

R E P O R T

ON THE

PRELIMINARY SOIL SURVEY OF THE AREA TO BE COMMANDED  
BY THE HIRAKUD CANAL SYSTEM

By

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1. INTRODUCTORY.

The Canal System taking off from the Hirakud Reservoir would confer benefits of perennial irrigation to the land in the Sambalpur district of Orissa. One of the series of preliminary investigations envisaged in connection with the Hirakud Dam Project related to carrying out a soil survey of the area to be commanded by the proposed Canal System with a view to assess its agricultural irrigational potentialities. A soil survey of a restricted scale was carried out earlier to locate suitable areas for the rehabilitation of population expected to be displaced from the reservoir area and reported<sup>(1)</sup>.

That preliminary soil survey of the area and, later, the laboratory examination of soil samples, collected during the field work in connection with that survey, were undertaken by the Soil Survey Section of the Hirakud Research Station under the auspices of the Chief Engineer, Hirakud Dam Project. The present report describes the salient soil and agronomic features of that area brought out as the result of the field and laboratory work.

2. GEOGRAPHICAL AND GEOLOGICAL FEATURES.

The area, covered by the present survey, lies roughly between N. Latitudes 20°-50' and 21°-50' (i.e. from Barapahar in the north to the Ong river on the south) and E. Longitudes 83° and 84°-15'. The major portion of the area is located on the right side of the Mahanadi river. The mean annual rainfall is about 54 inches, the major part of it coming during monsoon months i.e. mid-June to

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assisted by Sarvashri K.N.Talwar, B.Sc. (Agri) & Tarasingh Sidhu, M.Sc. (Agri)  
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October. The winter is not severe while the summer is dry and hot.

The geological formation dates back to the Archean period. The rock formations comprise mainly of gneiss, granite, shale, etc. Quartz and feldspar are the main constituents of those rocks, feldspar causing the variations in their colours. Rock outcrops are met with here and there in the area.

### 3. TOPOGRAPHY.

The area has a rolling land terrain. While the land at higher elevation is either covered with scrub jungle or trees of poor timber value or serves as grazing ground for cattle of nearby villages, the flatter land at the relatively lower elevation is terraced and cultivated for paddy mostly. The area is interspersed with surface drainage which merges to form small rivulets, nallahs, etc. which flow ultimately into the Mahanadi river.

The prevalent mode of classification of agricultural land in the Sambalpur district into four main types, i.e. At ( high land ), Mal (land at/<sup>a</sup>lower level than At), Berna (intermediate or along slope) and Bahal (low-lying valley land) is based mainly on its location with respect to watershed. The Berna and Bahal lands, situated as they are at a lower level, are enriched by soil fines, humus, etc. flowing along the surface runoff from the land at higher level.

### 4. FIELD WORK.

The area was roughly divided into 219 grid squares, each of about 3800 acres serving as a unit for field work. The peculiar rolling characteristic of land of the area had to be taken into account for carrying out its soil survey. Therefore, to ensure that all or the predominant classes of land included in

any one grid square received representation in the course of soil sampling, three auger bores were made to appropriate depths in each square at sites representative of At or Mal, Berna and Bahal lands. Soil samples were collected from each auger bore at every six-inch depth of the top foot and subsequently at each one foot depth to the full depth of the bore. Although soil sampling was attempted to a depth ranging to a maximum of about ten feet but, on the average, the depth sampled ranged to 3-4 feet as penetration by auger to greater depth was interrupted due either to the presence of gravel, moorum, disintegrated rock stratum or the subsoil water. In all about 2529 soil samples were collected from all those grid squares.

Besides collecting soil samples, field notes pertaining to land terrain, soil texture as determined in the field, presence or otherwise of organic matter, hard pan, etc., crops grown and types of natural or planted flora were recorded as far as possible.

A few samples of subsoil water were also collected for laboratory analysis.

##### 5. LABORATORY TESTING OF SOIL SAMPLES.

All the soil samples were analysed for their mechanical composition and, except for a few, for total soluble salt content and pH. Sets of selected and representative soil samples were analysed for their respective contents of main exchangeable bases, base exchange capacity, calcium carbonate and manurial constituents. The samples of subsoil water were analysed for their main chemical constituents. The results of various analysis of soils and water samples are presented in Tables 1 to 5 (Table 1 to 5).

FIG:- I

PLAN SHOWING THE CLASSIFICATION OF THE AREA ON THE BASIS OF DEPTH OF SOIL CRUST & THE TEXTURE OF TOP SOIL OF HIGH LAND (AT & MAL LANDS)



6. PREDOMINANT SOIL FEATURES OF THE AREA.

The soil of the area is generally brownish or reddish as characterize semi-humid tract and is derived mainly from metamorphic gneiss or schistic parent rock and at a few localities from decomposing shale. The soil profile, in general, comprises of the top soil overlying a stratum of compact gravelly outwash material (locally termed moorum), the latter overlying weathered rock stratum and finally parent rock in that order with depth. At some locations, the top soil overlies decomposing shale, the latter stratum becoming less and less weathered with increasing depth. The main variations along the profile consist of differences in thickness of those strata and the extent and degree of weathering of parent rock stratum.

The land situated at relatively lower level is normally enriched by soil fines, humus, etc. transported along with the surface runoff during the rainy season from that at higher level. That naturally contributes a certain amount of dark-greyish colour and heaviness to the surface soil of land in the valley as compared to the soil of land at higher level.

(a) Depth of top soil.- The top soil stratum varies in thickness from a few inches to a few feet and, from the point of view of utilization for agricultural purposes, is the most important. A classification of the area surveyed, on the basis of the effective depth of the top soil of land at different elevations, has been presented diagrammatically in Figs. 1, 2 and 3. A tentative classification of the At and Mal, Berna and Bahal lands in the area on the basis of the depth of top soil is presented below :

FIG:- 2

PLAN SHOWING THE CLASSIFICATION OF THE AREA ON THE BASIS OF DEPTH OF SOIL CRUST & THE TEXTURE OF TOP SOIL OF INTERMEDIATE LAND (BERNA LAND)



O - OBSERVATIONAL WELLS

DRAWN: K. N. TALWAR CHECKED: R. Khanna APPROVED: *[Signature]* 14/54



Depth of top soil	Division of area represented by sampling sites (percent)		
	<u>At &amp; Mal</u>	<u>Berna</u>	<u>Bahal</u>
0 to 1 ft.	14.2	13.9	9.6
1 to 3 ft.	52.5	64.5	50.0
more than 3 ft.	33.3	21.6	40.4

It is seen from the above that, firstly, only about 10 - 15 percent of each land type has a top soil below one foot in thickness; secondly, the land along the slope (Berna) has a relatively shallower top soil than land falling under any of the other three categories and, thirdly, a greater portion of the low-lying valley land (Bahal) has a deeper soil crust.

(b) Soil Texture. - The results of mechanical analysis of the soil samples are given in Table 1. It is seen from those results that the sand content, ranging from 50 to 80 percent, constitutes the main fraction of soils of the area. Next in order is the clay fraction ranging from 10 to 35 percent, although there are samples with clay content as low as 5 percent and as high as 45 percent. The silt constitutes the least prominent fraction in those soils ranging from 5 to 25 percent.

An effort has been made to bring out the variation in soil texture of the top two feet of the soil profile and classify the land on that basis as shown below :

Soil texture	Classification of the area represented by sampling sites on textural basis of top 2 feet.								
	<u>At &amp; Mal</u>			<u>Berna</u>			<u>Bahal</u>		
	Top 6-in.	6-12 in.	12-24 in.	Top 6-in.	6-12 in.	12-24 in.	Top 6-in.	6-12 in.	12-24 in.
Sand	21.0	6.4	4.2	14.3	9.7	7.6	6.3	6.3	8.0
Sandy loam	55.7	42.0	22.2	53.5	37.5	27.6	49.5	40.5	32.4
Loam & sandy clay loam	15.5	38.8	49.2	24.4	34.2	37.8	26.4	30.0	32.5
Clay loam sandy clay & clay	7.8	12.8	24.4	7.8	18.6	27.0	17.8	23.2	27.1



It is shown that :

(i) the soil, particularly of the top few inches, is light. For instance, the soil is sandy to sandy loam in the top six inches of about 77, 70 and 56 percent of each of the At and Mal, Berna and Bahal types of land respectively. Bahal land has comparatively heavier soil at the top than other types of land.

(ii) Soil tends to become heavier with depth along profile in all types of land.

The heaviness, or otherwise, of low-lying land at any sampling site depends, amongst other contributory factors, on the location, slope, etc. with respect to land at higher elevation. While a portion of soil fines, colloidal matter, etc. carried along the runoff may get deposited on terraced land at lower level another portion may be carried down along with percolating water and get deposited along the profile.

A classification of the area represented by the sampling sites on the basis of the change in the heaviness of soil along the profile depth is given below :

Textural variation of soil with depth along profile	Classification of the area represented by sampling sites (percent)		
	<u>At &amp; Mal</u>	<u>Berna</u>	<u>Bahal</u>
becomes heavier	65.7	56.6	28.8
becomes lighter	7.3	9.6	23.1
more or less uniform	17.8	24.4	29.8
irregular	9.1	9.2	18.3

The occurrence of soil profile getting heavier with depth in a major portion of the At, Mal and Berna types of land shows that only a few inches of soil at the top is effected by erosion due to surface runoff. The fact that low-lying land (Bahal) does not become heavy with depth to the same extent as land at higher level may be attributed to the fact that this process of transportation of soil fines and the accumulation of the latter on land at lower level have continued through ages. Ever since the low-lying land was put under cultivation

the soil erosion of that land had been reduced and accumulation of soil fines had been on the increase. It stands to reason, therefore, that when the land at higher level would be put under intensive cultivation the erosion from them would, likewise, be reduced considerably.

Soils, lighter at the surface and heavier below, with good drainage conditions are in fact ideal for agriculture as they ensure good tilth and moisture holding capacity and low evaporation losses. The textural characteristics of soil of the Hirakud area combined with good drainability should prove very advantageous when the perennial irrigation facilities are made available.

Unweathered particles in the form of gravel and pebbles are present in varying degrees in all types of soil of the area. It was considered of interest to determine the percentage proportion of such fraction in soil. An attempt to classify the area on the basis of the percentage content of gravel, etc. in the top 6 inches of soil is presented below :

Range of percent gravel content	Classification of the area represented by sampling sites (percent)		
	At & Mal	Berna	Bahal
0-5	75.0	47.4	57.2
5-10	9.4	28.4	20.9
10-20	9.9	16.6	15.9
above 20	5.7	7.6	6.0

It is seen from the above table that the major portion of land has a gravel content of less than 10 percent and a much smaller portion, in comparison, has gravel content of over 20 percent. The gravel fraction thus is not going to present any problem during future agricultural planning.

(c) pH and Total Soluble Salt Content of Soils. - Next to soil texture, the pH and soluble salt content of soils are important from the point of view of soil

productivity. The results of those soil characteristics for the samples analysed are given in Table 1. It is seen that the pH value of soils ranges from about 6.5 to 8.5 i.e. the soils do not manifest any marked acidity or alkalinity. Likewise, the total soluble salt content of soils is insignificant and there is no sample with salt content exceeding the safe limit of 0.2 percent. As such, any chance of salinisation and/or alkalisation of land as the result of moisture movement in soil with application of irrigation water as has been experienced in certain canal irrigated areas in semi-arid parts of the country, seems ruled out.

(d) Exchangeable Bases and Base Exchange Capacity of Soils. - The phenomenon of base exchange

is a very important aspect of soils and a knowledge of the exchangeable bases and base exchange capacity of soils is very necessary to assess the extent of amelioration or deterioration expected of soils as the result of agronomic, irrigational and manurial practices expected during land development. On account of the large number of soil samples and the complicated and extensive tests required to obtain the necessary information regarding base exchange characteristics of soils, about 5 percent of selected samples representing all types of soils were tested for the exchangeable base content and base exchange capacity. The results of analyses are given in Table 2.

It is brought out that :

- (i) Calcium is the predominant base in the exchange complex, its content ranges from 5 to 15 milli-equivalents and increases generally with depth along the profile.
- (ii) The content of monovalent bases (Na+K) ranges generally from 1 to 4 milli-equivalents and that of magnesium is still lower.
- (iii) The base exchange capacity ranges from 10 to 20 milli-equivalents although values as low as 5 and as high as 48 milli-equivalents have been obtained. The base exchange capacity tends to increase with depth along profile which can be explained on account of the soil tending to become heavier from top downwards.

(e) Calcium Carbonate Content of Soils. - About 130 soil samples representing the various types were analysed for their calcium carbonate content. Although in certain locations, particularly the soil overlying shaly substratum, the soil has a fair percentage of lime concretions, kankar nodules, etc., yet, on the whole, it is non-calcareous generally.

(f) Manurial Status of Soils. - The agricultural development of land and the intensive cropping, expected with the advent of canal irrigation, shall necessarily involve maintenance of proper soil fertility level by frequent recouping of manurial status of soil by administering some types of fertilizers, farmyard manure, green manure etc. It was, therefore, important to investigate the present manurial status of soil of the area.

It had not been possible to examine all the soil samples for the purpose. About 5 percent soil samples, representative of the conditions pertaining to the area, have been analysed for their nitrogen, phosphorus and potash contents, the results of the NPK status of soils are presented in Table 2. It is shown that :

(i) The soils are distinctly deficient in their nitrogen content; the latter ranges from 0.02 to 0.08 percent as against a little over 0.2 percent in normal fertile soil. There is, however, a tendency for the nitrogen content to increase slightly from the land at higher level to the low-lying Bahal land. That may be attributable to relatively better manuring of the latter type of land to improve the yield of the kharif crop. The nitrogen content also tends to decrease from surface downwards along the profile.

(ii) The soils are also deficient in their phosphorus content; the latter ranges from 0.02 to 0.07 per

percent as against 0.15 percent in the normal fertile soils. Although the phosphorus content also tends to decrease from surface downwards along the profile but, unlike nitrogen, it does not manifest any marked difference in its content in different types of land.

(iii) Unlike phosphorus and nitrogen contents, the content of potassium of soils ranges between 0.25 and 0.45 percent (average 0.3 percent) and compares well with 0.34 percent in the case of normal fertile soils. Although, like phosphorus content, there is no appreciable difference between soils representing the various types of land but, unlike nitrogen and phosphorus, the potassium content of soils increases from surface downwards along the profile.

The soils are deficient in their manurial status particularly with respect to nitrogen and phosphorus and need recoupmnt and maintenance at the proper level to ensure maximum crop yield. At present farmyard manure and burnt ash are employed by the cultivators but their use is limited on account of restricted supply. The use of fertilizers shall have to be made and their proper dosage and time of application worked out by field manurial experiments. Those shall have to be supplemented with organic matter and green manuring shall have to be resorted to. It would therefore be assential to include a green manure crop in the cropping pattern when controlled irrigation supplies become available.

#### 7. TYPES OF STORAGE TANKS.

Tanks exist in large number in the Sambalpur district. Those <sup>are</sup> of three types known as 'Munda,' 'Kanta' and 'Bandh'. The Mundas are tanks which require small amount of digging, the rain water flows in from three sides from 'At' land and the water is held up on the fourth side by an earthen embankment. A sufficiently big-sized Munda is known as 'Kanta' and the former is

is situated generally at relatively higher level than the latter. Tanks at low level dug up and with earth dumped on all four sides to raise the depth of water in them are known as Bandhs. They are usually dug up to the sub-soil water level.

The 'Mundas' contain a very small quantity of water which usually dries up by December or January. 'Kantas' generally dry up by April or May but there are some which store enough water to last even longer. 'Bandhs' seldom dry up during the year as the water in them is derived not only from rain in its catchment area but also from sub-soil water including water flowing in by seepage from 'Kantas'. Whereas the 'Mundas' are generally privately owned 'Kantas' may either be privately-owned or sponsored by Government.

Limited use of tanks for irrigation.- The water from 'Bandhs' is mostly used for domestic and potable purpose and seldom for irrigation and they are built mostly out of philanthropic motive and at places along the roadside or village to be convenient for use by people. The tanks which are used for limited irrigation purposes are 'Mundas' and 'Kantas'. The water from those tanks is used for irrigation of paddy in 'Bahal'lands lying below the level of those tanks when the crop is failing due to low or irregular distribution of rainfall and such area is generally entered as irrigated area with the civil patwaris. The cutting of the embankment of a 'Kanta' and irrigation of paddy in emergency requires the permission of the representative of the Revenue Department. Irrigation on a very limited scale is done from these tanks for purposes of rabi cropping in 'Bahal'lands for the following reasons :

- (a) Water in 'Kantas' except for some big-sized ones, generally dries up by April or May. As the water is used by villagers for domestic purposes, so if the quantity of water depletes quickly, the population is forced to take dirty water and thus become liable to the attack of various diseases.



(b) Very little water can actually be spared for irrigation during rabi. If, however, some land is actually allocated for any rabi cultivation and to be irrigated by a 'Kantā', it has either to be protected by a mud wall or hedging built round the field from stray cattle. The provision of such a protection being generally expensive and troublesome, the villagers who are generally poor put the minimum area under cropping during rabi.

(c) The agricultural practice at present is mainly confined to the cultivation of paddy during kharif.

An attempt was made to collect some data from the various villages in connection with the extent of irrigation from such tanks. Some of the figures are reproduced below in tabular form :

Serial No.	Name of village.	Location of tank with approximate storage capacity in cu.ft.	Bahal land irrigable from tank (approx. in acres)	Actual area being irrigated during rabi.	Total cultivated area in the village (approx. in acres)
1	2	3	4	5	6
1	Gurdarpali	1. Nearer the village 1974375*	60	3 acres of sugarcane by lift.	1600
		1316250**			
		2. Away from the village 975000*	200	nil	
		650000**			
2	Pahandi	1. Nearer the village 1500000*	44	1 acre under wheat and brinjals by lift.	1203
		900000**			
		2. Away from the village 1734000*	118	nil	
		1387200**			
3	Bijapur	1. Nearer the village 12600000*	226	25-30 acres of wheat, sugarcane & vegetables by lift.	1490
		10080000**			
		2. Away from the village 1134000*	20	nil	
		6804000**			
4	Rengalipali	1. 4384800*	100-120	1-2 acres under sugarcane by lift.	1500
		3654000**			

(table continued.....)

table continued from previous page ..

1	2	3	4	5	6
5	Silat	1. Nearer the village 178200* 106920**	500	2-3 acres under sugarcane and vegetables by lift.	2250
		2. Nearer the village 3329280* 2080800**			

\* Approximate total capacity of the tank.  
 \*\* Indicates the approximate quantity of water in the tank in the first week of February.

It is illustrated from the above Table that a very insignificant portion of the total cultivable land is actually being benefited by irrigation from the tanks for rabi cropping in the Sambalpur district and at present the district can be designated as a one-crop area, paddy being cropped during kharif. The cropping during rabi is restricted to a few patches in close proximity to tanks normally storing rain-water for domestic and limited irrigation purposes. Sugarcane is grown at a spot convenient from the point of view of water supply from close-by tank and represents the cooperative effort of the unit of habitation in that locality. Although wheat is not being grown on any extensive scale but trials by individual effort in some villages have afforded fairly encouraging results and more and more people are getting induced to grow wheat on 'Mal' land after harvesting kharif paddy. Other crops grown on limited scale are pulses, oilseeds, etc. The kharif paddy is entirely rain-fed. August and September are considered as critical months and a lack of rain or its delay is liable to do great damage. Besides paddy, other crops such as cereals, sugarcane, cotton, tobacco, wheat, fodder crops, etc. have great possibilities of being grown in the area when controlled irrigation supply becomes available.

8. SUB-SOIL WATER.

(a) Quality.- The samples of water, collected from some of the wells in the area, were analysed for their dissolved solids contents and main chemical constituents to assess their quality. The results of analyses are given in Table 3. It is shown that all the water samples have low dissolved solids, the predominant constituents are calcium, bicarbonates and chlorides, the sulphates and carbonates being very low in comparison. It stands to reason, therefore, that the soil strata at lower depths are not salt bearing and further corroborates the earlier conclusion that there is little possibility of increased salinisation or alkalinisation of soil at a later stage as the result of fluctuation of water-table and capillarity effect.

(b) Fluctuation of Water-table.- The majority of canal and tube well irrigation projects in India have been confined in the past to its arid and semi-arid tracts mostly. The general rise of sub-soil water-table and/or the appearance of salts in the top soil and even at soil surface observed in those areas have been considered as inevitable results of the introduction of irrigation. The rise of water-table and the salt efflorescence have moreover, been assumed to be associated phenomena, the former being regarded as the cause of the latter. However, systematic investigations in those irrigated areas have shown that factors such as the intensity of irrigation and rainfall and the presence of salts initially in the soil crust and not the sub-soil water contributed essentially to the development of salinity in soil to a degree harmful for economic crop cultivation.

The prevailing sub-soil water-table conditions in any area are effected by such factors as rainfall, nature of surface drainage and soil characteristics. Some of

Table 3

Statement showing the results of Chemical Analysis  
of well-water samples from Hirakud.

Bore No.	Village	pH	Conduc-tivity	Parts per 100,000					
				T.S.	Ca.	CO <sub>2</sub>	HCO <sub>3</sub>	Cl.	SO <sub>4</sub>
41	BABU BAND	7.70	210	12.6	2.2	Nil	13.42	1.8	.8
45	SARANDA	7.90	440	32.4	5.9	"	23.18	5.8	.3
46	ATTABIRA	8.00	340	14.0	2.0	"	9.76	6.4	1.0
82	RENGALI PALI	7.40	180	15.6	3.5	"	13.12	.6	.5
50	BARGARH	7.50	120	9.4	0.4	"	7.32	51.6	3.6
88	SOHELA	8.10	200	13.6	2.0	"	10.98	1.0	1.0
158	GHESS	7.80	440	30.0	6.1	"	26.24	4.0	1.9
123	MALCHHIMUNDA	9.70	240	25.2	3.7	"	10.98	2.0	1.2
86	NAOGAON	8.00	300	19.2	2.4	"	12.20	4.4	3.6
62	BIPALI	7.90	600	46.4	3.7	"	12.20	11.8	4.6
64	PATHRALA	7.00	140	19.2	1.6	"	9.76	1.2	.7
63	GOBINDPUR	6.80	750	54.2	7.3	"	18.30	14.80	2.1
132	BARPALI	7.40	240	18.4	1.4	"	13.12	2.4	.6
182	DONGRI PALI	7.90	450	34.8	5.3	"	34.16	2.0	.5
-	THELNOLAI	6.90	490	31.4	2.8	"	12.20	4.3	2.1
257	SASON	7.20	850	56.0	10.0	"	36.60	11.3	4.6
-	PARMANPUR	7.30	260	18.6	2.8	"	14.60	1.4	.6
228	LAPANGA	7.10	860	67.8	7.6	"	30.50	8.5	.5
187	RENGALI	7.70	170	13.0	1.8	"	9.70	1.4	1.3
-	BHATLA	7.40	130	14.0	1.6	"	3.60	1.4	1.3

the latter factors are expected to change directly or indirectly with the development of the area following the introduction of irrigation. That points to the importance of a proper understanding of the water-table conditions prevailing in the area at the present stage in order to visualize<sup>its trend subsequent to</sup> the advent of canal irrigation. The study of the extent of fluctuation of water-table in the area was therefore made. For that purpose 39 wells lying along six arbitrary lines in east-west direction, i.e. across the direction of the drainage channels were selected for observation of water-table once each month and those observations were taken over a period of two years. The results of that work had been reported earlier<sup>(2)</sup>. The salient features of that study are recorded here.

The depth of water-table below natural surface has been recorded in Table 4. The mean average depths of water-table along each of the six lines during the year are plotted in Fig. 4. It is seen that :

(i) The water-table fluctuates widely during the year i.e. it rises near to the natural surface during August-September in rainy season but ~~recedes~~ recedes to lower depths in the drier part of the year standing lowest just before the <sup>beginning</sup> <sup>monsoon</sup> advent of the rains. The range of water-table fluctuation is quite wide varying from 10 to 25 feet although figures as high as 39 and as low as 7 have also been recorded.

(ii) The drop of water-table in the area during the post-monsoon period is quicker during the period October to December due to undulating terrain, the location of observational wells which are confined to higher land, the efficiency of surface drainage etc. The water from land at higher level and slope tends to drain out at a quicker rate and once an equilibrium is established with the water table of low-lying land further drop takes place at

Table 4 (Part A)

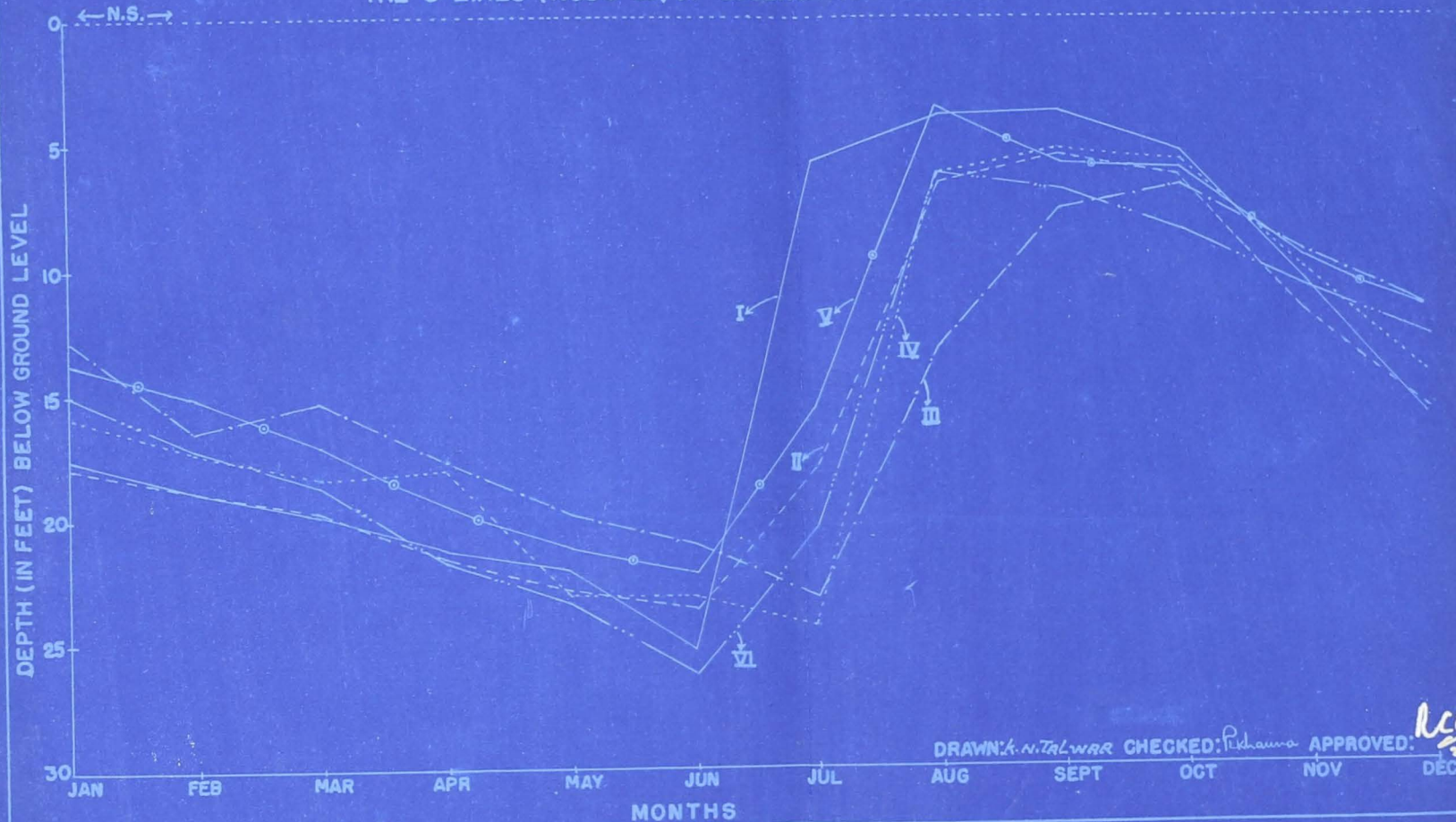
Showing the Depth of Subsoil Water Table below N.S. in each of the Wells (1951-52)

Line No.	Sr. No.	Name of the Village	AUG Ft. In.	SEPT Ft. In.	OCT Ft. In.	NOV Ft. In.	DEC Ft. In.	JAN Ft. In.	FEB Ft. In.	MARCH Ft. In.	APRIL Ft. In.	MAY Ft. In.	JUNE Ft. In.	JULY Ft. In.	
I	1.	Bhatfi	4 0	2 6	5 11	11 5	19 9	21 5	23 0	23 1	24 6	24 3	25 4	5 9	
	2.	Kharmunda	-	-	-	13 1	16 4	18 4	20 2	21 10	23 0	24 9	25 6	-	
	3.	Silat	-	5 0	5 11	10 0	11 9	13 6	14 4	15 4	16 1	17 2	-	-	
II	4.	Dumirpali	2 8	2 8	8 11	19 0	21 1	22 10	24 9	26 2	27 3	-	-	-	
	5.	Sohela	2 10	3 7	6 11	24 0	29 9	32 8	33 5	34 9	37 4	37 11	42 5	43 5	
	6.	Nuagoon	0 11	1 1	2 5	6 6	9 2	10 11	12 3	13 2	14 8	16 6	19 2	17 9	
	7.	Buipali	5 7	6 7	10 5	15 0	16 4	17 8	18 5	20 10	23 11	24 0	24 10	23 10	
	8.	Gobindpur	3 3	3 5	4 11	8 2	8 9	9 6	9 9	11 1	12 3	13 1	14 2	8 6	
	9.	Pathrula	8 9	8 1	9 1	12 1	13 7	15 9	16 10	18 9	19 4	22 6	24 0	22 1	
	10.	Bargarh	13 10	7 7	14 2	18 0	24 2	26 10	29 8	26 11	30 4	30 9	30 6	30 10	
	11.	Barhagula	9 9	5 10	7 0	10 2	12 5	15 0	16 5	17 2	18 1	19 0	19 11	18 11	
	12.	Rengalpali	16 1	7 6	8 7	14 11	18 7	22 2	23 4	25 0	26 5	27 6	28 6	25 9	
	13.	Attabira	15 1	6 7	9 5	15 6	17 11	19 2	19 10	20 3	20 5	21 10	23 3	19 8	
	14.	Suranda	3 11	2 11	3 6	5 8	6 5	7 5	7 7	10 8	11 9	10 11	6 15	11 13	
	15.	Gurbhaga	21 1	13 8	14 1	17 7	19 8	22 5	23 8	25 7	27 1	28 6	29 6	27 0	
	16.	Babuband	7 3	3 2	6 11	12 0	14 0	16 1	17 6	18 4	19 1	20 1	22 10	16 5	
	III	17.	Ghess	9 3	6 3	5 10	8 1	9 3	9 6	11 1	12 10	16 0	23 1	25 3	19 10
		18.	Bi jipur	-	4	5 9	9 5	11 2	12 6	13 9	14 5	15 3	15 11	20 11	-
		19.	Barpali	18 1	19 3	12 1	14 10	16 11	18 3	20 4	21 2	22 6	24 4	25 3	26 8
20.		Burgaon	-	-	4	7 8	9 2	10 9	12 0	13 0	13 10	14 9	15 5	-	
21.		Malchhimunda	2 7	2 7	4 0	11 5	18 8	20 10	23 7	18 9	17 4	27 0	21 1	24 5	
IV	22.	Dungripali	8 2	5 6	6 1	9 2	11 0	12 11	14 10	16 2	17 3	-	-	-	
	23.	Rampur	11 9	8 8	8 8	13 1	15 0	16 7	18 0	19 3	20 11	24 3	29 1	-	
	24.	Binka	-	4 9	6 8	12 10	15 2	17 1	18 10	21 4	21 3	22 1	22 10	-	
	25.	Thekolai	2 10	5 11	8 4	10 2	11 0	11 11	12 10	13 8	14 7	15 9	16 7	11 2	
V	26.	Lapanga	6 4	10 11	13 6	16 11	19 2	21 6	23 4	23 9	26 9	-	-	19 2	
	27.	Rengali	1 0	3 6	5 4	11 7	12 5	14 6	11 11	18 8	23 9	25 9	26 3	18 8	
	28.	Sa'ison	3 9	3 6	3 9	6 7	8 6	10 11	13 9	16 1	18 3	20 4	21 4	13 9	
	29.	Parmanpur	13 2	10 9	10 10	12 7	13 5	14 11	16 7	17 2	19 1	20 2	25 5	23 0	
VI	30.	Sindarpank	5 3	6 0	11 0	9 10	11 4	13 4	15 7	16 4	19 4	18 7	23 11	13 10	
	31.	Nukshapali	4 5	3 2	4 10	10 1	14 0	14 9	17 0	16 9	22 7	21 5	23 8	16 10	
	32.	Goluban	4 5	3 3	4 3	8 5	10 8	13 2	15 2	16 6	-	-	-	-	
	33.	Sahaspur	7 10	7 2	8 5	11 10	13 2	14 9	16 4	-	-	-	-	-	
	34.	Dhama	3 6	5 7	9 6	12 4	13 8	15 6	18 4	19 3	21 8	44 7	27 4	27 5	
	35.	Larasara	-	20 2	20 2	22 11	24 1	26 3	28 5	30 4	32 10	35 3	35 5	-	
	36.	Uranda	-	6 1	15 1	19 3	21 7	22 3	24 10	27 0	24 2	26 5	27 3	-	
	37.	Naikpura	-	0 9	2 11	6 5	8 3	11 6	13 11	15 6	24 4	25 6	25 9	-	
	38.	Jngoma	-	4	3 11	8 1	10 3	13 0	15 5	16 11	18 7	22 2	23 0	-	
	39.	Jalua	-	-	4 11	8 7	11 2	14 8	18 4	20 7	21 7	22 4	-	-	



FIG:- 4

GRAPHS SHOWING THE MONTHLY VARIATIONS OF SUBSOIL WATER TABLE BELOW N.S. ALONG EACH OF THE 6 LINES (NOS I-VI) OF OBSERVATIONAL WELLS.



