERMEABILITY TEST

## PORT LOUIS WATER SUPPLY

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (ft)	GWL (cm)	Gh (cm)	FL (kg/cm2)	TH (cm)	TH* (kg/cm2)(l/min)	Q1 (cc/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Ln
NWO-1/6																			
	37.00	43.00	600.00																
	37.00	43.00	600.00																
	37.00	43.00	600.00																
	37.00	43.00	600.00																
	37.00	43.00	600.00																
	37.00	43.00	600.00																
	37.00	43.00	600.00																
AVERAGE																			
***																			
HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (ft)	GWL (cm)	Gh (cm)	FL (kg/cm2)	TH (cm)	TH* (kg/cm2)(l/min)	Q1 (cc/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Ln
NWO-1/7																			
	43.00	49.00	600.00	2.80	20.00	1.38	1379.31	---	815.00	94.00	0.00	2288.31	2.29	1.10	1100.00	2.37E-05	0.48	1.14E-05	0.80
	43.00	49.00	600.00	2.80	40.00	2.76	2758.62	---	815.00	94.00	0.00	3667.62	3.67	3.00	3000.00	2.37E-05	0.82	1.94E-05	1.36
	43.00	49.00	600.00	2.80	70.00	4.83	4827.59	---	815.00	94.00	0.00	5736.59	5.74	0.90	900.00	2.37E-05	0.16	3.72E-06	0.26
	43.00	49.00	600.00	2.80	100.00	6.90	6896.55	---	815.00	94.00	0.00	7805.55	7.81	28.80	28800.00	2.37E-05	3.69	8.75E-05	6.15
	43.00	49.00	600.00	2.80	70.00	4.83	4827.59	---	815.00	94.00	0.00	5736.59	5.74	23.50	23500.00	2.37E-05	4.10	9.71E-05	6.83
	43.00	49.00	600.00	2.80	40.00	2.76	2758.62	---	815.00	94.00	0.00	3667.62	3.67	18.20	18200.00	2.37E-05	4.96	1.18E-04	8.27
	43.00	49.00	600.00	2.80	20.00	1.38	1379.31	---	815.00	94.00	0.00	2288.31	2.29	14.50	14500.00	2.37E-05	6.34	1.50E-04	10.56
AVERAGE																		4.38E-05	3.08

TABLE B.1.3 PERMEABILITY TEST RESULTS IN BOREHOLE, NW0-1 (5/5)

## PERMEABILITY TEST

## PORT LOUIS WATER SUPPLY

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (ft)	GWL (cm)	Gh (cm)	FL (kg/cm2)	TH (cm)	TH* (kg/cm2)	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Lu																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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PERMEABILITY TEST

TABLE B.1.4 PERMEABILITY TEST RESULTS IN BOREHOLE, NW0-2 (1/6)

PORT LOUIS WATER SUPPLY

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (ft)	GWL (cm)	Ch (cm)	FL (kg/cm2)	TH (cm)	TH* (kg/cm2)	***						
														Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Lu	
NW0-2/1	12.00	17.00	500.00	2.80	20.00	1.38	1379.31	---	3740.00	147.00	0.00	5266.3	5.27	120.00	120000.00	2.75E-05	22.79	6.26E-04	45.57	
	12.00	17.00	500.00	2.80	40.00	2.76	2758.62	---	3740.00	147.00	0.00	6645.6	6.65	153.90	153900.00	2.75E-05	23.16	6.37E-04	46.32	
	12.00	17.00	500.00	2.80	60.00	4.14	4137.93	---	3740.00	147.00	0.00	8024.9	8.02	174.50	174500.00	2.75E-05	21.74	5.98E-04	43.49	
	12.00	17.00	500.00	2.80	40.00	2.76	2758.62	---	3740.00	147.00	0.00	6645.6	6.65	147.30	147300.00	2.75E-05	22.16	6.09E-04	44.33	
	12.00	17.00	500.00	2.80	20.00	1.38	1379.31	---	3740.00	147.00	0.00	5266.3	5.27	122.00	122000.00	2.75E-05	23.17	6.37E-04	46.33	
AVERAGE																	6.21E-04	45.21		
HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (ft)	GWL (cm)	Ch (cm)	FL (kg/cm2)	TH (cm)	TH* (kg/cm2)	***						
														Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Lu	
NW0-2/2	17.00	23.00	600.00	2.80	20.00	1.38	1379.31	---	3740.00	140.00	0.00	5259.3	5.26	137.40	137400.00	2.37E-05	26.13	6.20E-04	43.54	
	17.00	23.00	600.00	2.80	40.00	2.76	2758.62	---	3740.00	140.00	0.00	6638.6	6.64	161.90	161900.00	2.37E-05	24.39	5.78E-04	40.65	
	17.00	23.00	600.00	2.80	70.00	4.83	4827.59	---	3740.00	140.00	0.00	8707.6	8.71	210.20	210200.00	2.37E-05	24.14	5.72E-04	40.23	
	17.00	23.00	600.00	2.80	40.00	2.76	2758.62	---	3740.00	140.00	0.00	6638.6	6.64	165.00	165000.00	2.37E-05	24.85	5.89E-04	41.42	
	17.00	23.00	600.00	2.80	20.00	1.38	1379.31	---	3740.00	140.00	0.00	5259.3	5.26	134.90	134900.00	2.37E-05	25.65	6.08E-04	42.75	
AVERAGE																	5.94E-04	41.72		

TABLE B.1.4 PERMEABILITY TEST RESULTS IN BOREHOLE, NW0-2 (2/6)

## PERMEABILITY TEST

## PORT LOUIS WATER SUPPLY

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (ft)	GWL (cm)	Gh (cm)	FL (kg/cm2)	TH (cm)	TH*	***						
														Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Lu	
NW0-2/3	23.00	29.00	600.00	2.80	20.00	1.38	1379.31	---	3740.00	136.00	0.00	5255.3	5.26	136.90	136900.00	2.37E-05	26.05	6.18E-04	43.42	
	23.00	29.00	600.00	2.80	40.00	2.76	2758.62	---	3740.00	136.00	0.00	6634.6	6.63	156.40	156400.00	2.37E-05	23.57	5.59E-04	39.29	
	23.00	29.00	600.00	2.80	60.00	4.14	4137.93	---	3740.00	136.00	0.00	8013.9	8.01	172.00	172000.00	2.37E-05	21.46	5.09E-04	35.77	
	23.00	29.00	600.00	2.80	40.00	2.76	2758.62	---	3740.00	136.00	0.00	6634.6	6.63	155.00	155000.00	2.37E-05	23.36	5.54E-04	38.94	
	23.00	29.00	600.00	2.80	20.00	1.38	1379.31	---	3740.00	136.00	0.00	5255.3	5.26	130.50	130500.00	2.37E-05	24.83	5.89E-04	41.39	
AVERAGE																	5.66E-04	39.76		
HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (ft)	GWL (cm)	Gh (cm)	FL (kg/cm2)	TH (cm)	TH*	***						
														Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Lu	
NW0-2/4	29.00	35.00	600.00	2.80	20.00	1.38	1379.31	---	3740.00	126.00	0.00	5245.3	5.25	136.90	136900.00	2.37E-05	26.10	6.19E-04	43.50	
	29.00	35.00	600.00	2.80	40.00	2.76	2758.62	---	3740.00	126.00	0.00	6624.6	6.62	156.40	156400.00	2.37E-05	23.61	5.60E-04	39.35	
	29.00	35.00	600.00	2.80	70.00	4.83	4827.59	---	3740.00	126.00	0.00	8693.6	8.69	172.00	172000.00	2.37E-05	19.78	4.69E-04	32.97	
	29.00	35.00	600.00	2.80	40.00	2.76	2758.62	---	3740.00	126.00	0.00	6624.6	6.62	155.00	155000.00	2.37E-05	23.40	5.55E-04	39.00	
	29.00	35.00	600.00	2.80	20.00	1.38	1379.31	---	3740.00	126.00	0.00	5245.3	5.25	130.50	130500.00	2.37E-05	24.88	5.90E-04	41.47	
AVERAGE																	5.59E-04	39.26		

TABLE B.1.4 PERMEABILITY TEST RESULTS IN BOREHOLE, NW0-2 (3/6)

## PERMEABILITY TEST

## PORT LOUIS WATER SUPPLY

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (ft)	GWL (cm)	Gh (cm)	FL (kg/cm2)	TH (cm)	TH*	***					
														Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Lu
NW0-2/5	35.00	41.00	600.00	2.80	20.00	1.38	1379.31	---	3740.00	113.00	0.00	5232.3	5.23	93.50	93500.00	2.37E-05	17.87	4.24E-04	29.78
	35.00	41.00	600.00	2.80	40.00	2.76	2758.62	---	3740.00	113.00	0.00	6611.6	6.61	105.30	105300.00	2.37E-05	15.93	3.78E-04	26.54
	35.00	41.00	600.00	2.80	70.00	4.83	4827.59	---	3740.00	113.00	0.00	8680.6	8.68	121.50	121500.00	2.37E-05	14.00	3.32E-04	23.33
	35.00	41.00	600.00	2.80	90.00	6.21	6206.90	---	3740.00	113.00	0.00	10059.9	10.06	133.30	133300.00	2.37E-05	13.25	3.14E-04	22.08
	35.00	41.00	600.00	2.80	70.00	4.83	4827.59	---	3740.00	113.00	0.00	8680.6	8.68	110.10	110100.00	2.37E-05	12.68	3.01E-04	21.14
	35.00	41.00	600.00	2.80	40.00	2.76	2758.62	---	3740.00	113.00	0.00	6611.6	6.61	95.70	95700.00	2.37E-05	14.47	3.43E-04	24.12
	35.00	41.00	600.00	2.80	20.00	1.38	1379.31	---	3740.00	113.00	0.00	5232.3	5.23	88.90	88900.00	2.37E-05	16.99	4.03E-04	28.32
AVERAGE																	3.50E-04	24.58	
HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (ft)	GWL (cm)	Gh (cm)	FL (kg/cm2)	TH (cm)	TH*	***					
														Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Lu
NW0-2/6	41.00	47.00	600.00	2.80	20.00	1.38	1379.31	---	3740.00	112.00	0.00	5231.3	5.23	94.40	94400.00	2.37E-05	18.05	4.28E-04	30.08
	41.00	47.00	600.00	2.80	40.00	2.76	2758.62	---	3740.00	112.00	0.00	6610.6	6.61	119.40	119400.00	2.37E-05	18.06	4.28E-04	30.10
	41.00	47.00	600.00	2.80	70.00	4.83	4827.59	---	3740.00	112.00	0.00	8679.6	8.68	134.10	134100.00	2.37E-05	15.45	3.66E-04	25.75
	41.00	47.00	600.00	2.80	90.00	6.21	6206.90	---	3740.00	112.00	0.00	10058.9	10.06	125.90	125900.00	2.37E-05	12.52	2.97E-04	20.86
	41.00	47.00	600.00	2.80	70.00	4.83	4827.59	---	3740.00	112.00	0.00	8679.6	8.68	116.70	116700.00	2.37E-05	13.45	3.19E-04	22.41
	41.00	47.00	600.00	2.80	40.00	2.76	2758.62	---	3740.00	112.00	0.00	6610.6	6.61	119.60	119600.00	2.37E-05	18.09	4.29E-04	30.15
	41.00	47.00	600.00	2.80	20.00	1.38	1379.31	---	3740.00	112.00	0.00	5231.3	5.23	93.80	93800.00	2.37E-05	17.93	4.25E-04	29.88
AVERAGE																	3.50E-04	24.58	



TABLE B.1.4 PERMEABILITY TEST RESULTS IN BOREHOLE, NW0-2 (4/6)

## PERMEABILITY TEST

## PORT LOUIS WATER SUPPLY

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (ft)	GWL (cm)	Gh (cm)	FL (kg/cm2)	TH (cm)	TH*	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Lu
NW0-2/7	47.00	53.00	600.00	2.80	20.00	1.38	1379.31	---	3740.00	112.00	0.00	5231.3	5.23	85.10	85100.00	2.37E-05	16.27	3.86E-04	27.11
	47.00	53.00	600.00	2.80	40.00	2.76	2758.62	---	3740.00	112.00	0.00	6610.6	6.61	97.40	97400.00	2.37E-05	14.73	3.49E-04	24.56
	47.00	53.00	600.00	2.80	70.00	4.83	4827.59	---	3740.00	112.00	0.00	8679.6	8.68	112.50	112500.00	2.37E-05	12.96	3.07E-04	21.60
	47.00	53.00	600.00	2.80	100.00	6.90	6896.55	---	3740.00	112.00	0.00	10748.6	10.75	121.30	121300.00	2.37E-05	11.29	2.68E-04	18.81
	47.00	53.00	600.00	2.80	70.00	4.83	4827.59	---	3740.00	112.00	0.00	8679.6	8.68	110.40	110400.00	2.37E-05	12.72	3.02E-04	21.20
	47.00	53.00	600.00	2.80	40.00	2.76	2758.62	---	3740.00	112.00	0.00	6610.6	6.61	93.70	93700.00	2.37E-05	14.17	3.36E-04	23.62
	47.00	53.00	600.00	2.80	20.00	1.38	1379.31	---	3740.00	112.00	0.00	5231.3	5.23	88.60	88600.00	2.37E-05	16.94	4.02E-04	28.23
AVERAGE																		3.22E-04	22.66
***																			
NW0-2/8	53.00	59.00	600.00	2.80	20.00	1.38	1379.31	---	3740.00	112.00	0.00	5231.3	5.23	62.60	62600.00	2.37E-05	11.97	2.84E-04	19.94
	53.00	59.00	600.00	2.80	40.00	2.76	2758.62	---	3740.00	112.00	0.00	6610.6	6.61	71.10	71100.00	2.37E-05	10.76	2.55E-04	17.93
	53.00	59.00	600.00	2.80	70.00	4.83	4827.59	---	3740.00	112.00	0.00	8679.6	8.68	83.30	83300.00	2.37E-05	9.60	2.28E-04	16.00
	53.00	59.00	600.00	2.80	100.00	6.90	6896.55	---	3740.00	112.00	0.00	10748.6	10.75	93.00	93000.00	2.37E-05	8.65	2.05E-04	14.42
	53.00	59.00	600.00	2.80	70.00	4.83	4827.59	---	3740.00	112.00	0.00	8679.6	8.68	79.20	79200.00	2.37E-05	9.12	2.16E-04	15.21
	53.00	59.00	600.00	2.80	40.00	2.76	2758.62	---	3740.00	112.00	0.00	6610.6	6.61	68.80	68800.00	2.37E-05	10.41	2.47E-04	17.35
	53.00	59.00	600.00	2.80	20.00	1.38	1379.31	---	3740.00	112.00	0.00	5231.3	5.23	57.30	57300.00	2.37E-05	10.95	2.60E-04	18.26
AVERAGE																		2.38E-04	16.70

TABLE B.1.4 PERMEABILITY TEST RESULTS IN BOREHOLE, NW0-2 (5/6)

## PERMEABILITY TEST

## PORT LOUIS WATER SUPPLY

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (ft)	GWL (cm)	Gh (cm)	FL (kg/cm2)	TH (cm)	TH* (kg/cm2)	***			Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Lu
														***	Q1 (l/min)	---					
NW0-2/9	59.00	65.00	600.00	2.80	20.00	1.38	1379.31	---	3740.00	112.00	0.00	5231.3	5.23	3.70	3700.00	2.37E-05	0.71	1.68E-05	1.18		
	59.00	65.00	600.00	2.80	40.00	2.76	2758.62	---	3740.00	112.00	0.00	6610.6	6.61	2.50	2500.00	2.37E-05	0.38	8.97E-06	0.63		
	59.00	65.00	600.00	2.80	70.00	4.83	4827.59	---	3740.00	112.00	0.00	8679.6	8.68	2.40	2400.00	2.37E-05	0.28	6.56E-06	0.46		
	59.00	65.00	600.00	2.80	100.00	6.90	6896.55	---	3740.00	112.00	0.00	10748.6	10.75	2.90	2900.00	2.37E-05	0.27	6.40E-06	0.45		
	59.00	65.00	600.00	2.80	70.00	4.83	4827.59	---	3740.00	112.00	0.00	8679.6	8.68	2.30	2300.00	2.37E-05	0.26	6.28E-06	0.44		
	59.00	65.00	600.00	2.80	40.00	2.76	2758.62	---	3740.00	112.00	0.00	6610.6	6.61	1.80	1800.00	2.37E-05	0.27	6.46E-06	0.45		
	59.00	65.00	600.00	2.80	20.00	1.38	1379.31	---	3740.00	112.00	0.00	5231.3	5.23	1.20	1200.00	2.37E-05	0.23	5.44E-06	0.38		
	AVERAGE																	9.00E-06	0.63		

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (ft)	GWL (cm)	Gh (cm)	FL (kg/cm2)	TH (cm)	TH*	***			C	Q2/TH (cm2/min)	K (cm/sec)	Lu
														Q1 (l/min)	Q2 (cc/min)	Q2/TH (cm2/min)				
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
NW0-2/10	65.00	71.00	600.00	2.80	20.00	1.38	1379.31	---	3740.00	112.00	0.00	5231.3	5.23	14.90	14900.00	2.37E-05	2.85	6.75E-05	4.75	
	65.00	71.00	600.00	2.80	40.00	2.76	2758.62	---	3740.00	112.00	0.00	6610.6	6.61	22.50	22500.00	2.37E-05	3.40	8.07E-05	5.67	
	65.00	71.00	600.00	2.80	70.00	4.83	4827.59	---	3740.00	112.00	0.00	8679.6	8.68	32.30	32300.00	2.37E-05	3.72	8.82E-05	6.20	
	65.00	71.00	600.00	2.80	100.00	6.90	6896.55	---	3740.00	112.00	0.00	10748.6	10.75	36.30	36300.00	2.37E-05	3.38	8.01E-05	5.63	
	65.00	71.00	600.00	2.80	70.00	4.83	4827.59	---	3740.00	112.00	0.00	8679.6	8.68	23.30	23300.00	2.37E-05	2.68	6.37E-05	4.47	
	65.00	71.00	600.00	2.80	40.00	2.76	2758.62	---	3740.00	112.00	0.00	6610.6	6.61	27.30	27300.00	2.37E-05	4.13	9.79E-05	6.88	
	65.00	71.00	600.00	2.80	20.00	1.38	1379.31	---	3740.00	112.00	0.00	5231.3	5.23	24.80	24800.00	2.37E-05	4.74	1.12E-04	7.90	
AVERAGE																	7.61E-05	5.34		

TABLE B.1.4 PERMEABILITY TEST RESULTS IN BOREHOLE, NWO-2 (6/6)

## PERMEABILITY TEST

## PORT LOUIS WATER SUPPLY

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (ft)	GWL (cm)	Ch (cm)	FL (kg/cm2)	TH (cm)	TH*	***			Q2/TH (cm2/min)	K (cm/sec)	Lu
														Q1 (l/min)	Q2 (cc/min)	C			
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
NWO-2/11	71.00	77.00	600.00	2.80	20.00	1.38	1379.31	---	3740.00	112.00	0.00	5231.3	5.23	27.90	27900.00	2.37E-05	5.33	1.26E-04	8.89
	71.00	77.00	600.00	2.80	40.00	2.76	2758.62	---	3740.00	112.00	0.00	6610.6	6.61	33.70	33700.00	2.37E-05	5.10	1.21E-04	8.50
	71.00	77.00	600.00	2.80	70.00	4.83	4827.59	---	3740.00	112.00	0.00	8679.6	8.68	27.70	27700.00	2.37E-05	3.19	7.57E-05	5.32
	71.00	77.00	600.00	2.80	100.00	6.90	6896.55	---	3740.00	112.00	0.00	10748.6	10.75	31.60	31600.00	2.37E-05	2.94	6.97E-05	4.90
	71.00	77.00	600.00	2.80	70.00	4.83	4827.59	---	3740.00	112.00	0.00	8679.6	8.68	24.60	24600.00	2.37E-05	2.83	6.72E-05	4.72
	71.00	77.00	600.00	2.80	40.00	2.76	2758.62	---	3740.00	112.00	0.00	6610.6	6.61	54.40	54400.00	2.37E-05	8.23	1.95E-04	13.72
	71.00	77.00	600.00	2.80	20.00	1.38	1379.31	---	3740.00	112.00	0.00	5231.3	5.23	57.70	57700.00	2.37E-05	11.03	2.62E-04	18.38
AVERAGE																	9.20E-05	6.47	

TABLE B-1.5 RESULT OF PERMEABILITY TEST IN BOREHOLE, TR9-(2), 1/2

## PERMEABILITY TEST - PHASE II

## FORT LEWIS WATER SUPPLY

HOLE No	D1 (in)	D2 (in)	L (in)	r (in)	P (psi/in <sup>2</sup> )	P (kg/cm <sup>2</sup> )	HP (cc)	SWL (ft)	SWL (m)	SH (in)	FL (in)	TH (in)	TH (m)	D1 (cc/min)	D2 (cc/min)	C	D2/TH (cc2/min)	K (cc2/sec)	Lu
TR9-(2/D1)	24.00	30.00	570.00	2.75	40.00	2.75	1379.31	2765.00	130.60	0.00	2000.00	2000.00	2.00	3.50	58.33			1.18E-03	
TR9-(2/D2)	24.00	30.00	570.00	2.75	40.00	2.75	1379.31	2765.00	130.60	0.00	2000.00	2000.00	2.00	2.50	41.67			2.42E-04	
TR9-(2/D3)	24.00	30.00	570.00	2.75	40.00	2.75	1379.31	2765.00	130.60	0.00	2000.00	2000.00	2.00	11.00	183.33			3.70E-03	
TR9-(2/D4)	24.00	30.00	570.00	2.75	40.00	2.75	1379.31	2765.00	130.60	0.00	2000.00	2765.00	2.77	9.00	150.00			2.19E-03	