DRAWN: A. N. TALWAR CHECKED: P. Sharma APPROVED: *[Signature]*



slower rate. There should be little danger of water-logging in the major portion of the area.

Due to the absence of wells in the low-lying land (Bahal) it had not been possible to obtain precise water table data for that type of land. However, the observation has been that, where drainage is effective as it is over a greater part of such land, the excessive runoff gets drained quickly leaving the top soil free of excessive moisture. As there exists a general tendency among the cultivators at present to block artificially the natural drainage at places to derive the maximum benefit from rain-water, thus accumulated, for paddy cultivation, it may be advisable to maintain free natural drainage as far as possible in the low-lying land when a perennial supply of irrigation water becomes available. It may be of interest to investigate further the trend of fluctuation of water-table in that low-lying land (Bahal) which is agriculturally most productive. That aspect could not be fully investigated as no wells were located in the land of that category.

#### 9. QUALITY OF WATER OF THE MAHANADI RIVER.

As the water of the Mahanadi River is to be impounded in the Hirakud Reservoir and the canal system is to take off from the latter it was considered of interest to study the quality of that water. Water samples from the Mahanadi river were collected once each month during the years 1951 and 1952 and analysed from the point of view of its suitability, or otherwise, for irrigation purposes. It is seen from the results of analyses presented in Table 5 that the total dissolved solids range from 8 to 26 parts per 100 thousand parts of water. Moreover, out of the acidic ions, the bicarbonates are by far the most predominant,

Table 5

Chemical Analysis of Mahanadi River Water at  
Hirakud Site for 1951 & 1952.

Month	Conduc- tivity	Parts per 100,000						
		T.S.	HCO <sub>3</sub>	Cl.	Ca.	S O <sub>4</sub>	Mg.	CO <sub>3</sub>
<u>1951</u>								
January	210	19.20	12.00	.80	1.79	1.31	1.04	Nil
February	200	18.80	11.40	.80	1.70	1.24	.96	"
March	155	12.60	7.80	.50	.90	.80	.65	"
April	190	14.80	10.20	.80	1.98	.82	Nil	"
May	200	16.4	11.59	.30	2.15	.66	"	"
June	115	9.4	6.84	.25	1.24	.58	"	"
July	130	9.5	5.90	.30	1.59	.60	"	"
August	90	8.3	5.64	.30	1.00	.42	"	"
September	115	13.1	8.16	.50	1.60	.68	"	.31
October	160	12.8	9.42	.60	1.86	.65	"	Traces
November	210	18.9	13.14	.80	2.28	1.12	"	.60
December	225	19.9	13.20	.86	1.84	1.20	"	.60
<u>1952</u>								
January	250	23.8	13.80	.94	2.14	1.59	.62	.64
February	260	24.7	14.60	.96	2.38	1.30	.64	.72
March	270	26.4	15.60	1.00	2.64	1.31	.72	.84
April	240	22.8	12.32	.96	2.03	1.24	.68	.96
May	240	23.0	12.40	.92	1.98	1.18	.68	.96
June	250	23.2	13.89	1.05	2.24	1.34	.72	Nil
July	110	9.8	5.60	.70	1.05	.66	.42	"
August	90	8.2	4.85	.48	.98	.44	.22	"
September	90	8.4	5.30	.50	.97	.54	.32	"
October	170	16.27	10.35	.56	1.73	.84	.58	"
November	190	18.20	11.59	.80	1.90	.66	.64	"
December	200	19.40	11.89	.60	1.86	.82	.47	.24

sulphates and chlorides being less in comparison and calcium is the main basic ion. The irrigation water containing less than 60 parts dissolved solids per 100 thousand parts of water is normally considered safe for that purpose. Judged on that standard, the Mahanadi river water seem safe for use for irrigation and little salinisation of land is expected by the application of that water due to the preponderance of calcium salts. This fact receives confirmation from the fact that the use of Mahanadi water for irrigation in the Delta Canal System for the past over 80 years has not caused any marked soil deterioration in the area under command there.

The high rainfall combined with good drainability of soil would not permit any harmful effects due to accumulation of salts in the area.

#### 10. TYPES OF NATURAL AND PLANTED FLORA IN THE AREA.

The top land (At) abounds in scrub jungle or trees yielding poor quality timber and also serves as grazing ground. Fruit trees are generally planted near habitation. Among the more common types of natural and planted flora met with in the area are Jaman, Mango, Mahua (*Bassia latifolia*), Palsa (*Batia frondosa*), Tal (Palm), Tamarind, Kendu, (*Dios pyres melanoxylo*) Simal (*Bombax malberieum*) Karla, Neem, Korea, Char (*Buchanania latifolia*), Sahaj (*Terminilia tomentosa*) Bamboo, Rengal, Babul, Amla, and Reyian, Sal, Teak, etc. Mahua, Sahaj, /Korea abound on yellow soil and Kendu on red soil generally.

#### 11. CROP PATTERN UNDER PERENNIAL IRRIGATION CONDITIONS.

At present more or less, all the Mal, Berna and Bahal types of land is put under paddy during kharif. A very small fraction of the area in close proximity of the water storage tanks and with assured facilities of irrigation supplies from that source is put under sugarcane and jute. The high land (At) is cultivated at places for groundnuts, pulses, sesamum, etc. during

rainy season. There is hardly any crop worth the name during rabi.

As is clear from the discussion of soil features of the area in Para 6 above, the area has potentially rich soil but is at present yielding one crop and for its water requirement is entirely dependent on the rainfall and thus subject to the vagaries of the latter. A provision of controlled supply of irrigation water will be replete with immense potentialities.

It is difficult to give at the moment a definite picture of the intensity of cropping, time of sowing and harvesting, dosage and time of application of fertilizers etc. as those specific details require working out by farm experiments under local conditions. However, keeping in view the latter and the soil conditions a tentative broad-based crop pattern can be visualised. The economics of the various alternative rotations shall have to be investigated by proper trials by agronomists.

The low-lying land (Bahal) would continue to be best suited for the cultivation of paddy. With the availability of water and the practice of nursery sowing finding favour with the cultivators, reduction in the growth period and seed rate, two crops of paddy would become possible. Presently nursery sowing is not practised because of lack of irrigation facilities during the months preceding the rainy season. The nursery plantation of paddy would release the land for a green manure crop during the months April to June. In view of the various factors the following crop rotations may be possible on that type of land.

- 1) Kharif rice - Winter rice (such as Dalua usually grown in the Mahanadi Delta Area)  
- Green manure crop
- 2) Kharif rice - Leguminous fodder crop (Berseem etc.) -  
maize  
F.Y.M. or some  
fertilizers applied  
to Berseem etc.)

The land above Bahal ( i.e. Berna and Mal) would show best results from canal irrigation and could be cultivated for crops like sugarcane, jute, cotton during kharif and wheat, oil seeds, fodders, etc. during rabi. However, a comprehensive manurial scheme shall have to be evolved for that land by farm experiments for recouplement of manurial status of soils. A leguminous crop shall have to be included in the crop rotations which may be the following :

- 1) Sugarcane (FYM) - Jute - Berseem - Cotton
- 2) Wheat (FYM) - Cotton - Green manure - Jute
- 3) Jute - Green manure - Sugarcane (FYM) - Cotton-  
Maize - Rice
- 4) Maize - Rice - Oil seeds (FYM) - Cotton- Green manure

The land located at the top (A†) is not being utilized to any marked extent at present. Due to its having lighter soil and meagre waterholding capacity too frequent watering for shallow-rooted crops is required. but with the availability of water that land would afford cropping facilities similar to the land at slightly lower level (Mal) and could then be put under deep rooted crops. The following combinations of shallow and deep rooted crops in rotation are recommended.

- 1) Cotton- Oil seeds - Green manure - Maize or Jawar
- 2) Groundnut - Gram - FYM - Jawar and Guar - Oil seeds
- 3) Maize - Gram - Green manure - Jawar + Guar
- 4) Sugarcane - Green manure - Cotton

It is again stressed that the crop rotations suggested above for the different types of land in the area under report are only tentative. Field trials shall have to be carried out to examine the superiority and economics of one rotation over the other. *Development of fruit tree orchards particularly of citrus variety, for which the soil conditions are suitable, is expected.*

## 12. SUMMARY AND CONCLUSIONS.

A broad-based soil survey of about 8 lac acres of land has been carried out to assess the agri-irrigational

potentialities of the area expected to receive the benefits of canal irrigation from the Hirakud Dam. The entire area has been divided into 219 grid squares each measuring about 3.8 thousand acres to serve as a unit for purposes of carrying the field work for that survey.

On account of the rolling terrain of the land and with a view to make the soil survey as representative as possible, soil sampling has been done from three sites in each grid square, to represent the high land (At and Mal) land along slope (Berna) and low-lying valley land (Bahal). 2529 soil samples, thus collected from those grid squares have been examined in the laboratory for their main physical and chemical characteristics. A tentative classification of the area has been done on the basis of the depth of the top soil overlying moorum or disintegrated rock, and the soil texture of the first foot of soil profile. The main features of the soil of the area are briefly described below :

(a) The soil is not very deep and is invariably lighter at the surface becoming heavier generally with depth.

(b) Soil pH ranges from 6.5 to 8.5 and the total dissolved solids content is low.

(c) There is preponderance of calcium in the exchange complex of soils, the monovalent alkali bases being low in comparison.

(d) The calcium carbonate content of soils is quite low.

(e) Soils are poor with regard to their nitrogen and phosphorus contents and more or less normal with regard to their potash content.

The soil of the area is good. There is little danger of salinisation and/or alkalisation as the result of perennial irrigation. The dissolved solids in the sub-soil water and the water of the Mahanadi river, the

latter has to flow from the Hirakud Reservoir into the canal system, are of very low order and no soil deterioration can be expected as the result of either the fluctuation of the water-table or irrigation.

The observations relating to the fluctuation of the water-table have brought out that the soil is well drained over a major part of the area and there seems little chance of water-logging in the high land and that along the slope. The <sup>somewhat</sup> impeded drainage in the low-lying land can be rectified by opening up the surface drainage which at present has been blocked by the cultivators to derive the maximum benefit from the rainwater stored for cultivation of paddy.

Although the crop pattern can only be indicated with certainty after actual field experiments under local conditions but broad indications are that it should be possible to have two major crops and also to grow some suitable type of green manure crop, the latter to enrich the soil with respect to organic matter content and better utilisation of artificial fertilizers.

### 13. ACKNOWLEDGEMENT.

Sarvashri K.N. Talwar, B.Sc. (Agri) and Tara Singh Sidhu, M.Sc.(Agri.), Research Assistants, carried out ably the field work in connection with the soil survey of the area and later the analytical work in connection with the soil and water samples collected during that field work. Shri Talwar further recorded observations relating to the fluctuation of the sub-soil water-table in the area over a period of two years and also carried out the survey of the storage tanks in the area. They both assisted in the preparation of the present report.

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TABLE 1 : SHOWING THE RESULTS OF pH, TOTAL SOLUBLE  
SALTS AND MECHANICAL ANALYSIS.

Sample No.	Site No.	Depth	pH	Total Soluble Salts	% Gravel	Mechanical Analysis		
						sand	silt	clay
1	13A	0"-6"	-	-	0.8	61.30	15.10	23.60
2	"	6"-12"	-	-	0.6	52.20	13.65	34.15
3	"	1'-2'	-	-	Nil	50.10	14.20	35.70
4	13B	0"-6"	-	-	9.9	83.55	3.40	12.55
5	"	6"-12"	-	-	1.7	88.80	3.10	8.10
6	"	1'-2'	-	-	29.40	93.50	1.20	5.30
7	13C	0"-6"	-	-	1.7	59.10	20.55	20.35
8	"	6"-12"	-	-	Nil	64.05	15.90	20.05
9	"	1'-2'	-	-	Nil	70.10	9.65	20.25
10	"	2'-3'	-	-	2.00	76.90	5.55	17.55
11	"	3'-4'	-	-	0.20	64.55	11.60	23.85
12	14A	0"-6"	-	-	-	74.40	8.40	17.20
13	"	6"-12"	-	-	-	65.90	10.80	23.30
14	"	1'-2'	-	-	-	76.25	4.20	19.55
15	14B	0"-6"	-	-	-	78.80	8.65	12.55
16	"	6"-12"	-	-	-	82.70	3.45	23.85
17	"	1'-2'	-	-	-	59.45	9.55	31.00
18	14C	0"-6"	-	-	-	81.90	9.50	8.60
19	"	6"-12"	-	-	-	81.40	5.50	13.10
20	"	1'-2'	-	-	-	70.40	12.10	17.50
21	"	2'-3'	-	-	-	70.35	15.55	14.10
22	15A	0"-6"	-	-	-	64.55	9.35	21.10
23	"	6"-1'	-	-	-	75.50	11.25	13.25
24	"	1'-2'	-	-	-	64.10	10.35	25.55
25	15B	0"-6"	-	-	-	58.05	22.05	19.90
26	"	6"-1'	-	-	-	51.90	18.65	29.45
27	"	1'-2'	-	-	-	51.20	10.25	30.55
28	"	2'-3'	-	-	-	48.95	14.30	31.75
29	15C	0"-6"	-	-	-	72.95	13.60	13.45
30	"	6"-1'	-	-	-	64.45	16.95	18.60
31	"	1'-2'	-	-	-	50.70	21.40	27.40
32	"	2'-3'	-	-	-	54.10	17.30	23.60
33	"	3'-4'	-	-	-	70.30	13.90	15.80
34	16A	0"-6"	-	-	-	82.30	8.45	9.25
35	"	1"-1'	-	-	-	80.00	7.45	12.55
36	"	1'-2'	-	-	-	78.50	10.15	11.05

Sample No.	Site No.	Depth	PH.	Total Soluble Solts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
37	16A	2'-3'	-	-	-	71.35	8.20	10.45
38	"	3'-4'	-	-	-	74.00	13.35	12.65
39	16B	0"-6"	-	-	-	61.50	17.60	20.90
40	"	6"-1'	-	-	-	54.30	20.95	24.75
41	"	1'-2'	-	-	-	55.95	18.30	27.75
42	"	2'-3'	-	-	-	41.20	20.70	38.10
43	16C	0"-6"	-	-	-	64.70	21.00	14.30
44	"	6"-1'	-	-	-	69.55	17.10	13.35
45	"	1'-2'	-	-	-	68.35	15.75	15.90
46	17A	0"-6"	-	-	-	73.60	10.35	16.05
47	"	6"-1'	-	-	-	72.95	12.20	14.85
48	"	1'-2'	-	-	-	63.40	13.70	22.90
49	17B	0"-6"	-	-	-	83.60	11.20	5.20
50	"	6"-1'	-	-	-	86.70	8.85	4.45
51	"	1'-2'	-	-	-	73.25	16.40	10.35
52	"	2'-3'	-	-	-	84.30	10.65	5.05
53	17C	0"-6"	-	-	-	73.40	13.95	12.65
54	"	6"-1'	-	-	-	65.95	12.70	21.35
55	"	1'-2'	-	-	-	66.85	14.80	18.35
56	"	2'-3'	-	-	-	89.55	2.00	8.45
57	"	3'-4'	-	-	-	93.10	2.10	4.80
58	"	4'-5'	-	-	-	91.45	3.45	5.10
59	18A	0"-6"	-	-	0.5	72.05	10.50	17.45
60	"	6"-1'	-	-	1.5	47.30	17.60	25.10
61	"	1'-2'	-	-	1.9	50.55	21.55	27.90
62	"	2'-3'	-	-	3.4	51.15	16.00	32.85
63	18B	0"-6"	-	-	2.3	59.70	11.95	28.35
64	"	6"-1'	-	-	1.2	51.45	10.90	37.65
65	"	1'-2'	-	-	3.3	54.15	11.90	33.95
66	18C	0"-6"	-	-	3.20	74.45	19.15	16.40
67	"	6"-1'	-	-	3.80	49.65	20.05	30.30
68	"	1'-2'	-	-	2.30	51.15	16.90	31.95
69	19A	0"-6"	-	-	7.00	72.00	14.65	13.35
70	"	6"-1'	-	-	5.40	57.15	16.55	26.30
71	19B	0"-6"	-	-	16.00	61.65	16.45	21.90
72	"	6"-1'	-	-	12.70	72.85	10.80	16.35
73	"	1'-2'	-	-	12.70	76.45	7.95	15.60

Sample No.	Site No.	Depth	PH	Total soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
74	19C	0" - 6"	-	-	0.8	54.90	19.60	25.50
75	"	6" - 1'	-	-	0.7	53.40	24.50	22.10
76	"	1' - 2'	-	-	Nil	64.05	17.00	18.95
77	"	2' - 3'	-	-	Nil	61.35	18.50	20.15
78	"	3' - 4'	-	-	Nil	57.10	18.25	24.65
79	"	4' - 5'	-	-	Nil	62.20	16.75	21.05
80	20A+21A	0" - 6"	-	-	Nil	65.20	21.45	13.35
81	"	6" - 1'	-	-	Nil	75.20	16.75	8.05
82	"	1' - 2'	-	-	0.4	69.25	14.10	16.65
83	"	2' - 3'	-	-	0.3	69.55	12.30	18.15
84	20B+21B	0" - 6"	-	-	1.3	69.55	18.65	11.80
85	"	6" - 1'	-	-	2.7	67.30	14.90	17.80
86	"	1' - 2'	-	-	2.7	48.20	19.25	32.55
87	"	2' - 3'	-	-	16.7	52.25	18.40	29.35
88	20C+21C	0" - 6"	-	-	3.5	76.05	10.95	13.00
89	"	6" - 1'	-	-	1.2	64.65	10.85	24.50
90	"	1' - 2'	-	-	1.8	65.40	15.20	19.40
91	"	2' - 3'	-	-	1.2	64.50	18.40	17.10
92	22A	0" - 6"	-	-	8.6	78.80	11.50	9.70
93	"	6" - 1'	-	-	10.8	61.30	17.50	21.20
94	"	1' - 2'	-	-	2.2	52.30	19.65	28.25
95	"	2' - 3'	-	-	Nil	44.75	23.00	32.25
96	22B	0" - 6"	-	-	7.5	56.35	19.20	24.45
97	"	6" - 1'	-	-	7.0	51.85	20.70	27.45
98	"	1' - 2'	-	-	9.0	49.75	20.55	29.70
99	22C	0" - 6"	-	-	3.0	72.35	17.10	10.65
100	"	6" - 1'	-	-	5.0	74.35	16.65	9.00
101	"	1' - 2'	7.50	.03	1.5	68.35	16.95	14.70
102	"	2' - 3'	7.30	.02	1.0	75.55	15.00	9.45
103	"	3' - 4'	7.70	.03	0.6	49.95	26.70	23.35
104	30A	0" - 6"	7.60	.02	1.3	60.50	17.55	11.95
105	"	6" - 1'	8.00	.03	1.3	66.40	10.80	22.80
106	"	1' - 2'	8.10	.03	4.4	57.20	12.35	25.45
107	"	2' - 3'	7.90	.03	2.9	65.45	10.20	24.40
108	"	3' - 4'	7.80	.03	7.1	68.15	8.70	23.15
109	30B	0" - 6"	7.50	.04	41.2	65.30	8.60	26.10
110	30C	0" - 6"	7.40	.04	1.8	50.50	22.25	27.25

Sample No	Site No	Depth	PH	Total Soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
111	30C	6" - 1'	7.30	.05	1.6	59.75	24.70	16.55
112	"	1' - 2'	7.30	.03	3.4	70.80	12.05	17.15
113	"	2' - 3'	7.60	.03	6.4	82.00	8.75	9.25
114	31A	0" - 6"	7.70	.03	5.0	86.80	9.20	4.00
115	"	6" - 1'	7.50	.03	0.4	85.50	9.35	7.15
116	"	1' - 2'	7.40	.04	0.9	71.70	11.60	16.70
117	"	2' - 3'	7.50	.04	5.5	70.95	13.30	15.75
118	"	3' - 4'	7.50	.04	4.6	63.05	11.05	25.90
119	31B	0" - 6"	7.50	.03	0.5	88.70	5.90	5.80
120	"	6" - 1'	7.40	.02	0.4	90.55	5.00	4.45
121	"	1' - 2'	7.30	.03	0.3	78.10	7.90	14.00
122	"	2' - 3'	7.10	.02	3.7	76.35	7.55	16.15
123	31C	0" - 6"	7.20	.03	0.7	72.35	17.35	10.30
124	"	6" - 1'	7.20	.03	0.4	64.55	21.95	13.50
125	"	1' - 2'	7.20	.03	3.1	78.70	13.45	7.90
126	"	2' - 3'	7.45	.02	15.0	81.25	11.45	7.30
127	32A	0" - 6"	7.50	.02	Nil	74.65	18.65	6.70
128	"	6" - 1'	7.20	.03	Nil	62.80	26.20	10.90
129	"	1' - 2'	7.30	.02	Nil	57.25	24.15	18.60
130	"	2' - 3'	7.40	.03	Nil	64.85	19.85	15.30
131	"	3' - 4'	7.50	.03	Nil	69.95	20.15	17.10
132	32B	0" - 6"	7.45	.03	0.6	62.70	21.50	5.80
133	"	6" - 1'	7.50	.04	0.3	62.65	13.55	14.80
134	"	1' - 2'	8.20	.05	Nil	70.05	12.50	17.45
135	"	2' - 3'	8.40	.06	Nil	54.65	27.75	17.60
136	32C	0" - 6"	7.85	.02	0.8	66.00	25.20	8.80
137	"	6" - 1'	7.70	.03	1.4	78.65	11.10	10.25
138	"	1' - 2'	7.90	.02	Nil	82.30	8.65	9.05
139	"	2' - 3'	7.90	.03	Nil	64.95	14.65	20.40
140	33A+34A	0" - 6"	7.85	.02	0.5	81.10	11.95	6.95
141	"	6" - 1'	7.75	.02	0.2	74.30	10.45	15.25
142	"	1' - 2'	7.20	.02	Nil	70.95	20.60	8.45
143	"	2' - 3'	7.15	.02	Nil	66.55	16.00	17.45
144	33B, 34B	0" - 6"	6.90	.02	9.5	75.15	12.90	11.95

Sample No	Site No	Depth	PH	Total Soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
145	33B+34	6"-1'	6.55	.03	4.2	70.95	15.60	13.45
146	"	1'-2'	6.75	.03	12.1	82.30	6.55	11.15
147	35A	0"-6"	6.90	.02	0.1	71.75	16.20	12.05
148	"	6"-1'	6.70	.06	Nil	55.65	24.85	14.50
149	"	1'-2'	7.25	.03	0.2	74.00	13.90	12.10
150	"	2'-3'	7.35	.03	Nil	57.95	19.70	22.35
151	"	3'-4'	7.50	.04	Nil	51.40	39.85	8.75
152	"	4'-5'	7.70	.04	Nil	52.30	40.45	7.25
153	"	5'-6'	7.35	.03	Nil	56.60	18.75	24.65
154	"	6'-7'	7.50	.02	Nil	76.90	11.95	11.15
155	"	7'-8'	7.20	.04	Nil	53.60	11.95	34.45
156	35B	0"-6"	7.54	.02	0.5	71.30	15.60	13.10
157	"	6"-1'	7.40	.02	0.1	59.50	16.50	24.00
158	"	1'-2'	7.48	.02	0.1	65.90	8.55	25.55
159	"	2'-3'	7.40	.03	0.8	76.35	11.50	11.85
160	"	3'-4'	7.45	.02	2.5	84.10	9.85	6.05
161	"	4'-5'	7.50	.02	5.9	77.60	11.50	10.90
162	"	5'-6'	7.65	.02	Nil	66.40	16.30	17.30
163	"	6'-7'	7.55	.03	13.8	67.90	15.55	16.55
164	35C	0"-6"	6.70	.03	0.4	64.35	21.60	14.05
165	"	6"-1'	6.60	.02	0.9	60.90	26.65	12.45
166	"	1'-2'	6.85	.04	2.2	52.35	23.00	24.65
167	"	2'-3'	6.20	.03	9.50	68.50	14.20	17.30
168	36A	0"-6"	6.10	.02	1.7	79.40	13.45	7.15
169	"	6"-1'	6.70	.02	0.6	72.65	15.10	12.25
170	"	1'-2'	6.80	.01	1.1	67.00	13.60	19.40
171	"	2'-3'	7.05	.02	4.5	63.40	13.75	22.85
172	"	3'-4'	7.30	.02	8.1	62.40	12.45	25.15
173	36B	0"-6"	7.30	.02	0.8	70.90	16.80	12.30
174	"	6"-1'	7.25	.04	0.5	63.50	15.75	20.75
175	"	1'-2'	7.30	.03	0.7	66.25	11.80	21.95
176	"	2'-3'	7.42	.03	10.1	70.90	16.80	12.30
177	36C	0"-6"	7.55	.04	3.5	63.50	15.75	20.75
178	"	6"-12"	7.80	.04	2.4	63.65	16.55	14.80

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Sample No.	Site No.	Depth	PH.	Total soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
179	36C	1'-2'	8.10	.04	2.2	58.65	19.40	21.95
180	"	2'-3'	8.20	.05	Nil	69.25	5.50	25.25
181	"	3'-4'	8.40	.05	7.1	54.40	18.55	27.05
182	"	4'-5'	8.40	.06	3.0	55.35	17.40	27.25
183	37A	0"-6"	8.40	.04	2.4	70.25	14.20	15.55
184	"	6"-1'	8.05	.03	4.2	62.35	10.60	27.05
185	"	1'-2'	7.80	.03	Nil	60.25	11.20	28.55
186	37B	0"-6"	7.80	.05	9.2	60.40	17.05	22.55
187	"	6"-1'	7.95	.05	3.2	63.25	8.95	27.80
188	"	1'-2'	8.20	.05	24.9	64.75	8.95	26.30
189	"	2'-3'	8.20	.05	11.4	69.05	13.00	17.95
190	37C	0"-6"	8.05	.04	1.9	31.00	32.45	36.55
191	"	6"-1'	7.55	.04	23.7	37.75	23.85	38.40
192	"	1'-1 1/2'	7.40	.05	3.6	63.55	11.05	25.40
193	38A	0"-6"	8.10	.07	13.4	55.15	21.25	23.60
194	"	6"-1'	9.00	.11	22.5	60.15	14.00	25.85
195	38B	0"-6"	8.50	.03	22.3	63.50	17.10	19.40
196	"	6"-1'	8.10	.03	24.5	74.25	11.00	14.75
197	38C	0"-6"	7.70	.03	46.2	78.45	8.55	13.00
198	"	6"-1'	7.80	.02	4.7	72.90	13.15	13.95
199	39A	0"-6"	7.90	.02	1.1	81.10	9.65	9.25
200	"	6"-1'	7.70	.03	1.2	73.35	11.90	14.75
201	"	1'-2'	8.08	.03	1.8	66.75	13.85	19.40
202	"	2'-3'	8.40	.03	16.8	60.50	14.75	24.75
203	"	3'-4'	8.15	.02	33.9	61.70	21.45	16.85
204	39B	0"-6"	7.80	.02	22.5	71.10	1.55	27.35
205	"	6"-1'	7.55	.03	29.1	68.45	5.70	25.85
206	"	1'-2'	7.32	.02	29.0	66.85	9.10	24.05
207	40A	0"-6"	7.40	.03	11.8	65.20	17.75	17.05
208	"	6"-1'	7.50	.02	19.5	72.40	10.35	16.75
209	"	1'-2'	7.70	.02	16.30	76.65	7.75	13.60
210	40B	0"-6"	7.52	.02	18.6	55.20	25.75	19.05
211	"	6"-1'	7.35	.03	20.7	70.95	12.10	16.95

S. No.	Bore No.	Depth	PH	Total soluble salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
212	40B	1'-2'	7.45	.04	27.5	66.30	14.65	19.05
213	"	2'-3'	7.65	.03	17.1	64.75	21.75	13.50
214	40C	0"-6"	7.80	.02	2.9	48.00	29.75	22.25
215	"	6"-1'	7.85	.03	23.10	54.95	22.35	22.70
216	"	1'-2'	7.90	.04	1.5	53.45	19.80	26.75
217	"	2'-3'	7.95	.04	0.3	72.10	9.15	18.75
218	"	3'-4'	8.15	.03	0.1	66.50	13.25	20.25
219	"	4'-5'	8.30	.03	3.5	76.90	6.90	16.20
220	"	5'-6'	8.20	.03	0.1	64.05	12.85	23.10
221	41A	0"-6"	8.18	.02	4.4	87.55	7.75	4.70
222	"	6"-1'	8.10	.02	0.2	80.40	9.90	9.70
223	"	1'-2'	8.00	.02	0.2	72.75	9.30	17.95
224	41B	0"-6"	8.45	.08	44.8	70.00	8.10	21.90
225	"	6"-1'	8.95	.06	48.5	73.55	2.85	23.70
226	41C	0"-6"	7.65	.02	3.5	67.90	22.70	9.40
227	"	6"-1'	8.60	.02	1.8	74.05	9.80	16.15
228	"	1'-2'	8.35	.03	2.3	74.05	7.95	18.00
229	"	2'-3'	8.40	.03	15.1	80.60	6.50	12.90
230	"	3'-4'	8.45	.02	15.2	89.35	0.85	9.80
231	42+43	0"-6"	8.40	.02	1.3	76.50	8.25	15.25
232	" A	6"-1'	8.10	.03	2.3	60.25	12.25	27.50
233	"	1'-2'	7.65	.03	3.4	67.30	4.0	28.70
234	"	2'-3'	7.70	.04	4.6	54.90	13.75	31.35
235	42B+43 B	0"-6"	7.80	.03	4.4	59.40	15.45	25.15
236	"	6"-1'	7.88	.02	2.4	73.45	4.35	22.20
237	"	1'-2'	7.85	.03	1.2	62.75	8.55	28.70
238	"	2'-2½'	8.00	.03	9.8	63.05	7.50	29.45
239	44A	0"-6"	7.95	.02	1.4	83.35	9.40	7.25
240	"	6"-1'	7.80	.02	1.2	76.25	10.90	12.85
241	"	1'-2'	7.50	.03	4.3	63.20	15.55	21.25
242	"	2'-3'	7.58	.02	9.8	60.85	10.15	29.00
243	44B	0"-6"	7.40	.02	0.5	71.40	12.65	15.95
244	"	6"-1'	7.25	.02	0.2	73.45	0.15	26.40
245	"	1'-2'	7.30	.03	0.2	62.75	5.95	31.30
246	"	2'-3'	7.50	.03	1.1	54.75	11.55	33.70