HOLE No	D1 (in)	D2 (in)	L (in)	r (in)	P (psi/in <sup>2</sup> )	P (kg/cm <sup>2</sup> )	HP (cc)	SWL (ft)	SWL (m)	SH (in)	FL (in)	TH (in)	TH (m)	D1 (cc/min)	D2 (cc/min)	C	D2/TH (cc2/min)	K (cc2/sec)	Lu
TR9-2/1	24.00	30.00	570.00	2.75	20.00	1.38	1379.31	2765.00	130.60	0.00	4274.31	4274.31	3.50	27.60	2760.00	2.48E-05	6.46	1.60E-04	11.33
TR9-2/1	24.00	30.00	570.00	2.75	40.00	2.75	1379.31	2765.00	130.60	0.00	5853.62	5853.62	4.22	37.40	37400.00	2.48E-05	6.46	1.60E-04	11.33
TR9-2/1	24.00	30.00	570.00	2.75	70.00	4.83	1379.31	2765.00	130.60	0.00	7722.59	7722.59	5.34	41.20	41200.00	2.48E-05	5.34	1.32E-04	9.10
TR9-2/1	24.00	30.00	570.00	2.75	100.00	6.80	1379.31	2765.00	130.60	0.00	9791.55	9791.55	5.19	50.20	50200.00	2.48E-05	5.19	1.32E-04	9.10
TR9-2/1	24.00	30.00	570.00	2.75	70.00	4.83	1379.31	2765.00	130.60	0.00	7722.59	7722.59	5.34	37.40	37400.00	2.48E-05	5.34	1.32E-04	9.10
TR9-2/1	24.00	30.00	570.00	2.75	40.00	2.75	1379.31	2765.00	130.60	0.00	5853.62	5853.62	4.22	35.70	35700.00	2.48E-05	4.22	1.32E-04	9.10
TR9-2/1	24.00	30.00	570.00	2.75	20.00	1.38	1379.31	2765.00	130.60	0.00	4274.31	4274.31	3.50	25.50	25500.00	2.48E-05	6.04	1.50E-04	10.59
AVERAGE																	1.18E-04	8.35	

HOLE No	D1 (in)	D2 (in)	L (in)	r (in)	P (psi/in <sup>2</sup> )	P (kg/cm <sup>2</sup> )	HP (cc)	SWL (ft)	SWL (m)	SH (in)	FL (in)	TH (in)	TH (m)	D1 (cc/min)	D2 (cc/min)	C	D2/TH (cc2/min)	K (cc2/sec)	Lu
TR9-2/2	30.00	36.00	600.00	2.75	20.00	1.38	1379.31	2765.00	130.60	0.00	4307.31	4307.31	3.50	34.20	34200.00	2.33E-05	7.74	1.89E-04	13.23
TR9-2/2	30.00	36.00	600.00	2.75	40.00	2.75	1379.31	2765.00	130.60	0.00	5853.62	5853.62	4.22	47.60	47600.00	2.33E-05	8.37	1.89E-04	13.23
TR9-2/2	30.00	36.00	600.00	2.75	70.00	4.83	1379.31	2765.00	130.60	0.00	7755.59	7755.59	5.19	61.90	61900.00	2.33E-05	7.98	1.90E-04	13.23
TR9-2/2	30.00	36.00	600.00	2.75	100.00	6.80	1379.31	2765.00	130.60	0.00	9824.55	9824.55	5.19	75.30	75300.00	2.33E-05	7.65	1.82E-04	12.77
TR9-2/2	30.00	36.00	600.00	2.75	70.00	4.83	1379.31	2765.00	130.60	0.00	7755.59	7755.59	5.19	59.10	59100.00	2.33E-05	7.42	1.81E-04	12.79
TR9-2/2	30.00	36.00	600.00	2.75	40.00	2.75	1379.31	2765.00	130.60	0.00	5853.62	5853.62	4.22	44.90	44900.00	2.33E-05	7.99	1.88E-04	13.16
TR9-2/2	30.00	36.00	600.00	2.75	20.00	1.38	1379.31	2765.00	130.60	0.00	4307.31	4307.31	3.50	32.60	32600.00	2.33E-05	7.57	1.80E-04	12.61
AVERAGE																	1.57E-04	13.39	

TABLE B.1.5 RESULT OF PERMEABILITY TEST IN BOREHOLE, TR9-(2), 2/2

## PERMEABILITY TEST - PHASE II

## FORT LOUIS WATER SUPPLY

HOLE No	G1 (in)	G2 (in)	L (cm)	r (cm)	P (psi)	F (lb/in <sup>2</sup> )	Hp (cm)	EHL (ft)	SWL (cm)	Gh (cm)	FL (kg/cm <sup>2</sup> )	TH (cm)	TRH (kg/cm <sup>2</sup> )	G1 (cc/min)	G2 (cc/min)	C (cc/min)	Q2/TH (cc/sec)	K (cc/sec)	Lu
TR9-2/3	42.00	42.00	600.00	2.75	20.00	1.33	1379.31	---	2765.00	163.00	0.00	4307.31	---	21.70	21700.00	2.38E-05	5.04	1.26E-04	6.40
36.00	42.00	600.00	2.75	43.00	2.76	2758.62	---	2765.00	163.00	0.00	5556.62	---	32.20	32200.00	2.38E-05	5.66	1.32E-04	9.44	
36.00	42.00	600.00	2.75	70.00	4.83	4827.59	---	2765.00	163.00	0.00	7757.59	---	37.60	37600.00	2.38E-05	4.55	1.15E-04	2.06	
36.00	42.00	600.00	2.75	103.00	6.50	6576.55	---	2765.00	163.00	0.00	9324.55	---	48.70	48900.00	2.38E-05	4.98	1.18E-04	8.30	
36.00	42.00	600.00	2.75	70.00	4.83	4827.59	---	2765.00	163.00	0.00	7757.59	---	35.20	35200.00	2.38E-05	4.54	1.08E-04	7.56	
36.00	42.00	600.00	2.75	40.00	2.76	2758.62	---	2765.00	163.00	0.00	5556.62	---	30.70	30700.00	2.38E-05	5.40	1.26E-04	9.00	
36.00	42.00	600.00	2.75	20.00	1.33	1379.31	---	2765.00	163.00	0.00	4307.31	---	18.30	18300.00	2.38E-05	4.25	1.01E-04	7.03	
AVERAGE																	9.94E-05	6.96	
HOLE No	G1 (in)	G2 (in)	L (cm)	r (cm)	P (psi)	F (lb/in <sup>2</sup> )	Hp (cm)	EHL (ft)	SWL (cm)	Gh (cm)	FL (kg/cm <sup>2</sup> )	TH (cm)	TRH (kg/cm <sup>2</sup> )	G1 (cc/min)	G2 (cc/min)	C (cc/min)	Q2/TH (cc/sec)	K (cc/sec)	Lu
TR9-2/4	42.00	42.00	600.00	2.75	20.00	1.33	1379.31	---	2765.00	165.00	0.00	4307.31	---	7.10	9100.00	2.38E-05	2.11	5.02E-05	3.52
42.00	42.00	600.00	2.75	40.00	2.76	2758.62	---	2765.00	165.00	0.00	5556.62	---	12.50	12500.00	2.38E-05	2.27	5.40E-05	3.78	
42.00	42.00	600.00	2.75	70.00	4.83	4827.59	---	2765.00	165.00	0.00	7757.59	---	17.30	17300.00	2.38E-05	2.23	5.31E-05	3.72	
42.00	42.00	600.00	2.75	100.00	6.50	6576.55	---	2765.00	165.00	0.00	9324.55	---	21.10	21100.00	2.38E-05	2.15	5.11E-05	3.58	
42.00	42.00	600.00	2.75	70.00	4.83	4827.59	---	2765.00	165.00	0.00	7757.59	---	15.70	15900.00	2.38E-05	2.05	4.88E-05	3.42	
42.00	42.00	600.00	2.75	40.00	2.76	2758.62	---	2765.00	165.00	0.00	5556.62	---	11.50	11500.00	2.38E-05	2.02	4.81E-05	3.37	
42.00	42.00	600.00	2.75	20.00	1.33	1379.31	---	2765.00	165.00	0.00	4307.31	---	7.70	7760.00	2.38E-05	1.79	4.25E-05	2.98	
AVERAGE																	4.25E-05	3.00	

TABLE B.1.6 RESULT OF PERMEABILITY TEST IN BOREHOLE, TR9-(5)

## PERMEABILITY TEST - PHASE II

## PORT LOUIS WATER SUPPLY

HOLE NO	D1 (in)	D2 (in)	L (cm)	r (cm)	P (psi)	P (kg/cm2)	Hp (cm)	SWL (ft)	SWL (cm)	Sh (cm)	FL (kg/cm2)	TH (cm)	TH <sub>2</sub> (kg/cm2)	***			C	Q2/TH (cc2/sein)	K (cc/sec)	Lu
														Q1 (cc/min)	Q2 (cc/min)	Q2/TH (cc/sec)				
TR9-(5) /C-1	15.00	9.50	4.50	4.50	1700.00	0.00	1700.00	53.33	5.00	1.70	1700.00	1.70	5.00	53.33	(OPEN-END)	1.55E-03				
TR9-(5) /C-2	15.00	9.50	4.50	4.50	1700.00	0.00	1700.00	103.33	6.50	1.70	1700.00	1.70	6.50	103.33	(OPEN-END)	2.57E-03				

## PERMEABILITY TEST - PHASE II

## PORT LOUIS WATER SUPPLY

HOLE No	***										***									
	D1 (in)	D2 (in)	L (cm)	r (cm)	P (psi)	P (kg/cm <sup>2</sup> )	H <sub>p</sub> (cm)	SWL (ft)	SWL (cm)	Sh (cm)	FL (kg/cm <sup>2</sup> )	TH (cm)	TH <sub>2</sub> (kg/cm <sup>2</sup> )	Q1 (cc/min)	Q2 (cc/min)	C	Q2/TH (cc/min)	K (cm/sec)	Lu	
TR9-(5)	15.00	22.00	500.00	2.50	20.00	1.33	1379.31	---	1700.00	100.00	0.00	3179.31		37.50	3750.00	2.37E-05	11.33	2.85E-04	19.71	
1	15.00	22.00	500.00	2.50	40.00	2.75	2752.62	---	1700.00	100.00	0.00	4558.62		44.10	4410.00	2.37E-05	9.57	2.25E-04	16.12	
	15.00	22.00	500.00	2.50	70.00	4.53	4527.59	---	1700.00	100.00	0.00	6627.59		51.30	53300.00	2.37E-05	9.64	1.91E-04	13.40	
	15.00	22.00	500.00	2.50	100.00	6.79	6526.55	---	1700.00	100.00	0.00	8895.55		66.30	66300.00	2.37E-05	7.52	1.51E-04	12.71	
	15.00	22.00	500.00	2.50	70.00	4.53	4527.59	---	1700.00	100.00	0.00	6627.59		51.90	51900.00	2.37E-05	7.83	1.86E-04	13.05	
	15.00	22.00	500.00	2.50	40.00	2.75	2752.62	---	1700.00	100.00	0.00	4558.62		42.20	42200.00	2.37E-05	9.26	2.20E-04	15.43	
	15.00	22.00	500.00	2.50	20.00	1.33	1379.31	---	1700.00	100.00	0.00	3179.31		34.30	34300.00	2.37E-05	10.79	2.55E-04	17.98	
AVERAGE																	2.20E-04	15.49		

HOLE NO	D1 (in)	D2 (in)	L (cm)	r (cm)	P (psi)	P (kg/cm2)	H <sub>p</sub> (cm)	SWL (ft)	SWL (cm)	Sh (cm)	FL (kg/cm2)	TH (cm)	TH <sub>2</sub> (kg/cm2)	Q1 (cc/min)	Q2 (cc/min)	C	Q2/TH (cc2/min)	K (cm/sec)	Lu
TR9-(5) /2	22.00	22.00	500.00	2.50	20.00	1.33	1379.31	---	1700.00	55.00	0.00	3142.31		12.10	12100.00	2.37E-05	3.25	9.12E-05	6.42
	22.00	22.00	500.00	2.50	40.00	2.75	2752.62	---	1700.00	55.00	0.00	4521.62		15.30	15500.00	2.37E-05	3.38	8.02E-05	5.64
	22.00	22.00	500.00	2.50	70.00	4.53	4527.59	---	1700.00	55.00	0.00	5570.59		20.50	20900.00	2.37E-05	3.17	7.52E-05	5.29
	22.00	22.00	500.00	2.50	100.00	6.79	5676.55	---	1700.00	55.00	0.00	5595.55		27.50	27500.00	2.37E-05	3.21	7.51E-05	5.25
	22.00	22.00	500.00	2.50	70.00	4.53	4527.59	---	1700.00	55.00	0.00	5570.59		19.50	19500.00	2.37E-05	3.02	7.15E-05	5.03
22.00	22.00	500.00	2.50	40.00	2.75	2752.62	---	1700.00	55.00	0.00	4521.62		13.50	13500.00	2.37E-05	3.61	7.12E-05	5.01	
22.00	22.00	500.00	2.50	20.00	1.33	1379.31	---	1700.00	55.00	0.00	3142.31		9.70	9700.00	2.37E-05	3.09	7.35E-05	5.14	
AVERAGE																	7.73E-05	5.41	

TABLE B.1.7 RESULTS OF UNIAXIAL COMPRESSION TEST ON ROCK CORE SAMPLE

SAMPLE No.	DEPTH COLLECTED (m)	SAMPLE SIZE		STRESS (kN/M2)	STRESS (Sc) (kg/cm2)	MAXIMUM STRAIN (%)	MOISTURE CONTENT		SPECIFIC GRAVITY	
		DIAMETER (cm)	HEIGHT (cm)				(%)	(%)	(DRY)	(SATURATED)
TR0-1	76.1 - 76.3	5.15	10.3	1800	18.35	0.630	8.06	1.03	1.42	
TR0-2	86.3 - 86.6	5.17	10.3	52700	537.38	0.136	0.35	1.59	1.66	
TR0-3	102.8-103.0	5.17	10.3	108700	1108.41	0.136	0.69	1.71	1.73	
TR0-4	105.0-105.1	5.17	10.3	118700	1210.38	0.242	0.35	1.73	1.75	
NW0-1	10.1 - 10.3	5.44	10.8	27100	276.34	0.096	1.19	1.61	1.65	
NW0-2	20.1 - 20.3	5.42	10.8	1500	15.30	0.393	9.33	2.77	---	

TABLE B.2.1(1) RESULT OF PERMEABILITY TEST IN BOREHOLE, TR0-(1), 1/6

## PERMEABILITY TEST - PHASE II

## PORT LOUIS WATER SUPPLY

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	F (kg/cm2)	Hp (cm)	SWL (ft)	EWL (cm)	BH (cm)	FL (kg/cm2)	TH (cm)	TH1 (kg/cm2)(1/min)	B1 (cc/min)	B2 (cc/min)	C (cc2/min)	Q2/TH (cm2/min)	K (cc/sec)	Lu	***		
TR0-(1)	26.00	26.00	600.00	2.75	20.00	1.38	1379.31	---	553.50	145.00	0.00	2207.61	---	26.30	25300.00	2.38E-05	11.91	2.63E-04	19.85			
/1	26.00	26.00	600.00	2.75	40.00	2.76	2758.62	---	553.50	145.00	0.00	3597.12	---	32.50	32500.00	2.38E-05	9.17	2.18E-04	18.29			
	26.00	26.00	600.00	2.75	70.00	4.83	4827.59	---	553.50	145.00	0.00	5556.09	---	41.70	41700.00	2.38E-05	7.37	1.75E-04	12.29			
	26.00	26.00	600.00	2.75	100.00	6.93	6876.85	---	553.50	145.00	0.00	7725.05	---	50.40	50400.00	2.38E-05	6.52	1.55E-04	10.87			
	26.00	26.00	600.00	2.75	70.00	4.83	4827.59	---	553.50	145.00	0.00	5556.09	---	40.20	40200.00	2.38E-05	7.11	1.65E-04	11.55			
	26.00	26.00	600.00	2.75	40.00	2.76	2758.62	---	553.50	145.00	0.00	3597.12	---	29.30	29300.00	2.38E-05	8.17	1.94E-04	13.61			
	26.00	26.00	600.00	2.75	20.00	1.38	1379.31	---	553.50	145.00	0.00	2207.61	---	21.60	21500.00	2.38E-05	9.78	2.33E-04	16.31			
AVERAGE																		1.57E-04	11.89			
***																						
TR0-(1)	26.00	32.00	600.00	2.75	20.00	1.38	1379.31	---	553.50	135.00	0.00	2197.61	---	36.70	36700.00	2.38E-05	14.70	3.57E-04	27.63			
/2	26.00	32.00	600.00	2.75	40.00	2.76	2758.62	---	553.50	135.00	0.00	3577.12	---	41.30	41300.00	2.38E-05	11.53	2.75E-04	19.24			
	26.00	32.00	600.00	2.75	70.00	4.83	4827.59	---	553.50	135.00	0.00	5545.09	---	49.60	49600.00	2.38E-05	8.78	2.09E-04	14.84			
	26.00	32.00	600.00	2.75	100.00	6.93	6876.85	---	553.50	135.00	0.00	7715.05	---	63.70	63700.00	2.38E-05	8.25	1.96E-04	13.76			
	26.00	32.00	600.00	2.75	70.00	4.83	4827.59	---	553.50	135.00	0.00	5545.09	---	48.70	48700.00	2.38E-05	8.63	2.05E-04	14.39			
	26.00	32.00	600.00	2.75	40.00	2.76	2758.62	---	553.50	135.00	0.00	3577.12	---	39.30	39800.00	2.38E-05	11.13	2.65E-04	18.84			
	26.00	32.00	600.00	2.75	20.00	1.38	1379.31	---	553.50	135.00	0.00	2197.61	---	34.80	34800.00	2.38E-05	15.93	3.77E-04	26.39			
AVERAGE																		2.14E-04	14.98			
***																						
TR0-(1)	32.00	38.00	600.00	2.75	20.00	1.38	1379.31	---	553.50	40.00	0.00	2102.61	---	45.20	45200.00	2.38E-05	21.50	5.11E-04	35.63			
/3	32.00	38.00	600.00	2.75	40.00	2.76	2758.62	---	553.50	40.00	0.00	3482.12	---	56.30	56300.00	2.38E-05	24.75	5.89E-04	41.26			
	32.00	38.00	600.00	2.75	70.00	4.83	4827.59	---	553.50	40.00	0.00	5551.09	---	109.20	109200.00	2.38E-05	19.67	4.65E-04	32.79			
	32.00	38.00	600.00	2.75	70.00	4.83	4827.59	---	553.50	40.00	0.00	5551.09	---	99.60	99600.00	2.38E-05	17.94	4.27E-04	29.90			
	32.00	38.00	600.00	2.75	40.00	2.76	2758.62	---	553.50	40.00	0.00	3482.12	---	72.10	72100.00	2.38E-05	20.71	4.93E-04	34.51			
	32.00	38.00	600.00	2.75	20.00	1.38	1379.31	---	553.50	40.00	0.00	2102.61	---	51.30	51300.00	2.38E-05	24.40	5.85E-04	40.65			
AVERAGE																		3.99E-04	27.95			



TABLE B.2.1(2) RESULT OF PERMEABILITY TEST IN BOREHOLE, TR0-(1), 2/6

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DATE	TIME	DR	L	P	F	F	FL	TH	TR	SI	SZ	C	QZ/TH	K	LU		
(mm)	(hr)	(sec)	(sec)	(sec)	(hr:min:sec)	(hr:min:sec)	(hr:min:sec)	(hr:min:sec)	(hr:min:sec)	(hr:min:sec)	(hr:min:sec)	(hr:min:sec)	(hr:min:sec)	(hr:min:sec)	(hr:min:sec)		
1970	00:00	100.00	2.75	20.00	1.75	177.31	---	63.50	167.00	0.00	2285.81	10.50	10500.00	1.44E-05	4.72	6.81E-05	4.29
1970	00:00	100.00	2.75	40.00	2.75	205.42	---	63.50	167.00	0.00	3265.12	14.00	14000.00	1.44E-05	3.88	5.61E-05	3.53
1970	00:00	100.00	2.75	70.00	4.53	427.39	---	63.50	167.00	0.00	5674.07	15.50	15500.00	1.44E-05	2.60	4.09E-05	2.95
1970	00:00	100.00	2.75	100.00	6.50	635.55	---	63.50	167.00	0.00	7733.05	18.50	18500.00	1.44E-05	3.39	3.69E-05	2.17
1970	00:00	100.00	2.75	70.00	4.53	427.39	---	63.50	167.00	0.00	5674.07	15.50	15500.00	1.44E-05	2.60	3.60E-05	1.99
1970	00:00	100.00	2.75	40.00	2.75	205.42	---	63.50	167.00	0.00	3265.12	14.00	14000.00	1.44E-05	2.64	4.35E-05	2.57
1970	00:00	100.00	2.75	20.00	1.75	177.31	---	63.50	167.00	0.00	2285.81	7.50	7500.00	1.44E-05	3.53	5.12E-05	3.23
															OVERAGE	2.60	

[illegible]

SOLIDS	***				***				***				K	Lu					
	SI	SI	L	r	F	P	HP	EWL	EWL	BA	FL	TH			TH*	SI	SI	C	SI/TH
	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(cm/sec)	
750-11	56.60	52.00	500.00	2.75	20.00	1.33	1275.31	---	533.50	173.00	0.00	2235.81	---	34.70	56700.00	2.33E-05	35.52	3.65E-04	25.57
58.00	51.00	500.00	2.75	40.00	---	---	2752.32	---	533.50	173.00	0.00	2485.42	---	43.00	12800.00	2.33E-05	41.56	2.95E-04	19.37
75	56.00	51.00	505.60	2.75	70.00	4.33	4877.97	---	533.50	173.00	0.00	5455.09	---	48.00	35500.00	2.33E-05	7.65	1.82E-04	12.75
54.00	51.00	500.00	2.75	100.00	5.70	4675.95	---	533.50	173.00	0.00	7753.93	---	54.00	34500.00	2.33E-05	7.04	1.58E-04	11.74	
54.00	51.00	500.00	2.75	70.00	4.33	4877.97	---	533.50	173.00	0.00	5864.97	---	58.00	36600.00	2.33E-05	10.34	2.45E-04	17.19	
56.00	52.00	500.00	2.75	40.00	2.78	2752.32	---	533.50	173.00	0.00	3915.12	---	45.00	38900.00	2.33E-05	42.70	3.02E-04	21.46	
54.00	51.00	505.60	2.75	20.00	1.33	1275.31	---	533.50	173.00	0.00	2255.81	---	34.00	36800.00	2.33E-05	44.45	3.52E-04	27.43	
																	AVERAGE	2.07E-04	10.47