Sample No	Site No.	Depth	PH	Total Soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
247	44B	3'-4'	7.50	.03	0.7	52.10	17.05	30.85
248	44C	0"-6"	7.70	.03	0.6	38.75	40.15	21.10
249	"	6"-1'	7.42	.03	Nil	61.80	17.45	20.75
250	"	1'-2'	7.80	.03	4.0	60.30	17.45	22.25
251	"	2'-3'	7.42	.03	2.1	60.45	14.90	19.65
252	"	3'-3½'	8.20	.05	2.6	60.20	15.25	21.55
253	45A	0"-6"	8.05	.03	0.5	61.15	32.00	6.85
254	"	6"-1'	7.95	.03	0.3	58.25	21.95	19.80
255	"	1'-2'	7.50	.03	2.2	50.50	20.00	29.50
256	"	2'-3'	7.30	.03	3.1	55.45	14.15	30.40
257	45B	0"-6"	7.50	.04	2.7	64.55	17.30	18.15
258	"	6"-1'	7.70	.05	11.5	64.40	11.85	23.75
259	45C	0"-6"	8.50	.03	1.6	62.15	26.35	11.50
260	"	6"-1'	7.95	.03	1.2	65.90	20.35	13.75
261	"	1'-2'	7.90	.04	2.6	63.95	15.45	20.60
262	46A	0"-6"	8.35	.05	8.6	78.60	5.80	15.60
263	"	6"-1'	9.10	.10	4.4	55.75	13.25	31.05
264	"	1'-2'	9.40	.14	10.4	52.75	15.60	31.65
265	46B	0"-6"	7.72	.03	3.8	55.15	20.35	24.50
266	"	6"-1'	8.00	.04	14.7	67.55	18.20	14.25
267	"	1'-2'	7.95	.05	17.5	75.30	14.50	10.20
268	46C	0"-6"	7.80	.05	15.7	66.75	14.65	18.60
269	"	6"-1'	7.70	.04	21.9	79.30	10.50	10.20
270	47A	0"-6"	7.80	.03	2.8	79.60	10.75	9.65
271	"	6"-1'	7.75	.03	1.2	64.30	13.30	22.40
272	"	1'-2'	7.60	.03	0.7	60.55	13.75	25.70
273	47B	0"-6"	7.45	.03	6.7	73.95	11.40	14.65
274	"	6"-1'	7.60	.04	4.9	66.60	12.25	21.15
275	"	1'-2'	7.90	.04	18.6	65.05	10.80	24.15
276	"	2'-3'	8.10	.04	36.9	55.95	14.40	24.65
277	47C	0"-6"	8.05	.03	16.8	47.05	28.75	24.20
278	"	6"-1'	7.60	.04	0.9	48.05	24.40	27.55
279	"	1'-2'	7.62	.04	2.9	58.05	18.65	23.30
280	"	2'-3'	7.90	.04	18.6	77.45	9.55	13.00
281	"	3'-4'	8.40	.08	38.8	66.55	7.25	26.20
282	48A	0"-6"	8.10	.03	6.1	50.20	27.55	22.25
283	"	6"-1'	7.90	.04	3.6	45.90	19.55	34.55

Sample No.	Site No.	Depth	PH	Total soluble salts	%	Mechanical Analysis		
						% Gravel	% Sand	% Silt
284	48A	1'-2'	7.80	0.03	3.2	41.85	21.65	36.50
285	"	2'-3'	8.00	0.06	2.6	40.35	21.65	38.00
286	"	3'-4'	8.05	0.04	3.4	42.00	20.30	37.70
287	48B	0"-6"	8.00	0.04	4.2	55.45	23.45	21.10
288	"	6"-1'	8.02	0.04	5.1	44.90	24.60	25.30
289	"	1'-2'	8.05	0.04	5.4	52.90	21.35	25.75
290	"	2'-3'	8.20	0.06	11.5	63.40	13.35	21.25
291	48C	0"-6"	8.22	0.03	4.4	52.00	26.75	21.25
292	"	6"-1'	8.25	0.04	2.5	44.85	26.55	28.60
293	"	1'-2'	8.35	0.06	0.5	31.10	35.85	33.05
294	"	2'-3'	8.40	0.04	0.1	35.15	32.85	32.00
295	"	3'-4'	8.30	0.04	1.3	61.10	17.10	21.80
296	"	4'-5'	8.35	0.04	3.2	72.50	9.00	18.50
297	"	5'-6'	8.20	0.04	1.3	64.25	13.05	22.70
298	49A	0"-6"	8.12	0.03	10.0	80.12	10.65	9.25
299	"	6"-1'	8.10	0.03	5.8	70.65	15.65	13.70
300	"	1'-2'	8.05	0.04	4.4	67.40	11.10	21.50
301	49B	0"-6"	8.60	0.05	0.9	78.75	11.70	9.55
302	"	6"-1'	8.60	0.03	1.0	77.55	9.25	13.20
303	"	1'-2'	8.35	0.06	Nil	68.75	10.50	20.75
304	"	2'-3'	8.50	0.04	0.6	75.50	6.30	18.20
305	"	3'-4'	8.50	0.04	0.8	72.45	8.75	18.80
306	49C	0"-6"	8.42	0.04	0.7	50.05	23.95	26.00
307	"	6"-1'	8.45	0.07	2.2	44.60	23.00	32.40
308	"	1'-2'	8.70	0.08	2.3	41.30	20.45	38.25
309	"	2'-3'	8.80	0.07	2.7	34.20	36.35	29.45
310	"	3'-4'	8.75	0.08	7.5	33.90	27.95	38.15
311	"	4'-5'	8.90	0.08	1.1	34.00	26.60	43.40
312	"	5'-6'	8.90	0.15	3.6	33.60	32.85	33.55
313	50A	0"-6"	8.85	0.17	2.4	56.00	14.95	29.05
314	"	6"-1'	9.00	0.19	1.4	57.30	12.45	30.25
315	"	1'-2'	9.05	0.03	4.3	51.90	15.90	32.20
316	50B	0"-6"	7.70	0.03	2.8	79.40	12.75	7.85

Sample No.	Site No.	Depth	pH	Total soluble salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
317	50B	6" - 1'	8.50	.03	2.4	70.05	16.80	13.15
318	"	1' - 2'	8.00	.03	1.5	72.00	12.60	15.40
319	"	2' - 3'	7.92	.04	2.7	73.95	11.65	14.40
320	"	3' - 4'	7.80	.05	9.6	69.05	12.20	18.75
321	"	4' - 5'	7.50	.04	7.6	74.10	8.95	16.95
322	50C	0" - 6"	7.75	.04	32.2	67.40	7.70	14.90
323	"	6" - 1'	7.50	.04	18.2	63.20	17.10	17.70
324	"	1' - 2'	7.70	.04	4.2	48.35	23.95	27.70
325	"	2' - 3'	7.60	.04	4.8	65.90	14.75	19.35
326	"	3' - 4'	7.80	.06	0.9	65.75	12.80	21.45
327	"	4' - 5'	7.70	.05	9.0	73.35	5.0	21.65
328	51A	0" - 6"	7.80	.02	2.5	80.90	8.80	10.30
329	"	6" - 1'	7.40	.04	3.1	78.00	9.15	12.85
330	"	1' - 2'	7.35	.04	7.7	86.95	4.75	8.30
331	"	2' - 3'	7.52	.03	42.6	81.30	5.55	13.15
332	51B	0" - 6"	7.65	.03	4.5	72.20	3.75	20.05
333	"	6" - 1'	7.60	.06	1.0	69.10	9.70	21.20
334	"	1' - 2'	7.90	.04	2.4	68.55	9.65	21.80
335	"	2' - 3'	7.90	.05	2.7	66.50	8.25	25.25
336	"	3' - 4'	8.05	.05	2.7	63.95	9.60	26.45
337	51C	0" - 6"	7.90	.04	1.7	66.85	15.05	18.10
338	"	6" - 1'	8.00	.04	2.1	56.40	25.95	17.65
339	"	1' - 2'	8.10	.06	2.3	54.40	22.65	22.95
340	"	2' - 3'	8.35	.04	5.6	67.40	14.75	17.85
341	"	3' - 4'	8.22	.05	Nd	62.75	19.40	17.85
342	52A	0" - 6"	8.10	.02	1.0	82.40	11.50	6.10
343	"	6" - 1'	7.95	.02	2.7	77.15	7.75	15.10
344	"	1' - 2'	7.85	.03	Nd	73.90	8.75	17.35
345	"	2' - 3'	7.80	.03	3.0	62.30	14.95	22.75
346	52B	0" - 6"	7.65	.02	1.0	83.55	13.00	3.45
347	"	6" - 1'	7.50	.03	1.6	73.95	14.95	11.10

Sample No.	Site No.	Depth	pH	Total Soluble Salts	%	Mechanical Analysis		
						% Sand	% Silt	% Clay
348	52B	1'-2'	7.40	.04	3.5	58.25	20.10	21.65
349	"	2'-3'	7.35	.04	3.3	63.62	13.03	23.35
350	52C	0"-6"	7.50	.02	20.5	78.05	10.15	11.80
351	"	6"-1'	7.50	.04	38.5	74.50	11.30	14.20
352	53A	0"-6"	8.22	.03	0.5	83.30	10.05	6.65
353	"	6"-1'	8.40	.03	0.1	91.07	7.83	1.10
354	"	1'-2'	8.55	.03	0.2	87.00	12.50	0.50
355	"	2'-3'	8.60	.05	1.9	81.65	7.75	10.60
356	"	3'-4'	8.40	.04	1.8	72.40	9.40	18.20
357	"	4'-5'	8.00	.02	2.8	71.95	9.55	18.50
358	53B	0"-6"	7.95	.02	8.0	85.70	9.70	4.60
359	"	6"-1'	7.75	.02	3.8	73.95	15.15	10.90
360	"	1'-2'	7.50	.05	26.5	70.45	8.20	21.35
361	"	2'-3'	7.52	.05	41.9	68.00	6.70	25.30
362	53C	0"-6"	7.70	.04	2.3	68.00	17.60	14.40
363	"	6"-1'	7.95	.03	2.2	66.10	22.95	10.95
364	"	1'-2'	7.60	.03	1.9	69.80	18.65	11.55
365	54A	0"-6"	7.80	.02	3.8	70.90	16.95	12.15
366	"	6"-1'	7.55	.03	19.4	87.20	4.30	8.50
367	"	1'-2'	7.80	.04	10.7	77.70	12.15	10.15
368	54B	0"-6"	7.95	.03	5.3	85.50	9.25	5.25
369	"	6"-1'	8.20	.06	4.3	85.60	9.40	5.00
370	"	1'-2'	8.10	.04	5.6	73.75	15.95	10.30
371	54C	0"-6"	8.10	.02	6.0	80.10	16.35	3.55
372	"	6"-1'	7.65	.02	4.9	86.15	9.55	4.30
373	"	1'-2'	7.70	.03	4.5	82.40	11.35	6.25
374	58A	0"-6"	7.80	.06	4.6	80.85	7.95	11.20
375	"	6"-1'	8.05	.04	2.9	76.60	10.35	13.05
376	"	1'-2'	8.20	.04	4.1	68.20	16.95	14.85
377	"	2'-3'	8.20	.03	27.7	85.85	13.35	0.80
378	58B	0"-6"	8.10	.04	3.1	92.20	3.20	4.60
379	"	6"-1'	8.20	.05	1.2	76.60	4.90	18.50
380	"	1'-2'	8.10	.04	3.2	78.15	5.75	16.10
381	58C	0"-6"	7.85	.06	3.5	82.55	8.35	9.10
382	"	6"-1'	7.90	.05	1.5	84.65	7.30	8.05

Sample No.	Site No.	Depth	PH.	T.S.	% Gravel	Mechanical Analysis		
						Sand	Silt	Clay
383	58C	1'-2'	8.20	.04	5.6	69.65	18.80	11.55
384	"	2'-3'	8.20	.04	7.4	88.55	6.70	4.75
385	59A	0"-6"	7.95	.04	1.4	82.90	6.45	10.65
386	"	6"-1'	7.90	.03	0.8	62.05	7.40	30.55
387	"	1'-2'	7.75	.03	1.1	54.95	12.05	33.00
388	"	2'-3'	7.70	.04	8.5	59.30	9.35	31.35
389	"	3'-4'	7.72	.04	28.9	61.10	7.90	31.00
390	59B	0"-6"	7.85	.05	1.0	77.00	10.90	12.10
391	"	6"-1'	8.12	.04	0.2	68.40	10.40	21.20
392	"	1'-2'	8.05	.02	0.05	71.55	4.15	24.30
393	"	2'-3'	8.00	.04	1.0	72.90	5.65	21.45
394	"	3'-4'	8.15	.04	0.9	55.40	13.55	31.05
395	59C	0"-6"	8.30	.04	-	78.05	9.55	12.40
396	"	6"-1'	8.40	.05	1.1	70.95	8.15	20.90
397	"	1'-2'	8.70	.06	4.3	62.00	6.85	31.15
398	"	2'-3'	8.90	.05	2.9	63.35	10.45	26.20
399	"	3'-4'	8.85	.05	6.6	61.70	8.05	20.25
400	60A	0"-6"	8.65	.04	21.4	79.70	8.65	11.65
401	"	6"-1'	8.10	.04	40.8	66.30	11.30	22.40
402	60B	0"-6"	8.25	.03	3.6	81.40	8.85	9.75
403	"	6"-1'	8.40	.02	-	86.65	6.90	6.45
404	"	1'-2'	8.40	.03	2.0	62.60	0.80	36.60
405	60C	0"-6"	8.20	.07	1.2	65.20	15.45	19.35
406	"	6"-1'	8.40	.06	0.4	65.05	12.00	22.95
407	"	1'-2'	8.50	.05	4.1	65.15	8.85	26.00
408	"	2'-3'	8.60	.07	3.3	54.30	14.85	30.85
409	"	3'-4'	8.70	.08	30.8	59.55	12.30	28.15
410	61A	0"-6"	8.45	.03	34.3	72.00	10.60	17.40
411	"	6"-1'	8.25	.03	58.8	65.95	10.90	23.15
412	"	1'-2'	7.90	.03	62.4	63.05	8.40	28.55
413	61B	0"-6"	7.62	.05	11.8	84.50	2.65	12.85
414	"	6"-1'	7.85	.03	41.7	79.55	4.90	15.55
415	"	1'-2'	7.90	.03	45.5	82.10	1.30	16.60
416	61C	0"-6"	7.95	.02	3.2	62.60	17.40	20.00
417	"	6"-1'	7.70	.04	15.3	68.65	16.35	15.00
418	"	1'-2'	7.75	.05	18.7	70.75	7.75	21.50

Sample No	Site No	Depth	pH	Total Soluble Solids	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
419	b2A	0"-6"	7.95	.03	1.0	69.40	18.05	12.55
420	"	6"-1'	7.75	.03	0.4	74.40	11.65	13.95
421	"	1'-2'	7.60	.03	0.6	59.30	10.75	29.95
422	"	2'-3'	7.45	.03	17.1	66.85	10.85	22.30
423	"	3'-4'	7.40	.04	42.1	73.70	12.65	23.65
424	b2B	0"-6"	7.40	.03	4.2	76.15	10.35	13.50
425	"	6"-1'	7.40	.04	2.2	72.30	13.60	14.10
426	"	1'-2'	7.50	.04	7.4	67.45	10.25	22.30
427	"	2'-3'	7.62	.03	19.7	62.35	11.00	26.65
428	b2C	0"-6"	8.05	.07	3.7	60.95	17.20	21.85
429	"	6"-1'	8.55	.08	7.0	46.90	20.65	32.45
430	"	1'-2'	8.90	.06	6.3	47.20	20.50	32.30
431	"	2'-3'	9.00	.07	4.2	62.40	13.45	24.15
432	"	3'-4'	9.10	.08	6.0	63.05	13.00	23.95
433	b3A	0"-6"	8.70	.03	0.9	74.25	8.30	17.45
434	"	6"-1'	8.50	.04	3.2	64.60	13.15	22.25
435	"	1'-2'	8.20	.03	2.6	54.90	12.85	32.25
436	"	2'-3'	7.80	.03	5.0	64.30	16.45	29.25
437	"	3'-4'	7.65	.04	1.2	52.30	17.05	30.65
438	b3B	0"-6"	7.45	.03	1.5	57.80	24.35	17.85
439	"	6"-1'	7.38	.04	2.2	64.70	15.95	19.35
440	"	1'-2'	7.40	.02	2.0	68.05	13.75	18.20
441	"	2'-3'	7.60	.02	5.8	63.70	19.75	17.55
442	b3C	0"-6"	7.50	.02	7.6	71.00	12.80	16.20
443	"	6"-1'	7.45	.03	7.30	72.70	9.85	17.45
444	"	1'-2'	7.65	.03	6.30	81.10	11.60	7.30
445	b4A	0"-6"	7.60	.02	10.3	90.00	4.35	9.65
446	"	6"-1'	7.50	.03	9.2	88.55	3.30	8.15
447	"	1'-2'	7.50	.02	12.7	83.25	6.35	10.40
448	b4B	0"-6"	7.70	.02	2.8	90.80	1.80	7.40
449	"	6"-1'	7.50	.02	6.0	86.35	7.40	6.25
450	"	1'-2'	7.60	.02	3.3	93.65	4.45	1.90
451	"	2'-3'	8.20	.02	6.8	70.60	13.45	15.95
452	b4C	0"-6"	8.30	.03	3.5	70.15	13.30	16.55
453	"	6"-1'	8.40	.05	4.3	62.60	15.25	22.15

Sample No.	Site No.	Depth	Pit	Total silt/clay %	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
454	64C	1' - 2'	8.35	.06	13.5	62.60	15.25	22.15
455	65A	0" - 6"	8.40	.02	1.3	70.75	14.00	15.25
456	"	6" - 1'	7.90	.04	1.8	61.85	16.20	21.95
457	"	1' - 2'	7.88	.03	0.7	54.55	22.50	22.95
458	"	2' - 3'	7.70	.04	0.7	53.95	21.35	24.70
459	"	3' - 4'	7.80	.06	1.5	44.45	23.15	27.40
460	"	4' - 5'	8.15	.06	10.9	54.70	24.10	21.20
461	65B	0" - 6"	8.25	.03	0.6	32.65	35.65	11.70
462	"	6" - 1'	7.90	.04	0.1	60.15	23.95	15.90
463	"	1' - 2'	7.88	.03	2.0	56.85	26.95	16.25
464	"	2' - 3'	7.90	.03	0.9	58.40	17.10	24.50
465	"	3' - 4'	7.95	.04	0.5	56.85	19.95	23.20
466	"	4' - 5'	8.25	.04	0.5	55.90	21.65	22.45
467	"	5' - 6'	8.25	.04	0.9	54.45	20.40	25.15
468	"	6' - 7'	8.20	.04	0.9	57.55	19.20	23.25
469	65C	0" - 6"	8.10	.03	0.8	70.90	17.30	11.80
470	"	6" - 1'	7.50	.03	1.2	75.55	16.70	7.75
471	"	1' - 2'	7.45	.03	3.2	88.20	4.40	7.40
472	"	2' - 3'	7.80	.03	2.0	73.80	17.15	9.05
473	"	3' - 4'	8.10	.02	6.1	78.30	14.00	7.70
474	"	4' - 5'	8.30	.02	13.0	83.60	8.70	7.70
475	66A	0" - 6"	8.20	.02	0.2	72.90	4.95	17.15
476	"	6" - 1'	7.70	.03	0.2	68.05	10.10	21.85
477	"	1' - 2'	7.40	.04	1.2	62.50	12.05	25.45
478	"	2' - 3'	7.40	.03	7.5	64.10	8.95	26.95
479	66B	0" - 6"	7.00	.06	0.2	75.00	8.05	16.95
480	"	6" - 1'	7.30	.03	0.3	66.55	14.95	18.50
481	"	1' - 2'	7.40	.03	0.6	61.55	15.00	23.15
482	"	2' - 3'	7.40	.03	0.8	63.65	12.55	23.80
483	"	3' - 4'	7.50	.04	3.6	60.65	11.65	27.70
484	66C	0" - 6"	7.80	.05	3.0	60.75	16.65	22.60
485	"	6" - 1'	8.10	.05	3.4	44.95	22.90	32.15
486	"	1' - 2'	8.30	.05	4.6	44.30	20.00	35.70
487	"	2' - 3'	8.55	.05	4.6	55.15	24.25	30.60

D	Sample No.	Site No.	Depth	PH	Total soluble Salts	% Gravel	Mechanical Analysis		
							% Sand	% Silt	% Clay
	488	67A	0" - 6"	8.40	.03	0.3	57.90	23.90	18.20
	489	"	6" - 1'	8.10	.04	Nil	53.90	22.70	23.40
	490	"	1' - 2'	8.00	.04	0.5	54.80	20.60	24.60
	491	67B	0" - 6"	8.10	.04	0.7	63.55	22.75	13.70
	492	"	6" - 1'	8.12	.04	Nil	55.25	22.50	22.25
	493	"	1' - 2'	8.30	.05	0.3.0	42.20	33.05	24.70
	494	"	2' - 3'	8.45	.05	0.9	44.50	22.60	32.90
	495	67C	0" - 6"	8.35	.03	0.1	82.40	9.70	7.90
	496	"	6" - 1'	8.20	.03	0.1	73.95	15.25	10.80
	497	"	1' - 2'	8.05	.03	2.1	72.00	17.05	10.95
	498	"	2' - 3'	7.95	.03	2.2	64.80	18.55	16.65
	499	"	3' - 4'	8.25	.03	1.0	58.20	20.50	21.30
	500	68A	0" - 6"	7.80	.03	1.5	76.85	14.15	9.00
	501	"	6" - 1'	7.85	.03	0.7	61.45	17.60	20.95
	502	"	1' - 2'	7.82	.03	1.6	53.10	17.50	29.40
	503	"	2' - 3'	8.10	.03	8.5	61.80	14.20	24.00
	504	68B	0" - 6"	8.05	.05	6.2	62.95	16.75	20.30
	505	"	6" - 1'	7.90	.04	7.7	68.20	10.60	21.20
	506	"	1' - 2'	8.20	.04	10.2	63.10	8.80	28.10
	507	"	2' - 3'	8.35	.03	2.6	51.70	16.55	31.75
	508	68C	0" - 6"	8.40	.05	0.1	62.65	13.05	24.30
	509	"	6" - 1'	8.45	.05	Nil	49.75	18.35	31.90
	510	"	1' - 2'	8.50	.07	1.7	51.75	13.20	35.05
	511	"	2' - 3'	8.72	.06	2.6	50.85	13.80	35.35
	512	69A	0" - 6"	8.70	.03	16.6	63.85	16.95	19.20
	513	"	6" - 1'	8.35	.04	33.4	63.55	14.25	22.20
	514	69B	0" - 6"	8.28	.05	12.4	65.85	19.90	18.35
	515	"	6" - 1'	8.30	.04	5.3	59.15	22.35	18.50
	516	"	1' - 2'	8.30	.04	4.1	65.00	15.05	19.95
	517	"	2' - 3'	8.25	.04	14.2	71.65	15.90	12.45
	518	"	3' - 4'	8.22	.04	10.2	62.25	9.55	8.20
	519	"	4' - 5'	8.34	.03	4.7	84.75	8.95	5.30
	520	"	5' - 1'	8.50	.03	7.6	88.15	8.20	3.65



Sample No.	Site No.	Depth	PH.	Total soluble salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
521	69B	6' - 7'	8.50	.03	17.4	83.50	9.90	6.60
522	69C	0" - 6"	8.52	.05	7.7	82.35	10.55	47.10
523	"	6" - 1'	8.30	.04	5.8	68.50	9.85	21.65
524	"	1' - 2'	8.44	.05	5.3	67.90	21.95	10.15
525	"	2' - 3'	8.85	.06	6.8	64.40	15.60	20.00
526	"	3' - 4'	9.15	.07	5.2	64.05	14.90	21.05
527	"	4' - 5'	9.22	.06	16.3	66.00	18.25	15.75
528	70A	0" - 6"	8.70	.05	12.8	70.55	15.25	14.20
529	"	6" - 1'	8.90	.04	29.0	64.95	10.85	24.20
530	70B	0" - 6"	8.60	.03	7.2	76.60	9.80	13.60
531	"	6" - 1'	8.40	.03	6.7	75.10	10.25	14.65
532	"	1' - 2'	8.42	.03	4.9	78.70	8.45	12.85
533	"	2' - 3'	8.50	.06	19.2	79.20	6.25	14.55
534	70C	0" - 6"	8.70	.04	1.5	48.45	23.00	28.55
535	"	6" - 1'	8.58	.04	1.6	40.50	28.15	31.35
536	"	1' - 2'	8.50	.06	2.9	65.30	13.55	21.15
537	"	2' - 3'	8.60	.06	0.5	70.70	14.75	14.55
538	"	3' - 4'	8.64	.05	0.6	73.30	10.35	16.35
539	71A	0" - 6"	8.80	.05	3.7	69.25	10.10	20.65
540	"	6" - 1'	8.70	.09	2.9	70.30	5.85	23.85
541	"	1' - 2'	9.05	.09	2.9	62.90	9.70	27.40
542	"	2' - 3'	9.30	.07	16.5	83.00	7.15	9.85
543	71B	0" - 6"	8.35	.02	9.7	71.20	11.20	17.60
544	"	6" - 1'	8.40	.03	18.2	63.20	11.20	25.60
545	"	1' - 2'	8.00	.03	14.2	60.45	12.75	26.80
546	"	2' - 3'	7.78	.04	11.3	69.40	13.30	17.30
547	"	3' - 4'	7.85	.08	11.9	68.50	16.65	14.85
548	"	4' - 5'	7.92	.03	10.8	66.85	19.35	13.80
549	"	5' - 1'	8.00	.03	9.6	78.00	13.80	8.20
550	"	6' - 7'	8.02	.04	12.4	73.25	16.75	10.00
551	"	7' - 7½'	8.50	.03	7.6	81.05	8.40	10.55
552	71C	0" - 6"	8.45	.04	2.5	68.20	13.35	18.45
553	"	6" - 1'	8.50	.05	1.7	76.35	10.60	13.05

Sample No.	Site No.	Depth	PH.	Total Soluble Solts	% Gravel	Mechanical Analysis		
						Sand	Silt	Clay
554	71C	1' - 2'	8.55	.04	1.0	83.60	6.55	9.85
555	"	2' - 3'	8.70	.04	9.7	92.45	3.75	3.80
556	"	3' - 4'	8.40	.03	2.4	90.50	4.65	4.85
557	"	4' - 5'	9.00	.03	13.8	93.80	0.90	5.30
558	"	5' - 6'	8.90	.03	16.9	76.05	8.95	15.00
559	"	6' - 7'	8.72	.03	31.2	86.00	3.20	10.80
560	72A	0" - 6"	8.60	.05	26.8	75.00	14.60	10.40
561	"	6" - 1'	8.50	.05	18.3	72.50	10.90	16.60
562	"	1' - 2'	8.40	.05	10.3	68.00	11.20	20.80
563	72B	0" - 6"	8.30	.04	10.6	59.35	20.85	19.85
564	"	6" - 1'	8.40	.05	Nil	71.15	15.95	12.90
565	"	1' - 2'	8.35	.05	16.8	73.80	13.60	12.60
566	"	2' - 3'	8.75	.06	Nil	73.50	13.50	13.00
567	72C	0" - 6"	8.70	.04	22.5	81.90	11.40	6.70
568	"	6" - 1'	8.40	.05	20.7	83.70	8.25	8.05
569	"	1' - 2'	8.40	.05	22.0	80.70	10.65	8.65
570	"	2' - 3'	8.62	.04	23.5	79.30	11.05	9.65
571	"	3' - 4'	8.70	.05	22.8	74.00	15.90	10.10
572	73A	0" - 6"	8.55	.03	2.4	69.45	10.45	20.10
573	"	6" - 1'	8.15	.04	3.9	62.10	12.75	25.15
574	"	1' - 2'	7.80	.04	6.7	82.60	10.30	7.10
575	"	2' - 3'	7.80	.04	7.0	71.20	13.50	15.30
576	73B	0" - 6"	7.70	.04	3.8	63.65	25.85	10.50
577	"	6" - 1'	7.80	.06	1.9	47.05	19.65	33.30
578	"	1' - 2'	8.20	.06	3.7	45.40	19.65	34.95
579	"	2' - 3'	8.55	.07	15.9	45.75	20.35	33.90
580	73C	0" - 6"	8.70	.04	3.1	55.75	24.45	19.80
581	"	6" - 1'	8.35	.04	3.4	61.15	19.25	19.60
582	"	1' - 2'	8.40	.04	4.1	52.55	17.95	29.50
583	"	2' - 3'	8.40	.05	7.6	60.20	15.25	24.55
584	74A	0" - 6"	8.20	.04	1.9	79.80	15.05	5.15
585	"	6" - 1'	8.30	.04	1.4	66.65	17.30	16.05
586	"	1' - 2'	8.15	.05	1.9	56.95	16.70	26.35
587	"	2' - 3'	8.00	.04	5.2	51.50	17.75	30.75

Sample No.	Site No.	Depth.	PH.	Total soluble salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
588	74A	3'-4'	7.80	.05	3.6	56.50	14.25	24.25
589	74B	0"-6"	7.90	.05	1.8	61.15	12.60	26.25
590	"	6"-1'	8.00	.04	2.4	75.45	15.80	8.75
591	"	1'-2'	7.95	.04	0.7	73.45	14.85	11.70
592	"	2'-3'	8.05	.04	3.6	51.70	22.00	26.30
593	"	3'-4'	8.00	.05	2.7	53.80	23.90	22.30
594	74C	0"-6"	8.00	.04	17.6	85.00	8.95	6.05
595	"	6"-1'	8.15	.05	11.3	79.85	13.65	6.50
596	"	1'-2'	8.40	.05	11.6	74.65	16.25	9.10
597	75A	0"-6"	8.50	.04	3.4	81.80	10.75	7.45
598	"	6"-1'	8.25	.04	5.1	79.15	7.25	13.60
599	"	1'-2'	8.20	.04	13.6	67.55	6.30	26.15
600	75B	0"-6"	8.25	.04	2.3	79.05	10.50	10.45
601	"	6"-1'	8.50	.04	1.0	76.95	11.40	11.65
602	"	1'-2'	7.95	.03	0.6	59.90	11.50	28.60
603	75C	0"-6"	7.80	.05	7.9	58.50	24.55	16.95
604	"	6"-1'	7.90	.05	5.6	57.00	25.90	17.10
605	"	1'-2'	7.92	.06	Nil	51.45	17.15	31.40
606	"	2'-3'	8.05	.05	2.7	46.95	19.20	33.85
607	"	3'-3½'	8.00	.06	8.0	63.10	12.05	24.85
608	76A	0"-6"	8.15	.05	2.0	80.40	10.60	9.00
609	"	6"-1'	8.12	.04	2.4	58.05	13.50	28.45
610	"	1'-2'	7.98	.05	2.2	51.20	16.25	32.55
611	"	2'-3'	7.85	.06	2.2	49.40	17.15	33.45
612	"	3'-4'	7.95	.05	1.2	48.05	22.20	29.75
613	76B	0"-6"	7.80	.07	5.9	67.10	17.70	15.20
614	"	6"-1'	7.85	.05	0.9	63.15	15.45	21.40
615	"	1'-2'	8.05	.05	2.0	67.00	11.30	21.70
616	76C	0"-6"	8.20	.06	0.6	68.05	19.70	12.25
617	"	6"-1'	8.30	.04	4.5	71.20	15.65	13.15
618	"	1'-2'	8.30	.04	2.6	60.15	15.10	24.75
619	"	2'-3'	8.40	.06	1.4	64.50	14.05	21.45

Sample No.	Site No.	Depth	PH	Total soluble salts	% Gravim	Mechanical Analysis		
						% Sand	% Silt	% clay
620	76C	3'-4'	8.70	.04	12.6	68.90	8.70	22.40
621	77A	0"-6"	8.50	.08	24.9	57.70	21.70	20.60
622	"	6"-1'	8.50	.08	57.3	56.95	18.20	24.25
623	77B	0"-6"	8.60	.05	15.2	47.30	19.20	23.50
624	"	6"-1'	8.75	.09	17.2	43.50	28.45	28.05
625	"	1'-2'	9.00	.13	16.9	35.00	27.00	38.00
626	77C	0"-6"	8.80	.04	8.8	68.30	18.20	13.50
627	"	6"-1'	8.90	.04	5.4	71.00	16.60	12.40
628	"	1'-2'	9.10	.06	9.3	66.50	18.05	15.45
629	"	2'-3'	8.90	.06	7.3	76.45	17.10	6.45
630	75A	0"-6"	8.80	.04	19.2	87.10	7.15	5.75
631	"	6"-1'	8.70	.03	15.4	84.20	7.80	8.00
632	"	1'-2'	8.58	.03	14.8	86.60	2.5	10.90
633	"	2'-3'	8.45	.04	21.1	85.65	3.65	10.75
634	"	3'-4'	8.50	.04	23.7	88.15	2.90	8.95
635	78B	0"-6"	8.65	.05	8.2	84.10	6.05	9.85
636	"	6"-1'	9.00	.07	5.8	76.45	4.35	19.20
637	"	1'-2'	9.30	.09	6.7	75.25	4.00	20.75
638	78C	0"-6"	7.70	.02	2.6	76.80	9.15	14.05
639	"	6"-1'	8.70	.03	0.1	39.05	26.90	34.05
640	"	1'-2'	8.45	.04	2.3	63.00	17.00	20.00
641	"	2'-3'	8.40	.03	6.5	70.60	14.25	15.15
642	79A	0"-6"	8.05	.06	1.5	67.85	16.10	16.05
643	"	6"-1'	7.80	.07	0.8	54.55	19.70	25.75
644	"	1'-2'	8.00	.03	0.6	61.75	13.70	24.55
645	"	2'-3'	7.95	.03	0.7	58.60	14.90	26.50
646	"	3'-4'	8.00	.04	0.4	55.15	14.40	13.45
647	"	4'-5'	8.00	.04	0.3	52.70	13.95	33.35
648	"	5'-6'	8.18	.04	0.3	41.40	22.25	36.35
649	"	6'-7'	8.20	.07	0.1	40.95	23.15	35.90
650	"	7'-8'	8.50	.05	0.1	51.50	11.55	36.95
651	79B	0"-6"	8.50	.05	1.4	61.60	21.30	17.10
652	"	6"-1'	8.28	.05	0.8	47.00	21.70	31.30
653	"	1'-2'	8.40	.04	0.4	42.40	20.65	36.95
654	"	2'-3'	8.45	.05	0.6	31.50	23.10	45.40

Sample No.	Site No.	Depth	PH.	Total Soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
655	79B	3'-4'	8.55	.07	1.5	33.00	24.60	42.40
656	"	4'-5'	8.50	.04	6.8	34.65	23.25	42.10
657	79C	0"-6"	8.55	.07	1.2	48.15	28.70	23.15
658	"	6"-1'	8.95	.05	1.1	43.65	29.75	26.60
659	"	1'-2'	9.10	.06	1.2	40.40	30.00	29.60
660	"	2'-3'	9.20	.07	1.4	42.60	30.10	27.30
661	80A	0"-6"	8.60	.06	6.0	78.95	8.80	12.25
662	"	6"-1'	8.30	.05	3.1	62.35	14.80	22.85
663	"	1'-2'	7.98	.06	11.0	53.20	13.95	32.85
664	"	2'-3'	7.90	.07	17.4	51.70	13.20	35.10
665	80B	0"-6"	7.92	.05	5.1	69.35	12.05	18.60
666	"	6"-1'	7.80	.04	12.5	78.15	6.60	15.25
667	"	1'-2'	8.00	.05	30.5	64.25	4.15	26.65
668	80C	0"-6"	8.15	.03	8.0	65.65	17.35	13.00
669	"	6"-1'	7.95	.05	5.9	72.85	9.75	17.40
670	"	1'-2'	8.22	.06	2.1	72.55	8.10	19.35
671	"	2'-3'	8.55	.06	6.1	70.60	10.80	18.60
672	81A	0"-1"	8.50	.05	27.0	75.30	7.30	17.40
673	"	6"-1'	8.20	.03	21.9	82.60	3.10	14.30
674	"	1'-2'	8.00	.04	29.8	81.25	4.90	13.85
675	81B	0"-1"	8.10	.05	14.9	81.15	6.90	11.95
676	"	6"-1'	7.80	.07	14.5	71.80	12.55	15.65
677	"	1'-2'	8.25	.08	9.8	67.10	9.90	23.00
678	"	2'-3'	8.60	.07	17.8	73.15	10.15	16.70
679	81C	0"-6"	8.60	.08	1.5	58.35	21.65	20.00
680	"	6"-1'	8.42	.07	0.9	68.30	11.40	20.30
681	"	1'-2'	8.40	.05	0.2	78.90	9.5	11.60
682	"	2'-3'	8.55	.05	1.7	57.75	20.40	21.85
683	82A	0"-6"	-	-	-	70.00	17.40	12.60
684	"	6"-1'	-	-	-	72.80	15.40	11.80
685	"	1'-2'	-	-	-	67.80	18.80	13.40
686	82B	0"-1"	8.40	.05	-	74.20	11.25	14.55
687	"	6"-1'	8.65	.05	-	66.20	13.05	20.75
688	"	1'-2'	9.20	.13	-	59.20	14.15	26.65
689	82C	0"-1"	9.00	.8	-	58.90	18.35	22.75
690	"	6"-1'	8.80	.05	-	52.70	21.85	25.45

Sample No.	Site No.	Depth	PH	Total soluble salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
691	82C	1'-2"	8.55	.06	-	61.50	15.75	22.75
692	"	2'-3'	8.58	.05	0.2	40.80	25.55	33.65
693	"	3'-4'	8.65	.05	1.4	53.60	20.05	26.35
694	"	4'-5'	8.70	.05	0.4	71.50	9.45	19.05
695	"	5'-6'	8.72	.04	19.5	74.20	7.05	18.75
696	83A	0"-6"	8.30	.04	3.2	72.10	13.40	14.50
697	"	6"-1'	8.50	.06	4.1	53.15	11.70	25.15
698	83B	0"-6"	8.50	.08	26.5	71.20	14.05	14.75
699	"	6"-1'	8.75	.07	26.00	67.75	18.55	13.70
700	"	1'-2'	8.80	.06	14.4	66.30	18.35	15.35
701	83C	0"-6"	8.90	.07	16.6	79.12	10.98	9.90
702	"	6"-1'	8.95	.08	14.8	76.95	13.75	9.30
703	"	1'-2'	8.80	.06	12.8	74.80	14.40	10.80
704	84A	0"-6"	-	-	-	79.80	10.80	7.40
705	"	6"-1'	-	-	-	73.10	15.60	11.30
706	"	1'-2'	-	-	-	66.50	18.30	15.20
707	"	2'-3'	8.80	.06	-	49.90	21.75	28.35
708	"	3'-4'	8.60	.08	-	48.10	22.65	29.25
709	84B	0"-6"	8.70	.03	6.0	50.35	28.15	21.50
710	"	6"-1'	8.20	.05	5.4	51.40	26.15	22.45
711	"	1'-2'	8.10	.05	19.7	63.30	13.85	22.85
712	84C	0"-6"	8.00	.03	18.7	81.65	10.60	7.75
713	"	6"-1'	7.80	.04	8.4	66.95	7.00	26.05
714	"	1'-2'	7.80	.04	13.75	68.15	22.55	9.30
715	85A	0"-6"	7.80	.04	1.4	77.25	12.85	9.90
716	"	6"-1'	7.85	.04	1.2	71.55	16.90	11.55
717	"	1'-2'	7.90	.04	0.6	44.60	29.80	25.60
718	"	2'-3'	7.95	.04	3.2	53.30	21.85	24.85
719	"	3'-4'	8.05	.04	6.3	63.20	13.15	23.65
720	85B	0"-6"	7.80	.05	4.8	58.05	20.25	21.70
721	"	6"-1'	7.85	.05	2.4	45.00	41.65	23.65
722	"	1'-2'	7.95	.05	2.3	46.25	30.45	23.30
723	85C	0"-6"	7.90	.05	4.3	60.60	17.65	21.75
724	"	6"-1'	7.92	.04	9.3	68.75	12.00	19.25
725	86A	0"-6"	7.82	.03	nd	77.00	13.15	9.85
726	"	6"-1'	7.75	.04	0.5	80.15	9.35	10.50
727	"	1'-2'	8.00	.04	36.1	78.45	10.00	11.55
728	86B	0"-6"	7.95	.05	8.9	63.90	18.35	17.75
729	"	6"-1'	7.95	.04	40.0	74.20	11.80	14.00

Sample No.	Site No.	Depth	PH	Total Soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
730	86c	0"-6"	8.10	.08	4.0	54.80	16.90	28.30
731	"	6"-1'	8.45	.05	17.4	74.10	15.00	10.90
732	87A	0"-6"	8.45	.04	10.4	61.70	22.70	15.60
733	"	6"-1'	8.40	.04	4.7	61.95	12.15	25.90
734	"	1'-2'	8.45	.05	6.1	73.15	9.15	17.70
735	"	2'-3'	8.65	.06	6.0	65.45	11.40	23.15
736	"	3'-4'	8.85	.05	2.3	77.10	10.75	12.15
737	"	4'-5'	9.15	.06	4.5	78.60	13.90	7.50
738	87B	0"-6"	9.00	.05	16.0	73.75	13.80	12.45
739	"	6"-1'	8.95	.07	11.4	58.65	18.75	22.60
740	"	1'-2'	9.00	.05	10.6	51.25	20.90	27.85
741	"	2'-3'	8.95	.06	7.8	59.05	19.10	21.85
742	87c	0"-6"	8.75	.04	10.5	65.30	18.20	16.50
743	"	6"-1'	8.45	.04	7.5	68.30	14.20	17.50
744	"	1'-2'	8.10	.04	4.9	57.75	23.65	18.60
745	"	2'-3'	8.00	.04	7.2	65.85	20.35	13.80
746	88A	0"-6"	8.00	.03	4.2	81.20	11.45	7.35
747	"	6"-1'	8.15	.03	3.7	55.45	14.40	30.15
748	"	1'-2'	7.90	.03	3.3	52.15	18.75	29.10
749	"	2'-3'	8.00	.04	2.2	52.45	18.00	29.55
750	"	3'-4'	8.10	.04	1.8	53.20	19.50	27.30
751	88B	0"-6"	8.40	.04	1.0	72.35	17.15	10.50
752	"	6"-1'	8.20	.05	0.4	60.15	19.40	20.45
753	"	1'-2'	8.90	.08	0.9	52.15	22.35	25.50
754	"	2'-3'	9.30	.11	0.9	46.20	22.70	31.10
755	"	3'-4'	9.50	.18	21.4	43.05	26.00	30.95
756	88c	0"-6"	9.25	.06	1.2	69.10	18.60	12.30
757	"	6"-1'	9.45	.05	1.6	75.90	12.70	11.40
758	"	1'-2'	9.20	.05	5.3	71.80	13.05	15.15
759	"	2'-3'	9.05	.05	1.6	66.50	10.20	23.30
760	"	3'-4'	8.85	.06	8.2	59.10	18.75	22.15
761	"	4'-5'	9.00	.07	2.2	62.85	16.20	20.95
762	"	5'-6'	9.10	.07	39.0	62.85	12.60	24.55
763	89A	0"-6"	8.75	.04	4.9	55.30	22.85	21.85
764	"	6"-1'	7.95	.04	6.3	57.30	21.35	21.35
765	"	1'-2'	7.80	.04	6.5	68.30	15.30	16.40

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Sample No.	Site No.	Depth	PH	Total Soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
766	89A	2'-3'	8.05	.04	7.1	84.25	8.90	6.85
767	"	3'-4'	8.45	.05	10.2	89.80	6.25	3.95
768	89B	0"-6"	8.30	.04	12.1	83.90	6.40	9.70
769	"	6"-1'	7.95	.04	13.4	84.05	4.30	11.65
770	"	1'-2'	8.05	.05	1.9	90.55	3.35	6.10
771	"	2'-3'	8.30	.04	22.4	77.40	11.05	11.55
772	"	3'-4'	8.30	.04	20.8	78.05	11.45	10.50
773	89C	0"-6"	8.20	.04	14.2	80.10	9.00	10.90
774	"	6"-12"	8.20	.04	16.6	89.95	5.15	4.90
775	90A	0"-6"	8.12	.04	1.1	68.90	15.05	16.05
776	"	6"-12"	8.05	.04	0.4	53.00	22.75	24.25
777	"	1'-2'	8.50	.05	0.2	63.40	17.60	19.00
778	"	2'-3'	8.65	.05	0.2	45.75	23.20	31.05
779	"	3'-4'	8.70	.07	8.6	46.05	24.10	29.85
780	90B	0"-6"	8.50	.05	9.9	72.45	14.95	12.60
781	"	6"-1'	8.00	.05	15.3	81.60	8.80	9.60
782	"	1'-2'	8.10	.06	18.0	84.70	8.30	7.00
783	90C	0"-6"	8.20	.04	7.5	74.10	17.50	8.40
784	"	6"-1'	7.95	.04	5.5	71.65	18.15	10.20
785	"	1'-2'	8.18	.04	3.5	88.55	1.90	9.55
786	"	2'-3'	8.80	.04	14.7	94.05	2.85	3.10
787	91A	0"-6"	8.80	.03	1.5	75.85	10.30	13.85
788	"	6"-1'	8.48	.03	1.3	78.60	7.15	14.25
789	"	1'-2'	7.80	.02	6.5	65.60	10.00	24.40
790	"	2'-3'	7.42	.04	1.4	64.10	11.80	24.10
791	91B	0"-6"	7.60	.05	16.7	75.00	9.65	15.35
792	"	6"-1'	8.05	.04	9.1	84.05	7.20	8.75
793	"	1'-2'	8.60	.06	7.6	90.80	2.95	6.25
794	91C	0"-6"	8.62	.03	16.8	78.60	11.10	10.30
795	"	6"-12"	8.28	.04	29.0	87.35	7.45	5.20
796	92A	0"-6"	8.05	.04	-	74.40	11.50	14.10
797	"	6"-1'	8.10	.04	-	66.50	15.40	18.10
798	"	1'-2'	7.70	.07	-	59.20	10.55	30.25



Sample No.	Site No.	Depth	PH	Total Soluble Salts	% Age Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
799	92B	0"-6"	7.78	.04	-	57.60	20.45	21.95
800	"	6"-1'	7.50	.04	-	75.00	7.45	17.55
801	"	1'-2'	8.00	.05	-	67.40	9.85	22.75
802	92C	0"-6"	7.48	.05	-	61.20	16.85	21.95
803	"	6"-1'	7.55	.09	-	56.70	16.35	26.95
804	"	1'-2'	7.60	.06	10.2	56.50	7.65	35.85
805	"	2'-3'	7.65	.06	8.4	44.70	22.15	33.15
806	"	3'-4'	8.00	.06	19.8	72.10	6.55	21.35
807	93A	0"-6"	8.20	.04	3.9	68.35	11.80	19.85
808	"	6"-1'	8.05	.04	3.3	57.45	16.20	26.35
809	"	1'-2'	7.90	.05	3.7	54.65	13.10	32.25
810	"	2'-3'	8.10	.04	2.5	47.00	19.60	33.40
811	"	3'-4'	8.02	.06	11.6	53.30	15.50	31.20
812	93B	0"-6"	8.10	.06	16.3	69.10	14.50	16.40
813	"	6"-1'	8.10	.07	20.6	74.35	10.30	15.35
814	"	1'-2'	7.95	.05	22.8	69.35	10.35	20.30
815	93C	0"-6"	8.05	.08	20.2	70.40	13.20	16.40
816	"	6"-1'	8.40	.08	20.4	63.05	16.20	20.75
817	"	1'-2'	8.52	.05	17.9	68.60	11.55	19.85
818	"	2'-3'	8.40	.07	15.8	59.70	19.65	20.65
819	"	3'-4'	8.44	.05	12.1	58.50	21.15	20.35
820	"	4'-5'	8.20	.10	4.0	77.55	13.00	9.45
821	94A	0"-6"	7.60	.06	0.5	69.25	19.50	11.25
822	"	6"-1'	7.50	.03	1.5	70.90	18.75	10.35
823	"	1'-2'	7.65	.05	9.4	56.95	17.60	25.45
824	"	2'-3'	7.85	.04	11.7	53.55	17.40	29.05
825	94B	0"-6"	8.20	.06	6.6	54.25	21.35	24.40
826	"	6"-1'	8.80	.08	2.8	47.10	19.55	33.35
827	"	1'-2'	9.15	.16	3.7	50.00	20.10	29.90
828	94C	0"-6"	9.30	.06	9.6	55.60	16.95	27.45
829	"	6"-1'	9.30	.08	5.5	41.05	17.60	41.35
830	"	1'-2'	9.45	.15	11.6	55.25	16.55	28.20
831	"	2'-3'	9.50	.19	19.2	64.05	11.05	24.90

Sample No	Site No	Depth	PH	Total soluble salts	Mechanical Analysis			
					% Gravel	% Sand	% Silt	% Clay
832	915A	0"-6"	5.70	.03	1.1	92.50	1.40	6.10
833	"	6"-1'	8.20	.03	Nil	75.30	9.00	15.70
834	"	1'-2'	7.90	.02	4.7	71.60	4.65	22.75
835	"	2'-3'	7.48	.05	5.2	73.15	8.30	18.55
836	915B	0"-6"	7.90	.06	2.9	86.95	4.55	8.50
837	"	6"-1'	8.30	.03	2.2	82.40	8.20	9.40
838	"	1'-2'	8.50	.05	21.4	76.90	9.40	13.70
839	915C	0"-6"	8.65	.04	6.2	73.00	9.55	17.45
840	"	6"-1'	8.60	.04	19.2	69.40	12.95	17.65
841	916A	0"-6"	8.30	.04	3.1	90.70	5.75	3.55
842	"	6"-1'	8.28	.03	4.3	74.65	10.75	14.60
843	"	1'-2'	8.20	.04	4.3	69.10	10.90	20.00
844	"	2'-3'	8.25	.03	10.4	65.00	16.45	18.55
845	916B	0"-6"	8.00	.03	22.2	82.55	8.05	9.40
846	"	6"-1'	7.70	.04	37.5	77.55	10.40	12.05
847	"	1'-2'	7.90	.04	24.9	65.90	16.15	17.95
848	916C	0"-6"	8.00	.04	20.7	89.45	5.15	9.40
849	"	6"-1'	7.88	.04	23.3	86.05	4.40	9.55
850	"	1'-2'	7.70	.05	23.0	74.10	11.05	14.85
851	917A	0"-6"	6.35	.06	21.2	46.20	23.80	30.00
852	"	6"-1'	6.30	.08	28.1	54.10	16.00	29.90
853	917B	0"-6"	6.40	.06	13.8	52.90	24.00	23.10
854	"	6"-1'	6.50	.07	5.5	41.00	30.00	29.00
855	"	1'-2'	6.70	.04	1.6	33.05	34.35	32.60
856	"	2'-3'	6.78	.04	0.7	56.20	15.90	27.90
857	"	3'-4'	6.82	.04	2.8	61.55	11.75	26.70
858	"	4'-5'	6.90	.04	8.7	72.30	11.60	16.10
859	917C	0"-6"	6.80	.03	4.8	66.65	18.95	14.40
860	"	6"-1'	6.50	.03	8.4	75.00	9.70	15.30
861	"	1'-2'	6.64	.04	12.9	73.70	7.55	18.75
862	"	2'-3'	6.80	.04	9.7	89.85	2.10	8.05
863	918A	0"-6"	7.02	.04	2.9	47.00	30.75	22.25
864	"	6"-1'	6.95	.04	0.4	46.70	29.50	20.80
865	"	1'-2'	7.00	.04	0.5	76.20	10.00	13.80
866	"	2'-3'	7.22	.04	5.3	70.20	11.30	16.50
867	918B	0"-6"	7.30	.04	4.7	51.55	26.35	22.10
868	"	6"-1'	7.20	.05	2.2	48.65	28.75	22.60
869	"	1'-2'	7.50	.06	16.4	55.45	12.15	32.40
870	918C	0"-6"	7.80	.03	12.6	49.40	23.05	27.55

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Sample No	Site No.	Depth	PH	T.S.	%	Mechanical Analysis		
						Gravel	% Sand	% Silt
871	98C	6"-1'	7.25	.05	16.8	53.35	22.85	23.80
872	99A	0"-6"	7.20	.04	1.7	63.05	15.15	21.80
873	"	6"-1'	7.25	.04	1.2	55.75	15.05	24.20
874	"	1'-2'	7.40	.04	2.0	50.65	21.15	26.20
875	"	2'-3'	7.15	.07	1.4	44.30	24.40	30.80
876	"	3'-4'	8.10	.09	12.0	47.00	23.10	24.90
877	99B	0"-6"	8.35	.03	1.2	85.30	7.70	7.00
878	"	6"-1'	8.14	.03	1.1	82.60	9.20	8.20
879	"	1'-2'	7.95	.04	4.5	70.45	9.35	20.20
880	"	2'-3'	7.82	.05	29.8	71.20	10.40	18.40
881	99C	0"-6"	7.90	.05	3.9	75.00	11.00	14.00
882	"	6"-1'	8.05	.05	3.1	67.50	10.50	22.00
883	"	1'-2'	8.20	.05	4.4	65.50	12.20	22.30
884	"	2'-3'	8.20	.04	0.3	57.00	16.00	27.00
885	"	3'-4'	8.20	.04	0.4	57.40	15.60	27.00
886	"	4'-5'	8.15	.03	1.4	60.90	15.30	23.80
887	"	5'-6'	8.10	.04	10.5	64.90	13.10	22.00
888	100A	0"-6"	7.95	.03	0.8	62.20	23.50	14.30
889	"	6"-1'	7.85	.04	2.6	49.70	25.10	25.20
890	"	1'-2'	7.80	.04	2.1	50.00	23.30	26.70
891	"	2'-3'	8.10	.04	1.3	43.80	24.50	31.70
892	"	3'-4'	8.50	.07	13.0	41.70	27.30	31.00
893	"	4'-5'	8.72	.08	25.5	46.60	21.40	32.00
894	100B	0"-6"	8.70	.04	2.4	65.00	22.20	12.80
895	"	6"-1'	8.50	.03	1.7	65.00	22.20	12.80
896	"	1'-2'	8.30	.04	2.4	57.60	19.60	22.80
897	"	2'-3'	8.28	.05	1.8	54.70	19.20	26.10
898	"	3'-4'	8.48	.07	4.4	49.90	22.50	27.60
899	"	4'-5'	8.75	.05	1.4	46.55	22.55	30.90
900	100C	0"-6"	8.60	.04	3.5	66.60	18.20	15.20
901	"	6"-1'	8.20	.04	2.5	71.70	13.70	14.60
902	"	1'-2'	8.10	.04	2.8	76.70	11.30	12.00
903	"	2'-3'	8.05	.03	2.6	75.90	12.80	11.30
904	"	3'-4'	7.95	.04	7.6	80.30	10.10	4.60
905	"	4'-5'	7.90	.04	8.6	76.10	12.80	11.10
906	"	5'-6'	8.00	.04	3.0	49.30	26.30	24.40

Sample No.	Site No.	Depth	PH	Total soluble salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
907	100C	6'-7'	8.25	.07	8.6	47.40	26.20	26.40
908	101A	0"-6"	8.35	.03	6.6	71.80	16.80	11.40
909	"	6"-1'	8.30	.05	7.2	64.30	15.20	20.50
910	"	1'-2'	8.95	.11	8.1	67.60	10.10	22.30
911	"	2'-3'	9.30	.19	12.5	63.10	10.80	26.10
912	101B	0"-6"	8.95	.04	7.8	76.10	16.30	7.60
913	"	6"-1'	8.45	.06	6.7	68.40	21.40	10.20
914	"	1'-2'	8.40	.05	7.8	73.40	14.90	11.70
915	"	2'-3'	8.40	.05	13.3	57.60	20.80	21.40
916	102A	0"-6"	8.45	.03	0.5	76.40	11.30	12.30
917	"	6"-1'	8.00	.05	16.6	74.10	9.50	16.40
918	"	1'-2'	8.02	.03	2.9	70.85	8.65	20.50
919	102B	0"-6"	7.80	.03	5.8	85.85	5.80	8.35
920	"	6"-1'	7.45	.04	6.7	82.10	6.80	11.10
921	"	1'-2'	7.20	.05	1.6	64.40	14.55	6.05
922	"	2'-3'	7.30	.04	0.6	63.05	15.60	21.35
923	"	3'-4'	7.55	.04	.07	50.80	20.55	28.65
924	"	4'-5'	7.75	.04	.07	59.40	12.70	27.90
925	"	5'-6'	8.00	.04	1.3	73.00	7.15	19.85
926	102C	0"-6"	8.00	.04	1.8	68.95	18.55	12.50
927	"	6"-1'	7.88	.05	0.9	65.75	15.60	18.65
928	"	1'-2'	7.80	.06	0.4	57.30	18.60	24.10
929	"	2'-3'	8.02	.05	0.3	39.70	28.75	31.55
930	"	3'-4'	8.14	.05	0.3			
931	"	4'-5'	8.30	.04	0.5	61.35	12.00	26.65
932	103A	0"-6"	8.15	.04	0.7	78.25	12.00	9.75
933	"	6"-1'	7.85	.04	0.3	62.85	12.00	25.15
934	"	1'-2'	7.65	.04	0.2	60.40	13.05	26.55
935	"	2'-3'	7.58	.04	1.0	52.15	13.60	34.25
936	"	3'-4'	7.55	.04	2.2	54.70	10.20	35.10
937	"	4'-5'	7.60	.04	1.1	55.10	12.90	32.00
938	"	5'-6'	7.65	.04	3.0	52.40	13.90	33.70
939	103B	0"-6"	7.78	.05	22.1	77.90	8.50	13.60
940	"	6"-1'	7.70	.04	35.8	78.95	8.80	12.25

Sample No.	Site No.	Depth	PH.	Total Soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
941	104+105	0"-6"	7.40	.05	3.8	74.95	12.35	12.70
942	" A	6"-1'	7.40	.04	1.8	55.75	19.50	24.75
943	"	1'-2'	7.10	.04	1.8	55.15	12.90	31.95
944	"	2'-3'	7.30	.05	7.8	58.75	13.80	27.45
945	"	3'-4'	7.55	.08	11.8	56.35	14.40	29.25
946	104+105	0"-6"	7.75	.04	5.0	60.15	21.80	18.05
947	" B	6"-1'	8.10	.07	3.7	42.25	24.40	33.35
948	"	1'-2'	8.05	.05	3.6	40.45	26.80	32.75
949	"	2'-3'	8.30	.06	3.8	41.65	26.50	31.85
950	"	3'-4'	8.55	.07	5.3	40.00	25.75	34.25
951	"	4'-5'	8.75	.10	3.7	40.75	26.20	33.05
952	"	5'-6'	8.80	.10	5.8	38.50	27.25	34.25
953	"	6'-7'	8.90	.11	18.5	43.75	23.80	32.45
954	104+105	0"-6"	8.90	.07	3.1	46.35	30.90	22.75
955	" C	6"-1'	8.80	.10	3.8	46.65	26.50	26.85
956	"	1'-2'	8.60	.07	2.6	44.50	25.55	29.95
957	"	2'-3'	8.75	.08	2.3	45.00	25.15	29.85
958	"	3'-4'	8.65	.06	2.4	50.75	19.40	29.85
959	"	4'-5'	8.70	.11	9.0	58.95	13.00	28.05
960	"	5'-6'	8.75	.09	14.7	68.50	6.50	25.00
961	106A	0"-6"	8.82	.04	1.7	59.25	18.00	22.75
962	"	6"-1'	8.50	.04	2.4	60.25	9.60	30.15
963	"	1'-2'	8.30	.04	4.2	61.35	11.20	27.45
964	"	2'-3'	8.32	.06	2.4	55.75	10.60	33.65
965	"	3'-4'	8.18	.05	1.9	49.85	13.80	36.35
966	"	4'-5'	8.25	.06	4.3	50.15	14.85	35.00
967	"	5'-6'	8.22	.06	6.0	41.40	19.50	39.10
968	"	6'-7'	8.20	.09	14.2	50.60	11.25	38.15
969	106B	0"-6"	8.15	.05	11.3	71.30	12.60	16.10
970	"	6"-1'	8.30	.07	2.6	58.30	10.05	31.65
971	"	1'-2'	8.30	.07	7.2	63.60	9.70	26.70
972	"	2'-3'	8.40	.07	6.8	69.40	9.70	20.90
973	"	3'-4'	8.65	.05	10.6	80.30	8.30	11.40
974	106C	0"-6"	8.75	.06	11.8	75.00	8.90	16.10
975	"	6"-1'	8.80	.08	12.3	59.70	20.60	19.70
976	"	1'-2'	8.85	.08	10.1	50.50	20.10	29.40

Sample No.	Site No.	Depth	PH	Total Soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
977	106C	2' - 3'	8.80	.10	11.6	55.30	17.70	27.00
978	107A	0" - 6"	8.65	.04	2.5	82.70	16.40	10.90
979	"	6" - 1'	8.95	.07	4.5	73.20	6.90	19.90
980	"	1' - 2'	8.90	.05	5.5	70.90	5.00	24.10
981	107B	0" - 6"	7.05	.04	4.5	69.60	16.90	13.50
982	"	6" - 1'	6.80	.04	5.0	63.70	17.65	18.65
983	"	1' - 2'	6.88	.03	6.3	64.40	10.70	19.90
984	"	2' - 3'	6.90	.04	4.8	67.10	9.10	23.80
985	"	3' - 4'	7.20	.03	3.7	64.40	7.00	28.60
986	107C	0" - 6"	7.15	.06	3.1	61.10	17.80	21.10
987	"	6" - 1'	7.25	.04	5.5	65.00	16.20	18.80
988	"	1' - 2'	7.70	.07	1.2	39.70	29.40	30.90
989	"	2' - 3'	8.35	.08	1.5	35.30	32.70	32.00
990	"	3' - 4'	8.55	.07	1.0	34.20	29.30	31.50
991	"	4' - 5'	8.68	.08	1.7	38.10	25.60	36.30
992	"	5' - 6'	8.80	.07	6.7	66.70	6.80	26.50
993	108A	0" - 6"	8.20	.04	13.8	73.80	8.60	17.60
994	"	6" - 1'	8.05	.04	11.7	75.00	5.10	19.90
995	108B	0" - 6"	7.80	.03	6.0	75.50	9.50	15.00
996	"	6" - 1'	7.50	.05	13.3	77.30	6.80	15.90
997	"	1' - 2'	7.72	.07	5.7	70.80	12.10	17.10
998	"	2' - 3'	7.95	.05	2.3	60.50	8.90	30.60
999	108C	0" - 6"	8.00	.06	1.4	53.20	25.30	21.50
1000	"	6" - 1'	8.10	.05	0.6	45.00	28.80	26.20
1001	"	1' - 2'	8.00	.06	0.3	39.60	31.30	29.10
1002	"	2' - 3'	8.18	.04	0.2	34.00	30.10	35.90
1003	"	3' - 4'	8.15	.04	0.5	35.00	27.00	38.00
1004	"	4' - 5'	8.15	.03	1.6	40.00	25.00	35.00
1005	"	5' - 6'	8.15	.03	0.4	35.80	29.70	34.50
1006	109A	0" - 6"	8.05	.03	0.7	82.50	3.60	13.90
1007	"	6" - 1'	7.80	.03	0.7	72.00	10.40	17.60
1008	"	1' - 2'	7.70	.03	0.6	64.00	11.90	24.10
1009	"	2' - 3'	7.70	.03	3.6	59.30	10.10	30.60
1010	"	3' - 4'	7.80	.03	6.1	60.45	9.40	30.15
1011	"	4' - 5'	7.80	.06	13.8	50.80	15.60	33.60