TABLE B.2.1(3) RESULT OF PERMEABILITY TEST IN BOREHOLE, TRO-(1), 3/6

PERMEABILITY TEST - PHASE II

POT. LEADS WATER SUPPLY

HOLE NO	D1 (m)	D2 (m)	L (cm)	r (cm)	III										III										K (cm/sec)	Lu
					P (kg/cm2)	F (kg/cm2)	Sp (cm)	SWL (ft)	SWL (cm)	FL (cm)	TH (cm)	TH1 (kg/cm2)(l/min)	E1 (cc/min)	E2 (cc/min)	C	E2/TH (cm2/min)										
750-11	77	50.00	500.00	2.75	20.00	1.35	1375.31	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		50.00	500.00	2.75	40.00	2.75	2755.62	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		50.00	500.00	2.75	70.00	4.00	4527.55	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		50.00	500.00	2.75	100.00	5.25	6551.95	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		50.00	500.00	2.75	70.00	4.00	4527.55	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		50.00	500.00	2.75	40.00	2.75	2755.62	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		50.00	500.00	2.75	20.00	1.35	1375.31	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
AVERAGE 1.53E-04 10.49																										
750-11	78	50.00	500.00	2.75	20.00	1.35	1375.31	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		50.00	500.00	2.75	40.00	2.75	2755.62	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		50.00	500.00	2.75	70.00	4.00	4527.55	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		50.00	500.00	2.75	100.00	5.25	6551.95	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		50.00	500.00	2.75	70.00	4.00	4527.55	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		50.00	500.00	2.75	40.00	2.75	2755.62	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		50.00	500.00	2.75	20.00	1.35	1375.31	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
AVERAGE 9.25E-05 6.51																										
750-11	79	50.00	500.00	2.75	20.00	1.35	1375.31	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		50.00	500.00	2.75	40.00	2.75	2755.62	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		50.00	500.00	2.75	70.00	4.00	4527.55	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		50.00	500.00	2.75	100.00	5.25	6551.95	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		50.00	500.00	2.75	70.00	4.00	4527.55	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		50.00	500.00	2.75	40.00	2.75	2755.62	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
		50.00	500.00	2.75	20.00	1.35	1375.31	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
AVERAGE 1.29E-04 9.04																										

TABLE B.2.1(4) RESULT OF PERMEABILITY TEST IN BOREHOLE, TRO-(1), 4/6

## PERMEABILITY TEST - PHASE II

## PORT LOUIS WATER SUPPLY

HOLE No	D1 (in)	D2 (in)	L (cm)	r (cm)	P (psi)	F (kg/cm2)	HP (cm)	SWL (ft)	SWL (cm)	Sh (cm)	FL (kg/cm2)	TH (cm)	THt (kg/cm2)(1/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Lu	***		
																			***		
TR0-(1)	50.00	50.00	500.00	2.75	20.00	1.35	1379.31	---	553.50	155.00	0.00	2247.81	21.70	21700.00	2.35E-05	9.55	2.30E-04	15.95			
410	50.00	50.00	500.00	2.75	40.00	2.75	2759.52	---	553.50	155.00	0.00	3527.12	29.20	29200.00	2.35E-05	8.05	1.52E-04	13.42			
50.00	50.00	500.00	2.75	70.00	4.53	4527.59	---	553.50	155.00	0.00	5551.09	37.30	37300.00	2.35E-05	6.54	1.55E-04	11.56				
50.00	50.00	500.00	2.75	100.00	6.50	6526.55	---	553.50	155.00	0.00	7750.05	51.50	51500.00	2.35E-05	5.67	1.55E-04	11.12				
50.00	50.00	500.00	2.75	70.00	4.53	4527.59	---	553.50	155.00	0.00	5551.09	37.30	37300.00	2.35E-05	6.41	1.55E-04	10.58				
50.00	50.00	500.00	2.75	40.00	2.75	2759.52	---	553.50	155.00	0.00	3527.12	27.50	27500.00	2.35E-05	7.61	1.55E-04	12.68				
50.00	50.00	500.00	2.75	20.00	1.35	1379.31	---	553.50	155.00	0.00	2247.81	20.50	20500.00	2.35E-05	9.25	2.28E-04	15.12				
AVERAGE																			1.45E-04	10.39	
HOLE No	D1 (in)	D2 (in)	L (cm)	r (cm)	P (psi)	F (kg/cm2)	HP (cm)	SWL (ft)	SWL (cm)	Sh (cm)	FL (kg/cm2)	TH (cm)	THt (kg/cm2)(1/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Lu	***		
																			***		
TR0-(1)	50.00	50.00	500.00	2.75	20.00	1.35	1379.31	---	553.50	170.00	0.00	2232.81	19.80	19800.00	2.35E-05	8.57	2.11E-04	14.75			
411	50.00	50.00	500.00	2.75	40.00	2.75	2759.52	---	553.50	170.00	0.00	3512.12	28.60	28600.00	2.35E-05	7.09	1.45E-04	11.51			
50.00	50.00	500.00	2.75	70.00	4.53	4527.59	---	553.50	170.00	0.00	5551.09	32.40	32400.00	2.35E-05	5.70	1.35E-04	9.51				
50.00	50.00	500.00	2.75	100.00	6.50	6526.55	---	553.50	170.00	0.00	7750.05	49.60	49600.00	2.35E-05	6.40	1.52E-04	10.57				
50.00	50.00	500.00	2.75	70.00	4.53	4527.59	---	553.50	170.00	0.00	5551.09	31.70	31700.00	2.35E-05	5.58	1.35E-04	9.50				
50.00	50.00	500.00	2.75	40.00	2.75	2759.52	---	553.50	170.00	0.00	3512.12	24.70	24700.00	2.35E-05	6.94	1.55E-04	11.40				
50.00	50.00	500.00	2.75	20.00	1.35	1379.31	---	553.50	170.00	0.00	2232.81	19.70	19700.00	2.35E-05	8.38	1.55E-04	13.96				
AVERAGE																			1.35E-04	9.34	
HOLE No	D1 (in)	D2 (in)	L (cm)	r (cm)	P (psi)	F (kg/cm2)	HP (cm)	SWL (ft)	SWL (cm)	Sh (cm)	FL (kg/cm2)	TH (cm)	THt (kg/cm2)(1/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Lu	***		
																			***		
TR0-(1)	50.00	50.00	500.00	2.75	20.00	1.35	1379.31	---	553.50	155.00	0.00	2227.81	18.20	18200.00	2.35E-05	8.17	1.94E-04	13.32			
412	50.00	50.00	500.00	2.75	40.00	2.75	2759.52	---	553.50	155.00	0.00	3507.12	23.70	23700.00	2.35E-05	6.57	1.55E-04	10.55			
50.00	50.00	500.00	2.75	70.00	4.53	4527.59	---	553.50	155.00	0.00	5571.09	30.60	30600.00	2.35E-05	5.37	1.25E-04	8.99				
50.00	50.00	500.00	2.75	100.00	6.50	6526.55	---	553.50	155.00	0.00	7745.05	43.50	43500.00	2.35E-05	5.67	1.35E-04	9.45				
50.00	50.00	500.00	2.75	70.00	4.53	4527.59	---	553.50	155.00	0.00	5571.09	29.30	29300.00	2.35E-05	5.16	1.25E-04	8.40				
50.00	50.00	500.00	2.75	40.00	2.75	2759.52	---	553.50	155.00	0.00	3507.12	20.30	20300.00	2.35E-05	5.63	1.34E-04	9.38				
50.00	50.00	500.00	2.75	20.00	1.35	1379.31	---	553.50	155.00	0.00	2227.81	16.50	16500.00	2.35E-05	7.54	1.75E-04	12.57				
AVERAGE																			1.25E-04	8.50	

TABLE B.2.1(5) RESULT OF PERMEABILITY TEST IN BOREHOLE, TRO-(1), 5/6

## PERMEABILITY TEST - PHASE II

## FORT LOUIS WATER SUPPLY

HOLE No	D1 (in)	D2 (in)	L (cm)	r (cm)	P (psi)	P (kg/cm2)	Sp (cm)	SWL (ft)	SWL (m)	Sh (cm)	FL (kg/cm2)	TH (cm)	TH <sup>2</sup> (kg/cm2)(1/min)	G1 (cc/min)	G2 (cc/min)	C (cc <sup>2</sup> /min)	K (cm/sec)	Lu	
***																			
750-(1)	98.00	104.00	500.00	2.75	20.00	1.38	1379.31	---	---	723.00	175.00	0.00	2277.31	21.20	21200.00	2.38E-05	9.31	2.22E-04	15.52
713	98.00	104.00	500.00	2.75	40.00	2.75	2752.52	---	---	723.00	175.00	0.00	3656.52	27.50	27500.00	2.38E-05	7.55	1.50E-04	12.58
	98.00	104.00	500.00	2.75	70.00	4.83	4527.59	---	---	723.00	175.00	0.00	5725.59	35.70	35700.00	2.38E-05	5.24	1.45E-04	16.39
	98.00	104.00	500.00	2.75	100.00	6.90	6325.65	---	---	723.00	175.00	0.00	7794.65	45.00	45000.00	2.38E-05	4.26	1.51E-04	10.61
	98.00	104.00	500.00	2.75	70.00	4.83	4527.59	---	---	723.00	175.00	0.00	5725.59	35.70	35700.00	2.38E-05	5.90	1.40E-04	9.84
	98.00	104.00	500.00	2.75	40.00	2.75	2752.52	---	---	723.00	175.00	0.00	3656.52	27.50	27500.00	2.38E-05	6.57	1.62E-04	11.49
	98.00	104.00	500.00	2.75	20.00	1.38	1379.31	---	---	723.00	175.00	0.00	2277.31	20.30	20700.00	2.38E-05	8.91	2.12E-04	14.86
AVERAGE																		9.82	

HOLE No	D1 (in)	D2 (in)	L (in)	r (in)	P (psi)	P (kg/cm2)	Sp (cm)	SWL (ft)	SWL (m)	Sh (in)	FL (kg/cm2)	TH (in)	TH <sup>2</sup> (kg/cm2)(1/min)	G1 (cc/min)	G2 (cc/min)	C (cc2/min)	K (cm/sec)	Lu	
***																			
750-(1)	104.00	110.00	500.00	2.75	20.00	1.38	1379.31	---	---	744.50	155.00	0.00	2309.51	24.10	24100.00	2.38E-05	11.70	2.67E-04	12.54
714	104.00	110.00	500.00	2.75	40.00	2.75	2752.52	---	---	744.50	155.00	0.00	3656.12	27.50	27500.00	2.38E-05	7.94	1.89E-04	13.24
	104.00	110.00	500.00	2.75	70.00	4.83	4527.59	---	---	744.50	155.00	0.00	5757.09	37.50	37500.00	2.38E-05	6.48	1.84E-04	10.50
	104.00	110.00	500.00	2.75	100.00	6.90	6325.65	---	---	744.50	155.00	0.00	7524.05	47.50	47500.00	2.38E-05	5.43	1.93E-04	11.04
	104.00	110.00	500.00	2.75	70.00	4.83	4527.59	---	---	744.50	155.00	0.00	5757.09	41.50	41500.00	2.38E-05	7.23	1.72E-04	12.04
	104.00	110.00	500.00	2.75	40.00	2.75	2752.52	---	---	744.50	155.00	0.00	3656.12	32.70	32700.00	2.38E-05	8.97	2.11E-04	14.78
	104.00	110.00	500.00	2.75	20.00	1.38	1379.31	---	---	744.50	155.00	0.00	2309.51	28.70	28700.00	2.38E-05	12.43	2.56E-04	20.72
AVERAGE																		11.00	

HOLE No	D1 (in)	D2 (in)	L (in)	r (in)	P (psi)	P (kg/cm2)	Sp (in)	SWL (in)	SWL (cm)	Sh (in)	FL (kg/cm2)	TH (in)	TH <sup>2</sup> (kg/cm2)(1/min)	G1 (cc/min)	G2 (cc/min)	C (cc2/min)	K (cm/sec)	Lu
***																		
750-(1)	110.00	116.00	500.00	2.75	20.00	1.38	1379.31	---	744.00	140.00	0.00	2263.31	24.30	24300.00	2.38E-05	10.74	2.55E-04	17.59
715	110.00	116.00	500.00	2.75	40.00	2.75	2752.52	---	744.00	140.00	0.00	3642.52	27.50	27500.00	2.38E-05	7.58	1.80E-04	12.63
	110.00	116.00	500.00	2.75	70.00	4.83	4527.59	---	744.00	140.00	0.00	5711.59	35.70	35700.00	2.38E-05	6.25	1.49E-04	10.42
	110.00	116.00	500.00	2.75	100.00	6.90	6325.65	---	744.00	140.00	0.00	7750.55	45.00	45000.00	2.38E-05	5.34	1.51E-04	10.56
	110.00	116.00	500.00	2.75	70.00	4.83	4527.59	---	744.00	140.00	0.00	5711.59	37.50	37500.00	2.38E-05	6.82	1.57E-04	11.00
	110.00	116.00	500.00	2.75	40.00	2.75	2752.52	---	744.00	140.00	0.00	3642.52	30.50	30500.00	2.38E-05	8.55	1.97E-04	13.91
	110.00	116.00	500.00	2.75	20.00	1.38	1379.31	---	744.00	140.00	0.00	2263.31	25.40	25400.00	2.38E-05	11.22	2.57E-04	16.70
AVERAGE																		10.42

TABLE B.2.1(6) RESULT OF PERMEABILITY TEST IN BOREHOLE, TR0-(1), 6/6

PERMEABILITY TEST - PHASE II

FORT LOUIS WATER SUPPLY

HOLE NO	***					***					C	Q2/TH (cm/sec)	K (cm/sec)	Lu				
	D1 (in)	D2 (in)	L (cm)	r (cm)	F (N/100)	F (N/100)	H <sub>0</sub> (cm)	S <sub>0</sub> (%)	S <sub>1</sub> (cm)	FL (N/100)					TH (cm)	T <sub>0</sub> (N/100)	G <sub>1</sub> (N/100)	G <sub>2</sub> (cm/min)
TR0-(1)	115.00	120.00	400.00	2.75	20.00	1.38 1379.31	---	723.00	155.00	0.00	2287.31	17.28	17200.00	3.30E-05	7.52	2.45E-04	18.50	
TR0-(2)	115.00	120.00	400.00	2.75	40.00	2.75 2755.52	---	723.00	155.00	0.00	3565.52	18.90	28800.00	3.30E-05	5.57	1.87E-04	14.18	
	115.00	120.00	400.00	2.75	70.00	4.63 4627.89	---	723.00	155.00	0.00	5735.89	25.60	24800.00	3.30E-05	4.46	1.47E-04	11.16	
	115.00	120.00	400.00	2.75	100.00	5.90 5895.55	---	723.00	155.00	0.00	7564.55	30.70	30700.00	3.30E-05	3.93	1.30E-04	9.33	
	115.00	120.00	400.00	2.75	70.00	4.63 4627.89	---	723.00	155.00	0.00	5735.89	24.30	24300.00	3.30E-05	4.24	1.40E-04	10.59	
	115.00	120.00	400.00	2.75	40.00	2.75 2755.52	---	723.00	155.00	0.00	3565.52	19.70	19700.00	3.30E-05	5.37	1.77E-04	13.45	
	115.00	120.00	400.00	2.75	20.00	1.38 1379.31	---	723.00	155.00	0.00	2287.31	15.90	14900.00	3.30E-05	7.39	2.45E-04	16.47	
AVERAGE																	1.42E-04	10.75

TABLE B.2.2(1) RESULT OF PERMEABILITY TEST IN BOREHOLE, TR0-(2), 1/4

PERMEABILITY TEST - PHASE II

PORT LEADS AFTER SUPPLY

HOLE NO	D1 (in)	D2 (in)	L (cm)	F (cm)	P (psi)	R1 (psi)	R2 (psi)	SWL (ft)	SWL (cm)	SA (cm)	FL (cm)	TH (cm)	TH2 (g/cm2/cm)	D1 (cm)	D2 (cm)	D (cm)	K (cm/sec)	L0
TR0-(2)	37.00	43.00	500.00	2.75	20.00	4.03	3773.31	---	5000.00	102.00	0.00	10454.31	---	38.10	38900.00	2.33E-05	3.40	5.03E-05
71	37.00	43.00	500.00	2.75	40.00	2.75	3773.31	---	5000.00	102.00	0.00	10454.31	---	41.50	43300.00	2.33E-05	3.55	5.03E-05
	37.00	43.00	500.00	2.75	70.00	4.03	3773.31	---	5000.00	102.00	0.00	10454.31	---	42.10	43300.00	2.33E-05	4.39	5.03E-05
	37.00	43.00	500.00	2.75	100.00	5.00	3773.31	---	5000.00	102.00	0.00	10454.31	---	42.10	43300.00	2.33E-05	5.00	5.03E-05
	37.00	43.00	500.00	2.75	130.00	4.03	3773.31	---	5000.00	102.00	0.00	10454.31	---	42.10	43300.00	2.33E-05	4.22	5.03E-05
	37.00	43.00	500.00	2.75	160.00	4.03	3773.31	---	5000.00	102.00	0.00	10454.31	---	42.10	43300.00	2.33E-05	3.70	5.03E-05
	37.00	43.00	500.00	2.75	190.00	4.03	3773.31	---	5000.00	102.00	0.00	10454.31	---	42.10	43300.00	2.33E-05	2.61	4.74E-05
	37.00	43.00	500.00	2.75	20.00	4.03	3773.31	---	5000.00	102.00	0.00	10454.31	---	42.10	43300.00	2.33E-05	4.03	5.03E-05
AVERAGE																	4.03	5.03E-05
***																		
TR0-(2)	37.00	43.00	500.00	2.75	20.00	4.03	3773.31	---	5000.00	102.00	0.00	10454.31	---	38.10	38900.00	2.33E-05	3.40	5.03E-05
72	37.00	43.00	500.00	2.75	40.00	2.75	3773.31	---	5000.00	102.00	0.00	10454.31	---	41.50	43300.00	2.33E-05	3.55	5.03E-05
	37.00	43.00	500.00	2.75	70.00	4.03	3773.31	---	5000.00	102.00	0.00	10454.31	---	42.10	43300.00	2.33E-05	4.39	5.03E-05
	37.00	43.00	500.00	2.75	100.00	5.00	3773.31	---	5000.00	102.00	0.00	10454.31	---	42.10	43300.00	2.33E-05	5.00	5.03E-05
	37.00	43.00	500.00	2.75	130.00	4.03	3773.31	---	5000.00	102.00	0.00	10454.31	---	42.10	43300.00	2.33E-05	4.22	5.03E-05
	37.00	43.00	500.00	2.75	160.00	4.03	3773.31	---	5000.00	102.00	0.00	10454.31	---	42.10	43300.00	2.33E-05	3.70	5.03E-05
	37.00	43.00	500.00	2.75	190.00	4.03	3773.31	---	5000.00	102.00	0.00	10454.31	---	42.10	43300.00	2.33E-05	2.61	4.74E-05
	37.00	43.00	500.00	2.75	20.00	4.03	3773.31	---	5000.00	102.00	0.00	10454.31	---	42.10	43300.00	2.33E-05	4.03	5.03E-05
AVERAGE																	4.03	5.03E-05
***																		
TR0-(2)	37.00	43.00	500.00	2.75	20.00	4.03	3773.31	---	5000.00	102.00	0.00	10454.31	---	38.10	38900.00	2.33E-05	3.40	5.03E-05
73	37.00	43.00	500.00	2.75	40.00	2.75	3773.31	---	5000.00	102.00	0.00	10454.31	---	41.50	43300.00	2.33E-05	3.55	5.03E-05
	37.00	43.00	500.00	2.75	70.00	4.03	3773.31	---	5000.00	102.00	0.00	10454.31	---	42.10	43300.00	2.33E-05	4.39	5.03E-05
	37.00	43.00	500.00	2.75	100.00	5.00	3773.31	---	5000.00	102.00	0.00	10454.31	---	42.10	43300.00	2.33E-05	5.00	5.03E-05
	37.00	43.00	500.00	2.75	130.00	4.03	3773.31	---	5000.00	102.00	0.00	10454.31	---	42.10	43300.00	2.33E-05	4.22	5.03E-05
	37.00	43.00	500.00	2.75	160.00	4.03	3773.31	---	5000.00	102.00	0.00	10454.31	---	42.10	43300.00	2.33E-05	3.70	5.03E-05
	37.00	43.00	500.00	2.75	190.00	4.03	3773.31	---	5000.00	102.00	0.00	10454.31	---	42.10	43300.00	2.33E-05	2.61	4.74E-05
	37.00	43.00	500.00	2.75	20.00	4.03	3773.31	---	5000.00	102.00	0.00	10454.31	---	42.10	43300.00	2.33E-05	4.03	5.03E-05
AVERAGE																	4.03	5.03E-05

# RESULT OF PERMEABILITY TEST IN BOREHOLE, TRO-(2), 2/4

## PERMEABILITY TEST - PHASE II

### POROUS WATER SUPPLY

HOLE NO	D1 (m)	D2 (m)	L (cm)	F (cc)	F (kg/cm <sup>2</sup> )	F (kg/cm <sup>2</sup> )	HP (cc)	ENL (ft)	ENL (cc)	SH (cc)	FL (kg/cm <sup>2</sup> )	TH (cm)	TH# (kg/cm <sup>2</sup> )(1/min)	G1 (cc/min)	G2 (cc/min)	C	S2/TH (cc/min)	K (cc/sec)	Lu
TRO-12	40.00	40.00	500.00	2.75	20.00	1.02	1379.31	---	5000.00	75.00	0.00	10474.71	---	43.40	43500.00	2.35E-05	4.14	9.08E-05	6.91
	40.00	40.00	500.00	2.75	20.00	2.75	2753.62	---	5000.00	75.00	0.00	11533.62	---	51.20	51000.00	2.35E-05	4.32	1.03E-04	7.20
	40.00	40.00	500.00	2.75	20.00	4.53	4827.59	---	5000.00	75.00	0.00	13521.59	---	12.50	52000.00	2.35E-05	4.50	1.07E-04	7.63
	40.00	40.00	500.00	2.75	20.00	6.30	5856.55	---	5000.00	75.00	0.00	15921.55	---	77.30	77000.00	2.35E-05	4.60	1.11E-04	8.06
40.00	40.00	500.00	2.75	20.00	8.07	6885.51	---	5000.00	75.00	0.00	18321.51	---	89.50	89000.00	2.35E-05	4.27	1.02E-04	7.11	
40.00	40.00	40.00	500.00	2.75	20.00	2.75	2753.62	---	5000.00	75.00	0.00	11533.62	---	46.70	46700.00	2.35E-05	3.75	9.41E-05	6.99
40.00	40.00	40.00	500.00	2.75	20.00	1.02	1379.31	---	5000.00	75.00	0.00	10474.71	---	32.60	32600.00	2.35E-05	3.11	7.41E-05	5.19
AVERAGE																		9.01E-05	5.94

HOLE NO	D1 (m)	D2 (m)	L (cm)	F (cc)	P (kg/cm <sup>2</sup> )	F (kg/cm <sup>2</sup> )	HP (cc)	ENL (cc)	ENL (cc)	SH (cc)	FL (kg/cm <sup>2</sup> )	TH (cm)	TH# (kg/cm <sup>2</sup> )(1/min)	G1 (cc/min)	D2 (cc/min)	C	S2/TH (cc/min)	K (cc/sec)	Lu
TRO-12	40.00	40.00	500.00	2.75	20.00	1.02	1379.31	---	5000.00	145.00	0.00	10524.31	---	27.10	27100.00	2.35E-05	2.57	6.13E-05	4.29
75	40.00	40.00	500.00	2.75	20.00	2.75	2753.62	---	5000.00	145.00	0.00	11571.62	---	33.50	33500.00	2.35E-05	2.55	6.30E-05	4.42
	40.00	40.00	500.00	2.75	20.00	4.53	4827.59	---	5000.00	145.00	0.00	13572.59	---	52.70	52700.00	2.35E-05	2.57	6.11E-05	4.28
	40.00	40.00	500.00	2.75	20.00	6.30	5856.55	---	5000.00	145.00	0.00	15611.55	---	41.30	41300.00	2.35E-05	2.96	7.00E-05	4.93
	40.00	40.00	500.00	2.75	20.00	8.07	6885.51	---	5000.00	145.00	0.00	17972.51	---	31.20	31200.00	2.35E-05	2.62	6.24E-05	4.37
40.00	40.00	40.00	500.00	2.75	20.00	1.02	1379.31	---	5000.00	145.00	0.00	10524.31	---	19.60	19600.00	2.35E-05	1.86	4.43E-05	3.10
AVERAGE																		6.30E-05	4.41