Sample No.	Site No.	Depth	PH.	Total Soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
1012	109B	0"-6"	8.00	.04	17.9	85.00	1.10	13.90
1013	"	6"-1'	8.10	.04	14.5	76.10	8.80	15.10
1014	109C	0"-6"	7.80	.04	9.3	50.80	19.10	30.10
1015	"	6"-1'	7.60	.05	20.9	66.10	7.40	26.50
1016	"	1'-2'	7.85	.05	38.8	65.50	11.90	22.60
1017	110A	0"-6"	7.80	.04	35.4	75.85	10.65	13.50
1018	"	6"-1'	7.70	.04	28.6	75.20	7.10	17.70
1019	"	1'-2'	7.65	.04	38.8	67.15	6.00	26.85
1020	110B	0"-6"	7.10	.04	23.3	67.00	10.70	22.30
1021	"	6"-1'	7.00	.03	6.4	64.10	9.40	26.50
1022	"	1'-2'	7.25	.04	11.3	63.50	10.00	26.50
1023	"	2'-3'	7.60	.04	7.3	77.30	7.50	15.20
1024	110C	0"-6"	7.55	.03	10.9	68.65	12.85	18.50
1025	"	6"-1'	7.35	.04	9.9	67.60	12.40	20.00
1026	"	1'-2'	7.60	.05	3.9	43.10	29.45	27.45
1027	"	2'-3'	7.85	.06	4.2	52.30	22.50	25.20
1028	"	3'-4'	8.30	.07	5.2	67.60	11.80	20.60
1029	"	4'-5'	8.60	.06	6.4	68.80	11.20	20.00
1030	111A	0"-6"	7.15	.03	1.1	72.20	18.20	9.60
1031	"	6"-1'	6.92	.04	0.6	61.70	16.65	21.65
1032	"	1'-2'	7.10	.03	1.0	62.15	16.80	21.05
1033	111B	0"-6"	7.20	.05	19.6	78.60	14.80	6.60
1034	"	6"-1'	7.40	.05	18.4	74.40	16.15	9.45
1035	"	1'-2'	7.55	.04	23.7	67.10	19.25	13.65
1036	111C	0"-6"	7.60	.04	14.9	57.90	28.45	13.65
1037	"	6"-1'	7.50	.04	6.3	59.05	25.30	15.65
1038	"	1'-2'	7.70	.04	8.1	68.50	17.95	13.55
1039	"	2'-3'	7.80	.04	4.2	53.80	20.45	25.75
1040	"	3'-4'	7.88	.06	17.6	63.00	17.15	19.85
1041	112A	0"-6"	8.00	.04	2.0	54.40	19.05	26.55
1042	"	6"-1'	7.90	.04	2.8	52.15	16.35	31.50
1043	"	1'-2'	7.90	.03	2.8	49.50	20.15	30.35
1044	112B	0"-6"	7.70	.03	8.0	69.90	16.55	13.55
1045	"	6"-1'	7.62	.03	13.1	56.85	17.65	25.50
1046	"	1'-2'	7.60	.04	35.5	68.35	17.65	13.00
1047	112C	0"-6"	8.05	.06	8.9	77.85	13.15	9.00

Sample No.	Site No.	Depth	PH.	Total Soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
1048	112C	6"-1'	8.40	.05	5.6	82.70	11.75	5.55
1049	"	1'-2'	8.55	.03	4.7	77.75	12.95	9.30
1050	"	2'-3'	8.50	.04	19.5	75.35	11.75	12.90
1051	113A	0"-6"	8.35	.02	0.1	80.75	15.25	4.00
1052	"	6"-1'	8.00	.03	0.3	70.65	14.15	15.20
1053	"	1'-2'	7.82	.02	0.7	67.90	10.60	21.50
1054	113B	0"-6"	7.90	.06	4.1	67.75	17.25	15.00
1055	"	6"-1'	8.30	.06	2.2	51.95	20.05	28.00
1056	"	1'-2'	8.60	.07	4.1	46.75	23.80	29.45
1057	"	2'-3'	8.80	.07	6.3	44.70	23.30	32.00
1058	114A	0"-6"	8.60	.03	1.1	78.50	15.55	5.95
1059	"	6"-1'	8.30	.04	1.3	75.50	13.45	11.05
1060	"	1'-2'	8.00	.04	3.4	52.50	20.95	26.55
1061	"	2'-3'	7.78	.05	3.9	47.60	18.30	34.10
1062	114B	0"-6"	7.70	.04	5.3	72.45	18.25	9.30
1063	"	6"-1'	7.86	.04	13.6	54.45	19.50	26.05
1064	"	1'-2'	7.90	.04	13.6	55.95	17.55	26.50
1065	114C	0"-6"	7.80	.04	1.7	76.50	14.35	9.15
1066	"	6"-1'	8.10	.05	9.1	67.90	15.85	16.25
1067	"	1'-2'	9.10	.12	12.3	55.35	20.55	24.10
1068	"	2'-3'	9.35	.18	20.9	59.10	19.50	21.40
1069	115A	0"-6"	8.05	.05	0.3	83.75	8.70	7.55
1070	"	6"-1'	8.10	.04	7.9	71.45	14.95	13.60
1071	"	1'-2'	7.70	.04	13.7	67.65	18.20	14.15
1072	115B	0"-6"	7.55	.04	1.1	77.25	16.80	5.95
1073	"	6"-1'	7.70	.03	1.9	82.40	7.30	10.30
1074	"	1'-2'	7.60	.04	0.4	57.15	14.55	28.30
1075	"	2'-3'	7.80	.05	5.8	57.60	12.15	30.25
1076	115C	0"-6"	7.90	.04	0.5	59.40	23.15	17.45
1077	"	6"-1'	7.75	.06	0.3	59.65	18.85	21.50
1078	"	1'-2'	7.70	.07	0.3	50.00	25.35	24.65
1079	"	2'-3'	7.78	.05	0.6	63.50	17.65	18.85
1080	"	3'-4'	8.00	.05	0.6	46.70	26.05	27.25
1081	116A	0"-6"	7.85	.03	0.2	81.50	10.60	7.90
1082	"	6"-1'	7.55	.03	0.2	77.80	11.15	11.05
1083	"	1'-2'	7.50	.03	0.2	62.15	14.25	23.60



Sample No.	Site No.	Depth	Ph.	Total Soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
1084	116A	2'-3'	7.40	.03	1.3	59.55	10.80	29.65
1085	"	3'-4'	7.60	.04	1.2	61.20	9.10	29.70
1086	116B	0"-6"	7.60	.04	9.5	76.50	8.20	15.30
1087	"	6"-1'	7.70	.04	13.0	66.15	10.85	23.00
1088	"	1'-2'	7.90	.04	16.6	63.65	13.05	23.30
1089	116C	0"-6"	8.50	.06	1.9	75.45	5.80	18.75
1090	"	6"-1'	8.72	.05	2.6	70.65	13.75	15.60
1091	"	1'-2'	8.95	.11	2.8	71.20	5.30	23.50
1092	117A	0"-6"	8.40	.08	2.5	54.10	26.20	19.70
1093	"	6"-1'	7.90	.03	2.0	65.60	8.20	26.20
1094	"	1'-2'	7.68	.03	6.6	55.20	14.60	30.20
1095	"	2'-3'	7.70	.07	32.1	49.60	16.90	33.50
1096	117B	0"-6"	7.65	.04	2.6	67.00	15.70	17.30
1097	"	6"-1'	7.80	.05	1.6	57.30	13.00	29.70
1098	"	1'-2'	8.00	.05	3.6	56.10	16.00	27.90
1099	117C	0"-6"	8.05	.05	2.7	41.40	25.40	33.20
1100	"	6"-1'	8.10	.05	2.9	42.90	27.70	29.40
1101	"	1'-2'	8.20	.06	4.7	57.10	18.00	30.90
1102	"	2'-3'	8.50	.07	3.4	66.00	6.60	27.40
1103	118A	0"-6"	8.35	.04	12.6	52.80	18.90	28.30
1104	"	6"-1'	7.80	.04	20.0	53.20	15.30	26.50
1105	118B	0"-6"	7.65	.08	6.1	55.30	15.60	29.10
1106	"	6"-1'	8.22	.03	10.9	60.00	14.10	25.90
1107	"	1'-2'	8.35	.04	9.7	69.30	9.20	21.20
1108	"	2'-3'	8.45	.03	12.6	72.30	7.40	20.30
1109	118C	0"-6"	7.95	.04	3.4	46.70	19.20	34.10
1110	"	6"-1'	7.52	.05	3.0	46.25	21.15	32.60
1111	"	1'-2'	7.75	.04	2.5	43.70	24.50	31.80
1112	"	2'-3'	7.90	.05	0.9	42.80	21.80	35.40
1113	"	3'-4'	8.20	.04	1.0	77.10	8.90	14.10
1114	119A	0"-6"	8.00	.03	3.8	67.30	10.10	22.60
1115	"	6"-1'	7.40	.05	4.5	71.10	6.30	22.60
1116	"	1'-2'	7.40	.04	1.3	72.90	12.70	14.40
1117	119B	0"-6"	7.25	.03	8.4	67.80	12.35	19.85
1118	"	6"-1'	7.35	.04	10.1	69.60	7.80	22.60
1119	"	1'-2'	7.65	.05	2.3	60.50	9.50	30.00
1120	119C	0"-6"	7.30	.04	3.9	60.50	8.90	30.60

Sample No.	Site No.	Depth	PH	Total Solids %	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% clay
1121	119C	6"-1'	7.15	.03	3.1	67.65	27.85	22.60
1122	"	1'-2'	7.40	.04	4.5	66.50	11.90	22.60
1123	"	2'-3'	7.70	.04	8.7	75.00	5.15	19.85
1124	"	3'-4'	7.90	.04	1.5	70.50	7.70	21.80
1125	120A	0"-6"	9.00	.03	Nil	64.15	19.95	15.90
1126	"	6"-1'	8.65	.07	0.9	72.90	2.60	24.50
1127	"	1'-2'	8.75	.08	0.2	67.20	7.55	25.25
1128	"	2'-3'	8.60	.04	0.5	55.45	12.60	31.95
1129	120B	0"-6"	8.00	.04	1.9	54.25	13.35	32.40
1130	"	6"-1'	7.80	.04	3.2	56.20	15.00	28.80
1131	"	1'-2'	7.60	.06	9.0	76.80	4.45	18.75
1132	120C	0"-6"	7.82	.04	4.6	61.55	17.85	20.60
1133	"	6"-1'	7.70	.05	1.8	53.95	19.70	26.35
1134	"	1'-2'	7.72	.05	3.7	71.20	10.00	18.80
1135	121A	0"-6"	7.90	.03	1.1	56.25	3.15	10.60
1136	"	6"-1'	7.60	.04	1.3	71.55	3.65	24.80
1137	"	1'-2'	7.25	.04	1.2	68.40	7.65	23.95
1138	121B	0"-6"	7.15	.05	0.7	75.90	10.05	14.05
1139	"	6"-1'	7.30	.05	Nil	58.85	17.95	23.20
1140	"	1'-2'	7.60	.05	0.8	53.25	16.60	30.15
1141	"	2'-3'	7.78	.05	2.9	53.35	17.40	29.25
1142	"	3'-4'	8.12	.06	2.0	46.25	18.45	35.30
1143	121C	0"-6"	8.35	.07	3.8	42.75	25.45	31.80
1144	"	6"-1'	8.15	.05	6.5	49.25	20.65	30.10
1145	122A	0"-6"	7.98	.05	22.7	59.00	19.50	21.50
1146	"	6"-1'	7.95	.04	9.6	59.90	19.05	21.05
1147	"	1'-2'	7.90	.06	6.5	48.40	24.75	26.85
1148	122B	0"-6"	8.05	.04	29.9	69.07	11.61	19.32
1149	"	6"-1'	7.60	.05	28.5	66.47	13.76	19.77
1150	"	1'-2'	7.80	.07	15.00	57.90	20.55	21.55
1151	"	2'-3'	8.05	.04	10.5	60.00	15.73	24.27
1152	123A	0"-6"	7.75	.05	1.8	79.28	8.80	11.92
1153	"	6"-1'	7.70	.04	0.3	55.52	15.01	29.47
1154	"	1'-2'	7.50	.04	1.5	54.17	19.56	26.27
1155	"	2'-3'	7.70	.04	5.2	50.92	22.31	26.77

Sample No	Site No	Depth	PH	Total Solids (g/l)	%	Mechanical Analysis
1156	1237	0"-6"	7.90	1.8	40.92	24.06 35.02
1157	"	6"-1"	7.70	11.5	73.37	5.91 20.67
1158	"	1"-2"	7.72	19.8	70.37	10.01 11.62
1159	1230	0"-6"	8.15	2.5	55.15	20.30 24.35
1160	"	6"-1"	8.55	9.6	77.40	11.35 11.25
1161	"	1"-2"	8.60	5.7	59.62	11.81 28.57
1162	"	2"-3"	8.50	3.6	76.12	12.61 11.27
1163	"	3"-4"	8.40	4.6	70.97	10.76 18.27
1164	1248	0"-6"	7.90	5.6	55.42	15.41 29.17
1165	"	6"-1"	7.60	10.0	54.93	10.05 35.02
1166	"	1"-2"	7.50	1.6	75.23	8.20 16.57
1167	"	2"-3"	7.95	1.2	61.92	14.06 26.02
1168	1240	0"-6"	7.40	1.3	74.30	12.18 13.52
1169	"	6"-1"	7.35	2.8	64.32	13.81 21.87
1170	1247	0"-6"	7.30	5.6	59.62	11.01 29.37
1171	"	6"-1"	7.50	6.8	55.60	12.50 31.40
1172	"	1"-2"	7.60	7.5	57.50	14.70 27.80
1173	1254	0"-6"	7.75	1.1	62.15	20.40 17.45
1174	"	6"-1"	7.40	0.9	62.15	21.90 15.95
1175	"	1"-2"	7.25	1.02	53.70	18.90 27.40
1176	"	2"-3"	7.40	1.3	47.35	30.10 22.55
1177	"	3"-4"	7.70	0.6	45.95	19.70 34.35
1178	"	4"-5"	8.50	4.3	41.25	22.50 36.25
1179	1253	0"-6"	8.45	1.3	69.85	19.20 10.95
1180	"	6"-1"	7.80	1.1	71.25	17.80 10.95
1181	"	1"-2"	8.05	0.6	67.05	17.50 15.45
1182	"	2"-3"	8.85	1.0	67.75	7.90 24.35
1183	1250	0"-6"	8.65	1.9	67.95	20.90 13.15
1184	"	6"-1"	8.20	0.2	66.15	24.90 10.45
1185	"	1"-2"	7.55	1.9	69.75	10.80 19.45
1186	"	2"-3"	7.62	1.2	66.65	2.90 10.45
1187	1268	0"-6"	7.55	29.5	80.95	4.50 14.55
1188	"	6"-1"	7.22	31.7	73.05	9.10 17.55
1189	1263	0"-6"	7.80	8.6	69.85	19.10 11.05
1190	"	6"-1"	8.70	3.4	58.15	25.20 16.65
1191	"	1"-2"	8.80	3.7	62.91	20.85 16.25
1192	"	2"-3"	9.25	11	57.90	21.65 20.45

Sample No      Site No      Depth      PH      Total Solids (g/l)      %      Mechanical Analysis

Sample No.	Site No.	Depth	PH	Total soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
1193	126B	3'-4'	9.30	.13	3.6	52.25	20.80	26.95
1194	"	4'-5'	9.40	.12	5.1	65.10	10.65	24.25
1195	126C	0"-6"	8.80	.03	5.5	70.90	14.85	14.25
1196	"	6"-1'	8.40	.04	7.6	77.40	8.95	13.65
1197	"	1'-2'	8.00	.03	4.1	76.05	9.70	14.25
1198	127A	0"-6"	8.65	.03	2.1	77.00	11.65	11.35
1199	"	6"-1'	8.45	.03	4.4	80.80	8.95	11.05
1200	"	1'-2'	8.20	.04	2.2	74.75	11.00	14.25
1201	127B	0"-6"	7.30	.04	11.0	71.95	8.10	19.95
1202	"	6"-1'	8.00	.08	0.1	55.90	17.00	27.10
1203	"	1'-2'	8.50	.09	2.8	54.50	19.80	25.70
1204	127C	0"-6"	8.58	.11	2.7	52.90	25.40	21.70
1205	"	6"-1'	8.65	.07	6.4	66.50	11.65	21.85
1206	128A	0"-6"	8.50	.05	4.2	64.40	17.10	18.50
1207	"	6"-1'	8.25	.05	1.2	73.30	10.45	17.25
1208	"	1'-2'	8.30	.05	1.9	73.80	9.85	16.35
1209	"	2'-3'	8.35	.05	2.7	80.30	0.80	18.90
1210	"	3'-3 $\frac{1}{2}$ '	8.42	.06	8.7	76.65	1.30	22.05
1211	128B	0"-6"	8.25	.11	5.6	52.50	20.40	27.10
1212	"	6"-1'	8.00	.05	3.9	54.85	17.80	27.35
1213	"	1'-2'	7.92	.04	17.2	71.85	8.30	19.80
1214	128C	0"-6"	8.70	.08	5.8	68.20	8.50	23.30
1215	"	6"-1'	9.20	.10	9.4	74.55	2.00	23.45
1216	"	1'-2'	9.45	.16	45.4	65.60	7.45	26.95
1217	129A	0"-6"	8.30	.03	1.9	63.85	12.85	23.30
1218	"	6"-1'	8.10	.04	2.2	61.85	9.70	28.45
1219	"	1'-2'	7.50	.04	5.8	60.80	11.35	27.85
1220	"	2'-3'	7.60	.04	5.9	56.30	12.80	30.90
1221	"	3'-4'	7.80	.04	3.5	52.75	11.40	35.85
1222	"	4'-5'	7.80	.05	5.3	69.25	11.25	19.50
1223	"	5'-6'	7.88	.05	11.1	62.45	10.15	27.40
1224	"	6'-7'	8.00	.05	13.4	62.60	10.90	26.50
1225	"	7'-8'	8.10	.05	15.8	62.90	13.40	23.70
1226	129B	0"-6"	7.80	.04	2.8	65.70	17.00	17.30

Sample No.	Site No.	Depth	P.H.	Totals Soluble Salts	% Clay	Mechanical Analysis		
						/ Sand	/ Silt	/ Clay
1227	129B	6"-1'	7.55	.03	4.2	65.95	17.05	17.00
1228	"	1'-2'	7.40	.04	2.7	47.60	20.70	31.70
1229	"	2'-3'	7.60	.03	3.3	51.70	17.20	31.10
1230	"	3'-4'	7.52	.05	3.8	52.00	19.90	28.10
1231	"	4'-4½"	7.40	.04	3.8	49.80	19.70	30.50
1232	129C	0"-6"	7.80	.03	3.1	59.60	20.50	19.90
1233	"	6"-1'	7.95	.04	2.9	47.80	21.30	30.90
1234	"	1'-2'	8.15	.06	4.1	49.70	19.10	31.20
1235	"	2'-3'	8.52	.08	2.0	53.50	17.10	29.40
1236	130A	0"-6"	7.40	.03	0.4	80.65	13.00	6.35
1237	"	6"-1'	7.48	.04	5.0	72.65	16.25	11.10
1238	"	1'-2'	7.60	.04	10.3	81.15	11.55	7.30
1239	"	2'-3'	7.75	.03	8.0	77.15	8.50	14.35
1240	"	3'-4'	7.80	.03	40.7	76.70	11.20	12.10
1241	130B	0"-6"	7.70	.03	0.3	84.25	7.25	7.80
1242	"	6"-1'	7.50	.03	Nil	72.15	11.50	16.35
1243	"	1'-2'	7.20	.04	Nil	73.15	3.10	23.75
1244	"	2'-3'	7.15	.03	0.6	64.30	13.30	22.40
1245	130C	0"-6"	7.20	.07	10.4	62.15	23.00	14.85
1246	"	6"-1'	7.60	.07	10.6	67.10	17.50	15.40
1247	"	1'-2'	7.80	.06	6.5	66.90	21.75	11.35
1248	131A	0"-6"	7.72	.03	0.9	74.65	5.35	20.00
1249	"	6"-1'	7.40	.04	1.3	57.60	20.00	22.40
1250	"	1'-2'	7.20	.05	1.0	55.20	21.20	23.60
1251	131B	0"-6"	7.45	.07	3.5	70.65	18.75	10.60
1252	"	6"-1'	7.95	.06	4.6	72.30	15.90	11.80
1253	"	1'-2'	8.08	.06	2.1	61.20	11.65	17.15
1254	"	2'-3'	8.22	.04	8.1	68.10	11.90	20.00
1255	"	3'-4'	8.40	.05	13.3	82.45	7.75	9.80
1256	131C	0"-6"	8.54	.06	6.3	74.05	13.85	12.10
1257	"	6"-1'	8.80	.06	7.8	80.75	7.75	11.50
1258	"	1'-2'	8.88	.07	8.4	61.90	12.25	25.85
1259	"	2'-3'	8.80	.07	23.8	63.50	11.05	25.45
1260	132A	0"-6"	8.70	.05	7.6	71.80	10.05	18.15
1261	"	6"-1'	8.30	.04	14.9	65.95	7.45	26.60
1262	132B	0"-1"	7.90	.07	17.0	60.70	9.30	21.50

Sample No.	Site No.	Depth	PH	Total Soluble Salts	Mechanical Analysis			
					% Gravel	% Sand	% Silt	% Clay
1263	132B	6"-1'	7.90	.06	64.4	57.90	11.15	30.95
1264	"	1'-2'	8.02	.06	59.8	60.55	12.65	26.50
1265	132C	0"-6"	8.20	.04	5.5	66.85	20.30	12.85
1266	"	6"-1'	8.25	.05	4.7	71.15	13.75	15.10
1267	"	1'-2'	8.50	.05	6.3	73.55	9.80	16.65
1268	"	2'-3'	8.70	.08	14.9	68.85	14.05	17.10
1269	"	3'-4'	8.80	.07	3.4	73.20	12.30	14.50
1270	"	4'-5'	8.85	.07	8.2	82.75	8.50	8.75
1271	133A	0"-6"	8.70	.03	3.9	68.75	17.15	14.10
1272	"	6"-1'	8.12	.03	12.0	68.85	14.50	16.65
1273	"	1'-2'	7.70	.04	35.7	63.20	15.10	21.70
1274	133B	0"-6"	7.52	.06	48.2	76.35	7.90	15.75
1275	"	6"-1'	8.05	.06	39.4	69.60	6.80	23.60
1276	"	1'-2'	8.90	.05	42.7	67.00	7.00	26.00
1277	133C	0"-6"	8.55	.11	30.3	79.90	9.50	10.60
1278	"	6"-1'	8.15	.08	33.3	64.45	13.35	22.20
1279	"	1'-2'	8.12	.08	40.5	65.65	10.90	23.45
1280	134A	0"-6"	8.25	.03	0.6	77.45	7.55	15.00
1281	"	6"-1'	7.62	.03	0.2	64.55	4.95	30.50
1282	"	1'-2'	7.48	.03	0.5	59.10	9.60	31.30
1283	"	2'-3'	7.35	.03	2.2	56.20	8.85	34.95
1284	"	3'-4'	7.15	.03	3.0	53.35	9.45	37.20
1285	"	4'-5'	7.12	.04	2.6	51.85	13.30	34.85
1286	"	5'-6'	7.20	.03	8.2	55.45	9.30	35.25
1287	134B	0"-6"	7.05	.03	8.9	76.80	10.50	12.70
1288	"	6"-1'	6.60	.03	37.3	79.35	2.80	17.85
1289	134C	0"-6"	6.65	.03	4.1	63.20	18.35	18.45
1290	"	6"-1'	6.80	.04	3.8	59.65	16.90	24.45
1291	"	1'-2'	6.95	.06	1.9	56.35	23.35	20.30
1292	"	2'-3'	7.05	.03	7.0	61.65	17.15	21.20
1293	135A	0"-6"	7.00	.03	8.4	63.45	18.55	18.00
1294	"	6"-1'	6.85	.03	7.8	55.45	22.20	22.35
1295	"	1'-2'	6.95	.02	5.5	71.35	6.60	22.05
1296	"	2'-3'	7.15	.03	9.5	59.25	15.15	25.60
1297	"	3'-4'	7.25	.03	27.4	74.40	8.35	17.25
1298	135B	0"-6"	7.40	.02	13.2	81.50	8.7	9.50
1299	"	6"-1'	7.22	.02	19.1	77.85	1.10	21.05

Sample No.	Site No.	Depth	pH	Total Soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
1300	135C	0"-1"	7.00	.02	1.6	44.70	28.05	27.25
1301	"	1"-1'	6.80	.03	1.1	27.90	37.45	34.65
1302	"	1'-2'	7.00	.02	0.3	53.15	11.90	34.95
1303	"	2'-3'	7.25	.03	0.5	46.85	22.55	30.60
1304	"	3'-4'	7.50	.04	0.4	40.60	31.20	28.20
1305	"	4'-5'	8.10	.07	1.7	68.00	3.05	28.95
1306	"	5'-6'	8.45	.07	9.3	53.60	20.15	26.25
1307	"	6'-7'	8.60	.06	8.6	51.65	22.25	26.10
1308	136A	0"-6"	8.50	.01	1.5	74.65	8.65	16.70
1309	"	6"-1'	8.05	.02	1.2	69.65	7.95	22.40
1310	"	1'-2'	7.90	.02	4.7	55.90	16.20	27.90
1311	"	2'-3'	8.00	.03	1.4	56.00	12.75	31.25
1312	"	3'-4'	8.00	.02	1.4	72.80	12.00	15.20
1313	"	4'-5'	8.05	.02	1.0	75.40	9.70	14.90
1314	136B	0"-6"	8.20	.06	7.1	77.10	13.00	9.90
1315	"	6"-1'	8.45	.03	5.0	84.50	0.15	15.35
1316	136C	0"-6"	8.45	.04	4.4	77.55	9.70	12.75
1317	"	6"-1'	8.40	.05	5.0	72.70	13.30	14.00
1318	"	1'-2'	8.70	.03	4.7	70.50	14.15	15.35
1319	"	2'-3'	8.80	.03	8.0	83.15	7.40	9.45
1320	137A	0"-6"	8.50	.02	10.4	67.60	12.20	20.20
1321	"	6"-1'	7.85	.03	30.3	61.05	19.05	19.90
1322	137B	0"-6"	7.80	.06	12.1	61.35	19.35	19.30
1323	"	6"-1'	7.50	.06	19.9	61.35	18.75	19.90
1324	"	1'-2'	7.80	.06	4.3	64.05	15.30	20.65
1325	"	2'-3'	7.60	.04	3.3	63.60	16.80	19.60
1326	137C	0"-6"	7.95	.03	7.5	68.80	17.40	13.80
1327	"	6"-1'	7.70	.04	5.6	68.15	12.15	19.70
1328	"	1'-2'	7.62	.04	3.0	59.65	16.30	24.05
1329	"	2'-3'	7.85	.03	4.6	64.55	15.30	20.15
1330	"	3'-4'	7.90	.03	6.3	66.20	12.50	21.30
1331	"	4'-5'	8.00	.03	1.8	73.50	15.90	10.60
1332	138A	0"-6"	7.92	.02	9.9	74.05	14.30	11.65
1333	"	6"-1'	7.88	.03	18.3	70.90	16.40	12.70
1334	"	1'-2'	8.35	.04	40.5	59.70	19.40	20.90
1335	138B	0"-6"	7.55	.02	9.3	73.90	10.35	15.75
1336	"	1"-1'	7.40	.02	13.2	77.70	6.60	15.70

Sample No.	Site No.	Depth	PH.	Total Soluble Salts	%	Mechanical Analysis		
						% Gravel	% Sand	% Silt / Clay
1337	138B	1'-2'	7.40	.02	18.3	72.70	6.00	21.30
1338	"	2'-3'	7.40	.03	20.0	69.35	10.05	20.60
1339	138C	0"-6"	7.40	.04	11.8	83.90	5.90	10.20
1340	"	6"-1'	7.55	.03	9.2	77.50	7.70	14.80
1341	"	1'-2'	7.20	.03	7.3	72.50	10.70	16.80
1342	"	2'-3'	8.20	.03	9.5	78.95	10.15	10.90
1343	"	3'-4'	8.14	.03	7.7	83.75	9.45	6.80
1344	139A	0"-6"	7.20	.01	2.9	74.50	10.40	15.10
1345	"	6"-1'	7.00	.02	0.1	78.90	6.90	14.20
1346	"	1'-2'	6.95	.01	0.6	61.20	14.00	24.80
1347	"	2'-3'	6.98	.02	0.7	51.70	18.00	30.30
1348	"	3'-4'	7.10	.02	5.5	47.25	17.30	35.45
1349	"	4'-5'	7.28	.02	13.1	46.20	18.20	35.60
1350	139B	0"-6"	7.10	.01	5.7	63.00	18.80	18.20
1351	"	6"-1'	6.95	.02	14.8	53.75	15.35	30.90
1352	"	1'-2'	7.20	.03	20.5	47.55	14.15	38.30
1353	139C	0"-6"	7.38	.02	1.9	66.95	15.15	20.90
1354	"	6"-1'	7.40	.03	12.5	70.10	19.90	20.00
1355	"	1'-2'	7.80	.04	12.5	47.45	13.95	38.60
1356	140A	0"-6"	6.70	.04	0.4	73.60	4.20	22.20
1357	"	6"-1'	6.60	.05	0.7	70.45	4.45	25.10
1358	"	1'-2'	6.88	.05	5.8	67.40	3.25	29.35
1359	"	2'-3'	6.92	.06	21.8	64.85	4.00	31.15
1360	140B	0"-6"	7.00	.04	0.4	85.10	6.00	8.90
1361	"	6"-1'	6.80	.05	0.3	78.45	3.40	18.15
1362	"	1'-2'	6.60	.05	2.3	70.45	5.45	24.10
1363	140C	0"-6"	6.50	.03	0.3	59.35	10.10	30.55
1364	"	6"-1'	6.52	.03	0.4	68.45	10.05	21.50
1365	"	1'-2'	6.70	.04	1.6	78.90	1.75	19.35
1366	"	2'-3'	6.80	.05	3.9	81.50	2.45	16.05
1367	141A	0"-6"	6.70	.04	1.2	78.50	6.40	15.40
1368	"	6"-1'	6.60	.04	1.1	78.05	6.25	15.70
1369	"	1'-2'	6.70	.02	4.6	74.50	5.50	20.00
1370	"	2'-3'	6.80	.02	10.6	63.85	3.60	30.55
1371	"	3'-3 1/2'	6.90	.06	7.0	53.20	9.40	37.40
1372	141B	0"-6"	6.90	.01	1.4	79.70	6.10	14.20