HOLE NO	D1 (m)	D2 (m)	L (cm)	F (cc)	P (cc)	F (kg/cm2)	HP (cc)	ENL (ft)	ENL (cc)	SH (cc)	FL (kg/cm2)	TH (cm)	TH# (kg/cm2)(1/min)	F11		D (cc/min)	K (cc/sec)	Lu	
														G1	G2/TH (cc2/min)				
***																			
TRO-12	52.00	52.00	500.00	2.75	20.00	1.02	1379.31	---	5000.00	113.00	0.00	10422.31	---	3.40	3400.00	2.35E-05	0.32	7.71E-05	0.54
76	52.00	52.00	500.00	2.75	40.00	2.75	2753.62	---	5000.00	113.00	0.00	11571.62	---	7.30	7300.00	2.35E-05	0.31	1.45E-05	1.02
	52.00	52.00	500.00	2.75	60.00	4.53	4827.59	---	5000.00	113.00	0.00	13572.59	---	11.80	11800.00	2.35E-05	0.35	2.01E-05	1.41
	52.00	52.00	500.00	2.75	80.00	6.30	5856.55	---	5000.00	113.00	0.00	15609.55	---	17.50	17500.00	2.35E-05	1.12	2.56E-05	1.94
	52.00	52.00	500.00	2.75	70.00	4.53	4827.59	---	5000.00	113.00	0.00	13572.59	---	9.60	9600.00	2.35E-05	0.49	1.64E-05	1.15
52.00	52.00	500.00	2.75	40.00	2.75	2753.62	---	5000.00	113.00	0.00	11571.62	---	6.10	6100.00	2.35E-05	0.51	1.22E-05	0.85	
52.00	52.00	500.00	2.75	20.00	1.02	1379.31	---	5000.00	113.00	0.00	10422.31	---	2.70	2700.00	2.35E-05	0.26	6.14E-06	0.43	
AVERAGE																	1.45E-05	1.04	

TABLE B.2.2(3) RESULT OF PERMEABILITY TEST IN BOREHOLE, TR0-(2), 3/4

## PERMEABILITY TEST - PHASE II

## PORT LOUIS WATER SUPPLY

HOLE No	D1 (in)	D2 (in)	L (cm)	r (cm)	P (psi)	F (kg/cm2)	Hp (cm)	BWL (ft)	BWL (cm)	Bh (cm)	FL (kg/cm2)	TH (cm)	TH# (kg/cm2)(1/min)	G1 (cc/min)	G2 (cc/min)	C (cc2/min)	Q2/TH (cc2/min)	K (cc2/sec)	Lu
TR0-(2)	58.00	54.00	500.00	2.75	20.00	1.33	1379.31	---	9000.00	135.00	0.00	1554.31	7.40	7400.00	2.332-05	0.70	1.675-05	1.17	
77	58.00	54.00	500.00	2.75	50.00	2.75	2732.62	---	9000.00	135.00	0.00	1553.62	3.10	8100.00	2.332-05	0.68	1.622-05	1.14	
	58.00	54.00	500.00	2.75	70.00	4.33	4827.59	---	9000.00	135.00	0.00	1552.59	12.50	12500.00	2.332-05	0.90	2.152-05	1.56	
	58.00	54.00	500.00	2.75	100.00	6.75	6876.55	---	9000.00	135.00	0.00	1551.55	11.30	11300.00	2.332-05	0.70	1.655-05	1.17	
	58.00	54.00	500.00	2.75	70.00	4.33	4827.59	---	9000.00	135.00	0.00	1552.59	10.50	10500.00	2.332-05	0.76	1.815-05	1.27	
	58.00	54.00	500.00	2.75	40.00	2.75	2732.62	---	9000.00	135.00	0.00	1553.62	6.10	6100.00	2.332-05	0.61	1.725-05	0.95	
	58.00	54.00	500.00	2.75	20.00	1.33	1379.31	---	9000.00	135.00	0.00	1554.31	2.20	2200.00	2.332-05	0.21	4.585-06	0.35	
AVERAGE																		1.625-05	1.97
***																			
TR0-(2)	54.00	70.00	500.00	2.75	20.00	1.33	1379.31	---	9000.00	135.00	0.00	1554.31	9.30	9300.00	2.332-05	0.88	2.105-05	1.47	
78	54.00	70.00	500.00	2.75	50.00	2.75	2732.62	---	9000.00	135.00	0.00	1553.62	12.50	12500.00	2.332-05	1.06	2.525-05	1.77	
	54.00	70.00	500.00	2.75	70.00	4.33	4827.59	---	9000.00	135.00	0.00	1552.59	17.50	17500.00	2.332-05	1.22	3.055-05	2.44	
	54.00	70.00	500.00	2.75	100.00	6.75	6876.55	---	9000.00	135.00	0.00	1551.55	23.70	23700.00	2.332-05	1.45	3.455-05	2.42	
	54.00	70.00	500.00	2.75	70.00	4.33	4827.59	---	9000.00	135.00	0.00	1552.59	14.60	14600.00	2.332-05	1.05	2.695-05	1.74	
	54.00	70.00	500.00	2.75	40.00	2.75	2732.62	---	9000.00	135.00	0.00	1553.62	9.80	9800.00	2.332-05	0.82	1.955-05	1.37	
	54.00	70.00	500.00	2.75	20.00	1.33	1379.31	---	9000.00	135.00	0.00	1554.31	7.70	7700.00	2.332-05	0.73	1.745-05	1.22	
AVERAGE																		2.475-05	1.75
***																			
TR0-(2)	70.00	75.00	500.00	2.75	20.00	1.33	1379.31	---	9000.00	135.00	0.00	1554.31	16.30	16300.00	2.332-05	1.54	3.675-05	2.57	
79	70.00	75.00	500.00	2.75	50.00	2.75	2732.62	---	9000.00	135.00	0.00	1553.62	22.50	22500.00	2.332-05	1.92	4.555-05	3.20	
	70.00	75.00	500.00	2.75	70.00	4.33	4827.59	---	9000.00	135.00	0.00	1552.59	27.50	27500.00	2.332-05	1.98	4.725-05	3.31	
	70.00	75.00	500.00	2.75	100.00	6.75	6876.55	---	9000.00	135.00	0.00	1551.55	34.50	34500.00	2.332-05	2.15	5.125-05	3.59	
	70.00	75.00	500.00	2.75	70.00	4.33	4827.59	---	9000.00	135.00	0.00	1552.59	25.70	25700.00	2.332-05	1.83	4.345-05	3.06	
	70.00	75.00	500.00	2.75	40.00	2.75	2732.62	---	9000.00	135.00	0.00	1553.62	21.10	21100.00	2.332-05	1.77	4.205-05	2.94	
	70.00	75.00	500.00	2.75	20.00	1.33	1379.31	---	9000.00	135.00	0.00	1554.31	14.50	14500.00	2.332-05	1.40	3.335-05	2.33	
AVERAGE																		4.265-05	3.00





TABLE B.2.3(1) RESULT OF PERMEABILITY TEST IN BOREHOLE, TRO-(3), 1/5

PERMEABILITY TEST - PHASE II

PORT LOUIS WATER SUPPLY

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (ft)	GWL (cm)	Gh (cm)	FL (kg/cm2)	TH (cm)	TH* (kg/cm2)	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Lu
						***								***					
TR0-(3)	19.00	25.00	600.00	2.75	30.00	2.07	2068.97	---	2800.00	180.00	0.00	5048.97	---	20.80	20800.00	2.38E-05	4.12	9.80E-05	6.87
/1	19.00	25.00	600.00	2.75	70.00	4.83	4827.59	---	2800.00	180.00	0.00	7807.59	---	38.20	38200.00	2.38E-05	4.89	1.16E-04	8.15
	19.00	25.00	600.00	2.75	110.00	7.59	7586.21	---	2800.00	180.00	0.00	10566.21	---	44.00	44000.00	2.38E-05	4.16	9.91E-05	6.94
	19.00	25.00	600.00	2.75	150.00	10.34	10344.83	---	2800.00	180.00	0.00	13324.83	---	49.00	49000.00	2.38E-05	3.68	8.75E-05	6.13
	19.00	25.00	600.00	2.75	110.00	7.59	7586.21	---	2800.00	180.00	0.00	10566.21	---	41.60	41600.00	2.38E-05	3.94	9.37E-05	6.56
	19.00	25.00	600.00	2.75	70.00	4.83	4827.59	---	2800.00	180.00	0.00	7807.59	---	30.40	30400.00	2.38E-05	3.89	9.26E-05	6.49
	19.00	25.00	600.00	2.75	30.00	2.07	2068.97	---	2800.00	180.00	0.00	5048.97	---	16.60	16600.00	2.38E-05	3.29	7.82E-05	5.48
																	AVERAGE	8.24E-05	5.78
HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (ft)	GWL (cm)	Gh (cm)	FL (kg/cm2)	TH (cm)	TH* (kg/cm2)	Q1 (l/min)	Q2 (cc/min)	C <th>Q2/TH (cm2/min)</th> <th>K (cm/sec)</th> <th>Lu</th>	Q2/TH (cm2/min)	K (cm/sec)	Lu
						***								***					
TR0-(3)	25.00	31.00	600.00	2.75	30.00	2.07	2068.97	---	2800.00	185.00	0.00	5053.97	---	18.40	18400.00	2.38E-05	3.64	8.66E-05	6.07
/2	25.00	31.00	600.00	2.75	70.00	4.83	4827.59	---	2800.00	185.00	0.00	7812.59	---	41.60	41600.00	2.38E-05	5.32	1.27E-04	8.87
	25.00	31.00	600.00	2.75	110.00	7.59	7586.21	---	2800.00	185.00	0.00	10571.21	---	52.80	52800.00	2.38E-05	4.99	1.19E-04	8.32
	25.00	31.00	600.00	2.75	150.00	10.34	10344.83	---	2800.00	185.00	0.00	13329.83	---	58.20	58200.00	2.38E-05	4.37	1.04E-04	7.28
	25.00	31.00	600.00	2.75	110.00	7.59	7586.21	---	2800.00	185.00	0.00	10571.21	---	49.40	49400.00	2.38E-05	4.67	1.11E-04	7.79
	25.00	31.00	600.00	2.75	70.00	4.83	4827.59	---	2800.00	185.00	0.00	7812.59	---	38.60	38600.00	2.38E-05	4.94	1.18E-04	8.23
	25.00	31.00	600.00	2.75	30.00	2.07	2068.97	---	2800.00	185.00	0.00	5053.97	---	17.20	17200.00	2.38E-05	3.40	8.10E-05	5.67
																	AVERAGE	9.12E-05	6.39
HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (ft)	GWL (cm)	Gh (cm)	FL (kg/cm2)	TH (cm)	TH* (kg/cm2)	Q1 (l/min)	Q2 (cc/min)	C <th>Q2/TH (cm2/min)</th> <th>K (cm/sec)</th> <th>Lu</th>	Q2/TH (cm2/min)	K (cm/sec)	Lu
						***								***					
TR0-(3)	31.00	37.00	600.00	2.75	30.00	2.07	2068.97	---	2800.00	95.00	0.00	4963.97	---	14.80	14800.00	2.38E-05	2.98	7.09E-05	4.97
/3	31.00	37.00	600.00	2.75	70.00	4.83	4827.59	---	2800.00	95.00	0.00	7722.59	---	26.60	26600.00	2.38E-05	3.44	8.20E-05	5.74
	31.00	37.00	600.00	2.75	110.00	7.59	7586.21	---	2800.00	95.00	0.00	10481.21	---	37.00	37000.00	2.38E-05	3.53	8.40E-05	5.88
	31.00	37.00	600.00	2.75	150.00	10.34	10344.83	---	2800.00	95.00	0.00	13239.83	---	46.20	46200.00	2.38E-05	3.49	8.30E-05	5.82
	31.00	37.00	600.00	2.75	110.00	7.59	7586.21	---	2800.00	95.00	0.00	10481.21	---	33.80	33800.00	2.38E-05	3.22	7.67E-05	5.37
	31.00	37.00	600.00	2.75	70.00	4.83	4827.59	---	2800.00	95.00	0.00	7722.59	---	23.60	23600.00	2.38E-05	3.06	7.27E-05	5.09
	31.00	37.00	600.00	2.75	30.00	2.07	2068.97	---	2800.00	95.00	0.00	4963.97	---	13.20	13200.00	2.38E-05	2.66	6.33E-05	4.43
																	AVERAGE	6.61E-05	4.63

# B.2.3(2) RESULT OF PERMEABILITY TEST IN BOREHOLE, TRO-(3), 2/5

## PERMEABILITY TEST - PHASE II

### PORT LOUIS WATER SUPPLY

HOLE No	D1 (m)	D2 (m)	L (cm)	F (cm)	P (bl/in2)	P (kg/cm2)	Ep (cm)	GWL (ft)	GWL (cm)	Gh (cm)	FL (kg/cm2)	TH (cm)	TH* (kg/cm2)(l/min)	Q1 (cc/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Lu
***																			
---																			
TRO-(3)	37.00	43.00	600.00	2.75	30.00	2.07	2068.97	---	2800.00	193.00	0.00	5061.97	---	20.40	20400.00	2.38E-05	4.03	9.59E-05	6.72
/4	37.00	43.00	600.00	2.75	70.00	4.83	4827.59	---	2800.00	193.00	0.00	7820.59	---	42.80	42800.00	2.38E-05	5.47	1.30E-04	9.12
	37.00	43.00	600.00	2.75	110.00	7.59	7586.21	---	2800.00	193.00	0.00	10579.21	---	48.60	48600.00	2.38E-05	4.59	1.09E-04	7.66
	37.00	43.00	600.00	2.75	150.00	10.34	10344.83	---	2800.00	193.00	0.00	13337.83	---	53.60	53600.00	2.38E-05	4.02	9.56E-05	6.70
	37.00	43.00	600.00	2.75	110.00	7.59	7586.21	---	2800.00	193.00	0.00	10579.21	---	45.20	45200.00	2.38E-05	4.27	1.02E-04	7.12
	37.00	43.00	600.00	2.75	70.00	4.83	4827.59	---	2800.00	193.00	0.00	7820.59	---	41.40	41400.00	2.38E-05	5.29	1.26E-04	8.82
	37.00	43.00	600.00	2.75	30.00	2.07	2068.97	---	2800.00	193.00	0.00	5061.97	---	19.00	19000.00	2.38E-05	3.75	8.93E-05	6.26
AVERAGE																		8.88E-05	6.22

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (ft)	GWL (cm)	Gh (cm)	FL (kg/cm2)	TH (cm)	TH* (kg/cm2)(l/min)	Q1 (cc/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Lu	
***																				***
TRO-(3) /5	43.00	49.00	600.00	2.75	30.00	2.07	2068.97	---	2800.00	173.00	0.00	5041.97	---	16.80	16800.00	2.38E-05	3.33	7.93E-05	5.55	
	43.00	49.00	600.00	2.75	70.00	4.83	4827.59	---	2800.00	173.00	0.00	7800.59	---	27.60	27600.00	2.38E-05	3.54	8.42E-05	5.90	
	43.00	49.00	600.00	2.75	110.00	7.59	7586.21	---	2800.00	173.00	0.00	10559.21	---	34.20	34200.00	2.38E-05	3.24	7.71E-05	5.40	
	43.00	49.00	600.00	2.75	150.00	10.34	10344.83	---	2800.00	173.00	0.00	13317.83	---	45.40	45400.00	2.38E-05	3.41	8.11E-05	5.68	
	43.00	49.00	600.00	2.75	110.00	7.59	7586.21	---	2800.00	173.00	0.00	10559.21	---	31.80	31800.00	2.38E-05	3.01	7.17E-05	5.02	
	43.00	49.00	600.00	2.75	70.00	4.83	4827.59	---	2800.00	173.00	0.00	7800.59	---	22.40	22400.00	2.38E-05	2.87	6.83E-05	4.79	
	43.00	49.00	600.00	2.75	30.00	2.07	2068.97	---	2800.00	173.00	0.00	5041.97	---	12.60	12600.00	2.38E-05	2.50	5.95E-05	4.17	
AVERAGE																		6.56E-05	4.59	

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (ft)	GWL (cm)	Gh (cm)	FL (kg/cm2)	TH (cm)	TH*	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Lu	
***																				***
TRO-(3) /6	49.00	55.00	600.00	2.75	30.00	2.07	2068.97	---	2800.00	160.00	0.00	5028.97	---	14.30	14300.00	2.38E-05	2.84	6.77E-05	4.74	
	49.00	55.00	600.00	2.75	70.00	4.83	4827.59	---	2800.00	160.00	0.00	7787.59	---	16.20	16200.00	2.38E-05	2.08	4.95E-05	3.47	
	49.00	55.00	600.00	2.75	110.00	7.59	7586.21	---	2800.00	160.00	0.00	10546.21	---	18.60	18600.00	2.38E-05	1.76	4.20E-05	2.94	
	49.00	55.00	600.00	2.75	150.00	10.34	10344.83	---	2800.00	160.00	0.00	13304.83	---	21.60	21600.00	2.38E-05	1.52	3.86E-05	2.71	
	49.00	55.00	600.00	2.75	110.00	7.59	7586.21	---	2800.00	160.00	0.00	10546.21	---	11.80	11800.00	2.38E-05	1.12	2.66E-05	1.86	
	49.00	55.00	600.00	2.75	70.00	4.83	4827.59	---	2800.00	160.00	0.00	7787.59	---	9.20	9200.00	2.38E-05	1.18	2.81E-05	1.97	
	49.00	55.00	600.00	2.75	30.00	2.07	2068.97	---	2800.00	160.00	0.00	5028.97	---	5.50	5500.00	2.38E-05	1.09	2.60E-05	1.82	
AVERAGE																		3.74E-05	2.62	

TABLE B.2.3(3) RESULT OF PERMEABILITY TEST IN BOREHOLE, TRO-(3), 3/5

## PERMEABILITY TEST - PHASE II

## PORT LOUIS WATER SUPPLY

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in <sup>2</sup> )	P (kg/cm <sup>2</sup> )	Hp (cm)	GWL (ft)	GWL (cm)	Gh (cm)	FL (kg/cm <sup>2</sup> )	TH (cm)	TH* (kg/cm <sup>2</sup> ) (l/min)	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm <sup>2</sup> /min)	K (cm/sec)	Lu
						***								***					
TRO-(3)	55.00	61.00	600.00	2.75	30.00	2.07	2068.97	---	2800.00	175.00	0.00	5043.97		13.60	13600.00	2.38E-05	2.70	6.42E-05	4.49
/7	55.00	61.00	600.00	2.75	70.00	4.83	4827.59	---	2800.00	175.00	0.00	7802.59		14.90	14900.00	2.38E-05	1.91	4.54E-05	3.18
	55.00	61.00	600.00	2.75	110.00	7.59	7586.21	---	2800.00	175.00	0.00	10561.21		17.10	17100.00	2.38E-05	1.62	3.85E-05	2.70
	55.00	61.00	600.00	2.75	150.00	10.34	10344.83	---	2800.00	175.00	0.00	13319.83		20.70	20700.00	2.38E-05	1.55	3.70E-05	2.59
	55.00	61.00	600.00	2.75	110.00	7.59	7586.21	---	2800.00	175.00	0.00	10561.21		18.70	18700.00	2.38E-05	1.77	4.21E-05	2.95
	55.00	61.00	600.00	2.75	70.00	4.83	4827.59	---	2800.00	175.00	0.00	7802.59		11.30	11300.00	2.38E-05	1.45	3.45E-05	2.41
	55.00	61.00	600.00	2.75	30.00	2.07	2068.97	---	2800.00	175.00	0.00	5043.97		7.20	7200.00	2.38E-05	1.43	3.40E-05	2.38
																	AVERAGE	3.79E-05	2.65
HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in <sup>2</sup> )	P (kg/cm <sup>2</sup> )	Hp (cm)	GWL (ft)	GWL (cm)	Gh (cm)	FL (kg/cm <sup>2</sup> )	TH (cm)	TH* (kg/cm <sup>2</sup> ) (l/min)	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm <sup>2</sup> /min)	K (cm/sec)	Lu
						***								***					
TRO-(3)	61.00	67.00	600.00	2.75	30.00	2.07	2068.97	---	2800.00	187.00	0.00	5055.97		10.20	10200.00	2.38E-05	2.02	4.80E-05	3.36
/8	61.00	67.00	600.00	2.75	70.00	4.83	4827.59	---	2800.00	187.00	0.00	7814.59		16.90	16900.00	2.38E-05	2.16	5.15E-05	3.60
	61.00	67.00	600.00	2.75	110.00	7.59	7586.21	---	2800.00	187.00	0.00	10573.21		20.30	20300.00	2.38E-05	1.92	4.57E-05	3.20
	61.00	67.00	600.00	2.75	150.00	10.34	10344.83	---	2800.00	187.00	0.00	13331.83		27.10	27100.00	2.38E-05	2.03	4.84E-05	3.39
	61.00	67.00	600.00	2.75	110.00	7.59	7586.21	---	2800.00	187.00	0.00	10573.21		18.10	18100.00	2.38E-05	1.71	4.07E-05	2.85
	61.00	67.00	600.00	2.75	70.00	4.83	4827.59	---	2800.00	187.00	0.00	7814.59		13.40	13400.00	2.38E-05	1.71	4.08E-05	2.86
	61.00	67.00	600.00	2.75	30.00	2.07	2068.97	---	2800.00	187.00	0.00	5055.97		7.80	7800.00	2.38E-05	1.54	3.67E-05	2.57
																	AVERAGE	3.90E-05	2.73
HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in <sup>2</sup> )	P (kg/cm <sup>2</sup> )	Hp (cm)	GWL (ft)	GWL (cm)	Gh (cm)	FL (kg/cm <sup>2</sup> )	TH (cm)	TH* (kg/cm <sup>2</sup> ) (l/min)	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm <sup>2</sup> /min)	K (cm/sec)	Lu
						***								***					
TRO-(3)	67.00	73.00	600.00	2.75	30.00	2.07	2068.97	---	2800.00	173.00	0.00	5041.97		8.20	8200.00	2.38E-05	1.63	3.87E-05	2.71
/9	67.00	73.00	600.00	2.75	70.00	4.83	4827.59	---	2800.00	173.00	0.00	7800.59		14.40	14400.00	2.38E-05	1.85	4.39E-05	3.08
	67.00	73.00	600.00	2.75	110.00	7.59	7586.21	---	2800.00	173.00	0.00	10559.21		18.70	18700.00	2.38E-05	1.77	4.21E-05	2.95
	67.00	73.00	600.00	2.75	150.00	10.34	10344.83	---	2800.00	173.00	0.00	13317.83		21.00	21000.00	2.38E-05	1.58	3.75E-05	2.63
	67.00	73.00	600.00	2.75	110.00	7.59	7586.21	---	2800.00	173.00	0.00	10559.21		15.90	15900.00	2.38E-05	1.51	3.58E-05	2.51
	67.00	73.00	600.00	2.75	70.00	4.83	4827.59	---	2800.00	173.00	0.00	7800.59		11.80	11800.00	2.38E-05	1.51	3.60E-05	2.52
	67.00	73.00	600.00	2.75	30.00	2.07	2068.97	---	2800.00	173.00	0.00	5041.97		6.70	6700.00	2.38E-05	1.33	3.16E-05	2.21
																	AVERAGE	3.30E-05	2.31

TABLE B.2.3(4) RESULT OF PERMEABILITY TEST IN BOREHOLE, TRO-(3), 4/5

PERMEABILITY TEST - PHASE II  
PORT LOUIS WATER SUPPLY

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (ft)	GWL (cm)	Gh (cm)	FL (kg/cm2)	TH (cm)	TH*	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Lu
***																			
TR0-(3)	73.00	79.00	600.00	2.75	30.00	2.07	2068.97	---	2800.00	184.00	0.00	5052.97	---	9.90	9900.00	2.38E-05	1.96	4.66E-05	3.27
/10	73.00	79.00	600.00	2.75	70.00	4.83	4827.59	---	2800.00	184.00	0.00	7811.59	---	14.30	14300.00	2.38E-05	1.83	4.36E-05	3.05
	73.00	79.00	600.00	2.75	110.00	7.59	7586.21	---	2800.00	184.00	0.00	10570.21	---	18.80	18800.00	2.38E-05	1.78	4.23E-05	2.96
	73.00	79.00	600.00	2.75	150.00	10.34	10344.83	---	2800.00	184.00	0.00	13328.83	---	22.70	22700.00	2.38E-05	1.70	4.05E-05	2.84
	73.00	79.00	600.00	2.75	110.00	7.59	7586.21	---	2800.00	184.00	0.00	10570.21	---	15.60	15600.00	2.38E-05	1.48	3.51E-05	2.46
	73.00	79.00	600.00	2.75	70.00	4.83	4827.59	---	2800.00	184.00	0.00	7811.59	---	12.40	12400.00	2.38E-05	1.59	3.78E-05	2.65
	73.00	79.00	600.00	2.75	30.00	2.07	2068.97	---	2800.00	184.00	0.00	5052.97	---	7.50	7500.00	2.38E-05	1.48	3.53E-05	2.47
AVERAGE																		3.47E-05	2.43
***																			
HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (ft)	GWL (cm)	Gh (cm)	FL (kg/cm2)	TH (cm)	TH*	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Lu
***																			
TR0-(3)	79.00	85.00	600.00	2.75	30.00	2.07	2068.97	---	2800.00	93.00	0.00	4961.97	---	7.40	7400.00	2.38E-05	1.49	3.55E-05	2.49
/11	79.00	85.00	600.00	2.75	70.00	4.83	4827.59	---	2800.00	93.00	0.00	7720.59	---	13.90	13900.00	2.38E-05	1.80	4.28E-05	3.00
	79.00	85.00	600.00	2.75	110.00	7.59	7586.21	---	2800.00	93.00	0.00	10479.21	---	16.20	16200.00	2.38E-05	1.55	3.68E-05	2.58
	79.00	85.00	600.00	2.75	150.00	10.34	10344.83	---	2800.00	93.00	0.00	13237.83	---	19.80	19800.00	2.38E-05	1.50	3.56E-05	2.49
	79.00	85.00	600.00	2.75	110.00	7.59	7586.21	---	2800.00	93.00	0.00	10479.21	---	14.10	14100.00	2.38E-05	1.35	3.20E-05	2.24
	79.00	85.00	600.00	2.75	70.00	4.83	4827.59	---	2800.00	93.00	0.00	7720.59	---	11.70	11700.00	2.38E-05	1.52	3.61E-05	2.53
	79.00	85.00	600.00	2.75	30.00	2.07	2068.97	---	2800.00	93.00	0.00	4961.97	---	5.60	5600.00	2.38E-05	1.13	2.69E-05	1.88
AVERAGE																		3.05E-05	2.13
***																			
HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (ft)	GWL (cm)	Gh (cm)	FL (kg/cm2)	TH (cm)	TH*	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Lu
***																			
TR0-(3)	85.00	92.00	700.00	2.75	30.00	2.07	2068.97	---	2800.00	118.00	0.00	4986.97	---	8.20	8200.00	2.10E-05	1.64	3.45E-05	2.35
/12	85.00	92.00	700.00	2.75	70.00	4.83	4827.59	---	2800.00	118.00	0.00	7745.59	---	9.30	9300.00	2.10E-05	1.20	2.52E-05	1.72
	85.00	92.00	700.00	2.75	110.00	7.59	7586.21	---	2800.00	118.00	0.00	10504.21	---	11.10	11100.00	2.10E-05	1.06	2.22E-05	1.51
	85.00	92.00	700.00	2.75	150.00	10.34	10344.83	---	2800.00	118.00	0.00	13262.83	---	13.60	13600.00	2.10E-05	1.03	2.15E-05	1.46
	85.00	92.00	700.00	2.75	110.00	7.59	7586.21	---	2800.00	118.00	0.00	10504.21	---	9.70	9700.00	2.10E-05	0.92	1.94E-05	1.32
	85.00	92.00	700.00	2.75	70.00	4.83	4827.59	---	2800.00	118.00	0.00	7745.59	---	7.70	7700.00	2.10E-05	0.99	2.09E-05	1.42
	85.00	92.00	700.00	2.75	30.00	2.07	2068.97	---	2800.00	118.00	0.00	4986.97	---	5.90	5900.00	2.10E-05	1.18	2.48E-05	1.69
AVERAGE																		2.05E-05	1.39

TABLE B.2.3(5) RESULT OF PERMEABILITY TEST IN BOERHOLE, TRO-(3), 5/5

PERMEABILITY TEST - PHASE II  
PORT LOUIS WATER SUPPLY

HOLE No	D1 (m)	D2 (m)	L (cm)	F (cm)	P (bl/in2)	P (%g/cm2)	Sp (cm)	GWL (ft)	GWL (cm)	Gh (cm)	FL (%g/cm2)	TH (cm)	TH*	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Lu
TRO-(3) /13	92.00	99.00	700.00	2.75	30.00	2.07	2068.97	---	---	139.00	0.00	5007.97	---	7.30	7300.00	2.10E-05	1.46	3.06E-05	2.08
	92.00	99.00	700.00	2.75	70.00	4.83	4827.59	---	2800.00	139.00	0.00	7766.59	---	8.60	8600.00	2.10E-05	1.11	2.32E-05	1.58
	92.00	99.00	700.00	2.75	110.00	7.59	7586.21	---	2800.00	139.00	0.00	10525.21	---	10.60	10600.00	2.10E-05	1.01	2.11E-05	1.44
	92.00	99.00	700.00	2.75	150.00	10.34	10344.83	---	2800.00	139.00	0.00	13283.83	---	10.20	10200.00	2.10E-05	0.77	1.61E-05	1.10
	92.00	99.00	700.00	2.75	110.00	7.59	7586.21	---	2800.00	139.00	0.00	10525.21	---	7.90	7900.00	2.10E-05	0.75	1.57E-05	1.07
	92.00	99.00	700.00	2.75	70.00	4.83	4827.59	---	2800.00	139.00	0.00	7766.59	---	5.80	5800.00	2.10E-05	0.75	1.57E-05	1.07
	92.00	99.00	700.00	2.75	30.00	2.07	2068.97	---	2800.00	139.00	0.00	5007.97	---	7.50	7500.00	2.10E-05	1.50	3.14E-05	2.14
AVERAGE																		1.78E-05	1.21

TABLE B.2.4(1) RESULT OF PERMEABILITY TEST IN BOREHOLE, TR0-(5), 1/5

PERMEABILITY TEST - PHASE II

## PORT LOUIS WATER SUPPLY

HOLE NO	Z1 (in)	Z2 (in)	L (in)	P (psi)	F (lb/ft <sup>2</sup> )	HP (psi)	BWL (ft)	BWL (in)	BR (in)	FL (lb/ft <sup>2</sup> )	TH (in)	TH <sup>2</sup> (in <sup>2</sup> )	B1 (1/min)	B2 (cc/min)	C	B2/TH (cc2/min)	K (cm/sec)
TR0-(5) /1	20	26	600	3.3	20	1.35 1375.310	---	425	150	0 1854.310	---	---	2.20	2200	2.30E-05	1.125715	2.59E-05
	20	24	600	3.3	40	2.76 2755.620	---	425	150	0 3533.620	---	---	2.60	2560	2.30E-05	0.835227	1.95E-05
	20	24	600	3.3	70	4.83 4827.555	---	425	150	0 5402.555	---	---	3.50	3500	2.30E-05	0.721876	1.66E-05
	20	24	600	3.3	100	5.90 5894.881	---	425	150	0 7471.581	---	---	4.50	4500	2.30E-05	0.602664	1.38E-05
	20	24	600	3.3	70	4.83 4827.555	---	425	150	0 5402.555	---	---	4.00	4000	2.30E-05	0.740366	1.70E-05
	20	24	600	3.3	40	2.76 2755.620	---	425	150	0 3533.620	---	---	2.20	2200	2.30E-05	0.659943	1.52E-05
	20	24	600	3.3	20	1.35 1375.310	---	425	150	0 1854.310	---	---	2.00	2000	2.30E-05	1.023378	2.75E-05
	AVERAGE																1.68E-05

HOLE NO	Z1 (in)	Z2 (in)	L (in)	P (psi)	F (lb/ft <sup>2</sup> )	HP (psi)	BWL (ft)	BWL (in)	BR (in)	FL (lb/ft <sup>2</sup> )	TH (in)	TH <sup>2</sup> (in <sup>2</sup> )	B1 (1/min)	B2 (cc/min)	C	B2/TH (cc2/min)	K (cm/sec)
TR0-(5) /2	25	32	600	3.3	20	1.35 1375.310	---	425	250	0 2054.310	---	---	18.50	18500	2.30E-05	9.200167	2.11E-04
	25	32	600	3.3	40	2.76 2755.620	---	425	250	0 3533.620	---	---	25.60	25600	2.30E-05	7.455885	1.71E-04
	25	32	600	3.3	70	4.83 4827.555	---	425	250	0 5402.555	---	---	30.70	30700	2.30E-05	5.875154	1.28E-04
	25	32	600	3.3	100	5.90 5894.881	---	425	250	0 7371.581	---	---	35.20	35200	2.30E-05	4.62189	1.01E-04
	25	32	600	3.3	70	4.83 4827.555	---	425	250	0 5402.555	---	---	31.60	31600	2.30E-05	5.742754	1.35E-04
	25	32	600	3.3	40	2.76 2755.620	---	425	250	0 3533.620	---	---	25.50	25500	2.30E-05	7.717500	1.77E-04
	25	32	600	3.3	20	1.35 1375.310	---	425	250	0 2054.310	---	---	22.50	22500	2.30E-05	10.95258	2.52E-04
	AVERAGE																1.49E-04

HOLE NO	Z1 (in)	Z2 (in)	L (in)	P (psi)	F (lb/ft <sup>2</sup> )	HP (psi)	BWL (ft)	BWL (in)	BR (in)	FL (lb/ft <sup>2</sup> )	TH (in)	TH <sup>2</sup> (in <sup>2</sup> )	B1 (1/min)	B2 (cc/min)	C	B2/TH (cc2/min)	K (cm/sec)
TR0-(5) /3	32	38	600	3.3	20	1.35 1375.310	---	425	55	0 1854.310	---	---	68.90	68900	2.30E-05	47.51342	1.10E-03
	32	38	600	3.3	40	2.76 2755.620	---	425	55	0 3533.620	---	---	105.80	105800	2.30E-05	32.66822	7.51E-04
	32	38	600	3.3	70	4.83 4827.555	---	425	55	0 5402.555	---	---	162.10	162100	2.30E-05	30.54119	7.02E-04
	32	38	600	3.3	100	5.90 5894.881	---	425	55	0 7371.581	---	---	243.70	243700	2.30E-05	33.83711	7.58E-04
	32	38	600	3.3	70	4.83 4827.555	---	425	55	0 5402.555	---	---	174.30	174300	2.30E-05	32.63978	7.58E-04
	32	38	600	3.3	40	2.76 2755.620	---	425	55	0 3533.620	---	---	119.30	119300	2.30E-05	34.57825	7.97E-04
	32	38	600	3.3	20	1.35 1375.310	---	425	55	0 1854.310	---	---	92.80	92800	2.30E-05	49.86441	1.14E-03
	AVERAGE																8.68E-04

TABLE B.2.4 (2) RESULT OF PERMEABILITY TEST IN BOREHOLE, TR0-(5), 2/5

PERMEABILITY TEST - PHASE II

PORT LOUIS WATER SUPPLY

HOLE No	D1 (in)	D2 (in)	L (cm)	r (cm)	P (psi/in2)	P (kg/cm2)	H <sub>0</sub> (cm)	SWL (ft)	SWL (cm)	SH (cm)	FL (kg/cm2)	TH (cm)	TH* (kg/cm2)	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)
TR0-(5)																		
1/4																		
	38	44	600	3.3	20	1.39	1379.310	---	---	425	210	0	0.2014.310	25.60	25000	2.30E-05	12.41119	2.58E-04
	38	44	600	3.3	40	2.75	2759.620	---	---	425	210	0	0.3931.620	30.80	36500	2.30E-05	9.07552	2.07E-04
	38	44	600	3.3	70	4.83	4827.555	---	---	425	210	0	0.6421.555	34.60	34600	2.30E-05	8.224132	1.43E-04
	38	44	600	3.3	100	6.50	6595.551	---	---	425	210	0	0.7331.551	35.60	35600	2.30E-05	5.125105	1.18E-04
	38	44	600	3.3	70	4.83	4827.555	---	---	425	210	0	0.6421.555	35.60	35000	2.30E-05	6.407221	1.47E-04
	38	44	600	3.3	40	2.75	2759.620	---	---	425	210	0	0.3931.620	31.60	31600	2.30E-05	9.311558	2.15E-04
	38	44	600	3.3	20	1.39	1379.310	---	---	425	210	0	0.2014.310	25.70	25700	2.30E-05	12.75570	2.53E-04
																	AVERAGE	2.01E-04
TR0-(5)																		
7/5																		
	80	84	1400	3.3	10	0.69	689.6551	---	---	425	30	0	0.1144.655	223.90	223600	1.15E-05	174.6154	2.73E-03
TR0-(5)																		
7/5																		
	64	70	600	3.3	10	0.69	689.6551	---	---	421	30	0	0.1340.655	232.60	232600	2.30E-05	173.4972	3.99E-03
TR0-(5)																		
7/7																		
	70	76	600	3.3	20	1.39	1379.310	---	---	421	210	0	0.2110.310	23.80	23600	2.30E-05	10.40577	2.39E-04
	70	76	600	3.3	40	2.75	2759.620	---	---	421	210	0	0.3939.620	29.70	29700	2.30E-05	7.995373	1.84E-04
	70	76	600	3.3	70	4.83	4827.555	---	---	421	210	0	0.6459.555	36.70	36700	2.30E-05	6.455718	1.49E-04
	70	76	600	3.3	100	6.50	6595.551	---	---	421	210	0	0.7327.551	47.20	47200	2.30E-05	6.188014	1.48E-04
	70	76	600	3.3	70	4.83	4827.555	---	---	421	210	0	0.6459.555	29.60	29500	2.30E-05	8.226558	1.28E-04
	70	76	600	3.3	40	2.75	2759.620	---	---	421	210	0	0.3939.620	24.30	24300	2.30E-05	8.755317	1.55E-04
	70	76	600	3.3	20	1.39	1379.310	---	---	421	210	0	0.2110.310	20.50	20500	2.30E-05	9.274715	2.15E-04
																	AVERAGE	1.72E-04





TABLE B.2.4 (4) RESULT OF PERMEABILITY TEST IN BOREHOLE, TRO-(5), 4/5

PERMEABILITY TEST - PHASE II

PORT LOUIS WATER SUPPLY

SOLE No	111										112										K (cm/sec)
	D1 (in)	D2 (in)	L (in)	F (cc)	F (in <sup>3</sup> /sec)	HP (cc)	SWL (ft)	SWL (in)	SH (cc)	FL (in <sup>3</sup> /sec)	TH (cc)	TH (in <sup>3</sup> /sec)	G1 (in/min)	G2 (cc/min)	C (cc/min)	G2/TH (cc/min)					
TRO-(5)																					
111	106	112	600	3.3	20	1.08	1379.310	---	---	421	185	0	0.185.310	51.60	51600	2.30E-05	37.34023	8.58E-04			
112	106	112	600	3.3	40	2.16	2758.620	---	---	421	365	0	0.364.620	119.70	119700	2.30E-05	33.52801	7.72E-04			
113	106	112	600	3.3	70	4.83	4827.886	---	---	421	655	0	0.653.886	168.30	168300	2.30E-05	29.57439	6.87E-04			
114	106	112	600	3.3	100	6.59	6585.881	---	---	421	945	0	0.944.820	121.70	121700	2.30E-05	34.4407	7.83E-04			
115	106	112	600	3.3	20	1.08	1379.310	---	---	421	185	0	0.185.310	120.80	120800	2.30E-05	55.27618	1.27E-03			
AVERAGE																		8.75E-04			
TRO-(5)																					
116	106	112	600	3.3	20	1.08	1379.310	---	---	421	185	0	0.185.310	57.10	57100	2.30E-05	46.22518	9.25E-04			
117	106	112	600	3.3	40	2.16	2758.620	---	---	421	365	0	0.364.620	127.60	127600	2.30E-05	33.59621	8.12E-04			
118	106	112	600	3.3	70	4.83	4827.886	---	---	421	655	0	0.653.886	161.80	161800	2.30E-05	32.38008	7.44E-04			
119	106	112	600	3.3	100	6.59	6585.881	---	---	421	945	0	0.944.820	131.50	131500	2.30E-05	37.21151	8.55E-04			
120	106	112	600	3.3	20	1.08	1379.310	---	---	421	185	0	0.185.310	137.60	137600	2.30E-05	53.54747	1.46E-03			
AVERAGE																		9.60E-04			
TRO-(5)																					
121	106	112	600	3.3	20	1.08	1379.310	---	---	421	185	0	0.185.310	20.20	20200	2.30E-05	9.213533	2.12E-04			
122	106	112	600	3.3	40	2.16	2758.620	---	---	421	365	0	0.364.620	20.60	20600	2.30E-05	5.779016	1.33E-04			
123	106	112	600	3.3	70	4.83	4827.886	---	---	421	655	0	0.653.886	24.20	24200	2.30E-05	4.298685	9.87E-05			
124	106	112	600	3.3	100	6.59	6585.881	---	---	421	945	0	0.732.551	24.50	24500	2.30E-05	3.452401	7.94E-05			
125	106	112	600	3.3	20	1.08	1379.310	---	---	421	185	0	0.185.310	22.20	22200	2.30E-05	4.118158	9.47E-05			
126	106	112	600	3.3	40	2.16	2758.620	---	---	421	365	0	0.364.620	18.20	18200	2.30E-05	5.105732	1.17E-04			
127	106	112	600	3.3	20	1.08	1379.310	---	---	421	185	0	0.185.310	16.80	16800	2.30E-05	7.657555	1.77E-04			
AVERAGE																		1.30E-04			

TABLE B.2.4 (5) RESULT OF PERMEABILITY TEST IN BOREHOLE, TRO-(5), 5/5

PERMEABILITY TEST - PHASE 11

PORT LOUIS WATER SUPPLY															
HOLE NO	D1 (in)	D2 (in)	L (in)	r (in)	P (lb/lin)	P (kg/cc2)	H <sub>0</sub> (in)	SWL (ft)	SWL (in)	SWL (in)	SWL (in)	SWL (in)	TH (in)	TH (kg/cc2)	G2 (cc/min)
TRO-(5) 7/4	112	120	800	3.3	20	1.38	1377.710	---	---	---	---	---	---	---	---
	112	120	800	3.3	40	2.76	2738.620	---	---	---	---	---	---	---	---
	112	120	800	3.3	70	4.93	4927.886	---	---	---	---	---	---	---	---
	112	120	800	3.3	100	6.89	6856.881	---	---	---	---	---	---	---	---
	112	120	800	3.3	70	4.93	4927.886	---	---	---	---	---	---	---	---
	112	120	800	3.3	40	2.76	2738.620	---	---	---	---	---	---	---	---
	112	120	800	3.3	20	1.38	1377.710	---	---	---	---	---	---	---	---
	112	120	800	3.3	20	1.38	1377.710	---	---	---	---	---	---	---	---
	112	120	800	3.3	20	1.38	1377.710	---	---	---	---	---	---	---	---
	112	120	800	3.3	20	1.38	1377.710	---	---	---	---	---	---	---	---
AVERAGE															1.68E-04

TABLE B.2.5(1) RESULT OF PERMEABILITY TEST IN BOREHOLE, TR0-(6), 1/8

PERMEABILITY TEST - PHASE II

PORT LOUIS WATER SUPPLY

(Inclined 60 deg.)