Sample No.	Site No.	Depth	PH.	Total Soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
1373	141B	6"-1'	6.62	.05	0.6	69.10	10.90	20.00
1374	"	1'-2'	7.55	.06	1.0	61.80	9.45	28.75
1375	"	2'-3'	7.45	.02	9.0	65.40	5.60	29.00
1376	141C	0"-6"	7.50	.03	1.5	70.30	15.15	14.55
1377	"	6"-1'	8.20	.05	11.1	61.25	11.70	27.05
1378	"	1'-2'	8.50	.09	23.9	48.25	18.30	33.45
1379	142A	0"-6"	8.30	.05	7.9	60.65	15.60	23.75
1380	"	6"-1'	7.70	.05	25.7	65.90	12.45	21.65
1381	142B	0"-6"	7.55	.04	2.3	73.00	8.50	18.50
1382	"	6"-1'	7.48	.02	3.0	81.35	5.90	12.75
1383	"	1'-2'	7.80	.03	6.3	81.05	4.25	14.70
1384	"	2'-3'	8.10	.06	1.7	61.25	17.00	21.75
1385	142C	0"-6"	7.45	.07	3.3	73.85	9.70	16.45
1386	"	6"-1'	7.15	.04	4.2	86.95	4.10	8.95
1387	"	1'-2'	7.15	.05	1.2	90.75	1.05	8.20
1388	"	2'-3'	7.30	.04	15.5	84.90	4.50	10.60
1389	143A	0"-6"	7.30	.04	6.5	49.55	17.60	32.85
1390	"	6"-1'	7.10	.05	5.4	46.40	23.45	30.15
1391	"	1'-2'	7.30	.04	3.4	44.25	24.40	31.35
1392	"	2'-3'	7.38	.04	15.3	63.35	10.75	25.90
1393	"	3'-4'	7.40	.04	14.1	70.90	6.90	22.20
1394	143B	0"-6"	6.90	.04	13.0	71.05	7.05	21.90
1395	"	6"-1'	7.10	.04	10.2	64.40	12.60	23.00
1396	"	1'-2'	7.12	.04	8.8	75.80	8.50	15.70
1397	143C	0"-6"	7.45	.05	9.0	63.25	12.70	24.05
1398	"	6"-1'	7.70	.06	13.0	66.85	12.25	20.90
1399	"	1'-2'	7.90	.05	5.4	68.80	13.60	17.60
1400	"	2'-3'	8.05	.05	0.9	64.30	13.00	22.70
1401	"	3'-4'	8.10	.05	4.1	69.00	9.80	21.20
1402	144A	0"-6"	8.10	.04	1.8	57.20	15.90	26.90
1403	"	6"-1'	7.90	.05	2.2	48.40	15.45	36.15
1404	"	1'-2'	8.80	.07	3.9	43.25	16.95	39.80
1405	"	2'-3'	9.00	.08	7.9	39.85	18.50	41.65
1406	"	3'-4'	9.30	.15	5.7	46.40	10.45	43.15
1407	"	4'-5'	9.35	.17	8.1	36.70	20.30	43.00
1408	"	5'-6"	9.50	.18	10.4	45.05	14.70	40.25
1409	144B	0"-6"	8.30	.03	4.3	70.60	12.15	17.25

Sample No.	Site No.	Depth	pH	Total soluble salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
1410	144B	6"-1'	8.12	.04	6.5	44.15	14.95	30.90
1411	"	1'-2'	8.10	.04	13.4	53.35	12.45	34.20
1412	144C	0"-6"	8.38	.06	12.5	60.45	16.70	22.85
1413	"	6"-1'	8.55	.05	14.8	57.90	14.55	27.55
1414	"	1'-2'	8.50	.05	10.8	73.35	7.60	19.05
1415	145A	0"-6"	7.30	.02	2.2	69.75	13.90	16.35
1416	"	6"-1'	7.10	.03	6.1	44.90	25.45	29.65
1417	"	1'-2'	7.45	.03	3.4	44.25	19.60	36.15
1418	"	2'-3'	7.65	.04	3.7	47.55	19.30	33.15
1419	"	3'-4'	8.22	.06	3.0	44.65	18.60	36.75
1420	"	4'-5'	8.60	.08	14.5	44.85	19.10	36.05
1421	145B	0"-6"	8.60	.03	2.3	62.80	16.35	20.85
1422	"	6"-1'	8.25	.04	3.8	55.85	15.25	28.90
1423	"	1'-2'	8.00	.04	4.2	51.05	13.80	35.15
1424	"	2'-3'	8.00	.04	6.4	44.45	15.40	40.15
1425	145C	0"-6"	7.98	.05	2.4	50.85	21.15	28.00
1426	"	6"-1'	8.20	.07	12.1	58.20	18.65	23.15
1427	"	1'-2'	8.90	.05	5.2	71.50	9.30	19.20
1428	"	2'-3'	9.15	.08	5.2	56.75	18.75	24.50
1429	"	3'-4'	9.30	.09	3.1	49.80	24.90	25.30
1430	"	4'-5'	9.50	.10	23.5	64.75	15.10	20.15
1431	146A	0"-6"	8.60	.06	2.4	68.65	14.70	16.65
1432	"	6"-1'	8.38	.05	0.9	56.55	14.40	29.05
1433	"	1'-2'	8.40	.05	5.9	68.20	6.55	25.25
1434	"	2'-3'	8.30	.05	13.7	57.65	12.25	30.10
1435	"	3'-4'	8.38	.06	6.7	49.65	16.60	33.75
1436	"	4'-5'	8.50	.05	4.8	47.80	15.90	36.30
1437	"	5'-6'	8.60	.05	4.2	54.70	19.40	25.90
1438	"	6'-7'	8.65	.04	1.9	72.15	9.55	18.30
1439	"	7'-8'	8.55	.04	2.6	62.30	13.05	24.65
1440	"	8'-9'	8.70	.06	2.7	62.45	13.95	23.60
1441	"	9'-10'	8.38	.04	1.2	74.45	12.55	13.00
1442	146B	0"-6"	8.40	.04	0.9	69.15	13.45	17.45
1443	"	6"-1'	8.20	.04	0.2	62.20	15.25	22.55
1444	"	1'-2'	8.20	.04	0.2	67.40	15.80	26.80
1445	"	2'-3'	8.30	.04	1.7	58.35	15.75	25.90

Sample No.	Site No.	Depth	PH.	Total Soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% clay
1446	146B	3'-4'	8.35	.04	1.9	60.50	9.70	29.80
1447	"	4'-5'	8.40	.04	1.1	51.10	17.25	31.65
1448	"	5'-6'	8.50	.05	6.4	51.95	14.15	33.90
1449	146C	0"-6"	7.70	.03	10.3	56.55	22.10	21.35
1450	"	6"-1'	7.40	.04	11.0	53.40	20.60	26.00
1451	"	1'-2'	7.50	.04	26.3	70.00	8.70	21.30
1452	"	2'-3'	7.28	.14	14.4	75.30	6.70	18.00
1453	"	3'-4'	7.80	.05	15.4	74.70	8.80	16.50
1454	"	4'-5'	7.48	.16	19.5	72.30	9.85	17.85
1455	147A	0"-6"	7.30	.02	2.4	74.70	13.80	11.50
1456	"	6"-1'	7.20	.03	6.0	72.45	15.30	12.25
1457	"	1'-2'	7.10	.03	7.3	65.05	16.05	18.90
1458	147B	0"-6"	6.60	.03	9.5	74.70	11.20	14.10
1459	"	6"-1'	6.60	.04	8.2	75.00	12.25	12.75
1460	"	1'-2'	6.82	.03	19.2	77.00	7.40	15.60
1461	147C	0"-6"	7.00	.04	1.9	53.50	18.35	28.15
1462	"	6"-1'	7.35	.04	3.4	62.90	13.30	23.80
1463	"	1'-2'	7.65	.04	1.9	41.60	20.75	29.65
1464	"	2'-2½'	7.90	.04	8.1	61.50	15.15	23.35
1465	148A	0"-6"	8.10	.03	1.1	79.70	9.10	11.20
1466	"	6"-1'	7.80	.03	1.1	69.00	13.30	17.70
1467	"	1'-2'	7.55	.04	Nil	57.35	14.70	27.95
1468	148B	0"-6"	7.75	.05	8.0	77.75	11.05	11.20
1469	"	6"-1'	7.95	.07	12.8	79.55	9.55	10.90
1470	148C	0"-6"	8.10	.08	4.8	70.75	13.05	16.20
1471	"	6"-1'	8.02	.07	24.5	76.50	7.15	16.35
1472	"	1'-2'	8.15	.05	17.4	70.15	7.75	22.10
1473	149A	0"-6"	8.15	.04	1.3	71.05	11.25	17.70
1474	"	6"-1'	8.02	.04	0.7	64.00	13.00	23.00
1475	"	1'-2'	7.85	.06	2.3	57.75	12.55	29.70
1476	"	2'-3'	8.00	.05	3.0	55.05	22.75	22.20
1477	"	3'-4'	8.30	.08	8.8	52.75	15.75	31.50
1478	149B	0"-6"	8.60	.07	5.3	77.10	8.05	14.85
1479	"	6"-1'	8.70	.06	3.0	65.80	15.30	18.90
1480	"	1'-2'	8.65	.08	7.9	61.60	18.85	19.55
1481	"	2'-3'	8.80	.09	22.1	47.10	28.60	24.30
1482	149C	0"-6"	8.75	.05	5.5	71.10	16.45	12.45

Sample No.	Site No.	Depth	PH.	Total Soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
1483	149C	6" - 1'	8.42	.06	3.8	69.15	20.35	10.50
1484	"	1' - 2'	8.40	.05	4.8	69.90	17.50	12.60
1485	150A	0" - 6"	6.50	.02	10.7	43.25	27.20	29.55
1486	"	6" - 1'	6.20	.03	17.7	40.95	25.75	33.30
1487	150B	0" - 6"	6.50	.03	5.7	70.45	11.85	17.70
1488	"	6" - 1'	6.70	.04	16.0	73.65	11.95	14.40
1489	150C	0" - 6"	6.92	.04	4.3	47.90	20.00	32.10
1490	"	6" - 1'	7.40	.06	3.9	46.70	21.20	32.10
1491	"	1' - 2'	7.92	.04	3.2	40.20	29.05	30.75
1492	"	2' - 3'	8.02	.04	3.5	41.10	37.90	31.00
1493	"	3' - 4'	8.15	.04	1.1	43.55	22.10	34.35
1494	151A	0" - 6"	7.45	.06	1.1	54.00	24.95	21.05
1495	"	6" - 1'	7.40	.02	1.3	45.35	31.20	23.45
1496	"	1' - 2'	7.25	.02	0.3	38.85	22.75	38.40
1497	"	2' - 3'	7.30	.03	0.6	44.55	24.05	31.40
1498	"	3' - 4'	7.30	.03	0.9	43.35	21.65	35.00
1499	"	4' - 5'	7.42	.03	0.7	43.05	19.15	37.80
1500	"	5' - 6'	7.55	.03	0.8	38.55	22.55	38.90
1501	"	6' - 7'	8.30	.06	0.2	38.10	20.60	41.30
1502	"	7' - 8'	8.55	.08	2.0	34.05	26.00	39.95
1503	"	8' - 9'	8.62	.09	10.0	37.95	24.65	37.40
1504	151B	0" - 6"	8.35	.03	1.2	45.15	24.90	29.95
1505	"	6" - 1'	8.20	.04	2.0	47.90	16.05	36.05
1506	"	1' - 2'	8.28	.04	3.2	47.25	16.80	35.95
1507	"	2' - 3'	8.20	.05	12.9	48.95	14.75	36.30
1508	151C	0" - 6"	8.00	.03	3.0	39.15	30.55	30.30
1509	"	6" - 1'	7.50	.05	4.1	47.45	25.15	27.40
1510	"	1' - 2'	7.70	.04	11.2	63.20	11.70	25.10
1511	152A	0" - 6"	7.62	.03	3.2	83.50	6.05	10.45
1512	"	6" - 1'	7.60	.02	2.4	68.70	6.60	24.70
1513	"	1' - 2'	7.40	.02	7.2	47.15	16.25	36.60
1514	"	2' - 3'	7.15	.02	7.9	55.95	7.15	36.90
1515	"	3' - 4'	7.22	.02	8.6	68.65	6.10	25.25
1516	152B	0" - 6"	7.20	.03	0.8	85.50	4.10	10.40
1517	"	6" - 1'	7.35	.02	0.4	84.40	0.70	14.90
1518	"	1' - 2'	7.32	.02	0.8	81.25	3.50	15.25
1519	"	2' - 3'	7.38	.02	4.4	79.50	2.30	19.20

Sample No.	Site No.	Depth.	PH.	Total Soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
1520	152B	3'-4'	7.35	.03	3.6	57.30	7.15	35.55
1521	"	4'-5'	7.42	.03	6.6	60.75	8.05	31.20
1522	"	5'-6'	7.55	.03	4.2	67.75	4.75	27.50
1523	"	6'-7'	7.60	.03	4.3	75.45	4.15	20.40
1524	"	7'-7½'	7.70	.03	4.5	79.85	4.70	15.45
1525	152C	0"-6"	7.65	.05	4.1	75.95	5.95	18.10
1526	"	6"-1'	7.70	.06	4.8	64.60	8.90	26.50
1527	"	1'-2'	7.70	.03	10.0	64.10	8.20	27.70
1528	"	2'-3'	7.68	.08	9.8	65.30	8.20	26.50
1529	153A	0"-6"	7.05	.01	0.2	64.40	17.80	17.80
1530	"	6"-1'	6.85	.02	0.4	71.95	8.15	19.90
1531	"	1'-2'	6.88	.07	0.9	71.95	6.75	21.30
1532	"	2'-3'	6.90	.02	1.9	73.95	2.35	23.70
1533	"	3'-4'	7.05	.06	8.6	63.10	6.20	30.70
1534	153B	0"-6"	7.10	.02	1.5	71.80	13.70	14.50
1535	"	6"-1'	7.10	.06	15.9	71.80	15.95	22.25
1536	153C	0"-6"	7.30	.05	4.7	67.60	14.40	18.00
1537	"	6"-1'	7.30	.05	1.8	63.25	15.85	20.90
1538	"	1'-2'	7.25	.05	1.7	67.75	13.50	18.75
1539	"	2'-3'	7.30	.05	4.1	75.30	7.15	17.55
1540	154A	0"-6"	7.32	.03	13.9	52.55	30.65	16.80
1541	"	6"-1'	7.15	.05	17.7	62.30	19.85	17.85
1542	"	1'-1½'	7.30	.06	25.9	65.90	18.15	15.95
1543	154B	0"-6"	7.15	.08	9.5	61.70	21.60	16.70
1544	"	6"-1'	7.10	.06	18.1	74.65	12.00	13.35
1545	"	1'-2'	7.65	.08	13.4	69.75	11.05	19.20
1546	"	2'-2½'	8.60	.08	17.7	72.90	8.80	18.30
1547	154C	0"-6"	8.80	.07	6.1	61.40	16.05	22.55
1548	"	6"-1'	8.50	.06	12.8	60.20	19.80	20.00
1549	"	1'-2'	8.22	.06	10.2	63.35	16.20	20.45
1550	"	2'-2½'	8.20	.05	41.6	85.95	6.15	7.90
1551	155A	0"-6"	8.10	.05	3.6	61.05	17.15	21.80
1552	"	6"-1'	7.60	.05	22.1	54.10	17.30	28.60
1553	155B	0"-6"	7.50	.04	13.4	78.65	8.30	13.05

Sample No.	Site No.	Depth	PH.	Total Soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
1554	155B	6" - 1'	7.55	.06	42.5	75.35	11.00	13.65
1555	155C	0" - 6"	7.85	.04	3.1	63.25	19.00	17.75
1556	"	6" - 1'	7.40	.05	2.0	55.65	21.00	23.35
1557	"	1' - 2'	7.30	.05	2.1	52.50	22.80	24.70
1558	"	2 - 2½'	7.50	.05	5.5	70.45	9.85	19.70
1559	156A	0" - 6"	7.65	.04	7.9	74.05	9.55	16.40
1560	"	6" - 1'	7.30	.05	5.7	72.45	9.45	18.10
1561	156B	0" - 6"	7.15	.05	9.7	79.05	5.65	15.30
1562	"	6" - 1'	7.28	.05	8.4	71.35	10.60	18.05
1563	"	1' - 2'	7.35	.06	7.3	70.45	11.35	18.20
1564	"	2 - 2½'	7.60	.06	14.6	68.65	9.95	21.40
1565	156C	0" - 6"	7.70	.11	1.4	57.90	19.35	22.75
1566	"	6" - 1'	7.90	.10	2.1	57.00	13.90	29.10
1567	"	1' - 2'	8.70	.12	2.4	56.85	15.50	27.65
1568	"	2' - 3'	8.90	.13	5.6	57.60	13.90	28.50
1569	157A	0" - 6"	7.42	.04	0.9	58.50	21.75	19.75
1570	"	6" - 1'	8.10	.05	1.4	54.85	18.45	26.70
1571	"	1' - 2'	7.90	.07	1.8	51.40	18.45	30.15
1572	"	2' - 3'	8.00	.08	1.4	46.55	19.80	33.65
1573	"	3' - 4'	8.50	.09	1.2	39.75	21.60	38.65
1574	"	4' - 5'	8.80	.16	1.7	38.25	21.75	40.00
1575	"	5' - 5½'	9.20	.16	2.4	42.60	22.05	35.35
1576	157B	0" - 6"	7.90	.04	1.6	66.95	14.20	18.85
1577	"	6" - 1'	8.10	.05	0.8	73.15	13.90	12.95
1578	"	1' - 2'	7.90	.05	0.8	53.60	27.10	19.30
1579	"	2' - 3'	7.90	.05	1.8	43.65	26.95	29.40
1580	"	3' - 4'	7.85	.05	1.0	51.95	18.65	29.40
1581	"	4' - 5'	8.15	.09	0.6	48.35	23.55	28.10
1582	"	5' - 5½'	8.40	.09	3.8	50.60	22.55	26.85
1583	157C	0" - 6"	8.40	.05	6.5	60.60	19.65	19.75
1584	"	6" - 1'	8.70	.10	22.7	49.85	17.10	33.05
1585	"	1' - 2'	9.00	.12	11.8	45.45	18.45	36.10
1586	"	2' - 3'	9.30	.13	6.5	45.45	18.65	35.90

Sample No.	Site No.	Depth	pH.	Total Soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
1587	158A	0" - 6"	8.65	.06	1.0	38.95	27.85	33.20
1588	"	6" - 1'	8.90	.09	1.5	40.55	17.50	41.95
1589	"	1' - 2'	9.20	.15	1.4	33.50	18.10	48.40
1590	"	2' - 3'	9.50	.18	1.2	33.30	18.70	48.00
1591	"	3' - 4'	9.70	.31	3.3	34.05	16.95	49.00
1592	"	4' - 4½'	9.80	.38	7.1	37.50	14.85	48.45
1593	158B	0" - 6"	8.10	.05	0.6	47.80	20.75	31.45
1594	"	6" - 1'	7.90	.05	0.6	45.55	23.15	31.30
1595	"	1' - 2'	7.75	.05	0.5	22.25	47.65	30.10
1596	"	2' - 3'	7.85	.05	0.3	56.45	17.70	25.85
1597	"	3' - 4'	7.95	.06	3.7	56.55	15.60	27.85
1598	158C	0" - 6"	7.60	.05	1.3	50.30	19.90	29.80
1599	"	6" - 1'	7.60	.05	2.1	55.85	17.35	26.80
1600	"	1' - 2'	7.78	.05	2.4	69.60	9.95	24.45
1601	"	2' - 3'	7.90	.05	0.2	62.40	14.75	22.85
1602	"	3' - 4'	8.00	.05	19.9	66.75	4.70	28.55
1603	159A	0" - 6"	7.00	.03	3.8	69.60	11.90	18.50
1604	"	6" - 1'	6.80	.03	7.3	70.25	6.35	23.40
1605	159B	0" - 6"	6.75	.05	3.7	74.60	7.10	18.30
1606	"	6" - 1'	7.30	.05	7.3	78.00	4.00	18.00
1607	"	1' - 2'	7.70	.04	4.4	76.05	5.80	18.15
1608	"	2' - 2½'	8.05	.05	10.2	66.00	5.25	28.75
1609	159C	0" - 6"	8.00	.04	8.6	82.95	4.80	12.25
1610	"	6" - 1'	7.40	.04	1.7	48.60	21.90	29.50
1611	"	1' - 2'	7.40	.04	1.6	54.60	18.15	27.25
1612	"	2' - 3'	7.30	.04	2.0	60.75	18.30	20.95
1613	"	3' - 4'	7.55	.04	2.5	71.50	9.85	18.65
1614	"	4' - 4½'	7.70	.04	6.6	66.85	8.75	24.40
1615	160A	0" - 6"	7.20	.06	2.4	81.55	11.90	6.55
1616	"	6" - 1'	7.20	.03	4.2	76.10	11.90	12.00
1617	"	1' - 2'	7.15	.04	5.6	76.35	6.50	17.15

Sample No.	Site No.	Depth	T <sub>6</sub>	pH.	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
1618	160B	0"-6"	.04	7.10	13.7	80.05	9.80	10.15
1619	"	6"-1'	.04	7.35	9.9	78.65	11.05	10.30
1620	"	1'-2'	.04	7.40	10.2	78.05	11.35	10.60
1621	"	2'-3'	.04	7.30	16.9	84.90	9.80	7.30
1622	"	3'-4'	.04	7.45	18.3	69.05	9.40	21.55
1623	160C	0"-6"	.05	7.50	10.8	80.30	8.15	11.55
1624	"	6"-1'	.04	7.70	10.8	73.10	11.75	15.15
1625	"	1'-2'	.07	7.95	49.5	87.55	5.95	6.50
1626	"	2'-3'	.04	8.30	8.8	82.15	11.45	6.40
1627	161A	0"-6"	.03	6.90	0.1	61.55	17.55	20.90
1628	"	6"-1'	.04	7.00	4.2	80.20	7.70	12.10
1629	161B	0"-6"	.06	7.05	10.5	65.05	12.25	22.70
1630	"	6"-1'	.05	7.03	17.6	74.25	9.35	16.40
1631	"	1'-2'	.05	7.80	4.0	60.45	16.10	23.45
1632	"	2'-3'	.05	8.00	9.6	73.80	9.05	17.15
1633	161C	0"-6"	.06	7.90	16.5	72.00	10.40	17.60
1634	"	6"-1'	.05	7.90	14.6	75.30	10.60	14.10
1635	"	1'-2'	.04	8.30	15.4	81.95	7.90	10.15
1636	"	2'-2½'	.04	8.50	21.2	82.60	4.10	13.30
1637	162A	0"-6"	.04	7.50	1.1	69.10	12.90	18.00
1638	"	6"-1'	.04	7.38	2.0	61.50	19.10	19.40
1639	"	1'-2'	.05	7.45	10.2	46.80	35.60	17.60
1640	162B	0"-6"	.03	7.45	2.2	70.00	13.50	16.50
1641	"	6"-1'	.03	7.32	0.8	67.00	15.60	17.40
1642	"	1'-2'	.04	7.40	0.9	66.40	15.60	18.00
1643	"	2'-3'	.04	7.50	2.3	46.40	20.60	33.00
1644	162C	0"-6"	.04	7.10	2.8	58.80	20.00	21.20
1645	"	6"-1'	.05	7.00	1.5	72.90	8.50	18.60
1646	"	1'-2'	.04	7.28	1.2	74.65	8.65	16.70
1647	"	2'-3'	.04	7.35	11.9	80.30	7.00	12.70
1648	163A	0"-6"	.04	7.05	1.8	82.90	4.70	12.40
1649	"	6"-1'	.04	6.95	5.4	80.90	4.70	14.40
1650	"	1'-2'	.07	7.90	3.3	67.10	8.70	24.20
1651	"	2'-3'	.09	8.70	3.0	62.90	9.40	27.70
1652	"	3'-4'	.12	9.00	7.0	54.70	12.30	33.00
1653	"	4'-4½'	.16	9.25	17.7	63.80	10.20	26.00
1654	163B	0"-6"	.03	8.30	1.3	61.10	19.50	19.40
1655	"	6"-1'	.05	7.70	2.9	58.20	14.70	27.10
1656	"	1'-2'	.05	7.60	10.4	65.00	7.60	27.40



Sample No.	Site No.	Depth	pH	T.S.	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% clay
1657	163B	2'-3'	7.70	.05	19.7	67.30	6.50	26.20
1658	163C	0"-6"	7.80	.04	4.9	62.00	16.65	21.35
1659	"	6"-1'	7.60	.04	6.1	64.70	14.60	20.70
1660	"	1'-2'	7.55	.04	10.2	61.95	11.75	26.30
1661	"	2'-3'	7.70	.03	0.8	51.25	21.60	27.15
1662	"	3'-4'	7.75	.04	0.9	71.05	11.95	17.00
1663	"	4-4½'	7.80	.04	5.0	83.75	3.80	12.45
1664	164A	0"-6"	7.72	.05	23.8	69.10	11.60	19.30
1665	"	6"-1'	7.80	.04	20.2	82.55	7.55	9.90
1666	"	1'-2'	7.90	.04	9.2	83.00	8.30	8.70
1667	"	2'-3'	8.00	.04	9.8	78.50	9.05	12.45
1668	164B	0"-6"	8.00	.06	8.5	34.60	35.85	29.55
1669	"	6"-1'	7.90	.05	4.2	32.10	34.25	33.65
1670	"	1'-1½'	7.92	.05	30.2	32.25	36.25	31.50
1671	164C	0"-6"	8.00	.06	24.00	66.05	14.10	19.85
1672	"	6"-1'	7.90	.05	13.5	51.20	20.75	28.05
1673	"	1'-2'	7.90	.05	6.6	47.10	27.70	25.20
1674	"	2'-3'	8.00	.04	4.0	44.85	30.25	24.90
1675	"	3'-4'	8.10	.06	1.0	61.80	21.30	16.90
1676	165A	0"-6"	7.80	.06	1.3	56.50	23.90	19.60
1677	"	6"-1'	7.70	.07	0.7	50.50	19.75	29.75
1678	"	1'-2'	8.00	.06	11.9	56.35	14.40	29.25
1679	165B	0"-6"	7.50	.05	10.0	62.85	20.45	16.70
1680	"	6"-1'	7.00	.05	10.7	67.55	13.20	19.25
1681	"	1'-1½'	7.30	.05	27.5	65.20	11.20	23.60
1682	165C	0"-6"	7.55	.08	12.4	49.45	25.25	25.30
1683	"	6"-1'	7.95	.07	15.5	46.10	22.05	31.85
1684	166A	0"-6"	8.20	.04	2.4	76.70	15.80	7.50
1685	"	6"-1'	8.00	.04	2.0	70.20	17.50	12.30
1686	"	1'-2'	7.95	.04	7.5	70.50	18.10	11.40
1687	"	2'-3'	8.00	.07	31.9	68.10	14.65	17.25
1688	166B	0"-6"	9.00	.07	16.1	83.25	12.75	4.00
1689	"	6"-1'	9.30	.07	15.0	81.90	12.20	5.90
1690	"	1'-2'	9.40	.14	25.6	74.00	14.90	11.10
1691	166C	0"-6"	9.20	.07	9.3	68.60	19.60	11.80
1692	"	6"-1'	9.20	.08	8.3	68.90	24.70	6.40
1693	"	1'-2'	9.35	.11	18.4	78.50	14.50	7.00

Sample No.	Site No.	Depth	pH	Total Solids %	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
1694	167A	0"-6"	8.60	.08	1.7	73.65	14.45	21.90
1695	"	6"-1'	8.55	.04	1.3	52.15	23.70	24.15
1696	"	1'-2'	8.05	.05	3.5	55.30	21.80	22.90
1697	167B	0"-6"	7.85	.08	17.2	54.15	30.85	15.00
1698	"	6"-1'	8.60	.25	21.7	60.90	27.70	11.40
1699	"	1'-2'	7.90	.11	17.6	60.00	20.90	19.10
1700	167C	0"-6"	8.15	.09	17.8	69.20	16.10	14.70
1701	"	6"-1'	8.15	.10	29.9	72.10	11.10	16.80
1702	"	1'-2'	8.20	.10	22.7	80.90	5.75	13.35
1703	"	2'-3'	8.35	.05	24.5	82.25	7.00	10.75
1704	168A	0"-6"	8.15	.05	5.8	76.80	7.90	15.30
1705	"	6"-1'	7.00	.04	20.3	76.50	7.45	16.05
1706	"	1'-2'	-	-	-	-	-	-
1707	168B	0"-6"	7.60	.05	8.1	70.50	13.55	15.95
1708	"	6"-1'	7.70	.05	6.2	77.70	8.65	13.65
1709	"	1'-2'	7.75	.05	6.7	75.50	9.80	14.70
1710	"	2'-3'	7.70	.08	6.7	68.80	9.65	21.55
1711	"	3'-4'	8.50	.08	2.6	70.15	8.05	21.80
1712	168C	0"-6"	8.65	.09	9.2	70.60	10.75	18.65
1713	"	6"-1'	8.68	.08	2.5	72.40	13.15	12.45
1714	"	1'-2'	8.70	.09	1.7	67.90	12.25	19.85
1715	"	2'-3'	8.90	.07	4.4	68.80	8.95	22.25
1716	"	3'-4'	8.90	.10	26.5	70.60	10.15	19.25
1717	169A	0"-6"	8.60	.05	1.2	65.95	11.60	22.45
1718	"	6"-1'	8.20	.04	1.7	61.40	13.75	24.85
1719	"	1'-2'	8.04	.04	4.8	55.40	13.85	30.75
1720	"	2'-3'	7.85	.04	7.5	61.80	11.65	26.55
1721	169B	0"-6"	7.50	.04	22.2	78.50	10.55	10.95
1722	"	6"-1'	7.50	.05	15.4	72.55	14.10	13.35
1723	"	1'-2'	7.50	.05	15.8	85.90	6.65	7.45
1724	169C	0"-6"	8.20	.09	14.1	76.50	11.25	12.25
1725	"	6"-1'	8.50	.09	19.0	71.60	12.05	16.35
1726	170A	0"-6"	8.45	.05	2.7	65.15	16.20	18.65
1727	"	6"-1'	8.10	.03	3.8	73.30	12.15	14.55
1728	"	1'-2'	7.95	.04	4.7	56.55	18.90	24.55
1729	"	2'-3'	7.85	.04	5.0	50.90	16.10	33.00
1730	"	3'-4'	7.80	.04	8.0	42.90	20.30	36.80