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in <sup>2</sup> )	P (kg/cm <sup>2</sup> )	Hp (cm)	GWL (cm)	GWL (cm)	Gh (cm)	FL (kg/cm <sup>2</sup> )	TH (cm)	Gh* (cm)	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm <sup>2</sup> /min)	K (cm/sec)	Lu	TEST SECTION (m)
***																				
TR0-(6)	20.00	26.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	30.00	0.00	1907.59	25.98	11.00	11000.00	2.67E-05	5.77	1.54E-04	11.10	519.62
/1	20.00	26.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	30.00	0.00	3286.90	25.98	17.10	17100.00	2.67E-05	5.20	1.39E-04	10.01	519.62
	20.00	26.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	30.00	0.00	5355.86	25.98	21.30	21300.00	2.67E-05	3.98	1.06E-04	7.65	519.62
	20.00	26.00	600.00	2.75	100.00	6.90	6896.55	580.00	502.29	30.00	0.00	7424.83	25.98	32.60	32600.00	2.67E-05	4.39	1.17E-04	8.45	519.62
	20.00	26.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	30.00	0.00	5355.86	25.98	19.70	19700.00	2.67E-05	3.68	9.84E-05	7.08	519.62
	20.00	26.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	30.00	0.00	3286.90	25.98	15.20	15200.00	2.67E-05	4.62	1.24E-04	8.90	519.62
	20.00	26.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	30.00	0.00	1907.59	25.98	9.20	9200.00	2.67E-05	4.82	1.29E-04	9.28	519.62
AVERAGE																			1.03E-04	7.38

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in <sup>2</sup> )	P (kg/cm <sup>2</sup> )	Hp (cm)	GWL (cm)	GWL (cm)	Gh (cm)	FL (kg/cm <sup>2</sup> )	TH (cm)	Gh* (cm)	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm <sup>2</sup> /min)	K (cm/sec)	Lu	TEST SECTION (m)
***																				
TR0-(6)	26.00	32.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	176.00	0.00	2034.03	152.42	1.10	1100.00	2.67E-05	0.54	1.45E-05	1.04	519.62
/2	26.00	32.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	176.00	0.00	3413.34	152.42	2.30	2300.00	2.67E-05	0.67	1.80E-05	1.30	519.62
	26.00	32.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	176.00	0.00	5482.30	152.42	4.60	4600.00	2.67E-05	0.84	2.24E-05	1.61	519.62
	26.00	32.00	600.00	2.75	100.00	6.90	6896.55	580.00	502.29	176.00	0.00	7551.27	152.42	5.20	5200.00	2.67E-05	0.69	1.84E-05	1.33	519.62
	26.00	32.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	176.00	0.00	5482.30	152.42	4.30	4300.00	2.67E-05	0.78	2.10E-05	1.51	519.62
	26.00	32.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	176.00	0.00	3413.34	152.42	1.90	1900.00	2.67E-05	0.56	1.49E-05	1.07	519.62
	26.00	32.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	176.00	0.00	2034.03	152.42	0.80	800.00	2.67E-05	0.39	1.05E-05	0.76	519.62
AVERAGE																			1.57E-05	1.13

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in <sup>2</sup> )	P (kg/cm <sup>2</sup> )	Hp (cm)	GWL (cm)	GWL (cm)	Gh (cm)	FL (kg/cm <sup>2</sup> )	TH (cm)	Gh* (cm)	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm <sup>2</sup> /min)	K (cm/sec)	Lu	TEST SECTION (m)
***																				
TR0-(6)	32.00	38.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	0.00	0.00	1881.61	0.00	98.40	98400.00	2.67E-05	52.30	1.40E-03	100.64	519.62
/3	32.00	38.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	0.00	0.00	3260.92	0.00	112.80	112800.00	2.67E-05	34.59	9.25E-04	66.57	519.62
	32.00	38.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	0.00	0.00	5329.88	0.00	136.40	136400.00	2.67E-05	25.59	6.84E-04	49.25	519.62
	32.00	38.00	600.00	2.75	100.00	6.90	6896.55	580.00	502.29	0.00	0.00	7398.85	0.00	158.80	158800.00	2.67E-05	21.46	5.74E-04	41.31	519.62
	32.00	38.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	0.00	0.00	5329.88	0.00	108.40	108400.00	2.67E-05	20.34	5.44E-04	39.14	519.62
	32.00	38.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	0.00	0.00	3260.92	0.00	103.60	103600.00	2.67E-05	31.77	8.50E-04	61.14	519.62
	32.00	38.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	0.00	0.00	1881.61	0.00	68.80	68800.00	2.67E-05	36.56	9.78E-04	70.37	519.62
AVERAGE																			6.88E-04	49.49

TABLE B.2.5(2) RESULT OF PERMEABILITY TEST IN BOREHOLE, TR0-(6), 2/8

## PERMEABILITY TEST - PHASE II

## PORT LOUIS WATER SUPPLY

(Inclined 60 deg.)

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in <sup>2</sup> )	P (kg/cm <sup>2</sup> )	Hp (cm)	GWL (cm)	GWL Inclined	GWL vertical	Gh (cm)	FL (kg/cm <sup>2</sup> )	TH (cm)	Gh* (cm)	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm <sup>2</sup> /min)	K (cm/sec)	Lu (m)	TEST SECTION (m)
***																					
TR0-(6)	38.00	44.00	600.00	2.75	20.00	1.38	1379.31	580.00	580.00	502.29	41.00	0.00	1917.11	35.51	101.00	101000.00	2.67E-05	52.68	1.41E-03	101.39	519.62
/4	38.00	44.00	600.00	2.75	40.00	2.76	2758.62	580.00	580.00	502.29	41.00	0.00	3296.42	35.51	129.20	129200.00	2.67E-05	39.19	1.05E-03	75.43	519.62
	38.00	44.00	600.00	2.75	70.00	4.83	4827.59	580.00	580.00	502.29	41.00	0.00	5365.39	35.51	132.60	132600.00	2.67E-05	24.71	6.61E-04	47.56	519.62
	38.00	44.00	600.00	2.75	100.00	6.90	6896.55	580.00	580.00	502.29	41.00	0.00	7434.35	35.51	150.80	150800.00	2.67E-05	20.28	5.42E-04	39.04	519.62
	38.00	44.00	600.00	2.75	70.00	4.83	4827.59	580.00	580.00	502.29	41.00	0.00	5365.39	35.51	114.20	114200.00	2.67E-05	21.28	5.69E-04	40.96	519.62
	38.00	44.00	600.00	2.75	40.00	2.76	2758.62	580.00	580.00	502.29	41.00	0.00	3296.42	35.51	108.60	108600.00	2.67E-05	32.94	8.81E-04	63.40	519.62
	38.00	44.00	600.00	2.75	20.00	1.38	1379.31	580.00	580.00	502.29	41.00	0.00	1917.11	35.51	99.20	99200.00	2.67E-05	51.74	1.38E-03	99.58	519.62
AVERAGE																			7.05E-04	50.73	
***																					
HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in <sup>2</sup> )	P (kg/cm <sup>2</sup> )	Hp (cm)	GWL (cm)	GWL Inclined	GWL vertical	Gh (cm)	FL (kg/cm <sup>2</sup> )	TH (cm)	Gh* (cm)	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm <sup>2</sup> /min)	K (cm/sec)	Lu (m)	TEST SECTION (m)
TR0-(6)	44.00	50.00	600.00	2.75	20.00	1.38	1379.31	580.00	580.00	502.29	142.00	0.00	2004.58	122.98	23.60	23600.00	2.67E-05	11.77	3.15E-04	22.66	519.62
/5	44.00	50.00	600.00	2.75	40.00	2.76	2758.62	580.00	580.00	502.29	142.00	0.00	3383.89	122.98	44.10	44100.00	2.67E-05	13.03	3.48E-04	25.08	519.62
	44.00	50.00	600.00	2.75	70.00	4.83	4827.59	580.00	580.00	502.29	142.00	0.00	5452.86	122.98	52.80	52800.00	2.67E-05	9.68	2.59E-04	18.63	519.62
	44.00	50.00	600.00	2.75	100.00	6.90	6896.55	580.00	580.00	502.29	142.00	0.00	7521.82	122.98	71.30	71300.00	2.67E-05	9.48	2.53E-04	18.24	519.62
	44.00	50.00	600.00	2.75	70.00	4.83	4827.59	580.00	580.00	502.29	142.00	0.00	5452.86	122.98	50.90	50900.00	2.67E-05	9.33	2.50E-04	17.96	519.62
	44.00	50.00	600.00	2.75	40.00	2.76	2758.62	580.00	580.00	502.29	142.00	0.00	3383.89	122.98	39.80	39800.00	2.67E-05	11.76	3.15E-04	22.64	519.62
	44.00	50.00	600.00	2.75	20.00	1.38	1379.31	580.00	580.00	502.29	142.00	0.00	2004.58	122.98	21.80	21800.00	2.67E-05	10.88	2.91E-04	20.93	519.62
AVERAGE																			2.38E-04	17.10	

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in <sup>2</sup> )	P (kg/cm <sup>2</sup> )	Hp (cm)	GWL (cm)	GWL Inclined	GWL vertical	Gh (cm)	FL (kg/cm <sup>2</sup> )	TH (cm)	Gh* (cm)	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm <sup>2</sup> /min)	K (cm/sec)	Lu (m)	TEST SECTION (m)
***																					
TR0-(6)	50.00	56.00	600.00	2.75	20.00	1.38	1379.31	580.00	580.00	502.29	30.00	0.00	1907.59	25.98	82.50	82500.00	2.67E-05	43.25	1.16E-03	83.23	519.62
/6	50.00	56.00	600.00	2.75	40.00	2.76	2758.62	580.00	580.00	502.29	30.00	0.00	3286.90	25.98	87.70	87700.00	2.67E-05	26.68	7.13E-04	51.35	519.62
	50.00	56.00	600.00	2.75	70.00	4.83	4827.59	580.00	580.00	502.29	30.00	0.00	5355.86	25.98	110.20	110200.00	2.67E-05	20.58	5.50E-04	39.60	519.62
	50.00	56.00	600.00	2.75	100.00	6.90	6896.55	580.00	580.00	502.29	30.00	0.00	7424.83	25.98	119.40	119400.00	2.67E-05	16.08	4.30E-04	30.95	519.62
	50.00	56.00	600.00	2.75	70.00	4.83	4827.59	580.00	580.00	502.29	30.00	0.00	5355.86	25.98	110.40	110400.00	2.67E-05	20.61	5.51E-04	39.67	519.62
	50.00	56.00	600.00	2.75	40.00	2.76	2758.62	580.00	580.00	502.29	30.00	0.00	3286.90	25.98	98.90	98900.00	2.67E-05	30.09	8.05E-04	57.91	519.62
	50.00	56.00	600.00	2.75	20.00	1.38	1379.31	580.00	580.00	502.29	30.00	0.00	1907.59	25.98	84.00	84000.00	2.67E-05	44.03	1.18E-03	84.74	519.62
AVERAGE																			5.67E-04	40.80	

TABLE B.2.5(3) RESULT OF PERMEABILITY TEST IN BOREHOLE, TR0-(6), 3/8

## PERMEABILITY TEST - PHASE II

(Inclined 60 deg.)

PORT LOUIS WATER SUPPLY

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in <sup>2</sup> )	P (kg/cm <sup>2</sup> )	Hp (cm)	GWL (cm)	GWL vertical	Gh (cm)	FL (kg/cm <sup>2</sup> )	TH (cm)	Gh* (cm)	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm <sup>2</sup> /min)	K (cm/sec)	Ln (m)	TEST SECTION (m)
								Inclined						***						
TR0-(6)	56.00	62.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	30.00	0.00	1907.59	25.98	72.70	72700.00	2.67E-05	38.11	1.02E-03	73.34	519.62
/7	56.00	62.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	30.00	0.00	3286.90	25.98	82.70	82700.00	2.67E-05	25.16	6.73E-04	48.42	519.62
	56.00	62.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	30.00	0.00	5355.86	25.98	93.00	93000.00	2.67E-05	17.36	4.64E-04	33.42	519.62
	56.00	62.00	600.00	2.75	100.00	6.90	6896.55	580.00	502.29	30.00	0.00	7424.83	25.98	106.00	106000.00	2.67E-05	14.28	3.82E-04	27.47	519.62
	56.00	62.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	30.00	0.00	5355.86	25.98	98.70	98700.00	2.67E-05	18.43	4.93E-04	35.47	519.62
	56.00	62.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	30.00	0.00	3286.90	25.98	89.60	89600.00	2.67E-05	27.26	7.29E-04	52.46	519.62
	56.00	62.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	30.00	0.00	1907.59	25.98	74.80	74800.00	2.67E-05	39.21	1.05E-03	75.46	519.62
																	AVERAGE	5.05E-04	36.35	

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in <sup>2</sup> )	P (kg/cm <sup>2</sup> )	Hp (cm)	GWL (cm)	GWL vertical	Gh (cm)	FL (kg/cm <sup>2</sup> )	TH (cm)	Gh* (cm)	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm <sup>2</sup> /min)	K (cm/sec)	Ln (m)	TEST SECTION (m)
								Inclined						***						
TR0-(6)	62.00	68.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	25.00	0.00	1903.26	21.65	63.00	63000.00	2.67E-05	33.10	8.85E-04	63.70	519.62
/8	62.00	68.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	25.00	0.00	3282.57	21.65	73.20	73200.00	2.67E-05	22.30	5.96E-04	42.92	519.62
	62.00	68.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	25.00	0.00	5351.53	21.65	84.70	84700.00	2.67E-05	15.83	4.23E-04	30.46	519.62
	62.00	68.00	600.00	2.75	100.00	6.90	6896.55	580.00	502.29	25.00	0.00	7420.50	21.65	99.80	99800.00	2.67E-05	13.45	3.60E-04	23.88	519.62
	62.00	68.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	25.00	0.00	5351.53	21.65	86.50	86500.00	2.67E-05	16.16	4.32E-04	31.11	519.62
	62.00	68.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	25.00	0.00	3282.57	21.65	77.90	77900.00	2.67E-05	23.73	6.35E-04	45.67	519.62
	62.00	68.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	25.00	0.00	1903.26	21.65	64.70	64700.00	2.67E-05	33.99	9.09E-04	65.42	519.62
																	AVERAGE	4.49E-04	32.34	

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in <sup>2</sup> )	P (kg/cm <sup>2</sup> )	Hp (cm)	GWL (cm)	GWL vertical	Gh (cm)	FL (kg/cm <sup>2</sup> )	TH (cm)	Gh* (cm)	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm <sup>2</sup> /min)	K (cm/sec)	Ln (m)	TEST SECTION (m)
								Inclined						***						
TR0-(6)	68.00	74.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	41.00	0.00	1917.11	35.51	52.40	52400.00	2.67E-05	27.33	7.31E-04	52.60	519.62
/9	68.00	74.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	41.00	0.00	3296.42	35.51	64.70	64700.00	2.67E-05	19.63	5.25E-04	37.77	519.62
	68.00	74.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	41.00	0.00	5365.39	35.51	65.30	65300.00	2.67E-05	12.17	3.25E-04	23.42	519.62
	68.00	74.00	600.00	2.75	100.00	6.90	6896.55	580.00	502.29	41.00	0.00	7434.35	35.51	71.20	71200.00	2.67E-05	9.58	2.56E-04	18.43	519.62
	68.00	74.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	41.00	0.00	5381.68	35.51	62.90	62900.00	2.67E-05	11.69	3.13E-04	22.49	519.62
	68.00	74.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	41.00	0.00	3303.62	35.51	51.80	51800.00	2.67E-05	15.68	4.19E-04	30.18	519.62
	68.00	74.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	41.00	0.00	1917.11	35.51	42.70	42700.00	2.67E-05	22.27	5.96E-04	42.86	519.62
																	AVERAGE	3.58E-04	25.79	

TABLE B.2.5(4) RESULT OF PERMEABILITY TEST IN BOREHOLE, TR0-(6), 4/8

## PERMEABILITY TEST - PHASE II

(Inclined 60 deg.)

## PORT LOUIS WATER SUPPLY

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (cm)	GWL (cm)	Gh (cm)	ZL (kg/cm2)	TH (cm)	Gh* (cm)	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Ls	TEST SECTION (m)
***																				
TR0-(6)	74.00	80.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	45.00	0.00	1920.58	38.97	52.10	52100.00	2.67E-05	27.13	7.25E-04	52.21	519.62
/10	74.00	80.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	45.00	0.00	3299.89	38.97	63.20	63200.00	2.67E-05	19.15	5.12E-04	36.86	519.62
	74.00	80.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	45.00	0.00	5368.85	38.97	65.90	65900.00	2.67E-05	12.27	3.28E-04	23.62	519.62
	74.00	80.00	600.00	2.75	100.00	6.90	6896.55	580.00	502.29	45.00	0.00	7437.82	38.97	72.70	72700.00	2.67E-05	9.77	2.61E-04	18.81	519.62
	74.00	80.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	45.00	0.00	5368.85	38.97	59.10	59100.00	2.67E-05	11.01	2.94E-04	21.18	519.62
	74.00	80.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	45.00	0.00	3299.89	38.97	42.90	42900.00	2.67E-05	13.00	3.48E-04	25.02	519.62
	74.00	80.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	45.00	0.00	1920.58	38.97	36.30	36300.00	2.67E-05	18.90	5.05E-04	36.37	519.62
AVERAGE																			3.54E-04	25.45
***																				
HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2) <td>P (kg/cm2)</td> <td>Hp (cm)</td> <td>GWL (cm)</td> <td>GWL (cm)</td> <td>Gh (cm)</td> <td>ZL (kg/cm2)</td> <td>TH (cm)</td> <td>Gh* (cm)</td> <td>Q1 (l/min)</td> <td>Q2 (cc/min)</td> <td>C</td> <td>Q2/TH (cm2/min)</td> <td>K (cm/sec)</td> <td>Ls</td> <td>TEST SECTION (m)</td>	P (kg/cm2)	Hp (cm)	GWL (cm)	GWL (cm)	Gh (cm)	ZL (kg/cm2)	TH (cm)	Gh* (cm)	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Ls	TEST SECTION (m)
***																				
TR0-(6)	80.00	86.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	52.00	0.00	1926.64	45.03	57.00	57000.00	2.67E-05	29.59	7.91E-04	56.94	519.62
/11	80.00	86.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	52.00	0.00	3305.95	45.03	64.00	64000.00	2.67E-05	19.36	5.18E-04	37.26	519.62
	80.00	86.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	52.00	0.00	5374.91	45.03	71.50	71500.00	2.67E-05	13.30	3.56E-04	25.60	519.62
	80.00	86.00	600.00	2.75	100.00	6.90	6896.55	580.00	502.29	52.00	0.00	7443.88	45.03	81.70	81700.00	2.67E-05	10.98	2.93E-04	21.12	519.62
	80.00	86.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	52.00	0.00	5374.91	45.03	59.50	59500.00	2.67E-05	11.07	2.96E-04	21.30	519.62
	80.00	86.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	52.00	0.00	3305.95	45.03	57.50	57500.00	2.67E-05	17.39	4.65E-04	33.47	519.62
	80.00	86.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	52.00	0.00	1926.64	45.03	40.20	40200.00	2.67E-05	20.87	5.58E-04	40.16	519.62
AVERAGE																			3.76E-04	27.04
***																				
HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2) <td>P (kg/cm2)</td> <td>Hp (cm)</td> <td>GWL (cm)</td> <td>GWL (cm)</td> <td>Gh (cm)</td> <td>ZL (kg/cm2)</td> <td>TH (cm)</td> <td>Gh* (cm)</td> <td>Q1 (l/min)</td> <td>Q2 (cc/min)</td> <td>C</td> <td>Q2/TH (cm2/min)</td> <td>K (cm/sec)</td> <td>Ls</td> <td>TEST SECTION (m)</td>	P (kg/cm2)	Hp (cm)	GWL (cm)	GWL (cm)	Gh (cm)	ZL (kg/cm2)	TH (cm)	Gh* (cm)	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Ls	TEST SECTION (m)
***																				
TR0-(6)	86.00	92.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	35.00	0.00	1911.92	30.31	57.00	57000.00	2.67E-05	29.81	7.97E-04	57.38	519.62
/12	86.00	92.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	35.00	0.00	3291.23	30.31	71.00	71000.00	2.67E-05	21.57	5.77E-04	41.52	519.62
	86.00	92.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	35.00	0.00	5360.19	30.31	84.00	84000.00	2.67E-05	15.67	4.19E-04	30.16	519.62
	86.00	92.00	600.00	2.75	100.00	6.90	6896.55	580.00	502.29	35.00	0.00	7429.16	30.31	95.00	95000.00	2.67E-05	12.79	3.42E-04	24.61	519.62
	86.00	92.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	35.00	0.00	5360.19	30.31	76.50	76500.00	2.67E-05	14.27	3.82E-04	27.47	519.62
	86.00	92.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	35.00	0.00	3291.23	30.31	67.30	67300.00	2.67E-05	20.45	5.47E-04	39.35	519.62
	86.00	92.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	35.00	0.00	1911.92	30.31	54.50	54500.00	2.67E-05	28.51	7.62E-04	54.86	519.62
AVERAGE																			4.19E-04	30.19

TABLE B.2.5(5) RESULT OF PERMEABILITY TEST IN BOREHOLE, TR0-(6), 5/8

## PERMEABILITY TEST - PHASE II

(Inclined 60 deg.)