Sample No.	Site No.	Depth	P.H.	Total Swimble Sands	%	Mechanical Analysis			C
						% Gravel	% Sand	% Silt	
1731	170B	0"-6"	7.90	.05	0.25	57.60	22.25	20.15	
1732	"	6"-1'	8.05	.04	2.6	65.00	22.10	12.90	
1733	"	1'-2'	8.20	.05	1.1	54.30	22.95	22.75	
1734	"	2'-3'	8.32	.04	4.5	51.70	24.10	24.20	
1735	170C	0"-6"	8.30	.06	4.4	59.30	21.30	19.40	
1736	"	6"-1'	8.40	.04	2.9	45.20	31.80	23.00	
1737	"	1'-2'	8.30	.07	1.5	61.80	20.30	17.90	
1738	"	2'-3'	8.65	.06	16.2	79.90	13.10	7.00	
1739	171A	0"-6"	7.80	.05	4.5	61.90	20.05	18.05	
1740	"	6"-1'	7.70	.06	1.9	59.50	16.10	24.40	
1741	"	1'-2'	7.90	.05	0.8	51.60	15.70	32.70	
1742	"	2'-3'	8.15	.06	5.2	48.45	17.90	33.65	
1743	"	3'-4'	8.30	.06	13.3	49.85	16.95	33.20	
1744	171B	0"-6"	8.15	.03	2.9	63.30	19.25	17.45	
1745	"	6"-1'	7.65	.04	10.8	66.30	13.80	20.60	
1746	"	1'-2'	7.50	.04	6.4	53.75	16.25	30.00	
1747	"	2'-3'	8.40	.09	5.1	51.95	16.85	31.20	
1748	"	3'-3 $\frac{1}{2}$ '	8.70	.09	15.4	51.80	18.05	30.15	
1749	171C	0"-6"	8.35	.09	15.4	63.80	17.40	18.80	
1750	"	6"-1'	8.50	.05	3.4	40.95	26.45	32.60	
1751	"	1'-2'	8.30	.05	2.9	44.25	24.40	31.35	
1752	"	2'-3'	8.50	.05	9.3	45.90	20.45	33.65	
1753	172A	0"-6"	8.10	.04	0.3	78.75	14.70	6.55	
1754	"	6"-1'	8.20	.04	0.4	72.10	12.10	15.80	
1755	"	1'-2'	7.90	.04	3.7	64.20	15.10	20.80	
1756	"	2'-3'	7.80	.04	8.2	66.60	13.50	19.90	
1757	"	3'-4'	7.90	.05	1.9	65.30	8.60	26.10	
1758	"	4'-5'	8.30	.05	0.9	47.75	20.25	32.00	
1759	"	5'-6'	8.50	.06	0.9	51.90	16.40	31.70	
1760	"	6'-7'	8.75	.09	0.6	52.40	15.60	32.00	
1761	"	7'-8'	8.80	.10	3.5	55.40	17.40	27.20	
1762	172B	0"-6"	8.50	.04	1.2	81.60	11.25	7.15	
1763	"	6"-1'	8.05	.04	1.1	55.95	14.52	34.55	
1764	"	1'-2'	7.80	.04	2.5	45.50	15.25	39.25	
1765	"	2'-2 $\frac{1}{2}$ '	7.75	.05	3.8	44.30	14.50	41.20	
1766	172C	0"-6"	7.70	.06	0.5	65.80	18.15	6.05	
1767	"	6"-1'	7.95	.05	0.4	54.15	20.00	25.85	
1768	"	1'-2'	8.00	.06	0.2	39.85	20.35	39.80	

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Sample No.	Site No.	Depth	pH	Total Soluble Salts	/ Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
1769	172C	2'-3'	8.15	.06	2.5	59.85	14.25	25.90
1770	"	3'-4'	8.28	.05	2.9	70.60	9.70	19.70
1771	173A	0"-6"	7.20	.03	1.4	72.45	12.85	14.70
1772	"	6"-1'	7.10	.03	3.4	75.75	9.70	14.55
1773	"	1'-2'	7.05	.03	3.6	80.60	8.50	10.90
1774	"	2'-2½'	7.05	.03	4.5	81.50	6.55	11.95
1775	173B	0"-6"	6.60	.03	1.3	72.00	13.30	14.70
1776	"	6"-1'	6.50	.03	2.0	66.85	11.55	21.30
1777	"	1'-1½'	6.50	.03	9.5	73.95	7.60	13.45
1778	173C	0"-6"	6.40	.03	1.2	81.90	8.75	10.15
1779	"	6"-1'	6.45	.04	12.6	79.30	8.00	12.70
1780	"	1'-2'	6.70	.04	28.7	70.50	16.65	12.85
1781	174A	0"-6"	6.95	.03	3.8	62.95	20.10	16.95
1782	"	6"-1'	7.00	.04	1.6	45.10	24.90	30.00
1783	"	1'-2'	7.40	.04	0.6	42.30	23.20	34.50
1784	"	2'-3'	8.10	.04	0.8	41.10	23.05	35.85
1785	"	3'-4'	8.70	.09	20.4	52.30	23.35	24.35
1786	174B	0"-6"	8.60	.05	1.9	40.50	28.85	30.65
1787	"	6"-1'	8.50	.04	0.9	79.55	7.00	13.45
1788	"	1'-2'	8.45	.04	0.8	40.65	26.00	33.35
1789	"	2'-3'	8.52	.07	4.2	36.90	24.90	38.20
1790	174C	0"-6"	7.90	.03	1.3	48.65	25.45	25.90
1791	"	6"-1'	8.05	.05	2.3	24.85	42.75	32.40
1792	"	1'-2'	8.80	.08	2.6	37.05	27.45	35.50
1793	"	2'-3'	8.40	.06	2.3	35.80	26.30	37.90
1794	"	3'-4'	9.20	.14	4.7	40.15	27.35	32.50
1795	175A	0"-6"	8.70	.05	0.3	47.00	25.10	27.90
1796	"	6"-1'	8.45	.04	0.6	57.75	24.75	17.50
1797	"	1'-2'	8.20	.04	0.1	52.00	27.80	20.20
1798	"	2'-3'	8.25	.03	0.1	54.85	14.95	30.20
1799	"	3'-4'	8.00	.04	0.1	44.55	24.05	31.40
1800	"	4'-5'	7.90	.03	0.3	47.30	22.80	29.90
1801	"	5'-6'	7.85	.04	0.2	41.30	28.20	30.50
1802	"	6'-7'	8.40	.08	3.6	37.65	28.10	34.25

Sample No.	Site No.	Depth	pH.	Total Soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% clay
1803	175B	0"-6"	8.35	.05	4.7	55.90	19.85	24.25
1804	"	6"-1'	8.40	.07	6.3	45.65	17.80	36.55
1805	"	1'-2'	8.55	.07	5.1	35.80	25.40	38.80
1806	"	2'-3'	8.70	.07	14.7	35.05	26.45	38.50
1807	176A	0"-6"	8.48	.02	0.8	69.70	13.60	16.70
1808	"	6"-1'	7.80	.04	0.4	66.70	15.80	17.50
1809	"	1'-2'	7.60	.03	0.6	55.05	14.35	30.60
1810	"	2'-3'	7.40	.03	0.7	42.90	23.75	33.35
1811	"	3'-4'	7.40	.03	13.0	55.00	11.20	33.80
1812	176B	0"-6"	7.20	.04	1.5	69.40	11.35	19.25
1813	"	6"-1'	7.45	.05	1.7	51.85	16.15	32.00
1814	"	1'-2'	7.75	.05	4.7	54.55	13.50	31.95
1815	"	2'-3'	8.05	.04	3.5	50.80	16.15	33.05
1816	"	3'-4'	8.50	.07	5.4	43.80	17.25	38.95
1817	176C	0"-6"	8.62	.04	4.1	42.60	42.50	25.85
1818	"	6"-1'	8.50	.04	1.2	31.25	28.75	40.00
1819	"	1'-2'	8.55	.04	2.5	43.05	22.55	34.40
1820	"	2'-3'	8.60	.11	21.1	46.05	21.50	32.45
1821	177A	0"-6"	8.52	.05		69.75	13.20	17.05
1822	"	6"-1'	8.50	.05		65.90	10.45	23.65
1823	"	1'-2'	8.10	.05		59.35	11.85	28.80
1824	177B	0"-6"	8.10	.04		69.20	18.00	12.80
1825	"	6"-1'	7.80	.04		78.70	9.45	11.85
1826	"	1'-2'	7.85	.04		79.40	6.65	13.95
1827	"	2'-3'	7.82	.03		76.25	0.90	22.85
1828	"	3'-4'	7.80	.4		59.25	13.70	27.05
1829	"	4'-5'	7.80	.04		63.65	12.55	23.80
1830	"	5'-6'	8.10	.06		65.05	13.85	21.10
1831	"	6'-7'	8.70	.08		72.75	8.45	18.80
1832	177C	0"-6"	8.30	.06		54.15	22.55	23.30
1833	"	6"-1'	8.10	.05		49.15	24.90	25.95
1834	"	1'-2'	8.00	.15		41.30	24.75	33.95
1835	"	2'-3'	8.00	.05		45.15	17.25	37.60
1836	178A	0"-6"	7.95	.02		76.95	7.70	15.35

Sample No.	Site No.	Depth	PH	Total Soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
1837	178A	6" - 1'	7.30	.04	14.0	80.70	3.50	15.80
1838	178B	0" - 6"	7.40	.03	8.2	80.60	7.55	11.85
1839	"	6" - 1'	7.20	.03	2.5	74.70	9.05	16.25
1840	"	1' - 2'	7.25	.03	3.4	83.25	5.95	10.80
1841	"	2' - 3'	7.30	.03	4.6	86.15	6.80	7.05
1842	178C	0" - 6"	6.80	.08	8.1	78.10	6.40	15.50
1843	"	6" - 1'	7.00	.04	5.3	81.15	3.95	14.90
1844	"	1' - 2'	7.42	.03	4.6	81.50	4.55	13.95
1845	"	2' - 3'	7.70	.04	1.1	78.60	2.60	18.80
1846	"	3' - 4'	7.90	.04	3.7	86.35	3.00	10.65
1847	179A	0" - 6"	7.80	.03	N/A	84.95	4.45	10.60
1848	"	6" - 1'	7.85	.03	2.6	83.10	1.40	15.50
1849	"	1' - 2'	8.30	.03	5.3	79.50	4.70	15.80
1850	"	2' - 3'	7.95	.03	1.2	60.55	7.75	31.70
1851	"	3' - 4'	7.62	.03	16.8	64.95	7.90	27.15
1852	179B	0" - 6"	9.10	.10	6.4	65.10	14.40	20.50
1853	"	6" - 1'	9.15	.10	2.3	47.25	17.40	35.35
1854	"	1' - 1 1/2'	9.35	.16	4.3	48.00	17.25	34.75
1855	179C	0" - 6"	8.85	.05	2.2	65.35	13.95	21.70
1856	"	6" - 1'	8.50	.05	1.9	64.20	15.45	20.35
1857	"	1' - 2'	8.40	.03	4.2	82.45	7.95	9.60
1858	180A	0" - 6"	8.60	.06	8.4	80.20	9.80	10.00
1859	"	6" - 1'	8.52	.04	7.2	75.80	5.90	18.30
1860	"	1' - 2'	8.22	.07	39.2	68.50	8.50	23.00
1861	180B	0" - 6"	8.35	.06	26.5	87.50	7.50	5.00
1862	"	6" - 1'	8.75	.08	28.7	81.10	6.50	12.40
1863	"	1' - 2'	9.15	.11	16.5	84.10	5.15	10.75
1864	"	2' - 3'	9.35	.13	23.4	71.40	13.50	15.10
1865	"	3' - 4'	9.45	.13	10.9	72.60	7.70	19.70
1866	180C	0" - 6"	8.60	.06	7.1	78.50	9.50	12.00
1867	"	6" - 1'	8.45	.06	24.7	75.20	3.20	21.60
1868	"	1' - 2'	8.22	.05	3.9	77.30	9.95	12.75
1869	"	2' - 3'	8.05	.04	6.4	78.70	5.30	16.00
1870	"	3' - 4'	7.95	.04	19.2	77.90	6.80	15.30
1871	"	4' - 5'	7.80	.05	12.7	74.40	7.30	18.30

Sample No.	Site No.	Depth	PH.	Total Soluble Salts	% Gravel	Mechanical Analysis			C
						% Sand	% Silt	% clay	
1872	181A	0"-6"	7.70	.03	1.5	79.70	5.30	15.30	
1873	"	6"-1'	7.60	.03	0.9	74.10	8.00	17.90	
1874	"	1'-2'	7.60	.04	0.9	58.05	19.35	22.60	
1875	"	2'-3'	7.45	.04	23.3	64.00	8.15	27.85	
1876	181B	0"-6"	7.82	.07	10.2	75.30	7.90	16.80	
1877	"	6"-1'	8.28	.07	24.9	70.00	5.50	24.50	
1878	"	1'-2'	8.42	.06	10.9	66.55	8.95	25.50	
1879	181C	0"-6"	8.10	.09	6.4	63.80	14.70	21.50	
1880	"	6"-1'	8.15	.07	27.5	77.30	10.10	12.60	
1881	"	1'-2'	8.80	.06	13.2	83.20	8.20	8.60	
1882	"	2'-3'	8.70	.06	0.9	84.10	8.20	7.70	
1883	"	3'-4'	8.50	.05	1.1	88.55	1.90	9.55	
1884	182A	0"-6"	8.35	.13	10.8	72.30	10.60	17.10	
1885	"	6"-1'	8.18	.05	36.1	67.60	11.20	21.20	
1886	182B	0"-6"	8.15	.04	1.1	79.30	8.90	11.80	
1887	"	6"-1'	8.05	.04	1.2	57.90	11.20	30.90	
1888	"	1'-2'	8.00	.05	35.6	62.90	21.20	15.90	
1889	182C	0"-6"	8.40	.04	8.5	74.10	10.30	15.60	
1890	"	6"-1'	8.95	.04	2.3	79.70	9.40	10.90	
1891	"	1'-2'	8.80	.06	20.5	80.00	8.20	11.80	
1892	183A	0"-6"	8.48	.04	2.4	66.55	13.15	20.30	
1893	"	6"-1'	8.15	.05	0.9	63.65	20.75	15.60	
1894	"	1'-2'	8.10	.04	0.8	54.20	31.4	14.40	
1895	"	2'-3'	8.00	.03	0.9	56.90	12.10	31.00	
1896	"	3'-4'	8.80	.11	10.6	50.50	14.95	34.55	
1897	"	4'-5'	8.10	.06	43.1	52.00	18.30	29.70	
1898	183B	0"-6"	8.25	.07	5.2	64.30	18.90	16.80	
1899	"	6"-1'	8.70	.11	4.0	49.00	18.30	32.70	
1900	"	1'-2'	9.00	.11	4.1	46.00	16.45	37.55	
1901	183C	0"-6"	8.95	.08	18.7	58.10	19.20	22.70	
1902	"	6"-1'	8.80	.08	1.1	70.00	9.90	20.10	
1903	"	1'-2'	9.40	.14	3.6	54.00	20.60	25.40	
1904	"	2'-3'	9.60	.17	5.8	78.20	8.20	13.60	
1905	"	3'-4'	9.65	.14	18.3	75.20	8.60	16.20	

Sample No.	Site No.	Depth	PH.	Total Soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% clay
1906	184A	0"-6"	8.00	.03	0.4	73.65	9.70	16.65
1907	"	6"-1'	7.50	.03	1.0	58.50	15.90	25.60
1908	"	1'-2'	7.42	.04	10.0	62.30	10.75	26.95
1909	184B	0"-6"	7.45	.03	0.3	76.70	9.50	13.80
1910	"	6"-1'	7.35	.03	0.2	65.65	15.80	18.55
1911	"	1'-2'	7.45	.04	0.3	57.60	13.65	28.75
1912	"	2'-2½'	7.50	.04	2.2	63.75	9.70	26.55
1913	184C	0"-6"	7.52	.03	6.3	70.65	15.10	14.25
1914	"	6"-1'	7.70	.04	10.2	53.25	17.50	29.25
1915	"	1'-2'	7.75	.05	18.0	54.70	16.20	29.10
1916	185A	0"-6"	7.70	.03	1.0	77.00	10.55	12.45
1917	"	6"-1'	7.75	.03	4.8	63.35	16.50	20.15
1918	"	1'-2'	8.30	.08	3.1	52.00	20.40	27.60
1919	"	2'-2½'	8.70	.09	4.4	50.35	21.45	28.20
1920	185B	0"-6"	8.50	.06	2.6	50.15	26.50	23.35
1921	"	6"-1'	8.20	.06	2.8	58.65	18.75	22.60
1922	"	1'-1½'	8.25	.06	5.8	53.70	20.70	25.60
1923	185C	0"-6"	8.25	.06	5.7	57.15	19.65	23.20
1924	"	6"-2'	8.30	.05	8.0	55.05	19.65	25.30
1925	"	1'-1½'	8.32	.06	19.9	54.15	20.25	25.60
1926	186A	0"-6"	7.00	.05	4.3	68.80	13.45	17.75
1927	"	6"-1'	7.45	.05	4.2	69.90	10.55	19.55
1928	"	1'-2'	9.60	.06	11.5	60.50	15.95	23.55
1929	"	2'-2½'	9.80	.06	33.0	52.15	14.55	33.30
1930	186B	0"-6"	8.60	.06	27.1	69.45	15.10	15.45
1931	"	6"-1'	8.30	.05	22.1	63.75	16.70	19.55
1932	"	1'-2'	7.88	.04	24.2	68.05	14.50	17.45
1933	"	2'-3'	7.60	.04	23.6	71.55	12.25	16.20
1934	"	3'-3½'	7.60	.03	8.8	81.65	11.30	8.05
1935	186C	0"-6"	7.62	.05	21.9	67.00	15.70	17.30
1936	"	6"-1'	7.55	.04	27.8	67.00	17.35	15.65
1937	"	1'-2'	7.60	.04	26.8	71.25	15.65	13.10
1938	"	2'-2½'	7.75	.03	9.9	87.30	5.25	7.45
1939	187A	0"-6"	7.20	.05	4.3	65.75	13.5	21.20
1940	"	6"-1'	7.30	.05	10.6	54.40	10.45	35.15
1941	187B	0"-6"	7.40	.04	8.5	59.85	20.25	19.90
1942	"	6"-1'	7.45	.03	7.2	56.10	20.85	23.05
1943	187C	0"-6"	7.15	.05	10.8	38.95	23.00	38.05
1944	"	1'-1'	7.25	.06	12.7	38.85	24.35	35.80



Sample No.	Site No.	Depth	pH.	Total Soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% clay
1945	188A	0"-6"	7.40	.02	1.8	81.50	7.40	11.10
1946	"	6"-1'	7.15	.03	1.5	69.40	10.25	20.35
1947	"	1'-2'	7.70	.03	6.2	62.45	14.05	23.50
1948	"	2'-2 $\frac{1}{2}$ '	7.45	.03	8.2	66.50	12.70	20.80
1949	188B	0"-6"	7.30	.04	3.2	71.65	10.95	17.40
1950	"	6"-1'	6.90	.02	2.9	72.60	11.50	15.90
1951	"	1'-2'	6.95	.03	6.4	71.55	12.05	16.40
1952	188C	0"-6"	6.92	.04	5.5	65.95	17.40	16.65
1953	"	6"-1'	6.88	.03	7.7	69.55	16.20	14.25
1954	"	1'-2'	7.00	.03	5.5	70.35	16.00	13.65
1955	"	2'-2 $\frac{1}{2}$ '	7.30	.04	6.8	72.45	13.15	14.40
1956	189A	0"-6"	6.88	.4	0.2	77.30	8.15	14.55
1957	"	6"-1'	6.60	.02	0.1	59.75	14.95	25.30
1958	"	1'-2'	6.70	.03	.03	45.85	19.10	35.05
1959	"	2'-3'	6.85	.03	2.5	51.25	14.80	33.95
1960	"	3'-3 $\frac{1}{2}$ '	7.00	.03	3.7	53.65	14.20	32.15
1961	189B	0"-6"	6.60	.03	1.0	54.10	29.45	16.45
1962	"	6"-1'	6.50	.02	0.4	47.05	24.70	28.25
1963	"	1'-2'	6.80	.02	1.6	48.85	20.80	30.35
1964	"	2'-3'	6.98	.03	3.8	49.15	18.70	32.15
1965	189C	0"-6"	7.65	.04	4.4	44.05	29.50	26.45
1966	"	6"-1'	8.00	.05	3.1	47.05	28.25	24.70
1967	"	1'-2'	8.20	.05	1.9	53.65	16.80	29.55
1968	190A	0"-6"	7.70	.04	1.4	76.70	12.65	10.65
1969	"	6"-1'	7.28	.02	3.0	69.00	15.80	15.20
1970	"	1'-2'	7.32	.05	4.9	62.35	18.05	19.60
1971	190B	0"-6"	7.20	.03	15.4	63.35	13.15	23.50
1972	"	6"-1'	7.20	.03	29.4	61.05	12.00	26.95
1973	"	1'-2'	7.30	.04	19.8	60.20	10.90	28.90
1974	190C	0"-6"	6.85	.04	11.5	52.30	22.95	24.75
1975	"	6"-1'	6.90	.03	15.5	57.00	18.30	24.70
1976	191A	0"-6"	6.90	.03	1.7	67.30	16.25	16.45
1977	"	6"-1'	6.80	.02	2.5	59.00	14.60	26.40
1978	"	1'-2'	6.70	.03	4.7	53.05	16.90	30.05
1979	"	2'-3'	6.82	.03	14.8	58.35	12.80	28.85
1980	191B	0"-6"	7.00	.03	8.8	73.85	8.70	17.45
1981	"	6"-1'	7.02	.03	20.2	74.90	7.80	17.30

Sample Nos	Site Nos.	Depth	PH	Total Soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
1982	191B	1'-1½'	7.10	.03	17.6	75.50	5.70	18.80
1983	191C	0"-6"	7.10	.03	13.5	76.85	8.25	14.90
1984	"	6"-1'	7.10	.03	17.0	79.90	8.25	11.85
1985	"	1'-2'	7.20	.04	2.9	45.05	18.55	36.40
1986	"	2'-3'	7.62	.04	2.0	42.75	21.60	35.65
1987	"	3'-4'	7.80	.06	0.4	41.15	23.15	32.60
1988	"	4'-5'	8.00	.05	0.9	44.85	22.85	32.30
1989	192A	0"-6"	7.32	.02	4.9	78.95	8.15	12.90
1990	"	6"-1'	7.05	.03	5.6	77.65	6.45	15.90
1991	"	1'-2'	7.20	.03	22.0	69.25	9.05	21.70
1992	192B	0"-6"	7.02	.03	7.2	61.70	18.70	19.60
1992A	"	6"-1'	7.75	.03	1.3	64.25	14.35	21.40
1993	192C	0"-6"	6.88	.03	7.8	79.85	8.65	11.50
1994	192C	6"-1'	6.90	.03	9.2	61.40	17.50	21.10
1995	"	1'-2'	7.20	.04	2.0	48.50	24.35	27.15
1996	"	2'-3'	7.40	.04	1.0	67.45	11.25	21.30
1997	193A	0"-6"	7.60	.03	1.1	69.70	13.05	17.25
1998	"	6"-1'	7.55	.03	1.3	53.10	19.60	27.30
1999	"	1'-2'	7.80	.03	3.4	53.20	17.70	29.10
2000	"	2'-2½'	8.30	.03	5.2	48.85	19.90	31.25
2001	193B	0"-6"	8.32	.03	2.0	45.80	29.00	25.20
2002	"	6"-1'	8.00	.04	2.4	47.10	37.40	15.50
2003	"	1'-2'	7.95	.04	2.6	46.85	24.50	28.65
2004	"	2'-3'	7.95	.04	0.6	51.40	18.10	30.50
2005	"	3'-3½'	8.20	.05	2.6	48.95	19.80	31.25
2006	193C	0"-6"	8.10	.03	2.3	53.00	24.40	22.60
2007	"	6"-1'	7.80	.04	1.2	53.00	22.75	24.25
2008	"	1'-2'	7.90	.04	0.1	56.35	21.50	22.15
2009	"	2'-3'	7.90	.03	1.0	65.45	15.55	19.00
2010	"	3'-3½'	7.92	.04	2.8	72.85	11.50	15.65
2011	194A+195A	0"-6"	7.50	.02	1.7	59.70	28.00	12.30
2012	"	6"-1'	7.30	.03	5.7	57.90	28.15	13.95
2013	"	1'-2'	7.22	.02	4.5	50.00	19.20	30.80
2014	"	2'-2½'	7.00	.04	41.5	56.05	15.00	28.95

Sample Nos.	Site Nos.	Depth	PH	Total Soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
2015	194A	0"-6"	7.05	.02	5.7	78.95	11.75	9.30
2016	195D	6"-1'	6.90	.03	9.8	55.60	14.70	29.70
2017	"	1'-1½'	7.60	.04	12.1	60.30	11.80	27.90
2018	194C	0"-6"	6.50	.02	4.0	78.00	10.45	11.55
2019	195C	6"-1'	6.70	.04	1.9	68.95	16.35	14.70
2020	"	1'-2'	6.80	.02	1.4	69.00	17.35	13.65
2021	"	2'-2½'	6.90	.03	2.3	77.70	10.30	12.00
2022	196+197	0"-6"	6.88	.03	0.5	80.30	11.95	7.75
2023	" A	6"-1'	6.95	.03	4.4	67.90	14.05	18.05
2024	"	1'-2'	6.92	.03	6.0	62.40	17.25	20.35
2025	"	2'-3'	7.00	.03	7.3	61.95	15.90	22.15
2026	"	3'-4'	7.05	.04	31.7	58.95	14.40	26.65
2027	196+197	0"-6"	6.75	.05	24.3	54.90	20.85	24.25
2028	" B	6"-1'	6.80	.04	35.0	60.75	30.05	9.20
2029	196+197	0"-6"	6.80	.04	8.3	61.55	20.65	17.80
2030	" C	6"-1'	6.85	.05	8.2	75.75	11.05	13.20
2031	"	1'-2'	6.95	.05	4.8	54.55	20.60	24.85
2032	"	2'-3'	7.20	.05	9.3	61.65	13.95	24.40
2033	"	3'-4'	7.38	.05	6.0	57.95	26.95	21.10
2034	"	4'-5'	7.40	.05	8.0	45.45	34.30	20.25
2035	198A	0"-6"	7.20	.04	0.5	46.50	32.65	20.85
2036	"	6"-1'	7.25	.04	1.5	43.35	37.50	19.15
2037	"	1'-2'	7.40	.04	5.7	47.70	24.35	27.95
2038	198B	0"-6"	7.45	.04	4.2	54.40	26.55	19.05
2039	"	6"-1'	7.50	.04	4.7	58.75	21.65	19.60
2040	"	1'-1½'	7.90	.05	5.9	49.55	19.35	31.10
2041	198C	0"-6"	8.70		14.1	42.00	26.25	31.75
2042	"	6"-1'	8.90	.12	23.4	45.75	23.10	31.15
2043	199A	0"-6"	8.40	.04	2.3	70.35	8.90	20.75
2044	"	6"-1'	8.00	.04	3.8	54.05	17.70	28.25
2045	"	1'-2'	7.60	.05	23.6	61.50	11.90	26.60
2046	199B	0"-6"	7.85	.06	6.2	58.35	23.95	17.70
2047	"	6"-1'	8.65	.07	19.5	48.65	24.90	26.45

Sample Nos.	Site Nos.	Depth	PH.	Total Soluble Salt	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
2048	199C	0"-6"	8.60	.08	3.3	58.40	20.45	21.15
2049	"	6"-1'	8.62	.06	1.0	57.10	22.65	20.25
2050	"	1'-2'	8.55	.05	3.8	48.35	26.95	24.70
2051	"	2'-3'	8.50	.05	2.0	51.60	21.30	27.10
2052	"	3'-4'	8.32	.05	34.7	62.60	12.55	24.85
2053	200A	0"-6"	8.00	.02	2.6	75.50	13.70	10.80
2054	"	6"-1'	7.30	.03	3.7	57.90	11.05	31.05
2055	"	1'-2'	6.98	.04	26.6	57.60	12.40	30.00
2056	200B	0"-6"	7.10	.04	1.2	63.15	21.90	14.95
2057	"	6"-1'	7.10	.05	0.4	47.00	28.60	24.40
2058	"	1'-2'	7.25	.04	5.1	40.80	29.65	29.55
2059	200C	0"-6"	7.70	.06	1.5	44.10	28.50	27.40
2060	"	6"-1'	7.90	.07	2.4	45.50	20.90	33.60
2061	"	1'-2'	8.05	.07	3.0	38.70	22.10	39.20
2062	"	2'-3'	8.20	.07	3.8	40.15	21.10	38.75
2062	"	3'-4'	8.60	.08	8.4	39.40	21.40	39.20
2063	201A	0"-6"	8.50	.05	2.4	78.65	9.70	11.65
2064	"	6"-1'	8.10	.05	7.8	69.60	12.40	18.00
2065	"	1'-2'	7.90	.05	17.1	63.50	11.95	24.55
2066	201B	0"-6"	7.32	.15	6.2	75.15	12.60	12.25
2067	"	6"-1'	7.58	.06	3.5	65.95	12.10	21.95
2068	"	1'-2'	7.65	.05	8.5	57.60	9.55	32.85
2069	201C	0"-6"	7.14	.18	4.7	55.35	21.30	23.35
2070	"	6"-1'	8.00	.07	4.6	47.30	18.05	34.65
2071	"	1'-2'	8.20	.07	3.9	39.85	27.10	33.05
2072	202A	0"-6"	8.05	.05	0.8	77.75	13.30	8.95
2073	"	6"-1'	7.70	.05	0.3	66.10	17.05	16.85
2074	"	1'-2'	7.70	.05	0.5	58.55	17.35	24.10
2075	"	2'-3'	7.82	.06	18.9	58.05	13.75	28.20
2076	"	3'-4'	7.90	.06	6.0	45.35	18.55	36.10
2077	"	4'-5'	7.90	.14	24.5	48.05	16.50	35.45
2078	202B	0"-6"	6.90	.04	0.6	47.45	24.05	18.50
2079	"	6"-1'	7.05	.05	0.3	43.40	23.40	33.20
2080	"	1'-2'	7.60	.07	6.0	40.45	23.50	36.05
2081	"	2'-3'	8.30	.10	12.4	35.80	26.30	37.90
2082	202C	0"-6"	8.30	.06	1.8	58.20	20.10	21.70
2083	"	6"-1'	8.00	.08	0.3	51.65	22.30	26.05
2084	"	1'-2'	8.48	.100	11.4	48.65	19.25	32.10
2085	203A	0"-6"	8.50	.03	3.9	85.00	2.45	12.55

Sample Nos.	Site Nos.	Depth	PH.	Total Soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% clay
2086	203A	6"-1'	8.30	.03	3.6	71.50	7.50	21.00
2087	"	1'-2'	7.82	.04	50.0	71.25	6.35	22.40
2088	203B	0"-6"	7.60	.04	33.9	78.20	3.70	18.10
2089	"	6"-1'	7.50	.05	40.8	63.20	10.00	26.80
2090	203C	0"-6"	7.40	.06	24.6	57.15	14.55	28.30
2091	"	6"-1'	7.60	.05	25.3	70.80	9.20	20.00
2092	"	1'-2'	8.55	.08	16.5	78.20	8.20	13.60
2093	"	2'-3'	9.70	.14	14.2	79.30	13.00	7.70
2094	"	3'-4'	10.20	.06	25.0	91.10	4.70	4.20
2095	204A	0"-6"	9.85	.05	3.9	82.50	10.50	7.00
2096	"	6"-1'	9.85	.13	4.4	69.50	5.40	25.10
2097	"	1'-2'	10.00	.18	2.1	77.70	1.50	20.80
2098	204B	0"-6"	9.00	.05	12.0	79.10	7.00	13.90
2099	"	6"-1'	8.80	.06	32.10	77.25	4.15	18.60
2100	"	1'-2'	8.55	.07	36.7	71.10	5.90	23.00
2101	204C	0"-6"	8.55	.05	2.9	65.60	11.40	23.00
2102	"	6"-1'	8.45	.09	4.6	40.90	19.00	40.10
2103	"	1'-2'	9.35	.12	17.4	43.30	19.60	37.10
2104	205A	0"-6"	8.90	.05	11.7	81.10	7.40	11.50
2105	"	6"-1'	8.95	.04	1.3	62.40	10.50	27.10
2106	"	1'-2'	8.60	.05	3.1	64.50	9.00	26.50
2107	205B	0"-6"	8.50	.04	13.0	77.10	6.70	16.20
2108	"	6"-1'	7.60	.04	6.8	72.10	6.60	21.30
2109	"	1'-2'	7.80	.05	25.0	71.50	6.90	21.60
2110	205C	0"-6"	7.10	.10	15.2	74.40	9.30	16.30
2111	"	6"-1'	7.40	.07	4.8	70.60	9.80	19.60
2112	"	1'-2'	7.55	.05	5.1	80.00	7.60	12.40
2113	"	2'-3'	8.32	.07	10.30	90.40	4.30	5.30
2114	"	3'-4'	8.60	.07	24.3	85.00	8.80	6.20
2115	209A	0"-6"	8.15	.05	5.8	63.80	18.40	17.80
2116	"	6"-1'	8.05	.05	14.3	70.45	10.45	19.10
2117	209B	0"-6"	7.60	.04	4.4	55.05	22.05	22.90
2118	"	6"-1'	7.95	.06	4.5	59.40	15.10	25.50
2119	"	1'-2'	8.60	.07	15.0	57.45	15.55	27.00
2120	209C	0"-6"	8.10	.06	5.7	58.95	19.80	21.25
2121	"	6"-1'	7.90	.06	15.6	68.95	11.80	19.25
2122	210A	0"-6"	8.00	.04	0.5	85.0	12.20	2.80