## PORT LOUIS WATER SUPPLY

HOLE No	D1 (m)	D2 (m)	L (cm)	z (cm)	P (bl/in <sup>2</sup> )	P (kg/cm <sup>2</sup> )	Hp (cm)	GWL (cm)	GWL (cm)	Gh (cm)	FL (kg/cm <sup>2</sup> )	TH (cm)	Gh* (cm)	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm <sup>2</sup> /min)	K (cm/sec)	Ln (m)	TEST SECTION (m)
***																				
TR0-(6)	92.00	98.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	47.00	0.00	1922.31	40.70	55.00	55000.00	2.67E-05	28.61	7.65E-04	55.06	519.62
/13	92.00	98.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	47.00	0.00	3301.62	40.70	68.00	58000.00	2.67E-05	20.60	5.51E-04	39.64	519.62
	92.00	98.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	47.00	0.00	5370.58	40.70	78.70	78700.00	2.67E-05	14.65	3.92E-04	28.20	519.62
	92.00	98.00	600.00	2.75	100.00	6.90	6896.55	580.00	502.29	47.00	0.00	7439.55	40.70	89.00	89000.00	2.67E-05	11.96	3.20E-04	23.02	519.62
	92.00	98.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	47.00	0.00	5370.58	40.70	74.80	74800.00	2.67E-05	13.93	3.72E-04	26.80	519.62
	92.00	98.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	47.00	0.00	3301.62	40.70	64.00	64000.00	2.67E-05	19.38	5.18E-04	37.31	519.62
	92.00	98.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	47.00	0.00	1922.31	40.70	50.90	50900.00	2.67E-05	26.48	7.08E-04	50.96	519.62
AVERAGE																			4.00E-04	28.79
***																				
HOLE No	D1 (m)	D2 (m)	L (cm)	z (cm)	P (bl/in <sup>2</sup> )	P (kg/cm <sup>2</sup> )	Hp (cm)	GWL (cm)	GWL (cm)	Gh (cm)	FL (kg/cm <sup>2</sup> )	TH (cm)	Gh* (cm)	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm <sup>2</sup> /min)	K (cm/sec)	Ln (m)	TEST SECTION (m)
***																				
TR0-(6)	98.00	104.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	43.00	0.00	1881.61	25.98	45.90	12200.00	2.67E-05	6.48	1.73E-04	12.48	519.62
/14	98.00	104.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	43.00	0.00	3260.92	25.98	52.60	17000.00	2.67E-05	5.21	1.39E-04	10.03	519.62
	98.00	104.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	43.00	0.00	5329.88	25.98	60.90	2900.00	2.67E-05	0.54	1.45E-05	1.05	519.62
	98.00	104.00	600.00	2.75	100.00	6.90	6896.55	580.00	502.29	43.00	0.00	7398.85	25.98	75.20	8400.00	2.67E-05	1.14	3.04E-05	2.18	519.62
	98.00	104.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	43.00	0.00	5329.88	25.98	61.10	8000.00	2.67E-05	1.50	4.01E-05	2.89	519.62
	98.00	104.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	43.00	0.00	3260.92	25.98	49.70	4900.00	2.67E-05	1.50	4.02E-05	2.89	519.62
	98.00	104.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	43.00	0.00	1881.61	25.98	40.60	9500.00	2.67E-05	5.05	1.35E-04	9.72	519.62
AVERAGE																			6.63E-05	4.77
***																				
HOLE No	D1 (m)	D2 (m)	L (cm)	z (cm)	P (bl/in <sup>2</sup> )	P (kg/cm <sup>2</sup> )	Hp (cm)	GWL (cm)	GWL (cm)	Gh (cm)	FL (kg/cm <sup>2</sup> )	TH (cm)	Gh* (cm)	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm <sup>2</sup> /min)	K (cm/sec)	Ln (m)	TEST SECTION (m)
***																				
TR0-(6)	104.00	110.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	30.00	0.00	1907.59	25.98	12.20	12200.00	2.67E-05	6.40	1.71E-04	12.31	519.62
/15	104.00	110.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	30.00	0.00	3286.90	25.98	17.00	17000.00	2.67E-05	5.17	1.38E-04	9.95	519.62
	104.00	110.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	30.00	0.00	5355.86	25.98	2.90	2900.00	2.67E-05	0.54	1.45E-05	1.04	519.62
	104.00	110.00	600.00	2.75	100.00	6.90	6896.55	580.00	502.29	30.00	0.00	7424.83	25.98	8.40	8400.00	2.67E-05	1.13	3.03E-05	2.18	519.62
	104.00	110.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	30.00	0.00	5355.86	25.98	8.00	8000.00	2.67E-05	1.49	3.99E-05	2.87	519.62
	104.00	110.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	30.00	0.00	3286.90	25.98	4.90	4900.00	2.67E-05	1.49	3.99E-05	2.87	519.62
	104.00	110.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	30.00	0.00	1907.59	25.98	9.50	9500.00	2.67E-05	4.98	1.33E-04	9.58	519.62
AVERAGE																			6.57E-05	4.73



TABLE B.2.5(6) RESULT OF PERMEABILITY TEST IN BOREHOLE, TR0-(6), 6/8

## PERMEABILITY TEST - PHASE II

(Inclined 60 deg.)

## PORT LOUIS WATER SUPPLY

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (cm) Inclined	GWL (cm) vertical	Gh (cm)	FL (kg/cm2)	TH (cm)	Gh* (cm)	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Lu	TEST SECTION (m)
***																				
TR0-(6)	110.00	116.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	35.00	0.00	1911.92	30.31	9.50	9500.00	2.67E-05	4.97	1.33E-04	9.56	519.62
/16	110.00	116.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	35.00	0.00	3291.23	30.31	10.90	10900.00	2.67E-05	3.31	8.86E-05	6.37	519.62
	110.00	116.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	35.00	0.00	5360.19	30.31	11.30	11300.00	2.67E-05	2.11	5.64E-05	4.06	519.62
	110.00	116.00	600.00	2.75	100.00	6.90	6896.55	580.00	502.29	35.00	0.00	7429.16	30.31	12.60	12600.00	2.67E-05	1.70	4.54E-05	3.26	519.62
	110.00	116.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	35.00	0.00	5360.19	30.31	8.70	8700.00	2.67E-05	1.62	4.34E-05	3.12	519.62
	110.00	116.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	35.00	0.00	3291.23	30.31	3.30	3300.00	2.67E-05	1.00	2.68E-05	1.93	519.62
	110.00	116.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	35.00	0.00	1911.92	30.31	2.70	2700.00	2.67E-05	1.41	3.78E-05	2.72	519.62
AVERAGE																			6.11E-05	4.40
***																				
HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (cm) Inclined	GWL (cm) vertical	Gh (cm)	FL (kg/cm2)	TH (cm)	Gh* (cm)	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Lu	TEST SECTION (m)
TR0-(6)	116.00	122.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	53.00	0.00	1927.50	45.90	7.80	7800.00	2.67E-05	4.05	1.08E-04	7.79	519.62
/17	116.00	122.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	53.00	0.00	3306.81	45.90	9.70	9700.00	2.67E-05	2.93	7.84E-05	5.65	519.62
	116.00	122.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	53.00	0.00	5375.78	45.90	10.80	10800.00	2.67E-05	2.01	5.37E-05	3.87	519.62
	116.00	122.00	600.00	2.75	100.00	6.90	6896.55	580.00	502.29	53.00	0.00	7444.75	45.90	13.70	13700.00	2.67E-05	1.84	4.92E-05	3.54	519.62
	116.00	122.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	53.00	0.00	5375.78	45.90	9.10	9100.00	2.67E-05	1.69	4.53E-05	3.26	519.62
	116.00	122.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	53.00	0.00	3306.81	45.90	7.10	7100.00	2.67E-05	2.15	5.74E-05	4.13	519.62
	116.00	122.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	53.00	0.00	1927.50	45.90	3.40	3400.00	2.67E-05	1.76	4.72E-05	3.39	519.62
AVERAGE																			5.58E-05	4.02
***																				
HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (cm) Inclined	GWL (cm) vertical	Gh (cm)	FL (kg/cm2)	TH (cm)	Gh* (cm)	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Lu	TEST SECTION (m)
TR0-(6)	122.00	128.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	41.00	0.00	1917.11	35.51	6.30	6300.00	2.67E-05	3.29	8.79E-05	6.32	519.62
/18	122.00	128.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	41.00	0.00	3296.42	35.51	7.10	7100.00	2.67E-05	2.15	5.76E-05	4.15	519.62
	122.00	128.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	41.00	0.00	5365.39	35.51	9.30	9300.00	2.67E-05	1.73	4.64E-05	3.34	519.62
	122.00	128.00	600.00	2.75	100.00	6.90	6896.55	580.00	502.29	41.00	0.00	7434.35	35.51	12.10	12100.00	2.67E-05	1.63	4.35E-05	3.13	519.62
	122.00	128.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	41.00	0.00	5365.39	35.51	8.30	8300.00	2.67E-05	1.55	4.14E-05	2.98	519.62
	122.00	128.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	41.00	0.00	3296.42	35.51	6.90	6900.00	2.67E-05	2.09	5.60E-05	4.03	519.62
	122.00	128.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	41.00	0.00	1917.11	35.51	5.20	5200.00	2.67E-05	2.71	7.25E-05	5.22	519.62
AVERAGE																			4.61E-05	3.32

TABLE B.2.5(7) RESULT OF PERMEABILITY TEST IN BOREHOLE, TR0-(6), 7/8

## PERMEABILITY TEST - PHASE II

(Inclined 60 deg.)

## PORT LOUIS WATER SUPPLY

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in <sup>2</sup> )	P (kg/cm <sup>2</sup> )	H <sub>p</sub> (cm)	GWL (cm)	GWL (cm)	Gh (cm)	FL (kg/cm <sup>2</sup> )	TH (cm)	Gh* (cm)	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm <sup>2</sup> /min)	K (cm/sec)	L <sub>a</sub>	TEST SECTION (m)
						***		Inclined	vertical					***						
TR0-(6)	128.00	134.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	30.00	0.00	1907.59	25.98	7.60	7600.00	2.67E-05	3.98	1.07E-04	7.67	519.62
/19	128.00	134.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	30.00	0.00	3286.90	25.98	9.10	9100.00	2.67E-05	2.77	7.40E-05	5.33	519.62
	128.00	134.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	30.00	0.00	5355.86	25.98	10.20	10200.00	2.67E-05	1.90	5.09E-05	3.67	519.62
	128.00	134.00	600.00	2.75	100.00	6.90	6896.55	580.00	502.29	30.00	0.00	7424.83	25.98	13.70	13700.00	2.67E-05	1.85	4.93E-05	3.55	519.62
	128.00	134.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	30.00	0.00	5355.86	25.98	11.80	11800.00	2.67E-05	2.20	5.89E-05	4.24	519.62
	128.00	134.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	30.00	0.00	3286.90	25.98	8.30	8300.00	2.67E-05	2.53	6.73E-05	4.86	519.62
	128.00	134.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	30.00	0.00	1907.59	25.98	6.50	6500.00	2.67E-05	3.41	9.11E-05	6.56	519.62
																	AVERAGE	5.66E-05	4.08	
HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in <sup>2</sup> )	P (kg/cm <sup>2</sup> )	H <sub>p</sub> (cm)	GWL (cm)	GWL (cm)	Gh (cm)	FL (kg/cm <sup>2</sup> )	TH (cm)	Gh* (cm)	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm <sup>2</sup> /min)	K (cm/sec)	L <sub>a</sub>	TEST SECTION (m)
						***		Inclined	vertical					***						
TR0-(6)	134.00	140.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	41.00	0.00	1927.50	45.90	5.30	7800.00	2.67E-05	4.05	1.08E-04	7.79	519.62
/20	134.00	140.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	41.00	0.00	3306.81	45.90	6.10	9700.00	2.67E-05	2.93	7.84E-05	5.65	519.62
	134.00	140.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	41.00	0.00	5375.78	45.90	7.70	10800.00	2.67E-05	2.01	5.37E-05	3.87	519.62
	134.00	140.00	600.00	2.75	100.00	6.90	6896.55	580.00	502.29	41.00	0.00	7444.75	45.90	8.90	13700.00	2.67E-05	1.84	4.92E-05	3.54	519.62
	134.00	140.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	41.00	0.00	5375.78	45.90	6.60	9100.00	2.67E-05	1.69	4.53E-05	3.26	519.62
	134.00	140.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	41.00	0.00	3306.81	45.90	5.60	7100.00	2.67E-05	2.15	5.74E-05	4.13	519.62
	134.00	140.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	41.00	0.00	1927.50	45.90	4.40	3400.00	2.67E-05	1.76	4.72E-05	3.39	519.62
																	AVERAGE	5.58E-05	4.02	
HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in <sup>2</sup> )	P (kg/cm <sup>2</sup> )	H <sub>p</sub> (cm)	GWL (cm)	GWL (cm)	Gh (cm)	FL (kg/cm <sup>2</sup> )	TH (cm)	Gh* (cm)	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm <sup>2</sup> /min)	K (cm/sec)	L <sub>a</sub>	TEST SECTION (m)
						***		Inclined	vertical					***						
TR0-(6)	140.00	146.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	69.00	0.00	1881.61	35.51	10.30	5300.00	2.67E-05	2.82	7.53E-05	10.53	519.62
/21	140.00	146.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	69.00	0.00	3260.92	35.51	11.70	6100.00	2.67E-05	1.87	5.00E-05	6.91	519.62
	140.00	146.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	69.00	0.00	5329.88	35.51	14.10	7700.00	2.67E-05	1.44	3.86E-05	5.09	519.62
	140.00	146.00	600.00	2.75	100.00	6.90	6896.55	580.00	502.29	69.00	0.00	7398.85	35.51	17.10	8900.00	2.67E-05	1.20	3.22E-05	4.45	519.62
	140.00	146.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	69.00	0.00	5329.88	35.51	13.90	6600.00	2.67E-05	1.24	3.31E-05	5.02	519.62
	140.00	146.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	69.00	0.00	3260.92	35.51	10.60	5600.00	2.67E-05	1.72	4.59E-05	6.26	519.62
	140.00	146.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	69.00	0.00	1881.61	35.51	9.50	4400.00	2.67E-05	2.34	6.25E-05	9.72	519.62
																	AVERAGE	3.82E-05	5.33	

TABLE B.2.5(8) RESULT OF PERMEABILITY TEST IN BOREHOLE, TR0-(6), 8/8

PERMEABILITY TEST - PHASE II

(Inclined 60 deg.)

PORT LOUIS WATER SUPPLY

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in <sup>2</sup> )	P (kg/cm <sup>2</sup> )	Hp (cm)	GWL (cm)	GWL (cm)	Gh (cm)	FL (kg/cm <sup>2</sup> )	TH (cm)	Gh* (cm)	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm <sup>2</sup> /min)	K (cm/sec)	La	TEST SECTION (m)
								Inclined	vertical											
TR0-(6)	146.00	152.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	220.00	0.00	1881.61	59.76	16.80	10300.00	2.67E-05	5.47	1.48E-04	17.18	519.62
/22	146.00	152.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	220.00	0.00	3260.92	59.76	17.60	11700.00	2.67E-05	3.59	9.59E-05	10.39	519.62
	146.00	152.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	220.00	0.00	5329.88	59.76	18.50	14100.00	2.67E-05	2.65	7.07E-05	6.68	519.62
	146.00	152.00	600.00	2.75	100.00	6.90	6896.55	580.00	502.29	220.00	0.00	7398.85	59.76	22.40	17100.00	2.67E-05	2.31	6.18E-05	5.83	519.62
	146.00	152.00	600.00	2.75	70.00	4.83	4827.59	580.00	502.29	220.00	0.00	5329.88	59.76	13.80	13900.00	2.67E-05	2.61	6.97E-05	4.98	519.62
	146.00	152.00	600.00	2.75	40.00	2.76	2758.62	580.00	502.29	220.00	0.00	3260.92	59.76	14.20	10600.00	2.67E-05	3.25	8.69E-05	8.38	519.62
	146.00	152.00	600.00	2.75	20.00	1.38	1379.31	580.00	502.29	220.00	0.00	1881.61	59.76	11.50	9500.00	2.67E-05	5.05	1.35E-04	11.76	519.62
AVERAGE																			7.41E-05	7.51

TABLE B.2.6(1) RESULT OF PERMEABILITY TEST IN BOREHOLE, TR0-(7), 1/2

## PERMEABILITY TEST - PHASE II

## PORT LOUIS WATER SUPPLY

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (ft)	GWL (cm)	Gh (cm)	FL (kg/cm2)	TH (cm)	TH* (kg/cm2)(l/min)	Q1 (cc/min)	Q2 (cc/min)	C	Q2/TH (cm2/min)	K (cm/sec)	Lu
***																			
TR0-(7)	24.00	30.00	600.00	2.75	20.00	1.38	1379.31	---	2800.00	210.00	0.00	4389.31	52.90	52900.00	2.38E-05	12.05	2.87E-04	20.09	
/1	24.00	30.00	600.00	2.75	40.00	2.76	2758.62	---	2800.00	210.00	0.00	5768.62	97.70	97700.00	2.38E-05	16.94	4.03E-04	28.23	
	24.00	30.00	600.00	2.75	70.00	4.83	4827.59	---	2800.00	210.00	0.00	7837.59	117.40	117400.00	2.38E-05	14.98	3.56E-04	24.97	
	24.00	30.00	600.00	2.75	100.00	6.90	6896.55	---	2800.00	210.00	0.00	9906.55	132.00	132000.00	2.38E-05	13.32	3.17E-04	22.21	
	24.00	30.00	600.00	2.75	70.00	4.83	4827.59	---	2800.00	210.00	0.00	7837.59	115.90	115900.00	2.38E-05	14.79	3.52E-04	24.65	
	24.00	30.00	600.00	2.75	40.00	2.76	2758.62	---	2800.00	210.00	0.00	5768.62	96.90	96900.00	2.38E-05	16.80	4.00E-04	28.00	
	24.00	30.00	600.00	2.75	20.00	1.38	1379.31	---	2800.00	210.00	0.00	4389.31	63.10	63100.00	2.38E-05	14.38	3.42E-04	23.96	
AVERAGE																		2.86E-04	20.02
***																			
HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (ft)	GWL (cm)	Gh (cm)	FL (kg/cm2)	TH (cm)	TH* (kg/cm2)(l/min)	Q1 (cc/min)	Q2 (cc/min)	C <th>Q2/TH (cm2/min)</th> <th>K (cm/sec)</th> <th>Lu</th>	Q2/TH (cm2/min)	K (cm/sec)	Lu
TR0-(7)	27.00	36.00	900.00	2.75	20.00	1.38	1379.31	---	2800.00	215.00	0.00	4394.31	83.80	83800.00	1.71E-05	19.07	3.25E-04	21.19	
/2	27.00	36.00	900.00	2.75	40.00	2.76	2758.62	---	2800.00	215.00	0.00	5773.62	93.30	93300.00	1.71E-05	16.16	2.76E-04	17.96	
	27.00	36.00	900.00	2.75	70.00	4.83	4827.59	---	2800.00	215.00	0.00	7842.59	114.30	114300.00	1.71E-05	14.57	2.49E-04	16.19	
	27.00	36.00	900.00	2.75	100.00	6.90	6896.55	---	2800.00	215.00	0.00	9911.55	129.20	129200.00	1.71E-05	13.04	2.22E-04	14.48	
	27.00	36.00	900.00	2.75	70.00	4.83	4827.59	---	2800.00	215.00	0.00	7842.59	117.60	117600.00	1.71E-05	15.00	2.56E-04	16.66	
	27.00	36.00	900.00	2.75	40.00	2.76	2758.62	---	2800.00	215.00	0.00	5773.62	99.20	99200.00	1.71E-05	17.18	2.93E-04	19.09	
	27.00	36.00	900.00	2.75	20.00	1.38	1379.31	---	2800.00	215.00	0.00	4394.31	86.00	86000.00	1.71E-05	19.57	3.34E-04	21.75	
AVERAGE																		2.21E-04	14.41
***																			
HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in2)	P (kg/cm2)	Hp (cm)	GWL (ft)	GWL (cm)	Gh (cm)	FL (kg/cm2)	TH (cm)	TH* (kg/cm2)(l/min)	Q1 (cc/min)	Q2 (cc/min)	C <th>Q2/TH (cm2/min)</th> <th>K (cm/sec)</th> <th>Lu</th>	Q2/TH (cm2/min)	K (cm/sec)	Lu
TR0-(7)	36.00	42.00	600.00	2.75	20.00	1.38	1379.31	---	2800.00	236.00	0.00	4415.31	45.30	45300.00	2.38E-05	10.26	2.44E-04	17.10	
/3	36.00	42.00	600.00	2.75	40.00	2.76	2758.62	---	2800.00	236.00	0.00	5794.62	55.60	55600.00	2.38E-05	9.60	2.28E-04	15.99	
	36.00	42.00	600.00	2.75	70.00	4.83	4827.59	---	2800.00	236.00	0.00	7863.59	62.90	62900.00	2.38E-05	8.00	1.90E-04	13.33	
	36.00	42.00	600.00	2.75	100.00	6.90	6896.55	---	2800.00	236.00	0.00	9932.55	74.60	74600.00	2.38E-05	7.51	1.79E-04	12.52	
	36.00	42.00	600.00	2.75	70.00	4.83	4827.59	---	2800.00	236.00	0.00	7863.59	61.00	61000.00	2.38E-05	7.76	1.85E-04	12.93	
	36.00	42.00	600.00	2.75	40.00	2.76	2758.62	---	2800.00	236.00	0.00	5794.62	61.00	61000.00	2.38E-05	10.53	2.50E-04	17.55	
	36.00	42.00	600.00	2.75	20.00	1.38	1379.31	---	2800.00	236.00	0.00	4415.31	46.50	46500.00	2.38E-05	10.53	2.51E-04	17.55	
AVERAGE																		1.71E-04	11.98

TABLE B.2.6(2) RESULT OF PERMEABILITY TEST IN BOREHOLE, TR0-(7), 2/2

## PERMEABILITY TEST - PHASE II

## PORT LOUIS WATER SUPPLY

HOLE No	D1 (m)	D2 (m)	L (cm)	r (cm)	P (bl/in <sup>2</sup> )	P (kg/cm <sup>2</sup> )	Hp (cm)	GWL (ft)	GWL (cm)	Gh (cm)	FL (kg/cm <sup>2</sup> )	TH (cm)	TH* (kg/cm <sup>2</sup> )	Q1 (l/min)	Q2 (cc/min)	C	Q2/TH (cm <sup>2</sup> /min)	K (cm/sec)	Lu
						***								---					
TR0-(7)	42.00	50.00	800.00	2.75	20.00	1.38	1379.31	---	2800.00	260.00	0.00	4439.31		53.60	53600.00	1.88E-05	12.07	2.27E-04	15.09
/4	42.00	50.00	800.00	2.75	40.00	2.76	2758.62	---	2800.00	260.00	0.00	5818.62		75.20	75200.00	1.88E-05	12.92	2.43E-04	16.16
	42.00	50.00	800.00	2.75	70.00	4.83	4827.59	---	2800.00	260.00	0.00	7887.59		80.00	80000.00	1.88E-05	10.14	1.91E-04	12.68
	42.00	50.00	800.00	2.75	100.00	6.90	6896.55	---	2800.00	260.00	0.00	9956.55		80.60	80600.00	1.88E-05	8.10	1.52E-04	10.12
	42.00	50.00	800.00	2.75	70.00	4.83	4827.59	---	2800.00	260.00	0.00	7887.59		87.00	87000.00	1.88E-05	11.03	2.07E-04	13.79
	42.00	50.00	800.00	2.75	40.00	2.76	2758.62	---	2800.00	260.00	0.00	5818.62		76.30	76300.00	1.88E-05	13.11	2.47E-04	16.39
	42.00	50.00	800.00	2.75	20.00	1.38	1379.31	---	2800.00	260.00	0.00	4439.31		64.20	64200.00	1.88E-05	14.46	2.72E-04	18.08
																	AVERAGE	1.70E-04	11.31

TABLE B.2.7 TABLE OF ROCK CLASSIFICATION (after Japanese National Committee of the International Commission on Large Dams)

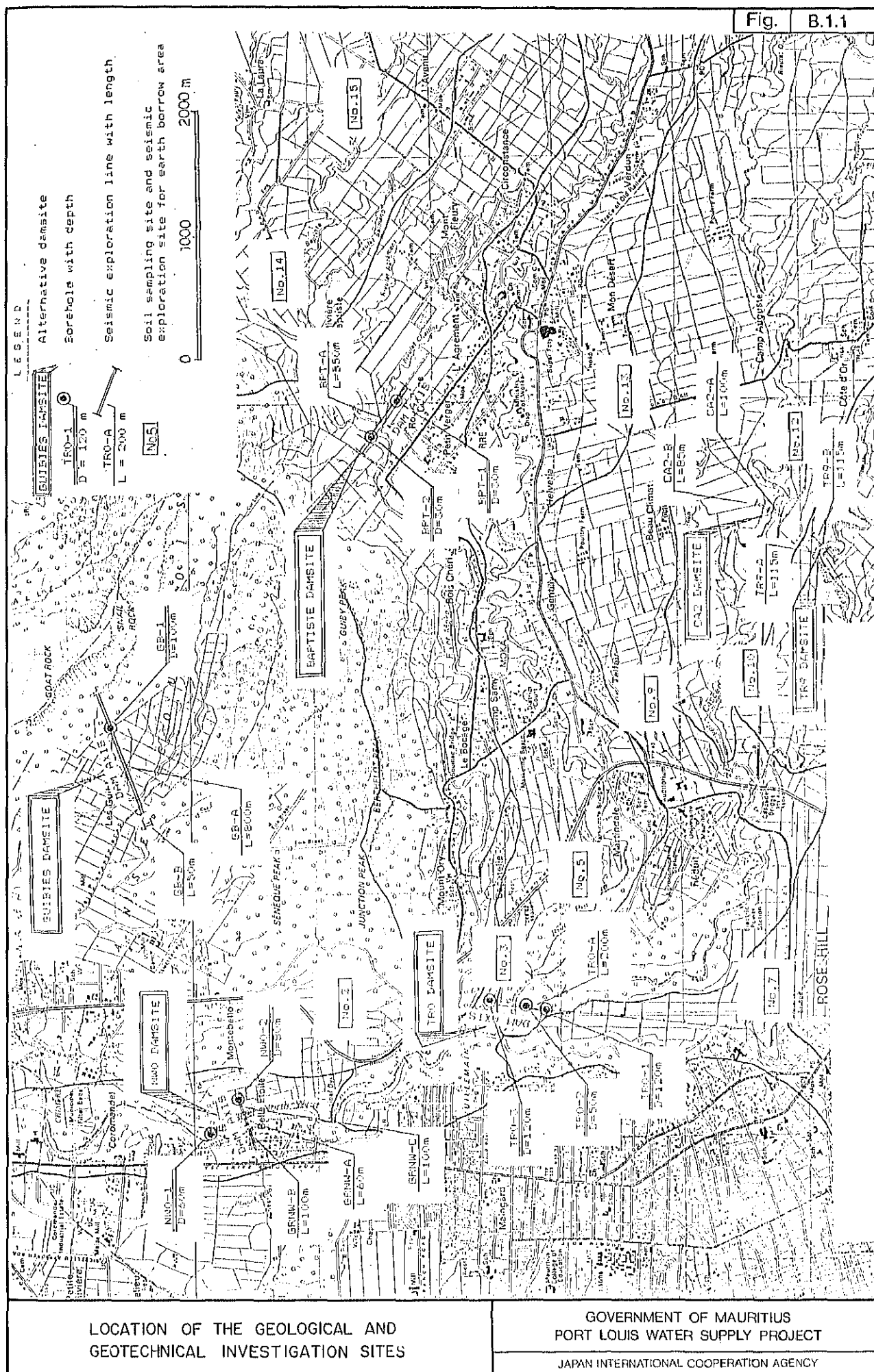
Classification	Characteristics
A	Rock-forming minerals <sup>(1)</sup> are fresh and not weathered or altered. Joints and cracks are very closely adhered with no weathering along their planes. A clear sound is emitted when hammered.
B	Rock-forming minerals are weathered slightly or partially altered, the rock being hard. Joints and cracks are closely adhered. A clear sound is emitted when hammered.
C <sub>H</sub>	Rock-forming minerals are weathered but the rock is fairly hard. The bond between rock blocks is slightly reduced and each block is apt to be exfoliated along joints and cracks by strong hammering. Joints and cracks sometimes contain clay and other material which may be coloured by limonite. A slightly dull sound is emitted when hammered.
C <sub>M</sub>	Rock-forming minerals are weathered and the rock is slightly soft. Exfoliation of the rock occurs along joints and cracks by normal hammering. Joints and cracks sometimes contain clay and other material. A somewhat dull sound is emitted when hammered.
C <sub>L</sub>	Rock-forming minerals are weathered and the rock is soft. Exfoliation of the rock occurs along joints and cracks by light hammering. Joints and cracks contain clay. A dull sound is emitted when hammered.
D	Rock-forming minerals are weathered, and rock is very soft. There is virtually no bond between rock blocks, and collapse occurs at the slightest hammering. Joints and cracks contain clay. A very dull sound is emitted when hammered.

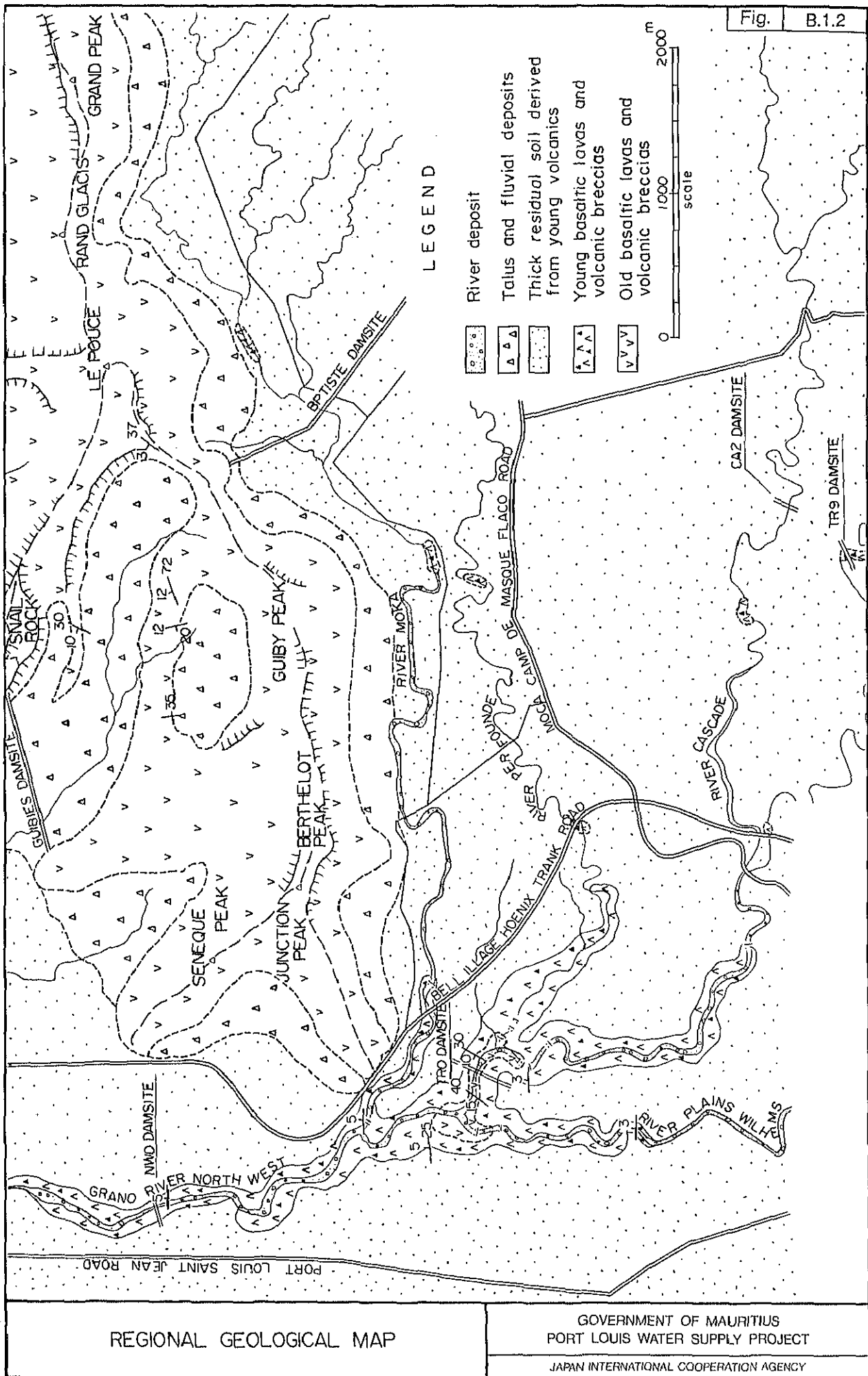
## ***FIGURES***





Fig.	B.1.1
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REGIONAL GEOLOGICAL MAP

GOVERNMENT OF MAURITIUS  
PORT LOUIS WATER SUPPLY PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY

# DRILL LOG

HOLE NO. GUB-1 SHEET NO. 1 OF 2

PROJECT		PORT LOUIS WATER SUPPLY				DEPTH		100.0 m		ELEVATION								
SITE		GUBIES DAM		COORDINATE		INCLINATION		VERTICAL		DRILL RIG								
AVERAGE CORE RECOVERY				DATE		FROM TO		DRILLED		LOGGED M.Y.								
DATE	DEPTH	ELEVATION	ROCK TYPE OR FORMATION	COLUMN SECTION	DESCRIPTION	BIT & DIAMETER	GROUNDWATER LEVEL	CORE RECOVERY		RQD (%)	Lugeon Unit (Lu) Permeability Coefficient (K:cm/s)					DEPTH		
								%	cm		50	10	20	30	40			
	2			△	0.0-58.5 m; clayey soil with fragments or short cylindric cores of brecciated lavas, which appear to be brownish mostly, agglomerates, diabasic rocks and few vesicular basaltic lavas.												2	
	4			△														4
	6			△														6
	8			△														8
	10			△														10
	12			△														12
	14			△														14
	16			△														16
	18			△														18
	20			△														20
	22			△														22
	24			△														24
	26			△														26
	28			△														28
	30		Talus or scree deposits	△	Before 30 m; cores are recovered as cylindric cores but they are generally fragile; they are broken by finger press.												30	
	32			△														32
	34			△														34
	36			△														36
	38			△														38
	40			△														40
	42			△														42
	44			△														44
	46			△														46
	48			△														48
	50			△														50
	52			△														52
	54			△														54
	56			△														56
	58			△													58	
	60	58.5	Diabasic rocks	> < <	Below 58.5 m; old lavas.												60	

\* R.Q.D is Rock Quality Designation, R.Q.D = (Total length of cylindric cores longer than 10 cm) / (Total core length) x 100%  
 \* LUGEON VALUE is l/min/m under injection water pressure of 10kg/cm<sup>2</sup>  
 \* DEPTH and ELEVATION are in meter  
 \* DIAMETER is in millimeter

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## DRILL LOG

HOLE NO. GUB-1 SHEET NO. 2 OF 2

DATE	DEPTH	ELEVATION	ROCK TYPE OR FORMATION	COLUMN SECTION	DESCRIPTION	ROCK GRADE	GROUNDWATER LEVEL	CORE RECOVERY		R. Q. D	WATER PRESSURE TEST LUGEON VALUE					DEPTH
								%	cm		50	10	20	30	40	
	62			▲ ▲	Intercalation of agglomeratic brecciated rocks and diabasic rocks.											62
	64			▲ ▲												64
	66			▲ ▲												66
	68			▲ ▲	58.7-60.2, 61.5-62.5, 73.5-76.0, 78.5-81.5, 83.3-84.3 and 86.7-88.3 m; diabasic rock portions.											68
	70			▲ ▲												70
	72			▲ ▲	Remaining portions are composed by agglomeratic brecciated lavas.											72
	74			▲ ▲												74
	76		Intercalation of agglomeratic rocks and diabasic rocks	▲ ▲	(CH-CM)											76
	78			▲ ▲	63.0-66.5 m; cracky and samples are short cylindric or fragmental.											78
	80			▲ ▲												80
	82			▲ ▲	Generally whitish tuffaceous material fills pipes or cracks in agglomeratic rocks.											82
	84			▲ ▲												84
	86			▲ ▲												86
	88			▲ ▲												88
	90			▲ ▲	Below 89.1 m; lavas contains whitish patches of zeolites.											90
	92			▲ ▲	(CH)											92
	94			▲ ▲												94
	96			▲ ▲												96
	98			▲ ▲												98
	100			▲ ▲												100
					Bottom of borehole											

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OF 2

OF 2

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## DRILL LOG

HOLE NO. TRO-1 SHEET NO. 1 OF 1

PROJECT			PORT LOUIS WATER SUPPLY				DEPTH	120.0 m	ELEVATION	248.9					
SITE			TRO DAM		COORDINATE	:	INCLINATION	VERTICAL	DRILL RIG						
AVERAGE CORE RECOVERY					DATE	FROM	TO	DRILLED	DDS IRR.	LOGGED	M.Y.				
DATE	DEPTH	ELEVATION	ROCK TYPE OR FORMATION	COLUMN SECTION	DESCRIPTION	BIT & DIAMETER	GROUNDWATER LEVEL	CORE RECOVERY	RQD (%)	Lugeon Value (Lu) Permeability Coefficient (K)					DEPTH
								% cm	50	10	20	30	40		
	62			▲▲▲▲	0-60 m; drilling without coring.									62	
	64			▲▲▲▲	60.0-69.0 m; weathered vesicular lavas.								$Lu=9.2$ $K=1.8 \times 10^{-4}$	64	
	66			▲▲▲▲	62.0-64.0 m; highly weathered.									66	
	68			▲▲▲▲	69.0-73.0, 74.0-76.0, 79.0-84.2, 90.0-94.0 m; doleritic hard consolidated lavas.									68	
	70			▲▲▲▲	(CM-CH)								$Lu=28.4$ $K=3.3 \times 10^{-4}$	70	
	72			▲▲▲	73.0-74.0, 76.0-78.5, 84.2-85.3, 94.2-95.4, 113.6, 116.0, 118.9-119.7 m; vesicular basaltic lavas; generally weathered and appear to be brownish.									72	
	74			▲▲▲	(CL-CM)								$Lu=16.0$ $K=2.0 \times 10^{-4}$	74	
	76			▲▲▲										76	
	78			▲▲▲	Pipes of 2-3 cm in dia. are observed at 79.6, 87.1-88.3 m.									78	
	80			▲▲▲	(CM-CII)								$Lu=15.6$ $K=2.0 \times 10^{-4}$	80	
	82			▲▲▲	Pipes of 2-3 cm dia. are observed at 79.6-87.1-88.3 m.									82	
	84			▲▲▲	Below 79.6 m, fresh vesicular hard lavas are observed.									84	
	86			▲▲▲	(CI)								$Lu=13.1$ $K=1.7 \times 10^{-4}$	86	
	88			▲▲▲										88	
	90			▲▲▲	Zeolite crystals in pipes at 94.8-95.4 m.									90	
	92			▲▲▲										92	
	94			▲▲▲	Large dia. (max. 3 cm) pipes are at 93.7, 95.7-96.2; inside of pipes is fresh.								$Lu=11.7$ $K=1.5 \times 10^{-4}$	94	
	96			▲▲▲	(CM)									96	
	98			▲▲▲									$Lu=10.5$ $K=1.4 \times 10^{-4}$	98	
	100			▲▲▲	Whitish tuffaceous materials are observed in pipes and along cracks in the sections; 94.2-95.4, 100.0-101.0, 105.8-108.9 m. These parts are weathered and appear to be brownish.									100	
	102			▲▲▲	Zeolite crystals are at 112.0-112.5 m.								$Lu=0.4$ $K=5.8 \times 10^{-6}$	102	
	104			▲▲▲	Every about 50 cm interval weathered bands of 10-20 cm thick are observed.									104	
	106			▲▲▲	110.3-110.6 m; steep joints								$Lu=0.5$ $K=6.3 \times 10^{-6}$	106	
	108			▲▲▲	111.0-112.0 m; deteriorated zones.									108	
	110			▲▲▲	Whitish tuffaceous materials fill pipes at 108.0-109.1, 110.8-112.0, 113.7-114.4, 118.0-118.5 m.									110	
	112	112.0		▲▲▲	(CM-CH)								$K=0.3$ $Lu=4.2 \times 10^{-6}$	112	
	114			▲▲▲										114	
	116			▲▲▲										116	
	118			▲▲▲										118	
	120			▲▲▲										120	

\*R.Q.D. is Rock Quality Designation, R.Q.D. = (Total length of cylindric cores longer than 10 cm) / (Total core length) × 100%  
 \*LUGEON VALUE is l/min/m under injection water pressure of 10 kg/cm<sup>2</sup>  
 \*DEPTH and ELEVATION are in meter  
 \*DIAMETER is in millimeter

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## DRILL LOG

HOLE NO. TRO-3 SHEET NO. 1 OF 1

PROJECT		PORT LOUIS WATER SUPPLY					DEPTH	120 m	ELEVATION	247.5						
SITE		TRO DAM		COORDINATE	:	:	INCLINATION	VERTICAL	DRILL RIG							
AVERAGE CORE RECOVERY				DATE	FROM	TO	DRILLED	* DDS	LOGGED	M.Y.						
DATE	DEPTH	ELEVATION	ROCK TYPE OR FORMATION	COLUMN SECTION	DESCRIPTION	BIT & DIAMETER	GROUNDWATER LEVEL	CORE RECOVERY	RQD (%)	Lugeon Value (Lu) Permeability Coefficient (K)	DEPTH					
								%	cm	50	10	20	30	40		
	62		Intercalation of vesicular lava and doleritic massive lavas.	▲▲▲▲▲	60.0-70.0 m; predominant vesicular lavas. (CM)		-49.1								62	
	64			▲▲▲▲▲	Pipe size is 5-10 mm.											64
	66			▲▲▲▲▲	61.5-62.0 m; doleritic lava											66
	68			▲▲▲▲▲	63.0-63.7, 65.0-65.7, 66.5-67.0 m; whitish tuffaceous materials stain along cracks.											68
	70			▲▲▲▲▲	64.8 m; whitish zeolit crystals; vesicular lavas and doleritic lavas change gradually. (CM)											70
	72			▲▲▲▲▲	72.6-73.0 m; core loss because of weathering.											72
	74			▲▲▲▲▲	Generally vesicular lavas are recovered at 5-10 cm long cores because of mechanical breaks. (CL-CM)											74
	76			▲▲▲▲▲												76
	78			▲▲▲▲▲												78
	80			▲▲▲▲▲	Vesicular lava of slightly scoriaceous is continued until 93.0 m.											80
	82			▲▲▲▲▲	Weathered zones at 79.3-79.4, 81.3-82.4, 83.4-84.0, 85.2-86.0											82
	84			▲▲▲▲▲	88.7-90.0 m (C1)											84
	86			▲▲▲▲▲	Vesicles size is 0.5-2 cmφ generally; in vesicles zeolite crystals and whitish tuffaceous materials are observed.											86
	88			▲▲▲▲▲	88.7-90.0 m; core loss because of intensive weathering.											88
	90			▲▲▲▲▲												90
	92			▲▲▲▲▲												92
	94			▲▲▲▲▲	93.2-99.8; light brownish tuffaceous materials are along cracks and joints. (CM-C1)											94
	96			▲▲▲▲▲												96
	98			▲▲▲▲▲												98
	100			▲▲▲▲▲												100
	102			▲▲▲▲▲	100-104.0 m; cooling joints developed doleritic lavas; hard; greyish. (CM-C11)											102
	104			▲▲▲▲▲												104
	106			▲▲▲▲▲	104-120 m; vesicular lavas with light brownish tuffaceous matrix (volcanic breccia like)											106
	108			▲▲▲▲▲												108
	110			▲▲▲▲▲	105.0-105.5 m; brownish soil material.											110
	112			▲▲▲▲▲	Generally tuffaceous zones are weathered and fragile.											112
	114			▲▲▲▲▲	Almost the same condition is continued to the bottom.											114
	116			▲▲▲▲▲	108.7-109.0 m; fragil and fragmental. (CM)											116
	118			▲▲▲▲▲												118
	120		(Bottom)	▲▲▲▲▲	(0-60 m; drilling without coring)										120	

LOG FORM-B

- R.Q.D is Rock Quality Designation, R.Q.D = (Total length of cylindric cores longer than 10 cm) / (Total core length) × 100%  
 • LUGEON VALUE is l/min/m under injection water pressure of 10kg/cm<sup>2</sup>  
 • DEPTH and ELEVATION are in meter  
 • DIAMETER is in millimeter

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## DRILL LOG

HOLE NO. NWO-1 SHEET NO. 1 OF 1

PROJECT		PORT LOUIS WATER SUPPLY					DEPTH		60.0 m		ELEVATION					
SITE		NWO DAM		COORDINATE		:		INCLINATION		VERTICAL		DRILL RIG				
AVERAGE CORE RECOVERY				DATE		FROM 7 July TO		DRILLED		DDS IRR.		LOGGED				
												M.Y				
DATE	DEPTH	ELEVATION	ROCK TYPE OR FORMATION	COLUMN SECTION	DESCRIPTION	BIT & DIAMETER	GROUNDWATER LEVEL	CORE RECOVERY		RQD (%)	Lugeon Unit (Lu) Permeability Coefficient (K)					DEPTH
								%	cm	50	10	20	30	40		
	2		River deposit		Sand, clay and basaltic gravel.										2	
	4				Recovered gravel is composed of vesicular basalt mostly. The size of gravel is 1-10 cm in dia.											4
	6	68.0			(D)											6
	8				7.0-9.0, 14.7-17.3, 22.5-25.1, 27.0-29.4, 30.3-31.0 and 33.0-38.3 m; doleritic hard lava zones.											8
	10				(CM-CH)											10
	12															12
	14		Intercakation of basaltic vesicular lavas and doleritic lavas		9.0-14.7, 17.3-22.5, 25.1-27.0, 29.0-30.3, 31.0-33.0, 46.3-47.3 and 48.0-52.2 m; vesicular basaltic lava zones.										14	
	16				(CM-CL)											16
	18				Doleritic lavas are very hard and less vesicular. Vesicles in lavas are fresh in general.											18
	20															20
	22															22
	24				Vesicular basaltic lavas are weathered generally and appear to be light brownish to brown.											24
	26				21.0-21.3 and 23.9-24.2 m; recovered samples are fragmental.											26
	28															28
	30															30
	32															32
	34				35.0-37.0 m; fine quartz crystals in pipes											34
	36															36
	38															38
	40				38.0-41.0 m; intensively weathered zone.											40
	42				41.0-48.0 m; samples are weathered and appear to be sandy basalt.											42
	44				Whitish to yellowish tuffaceous materials are in pipes and along cracks.											44
	46															46
	48															48
	50		Old lavas?		52.2-53.3 m; dark greenish diabasic lava; very hard										50	
	52				52.3-59.3 m; fragment vesicular lavas.											52
	54				Zeolite crystals fill in pipes.											54
	56															56
	58				59.3- ; dark greenish diabasic lavas											58
	60				(CI)											60

LOC FORM-B

HOLE NO.

- \* R.Q.D is Rock Quality Designation, R.Q.D = (Total length of cylindric cores longer than 10 cm) / (Total core length) x 100%  
 \* LUGION VALUE is l/min/m under injection water pressure of 10kg/cm<sup>2</sup>  
 \* DEPTH and ELEVATION are in meter  
 \* DIAMETER is in millimeter

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