Sample No.	Site No.	Depth	pH	Total Soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
2123	210A	6"-1'	7.55	.04	0.2	80.30	8.00	11.70
2124	"	1'-2'	7.40	.05	0.5	63.75	10.35	25.90
2125	"	2'-3'	7.30	.04	0.6	62.45	9.35	28.20
2126	"	3'-4'	7.38	.05	11.4	65.15	11.05	23.80
2127	"	4'-5'	7.20	.05	5.8	52.90	11.40	35.70
2128	210B	0"-6"	6.40	.02	0.5	56.10	22.85	21.05
2129	"	6"-1'	6.80	.04	0.5	51.65	18.65	26.70
2130	"	1'-2'	7.00	.05	2.7	49.15	15.15	35.70
2131	"	2'-3'	7.30	.07	28.1	56.50	13.80	29.70
2132	210C	0"-6"	8.15	.05	3.5	58.65	17.15	24.20
2133	"	6"-1'	8.90	.10	11.3	35.60	21.05	33.45
2134	"	1'-2'	9.30	.10	13.5	48.65	21.65	29.70
2135	"	2'-3'	9.60	.14	7.6	40.45	22.15	37.40
2136	211A	0"-6"	8.30	.04	0.5	84.85	6.85	8.30
2137	"	6"-1'	7.90	.06	0.3	79.15	8.45	12.40
2138	"	1'-2'	7.98	.05	0.3	79.25	4.90	15.85
2139	"	2'-3'	7.90	.06	0.2	70.60	7.15	22.25
2140	"	3'-4'	8.00	.06	0.6	66.55	8.80	24.65
2141	"	4'-5'	7.80	.05	1.3	63.05	13.30	23.65
2142	"	5'-6'	7.80	.06	0.9	63.80	14.80	21.40
2143	211B	0"-6"	7.98	.08	0.5	78.70	9.50	11.80
2144	"	6"-1'	8.10	.07	0.5	80.55	10.05	9.40
2145	"	1'-2'	8.10	.06	0.8	79.40	11.65	8.95
2146	"	2'-3'	8.00	.06	0.9	69.00	14.70	16.30
2147	"	3'-4'	8.00	.07	0.7	55.95	18.45	25.60
2148	"	4'-5'	8.10	.07	1.3	40.95	28.90	30.15
2149	"	5'-6'	8.40	.08	1.3	42.75	24.40	32.85
2150	"	6'-7'	8.50	.09	4.5	49.00	18.30	32.70
2151	211C	0"-6"	8.62	.09	0.7	68.55	26.00	5.45
2152	"	6"-1'	8.70	.07	1.4	41.65	32.70	25.45
2153	"	1'-2'	8.55	.07	1.7	36.45	35.20	28.35
2154	"	2'-3'	8.70	.08	2.0	37.00	33.30	29.70
2155	"	3'-4'	8.90	.10	11.1	35.80	29.90	34.30
2156	212A	0"-6"	8.70	.05	0.1	60.95	26.90	12.15
2157	"	6"-1'	8.22	.05	0.05	71.10	19.80	9.10
2158	"	1'-2'	8.20	.05	0.03	55.50	24.30	20.20
2159	"	2'-3'	8.80	.08	1.2	42.75	24.35	32.90
2160	"	3'-4'	9.15	.11	0.8	39.45	26.75	33.80
2161	212B	0"-6"	9.20	.10	0.8	69.55	22.05	8.40

Sample No.	Site No.	Depth	pH.	Total Soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
2162	212B	6"-1'	9.15	.06	1.1	70.15	18.45	11.40
2163	"	1'-2'	8.80	.07	0.6	55.15	17.75	27.10
2164	"	2'-3'	8.70	.07	16.5	67.80	11.30	20.90
2165	212C	0"-6"	8.62	.06	1.1	57.60	23.30	19.10
2166	"	6"-1'	8.50	.06	0.8	62.70	19.70	17.60
2167	"	1'-2'	8.55	.05	0.2	55.95	23.40	20.65
2168	"	2'-3'	8.60	.05	1.2	55.00	21.65	23.35
2169	"	3'-4'	8.65	.06	38.3	62.70	14.70	22.60
2170	213A	0"-6"	8.30	.06	3.0	46.25	26.45	27.30
2171	"	6"-1'	8.05	.05	15.1	67.45	15.55	17.00
2172	213B	0"-6"	8.00	.08	5.1	55.95	23.55	20.50
2173	"	6"-1'	8.25	.06	6.8	58.05	21.00	20.95
2174	"	1'-2'	8.25	.06	5.6	55.95	22.20	21.85
2175	"	2'-3'	8.18	.05	9.1	60.60	13.80	25.60
2176	"	3'-4'	8.20	.05	10.7	73.05	9.70	17.25
2177	213C	0"-6"	7.75	.11	1.8	41.30	27.05	31.65
2178	"	6"-1'	7.80	.06	20.1	42.60	22.85	34.55
2179	214A	0"-6"	7.82	.04	5.5	62.15	15.30	22.55
2180	"	6"-1'	7.60	.04	10.4	60.20	4.25	35.55
2181	214B	0"-6"	6.85	.04	6.0	44.00	27.80	28.20
2182	"	6"-1'	6.80	.04	19.3	41.95	25.45	33.60
2183	214C	0"-6"	6.60	.03	1.5	41.10	30.15	28.75
2184	"	6"-1'	6.55	.03	3.5	52.65	21.30	26.05
2185	"	1'-2'	6.65	.03	3.0	55.20	22.35	22.45
2186	"	2'-3'	6.60	.03	0.6	29.55	27.60	42.85
2187	"	3'-4'	6.35	.03	0.9	26.55	26.20	47.25
2188	"	4'-5'	6.20	.03	0.6	28.35	27.25	44.40
2189	"	5'-6'	6.20	.03	1.1	30.15	22.75	47.10
2190	215+216	0"-6"	6.48	.04	10.6	79.85	7.90	12.25
2191	" <sup>A</sup>	6"-1'	6.70	.04	20.0	78.70	8.75	12.55
2192	215+216	0"-6"	6.60	.04	0.9	42.90	21.70	35.40
2193	" <sup>C</sup>	6"-1'	6.85	.04	1.3	64.90	10.85	24.25
2194	"	1'-2'	7.50	.05	0.2	73.50	3.35	23.15
2195	"	2'-3'	7.70	.05	0.9	67.95	5.75	26.30
2196	217A	0"-6"	7.60	.12	16.7	61.55	14.10	24.35
2197	"	6"-1'	7.90	.08	9.5	56.75	18.70	24.55

S. No.	Bore No	Depth	PH.	Total Soluble salts	% Gravel	Mechanical Analysis		
						sand	Silt	clay
2198	217A	6"-2'	8.10	.06	21.4	58.25	14.55	27.20
2199	"	2'-3'	8.10	.06	10.0	67.45	11.50	21.05
2200	217B	0"-6"	8.15	.08	10.0	58.40	17.10	24.50
2201	"	6"-1'	8.40	.06	15.2	63.40	12.40	24.20
2202	217C	0"-6"	8.30	.11	8.9	66.40	14.55	19.05
2203	"	6"-1'	8.40	.08	7.1	69.20	13.70	17.10
2204	"	1'-2'	8.48	.08	6.4	69.30	15.55	15.15
2205	"	2'-3'	8.50	.07	7.3	75.95	10.15	13.90
2206	218A	0"-6"	8.48	.08	1.7	48.40	24.50	27.10
2207	"	6"-1'	8.40	.08	2.4	38.70	23.15	38.15
2208	"	1'-2'	8.40	.07	3.2	40.20	22.10	37.70
2209	"	2'-3'	8.35	.07	2.6	42.95	21.60	35.45
2210	"	3'-4'	8.40	.06	3.8	56.25	17.25	26.50
2211	"	4'-5'	8.40	.06	0.6	54.45	34.35	11.20
2212	218B	0"-6"	8.45	.08	4.0	51.00	23.25	25.75
2213	"	6"-1'	8.45	.07	5.5	55.75	20.45	23.80
2214	"	1'-2'	8.50	.06	12.0	61.55	12.55	25.90
2215	218C	0"-6"	8.10	.05	12.2	56.15	14.80	29.05
2216	"	6"-1'	7.90	.05	20.4	58.70	13.15	28.15
2217	219A	0"-6"	7.80	.04	5.0	60.95	18.15	20.90
2218	"	6"-1'	7.50	.05	22.5	55.80	17.70	26.50
2219	"	1'-2'	7.55	.05	61.4	57.45	15.90	26.65
2220	219B	0"-6"	7.30	.02	1.2	54.75	23.65	21.60
2221	"	6"-1'	7.20	.03	2.0	54.45	24.55	21.00
2222	"	1'-2'	8.40	.06	3.2	36.70	23.20	40.10
2223	"	2'-2½'	8.50	.08	34.4	33.25	24.95	40.80
2224	219C	0"-6"	8.42	.04	0.6	77.60	7.40	15.00
2225	"	6"-1'	8.00	.06	0.9	60.35	9.35	30.30
2226	"	1'-2'	8.10	.06	4.6	56.75	12.65	30.60
2227	"	2'-3'	8.10	.08	3.1	51.40	13.00	35.60
2228	"	3'-3½'	7.80	.11	28.7	57.25	11.25	31.50
2229	220A	0"-6"	7.80	.02	0.3	72.00	14.50	13.50
2230	"	6"-1'	7.25	.04	0.1	68.05	12.25	19.70
2231	"	1'-2'	7.30	.04	0.6	59.00	16.00	25.00
2232	"	2'-3'	7.32	.04	.90	55.80	16.00	28.20



(b4)

Sample No.	Site No.	Depth	pH	Total Soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% clay
2233	220A	3'-4'	7.45	.05	1.9	52.45	12.55	35.00
2234	"	4'-5'	7.65	.05	1.4	48.05	16.05	35.90
2235	"	5'-5½'	7.95	.07	7.4	43.70	19.20	37.10
2236	220B	0"-6"	8.28	.05	0.2	67.50	12.20	20.30
2237	"	6"-1'	8.10	.05	0.1	57.30	29.20	13.50
2238	"	1'-2'	8.12	.05	0.3	62.50	14.00	23.50
2239	"	2'-3'	8.05	.05	1.2	60.20	13.60	26.20
2240	"	3'-4'	8.30	.06	1.1	52.15	16.05	31.80
2241	"	4'-4½'	8.55	.07	2.5	51.25	17.25	31.50
2242	220C	0"-6"	8.20	.04	1.5	74.90	10.10	15.00
2243	"	6"-1'	8.00	.05	0.8	67.95	15.85	16.20
2244	"	1'-2'	8.30	.07	3.0	70.95	11.45	17.60
2245	"	2'-2½'	8.40	.08	16.5	66.90	13.70	19.40
2246	221+225 A	0"-6"	7.90	.08	1.7	31.75	28.15	40.10
2247	"	6"-1'	7.60	.04	15.00	53.35	13.05	33.60
2248	221+225 B	0"-6"	7.40	.09	4.5	33.10	34.05	32.85
2249	"	6"-1'	7.65	.06	48.6	53.20	17.45	29.35
2250	221+225 C	0"-6"	7.85	.06	6.2	49.60	21.20	29.20
2251	"	6"-1'	8.02	.08	3.4	32.15	24.25	43.60
2252	"	1'-2'	8.18	.06	3.7	42.55	20.20	37.25
2252A	"	2'-3'	8.68	.06	6.5	67.15	11.35	21.50
2253	222A	0"-6"	8.20	.03	1.0	73.15	15.80	11.05
2254	"	6"-1'	7.70	.05	1.6	69.25	7.65	23.10
2255	"	1'-2'	7.55	.04	1.5	56.70	13.15	30.15
2256	"	2'-3'	7.22	.03	7.5	47.15	12.25	40.60
2257	"	3'-4'	7.20	.03	20.3	50.15	9.55	40.30
2258	222B	0"-6"	7.30	.02	7.4	84.20	4.05	11.75
2259	"	6"-1'	7.15	.03	33.6	62.90	8.80	28.30
2260	222C	0"-6"	7.40	.03	5.3	85.30	5.65	9.05
2261	"	6"-1'	7.70	.04	4.7	75.00	8.05	16.95
2262	"	1'-2'	7.98	.03	4.2	71.40	8.20	20.40
2263	"	2'-3'	8.00	.03	2.0	55.75	13.25	31.00
2264	"	3'-4'	8.00	.04	2.3	62.25	13.05	24.70
2265	223A	0"-6"	7.82	.03	0.9	40.15	30.95	28.90
2266	"	6"-1'	7.70	.03	1.7	56.50	18.20	25.30
2267	"	1'-2'	7.75	.04	1.5	49.70	17.30	33.00
2268	"	2'-2½'	7.80	.03	14.8	73.85	12.90	13.25
2269	223B	0"-6"	7.60	.03	6.8	62.45	17.55	20.00

Sample No.	Site No.	Depth	PH.	Total Soluble Salts	%	Mechanical Analysis		
						Gravel	% Sand	% Silt
2270	223B	6" - 1'	7.68	.03	13.2	52.40	14.75	32.85
2271	"	1' - 2'	7.80	.04	15.1	49.40	15.15	35.45
2272	223C	0" - 6"	7.70	.03	1.8	55.35	22.40	22.25
2273	"	6" - 1'	7.55	.03	3.2	64.65	15.20	20.15
2274	"	1' - 2'	7.80	.04	12.2	51.20	13.40	35.40
2275	224A	0" - 6"	7.75	.02	2.7	64.45	18.20	17.35
2276	"	6" - 1'	7.50	.03	0.5	52.00	20.30	27.70
2277	"	1' - 2'	7.55	.03	3.2	46.65	18.05	35.30
2278	"	2' - 2 1/2'	7.45	.04	23.2	47.60	22.75	29.65
2279	224B	0" - 6"	8.20	.05	5.0	52.65	18.90	28.45
2280	"	6" - 1'	8.60	.05	5.1	50.05	18.60	31.35
2281	"	1' - 2'	8.75	.08	14.8	42.90	20.00	37.10
2282	"	2' - 3'	8.95	.10	14.8	39.90	18.50	41.60
2283	224C	0" - 6"	8.70	.11	2.7	45.30	22.70	32.00
2284	"	6" - 1'	8.75	.09	4.5	46.95	22.00	31.05
2285	"	1' - 2'	8.80	.09	18.4	49.10	18.65	32.25
2286	253A	0" - 6"	7.80	.06	7.0	46.70	30.70	22.60
2287	"	6" - 1'	7.70	.04	7.4	44.90	25.40	29.70
2288	"	1' - 2'	7.60	.04	19.8	47.90	23.90	28.20
2289	253B	0" - 6"	7.40	.03	2.2	47.30	28.40	24.30
2290	"	6" - 1'	7.50	.04	1.8	35.60	31.50	32.90
2291	"	1' - 2'	7.50	.04	2.7	35.90	26.65	37.45
2292	"	2' - 3'	7.60	.05	2.4	36.10	26.30	37.60
2293	"	3' - 4'	7.80	.04	1.6	36.10	25.10	38.80
2294	254A	0" - 6"	8.00	.05	1.9	49.25	14.25	36.50
2295	"	6" - 1'	6.00	.05	2.75	54.25	16.05	29.70
2296	254B	0" - 6"	8.00	.06	19.1	82.15	0.75	17.10
2297	"	6" - 1'	8.00	.05	15.3	84.60	1.50	13.90
2298	254C	0" - 6"	8.00	.08	5.31	66.05	7.75	26.20
2299	"	6" - 1'	8.50	.10	11.9	81.05	4.25	14.70
2300	"	1' - 2'	8.50	.06	12.7	68.50	6.80	24.70
2301	"	2' - 3'	8.50	.06	0.44	61.40	8.75	29.85
2302	"	3' - 4'	8.50	.07	6.6	61.85	8.30	29.85
2303	"	4' - 5'	8.50	.07	18.0	69.40	11.05	19.55

Sample No.	Site No.	Depth	pH.	Total Soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% clay
2304	256A	0"-6"	7.0-7.5	.03	2.2	75.80	10.30	13.90
2305	"	6"-1'	7.0-7.5	.05	1.1	51.40	17.55	31.05
2306	"	1'-2'	8.00	.04	1.88	52.15	14.70	33.15
2307	"	2'-3'	8.00	.04	27.90	52.90	13.50	33.60
2308	256B	0"-6"	7.0-7.5	.03	15.06	74.85	9.25	15.90
2309	"	6"-1'	7.0-7.5	.05	10.6	84.20	3.85	11.95
2310	"	1'-2'	8.00	.07	8.3	83.15	3.40	13.45
2311	"	2'-3'	8.00	.05	10.7	81.80	0.50	17.70
2312	256C	0"-6"	8.00	.06	12.2	40.30	22.90	36.80
2313	"	6"-1'	8.00	.06	12.3	45.15	23.50	31.35
2314	"	1'-2'	8.00	.06	6.8	51.65	21.65	26.70
2315	"	2'-3'	8.00	.07	3.1	53.80	24.65	21.55
2316	257A	0"-6"	5.00	.04	25.5	55.60	17.95	26.45
2317	"	6"-1'	5.55	.03	29.08	60.85	5.15	34.00
2318	"	1'-2'	5.50	.03	31.4	57.60	13.60	28.80
2319	"	2'-3'	6.00	.03	12.23	67.10	13.50	19.40
2320	"	3'-4'	8.00	.06	0.75	65.60	16.35	18.05
2321	"	4'-5'	8.00	.06	2.5	65.15	17.55	17.30
2322	257B	0"-6"	7.0-7.5	.04	11.5	66.65	13.35	20.00
2323	"	6"-1'	8.00	.05	1.3	57.60	18.75	23.65
2324	"	1'-2'	8.00	.05	0.9	68.15	15.15	16.70
2325	"	2'-3'	8.00	.06	1.8	68.35	13.60	18.05
2326	"	3'-4'	8.00	.04	0.18	57.40	17.40	25.20
2327	"	4'-5'	8.00	.05	4.8	49.40	21.80	28.80
2328	257C	0"-6"	6.00	.05	0.61	79.70	7.70	12.60
2329	"	6"-1'	6.00	.05	0.7	77.85	5.85	16.30
2330	"	1'-2'	7.0-7.5	.05	0.55	66.50	11.35	22.15
2331	"	2'-3'	8.00	.05	4.3	62.10	15.00	22.90
2332	"	3'-4'	8.00	.04	0.8	59.55	14.55	25.90
2333	"	4'-5'	8.50	.07	1.52	66.35	8.35	25.30
2334	"	5'-6'	9.00	.11	10.67	64.10	11.15	24.75
2335	"	6'-7'	9.00	.10	2.5	64.27	9.48	26.25
2336	258A	0"-6"	8.00	.03	1.8	62.13	16.60	21.27
2337	"	6"-1'	8.00	.02	0.83	63.73	14.55	21.72
2338	"	1'-2'	8.00	.02	1.14	53.88	21.35	24.77

Sample No.	Site No.	Depth	pH	Total Soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
2339	258A	2'-3'	8.00	.02	1.9	49.33	23.80	26.87
2340	"	3'-4'	9.00	.05	1.47	47.08	16.80	36.12
2341	"	4'-5'	9.00	.07	9.6	39.48	21.70	38.82
2342	"	5'-6'	9.00	.08	9.5	37.48	20.35	42.17
2343	258B	0"-6"	9.00	.03	8.0	59.63	15.75	24.62
2344	"	6"-1'	7.0-7.5	.02	1.3	65.68	12.15	22.17
2345	"	1'-2'	8.00	.02	2.3	77.63	7.75	14.62
2346	"	2'-3'	8.00	.02	7.4	67.68	10.94	21.38
2347	"	3'-4'	8.00	.02	0.6	82.18	8.65	9.17
2348	"	4'-5'	8.00	.02	1.56	77.58	9.55	13.87
2349	"	5'-6'	7.0-7.5	.02	0.53	53.73	15.45	30.82
2350	"	6'-7'	8.00	.02	2.7	53.83	17.15	29.02
2351	"	7'-8'	8.00	.02	7.03	46.43	20.50	33.07
2352	"	8'-9'	8.00	.03	6.5	46.88	22.00	31.12
2353	"	9'-10'	8.50	.03	0.38	53.08	17.15	29.77
2354	258C	0"-6"	8.50	.05	0.33	53.73	21.95	24.32
2355	"	6"-1'	7.0-7.5	.02	1.5	62.48	19.10	18.42
2356	"	1'-2'	8.00	.02	1.45	76.73	8.50	14.77
2357	"	2'-3'	8.00	.02	8.1	66.88	13.20	19.92
2358	"	3'-4'	7.0-7.5	.02	2.0	58.28	16.35	25.37
2359	"	4'-5'	7.0-7.5	.03	2.7	55.23	16.40	28.37
2360	"	5'-6'	7.0-7.5	.02	1.3	51.73	27.30	20.97
2361	265A	0"-6"	8.00	.04	12.3	82.78	6.17	11.05
2362	"	6"-1'	7.0-7.5	.05	6.1	60.98	12.97	26.05
2363	"	1'-2'	7.0-7.5	.03	25.00	61.28	13.57	25.15
2364	"	2'-3'	7.0-7.5	.03	15.6	59.46	12.19	28.35
2365	"	3'-4'	8.00	.03	6.24	58.43	14.77	26.80
2366	265B	0"-6"	8.00	.03	1.1	46.53	28.17	25.30
2367	"	6"-1'	8.00	.04	0.95	35.08	30.22	34.70
2368	"	1'-2'	8.00	.03	1.6	33.88	29.32	36.80
2369	"	2'-3'	8.00	.06	0.84	33.38	28.77	37.85
2370	"	3'-4'	8.00	.05	0.48	31.13	29.17	39.70
2371	"	4'-5'	8.50	.06	0.18	38.08	19.57	42.35
2372	"	5'-6'	8.50	.10	2.3	41.88	15.27	42.85

Sample No	Site No.	Depth	pH	Total Soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
2373	2b5c	0"-6"	8.50	.08	6.6	41.33	25.47	33.20
2374	"	6"-1'	8.50	.07	9.2	36.13	22.37	41.50
2375	"	1'-2'	8.50	.07	14.0	30.38	22.97	46.65
2376	2b6A	0"-6"	6.50	.03	2.14	78.58	6.12	15.30
2377	"	6"-1'	7.0-7.5	.03	0.62	68.28	7.47	24.25
2378	"	1'-2'	8.00	.04	3.98	59.78	8.27	31.95
2379	"	2'-3'	8.00	.05	12.6	65.08	8.27	26.65
2380	"	3'-4'	8.00	.04	9.1	74.18	5.67	20.15
2381	"	4'-5'	8.00	.05	5.6	49.05	17.38	33.57
2382	"	5'-6'	8.00	.05	3.6	77.85	4.78	17.37
2383	2b6B	0"-6"	7.0-7.5	.04	10.4	82.25	8.73	9.02
2384	"	6"-1'	6.50	.04	20.6	74.70	7.63	17.67
2385	"	1'-2'	8.00	.04	16.9	65.90	5.28	28.82
2386	2b6c	0"-6"	8.00	.04	3.3	65.30	6.43	28.27
2387	"	6"-1'	8.00	.07	3.3	67.20	12.28	20.52
2388	"	1'-2'	8.00	.06	3.9	67.85	12.38	19.77
2389	"	2'-3'	9.00	.05	3.2	77.40	6.58	16.02
2390	"	3'-4'	9.00	.09	12.9	87.10	4.78	8.12
2391	"	4'-5'	8.00	.10	12.4	76.80	8.43	14.77
2392	2b7A	0"-6"	8.00	.04	2.4	82.10	7.73	10.17
2393	"	6"-1'	8.00	.05	2.8	77.70	10.08	12.22
2394	"	1'-2'	8.00	.06	2.8	64.00	19.53	16.47
2395	"	2'-3'	7.0-7.5	.06	0.78	46.05	26.88	27.07
2396	2b7B	0"-6"	8.00	.09	4.6	47.70	20.53	31.77
2397	"	6"-1'	8.50	.09	6.0	67.70	5.28	27.02
2398	"	1'-2'	9.00	.09	3.4	67.05	6.73	22.22
2399	"	2'-3'	8.50	.10	4.9	51.20	18.53	30.27
2400	"	3'-4'	9.00	.09	7.7	49.20	15.58	35.22
2401	2b7c	0"-6"	9.00	.06	1.7	44.70	23.00	32.30
2402	"	6"-1'	6.00	.08	5.03	44.85	21.80	33.35
2403	"	1'-2'	7.0-7.5	.09	3.65	42.90	24.05	33.05
2404	2b8A	0"-6"	7.0-7.5	.03	12.6	68.20	14.05	17.75
2405	"	6"-1'	8.00	.03	21.6	66.20	15.15	18.65
2406	"	1'-1 1/2'	8.00	.03	4.8	66.05	11.20	22.75
2407	2b8B	0"-6"	8.00	.05	4.1	56.05	20.30	23.65

Sample No.	Site No.	Depth	PH.	Total Soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
2408	268B	6" - 1'	8.00	.04	1.6	50.00	19.20	30.80
2409	"	1' - 2'	8.00	.08	16.2	50.15	11.35	38.50
2410	268C	0" - 6"	8.00	.08	4.12	61.05	23.15	15.80
2411	"	6" - 1'	8.50	.08	12.5	52.10	16.85	31.05
2412	"	1' - 1½'	8.00	.08	13.1	57.10	16.20	26.70
2413	269A	0" - 6"	8.00	.04	5.5	79.40	10.25	10.35
2414	"	6" - 1'	8.00	.05	5.4	71.50	11.35	17.15
2415	269B	0" - 6"	8.00	.09	1.05	44.55	14.50	40.95
2416	"	6" - 1'	5.50	.09	1.63	39.85	17.25	42.90
2417	269C	0" - 6"	6.00	.06	6.2	75.30	9.85	14.85
2418	"	6" - 1'	8.50	.05	16.3	74.25	11.50	14.25
2419	"	1' - 2'	8.50	.08	1.13	57.75	14.20	28.05
2420	"	2' - 3'	8.50	.07	3.9	69.75	8.10	22.15
2421	270A	0" - 6"	6.50	.04	1.65	41.95	24.78	33.27
2422	"	6" - 1'	7.0-7.5	.04	2.7	45.60	19.93	34.47
2423	"	1' - 2'	8.00	.04	2.6	68.80	10.68	20.52
2424	270B	0" - 6"	8.00	.06	1.6	50.60	21.73	27.67
2425	"	6" - 1'	8.00	.05	7.87	56.05	16.43	27.52
2426	"	1' - 2'	8.00	.05	0.46	57.70	16.58	25.72
2427	"	2' - 3'	8.00	.05	6.81	69.70	6.43	23.87
2428	"	3' - 4'	8.00	.06	8.00	66.35	8.08	25.57
2429	"	4' - 5'	8.00	.06	8.30	75.00	6.28	18.72
2430	"	5' - 6'	8.00	.06	14.5	75.05	8.48	16.47
2431	270C	0" - 6"	8.00	.06	12.1	66.20	10.38	23.42
2432	"	6" - 1'	8.00	.06	2.27	65.90	13.28	20.82
2433	"	1' - 2'	8.00	.06	0.39	68.50	13.53	17.97
2434	"	2' - 3'	8.00	.06	1.4	79.55	5.33	15.12
2435	"	3' - 4'	8.00	.05	6.1	83.80	4.43	11.77
2436	"	4' - 5'	8.50	.06	1.6	75.45	7.63	16.92
2437	271A	0" - 6"	7.0-7.5	.04	1.3	57.70	12.98	29.32
2438	"	6" - 1'	7.0-7.5	.04	1.5	50.00	13.08	36.92
2439	"	1' - 2'	7.0-7.5	.04	6.95	44.85	14.43	40.72
2440	271B	0" - 6"	8.00	.04	2.02	46.65	15.23	38.12
2441	"	6" - 1'	8.00	.09	2.67	49.34	12.09	38.57
2442	"	1' - 2'	8.00	.05	14.00	49.50	11.63	38.87

Sample No.	Site No.	Depth	PH.	Total Soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% Clay
2443	271C	0" - 6"	8.50	.08	1.34	45.30	22.33	32.37
2444	"	6" - 1'	8.50	.06	16.50	73.00	11.13	15.87
2445	"	1' - 2'	8.50	.06	6.8	62.40	13.28	24.32
2446	272A	0" - 6"	6.00	.03	1.58	68.75	7.08	24.17
2447	"	6" - 1'	6.50	.03	0.72	59.80	9.03	31.17
2448	"	1' - 2'	7.0-7.5	.04	11.7	59.55	6.13	34.32
2449	272B	0" - 6"	7.0-7.5	.03	2.2	74.20	8.43	17.37
2450	"	6" - 1'	8.00	.05	2.7	63.45	15.38	21.17
2451	"	1' - 2'	8.50	.09	2.7	56.20	10.68	33.12
2452	"	2' - 3'	9.00	.11	3.1	53.00	11.63	35.37
2453	272C	0" - 6"	7.0-7.5	.04	8.02	64.50	12.68	22.82
2454	"	6" - 1'	7.0-7.5	.03	10.04	62.95	13.63	23.42
2455	"	1' - 2'	6.50	.02	8.00	61.65	15.98	22.37
2456	277A	0" - 6"	7.0-7.5	.04	4.5	71.20	13.13	15.67
2457	"	6" - 1'	8.50	.04	5.34	48.75	17.23	34.02
2458	"	1' - 2'	8.50	.07	3.3	46.95	16.83	36.22
2459	"	2' - 3'	9.00	.02	29.1	56.95	12.38	30.67
2460	277B	0" - 6"	6.50	.02	4.66	52.10	16.30	31.60
2461	"	6" - 1'	8.00	.03	5.83	64.30	14.90	20.80
2462	"	1' - 2'	8.00	.03	2.13	42.35	25.50	32.15
2463	277C	0" - 6"	8.00	.04	5.3	47.80	22.80	29.40
2464	"	6" - 1'	8.00	.03	3.0	47.80	21.40	30.80
2465	"	1' - 2'	8.50	.03	7.9	45.70	20.50	33.80
2466	"	2' - 3'	8.50	.03	13.6	71.90	9.90	18.20
2467	"	3' - 4'	9.00	.03	2.95	82.95	7.05	10.00
2468	"	4' - 5'	9.00	.02	3.17	82.20	4.75	13.05
2469	278A	0" - 6"	7.0-7.5	.02	9.2	74.60	8.85	16.55
2470	"	6" - 1'	8.00	.02	20.4	66.90	5.50	27.60
2471	"	1' - 2'	8.00	.03	45.1	67.95	8.25	23.80
2472	"	2' - 3'	8.00	.03	70.3	67.50	8.70	23.80
2473	278B	0" - 6"	6.00	.02	12.6	68.10	9.90	22.00
2474	"	6" - 1'	8.00	.02	7.8	72.50	4.00	23.50
2475	278C	0" - 6"	7.0-7.5	.03	40.97	67.20	10.65	22.15
2476	"	6" - 1'	8.00	.02	38.40	73.25	8.85	17.90

Sample No.	Site No.	Depth	PH.	Total Soluble Salts	% Gravel	Mechanical Anal.		
						% Sand	% Silt	% clay
2477	278C	1'-2'	8.00	.02	3.14	73.70	9.75	16.55
2478	"	2'-3'	8.00	.02	3.52	71.60	12.00	16.40
2479	"	3'-4'	8.00	.02	5.00	81.45	7.75	10.80
2480	"	4'-5'	8.00	.02	12.6	84.45	7.20	8.35
2481	279A	0"-6"	5.50	.02	0.55	81.75	11.28	6.97
2482	"	6"-1'	5.50	.02	0.38	76.50	10.38	13.12
2483	"	1'-2'	6.00	.02	0.15	68.30	13.73	17.97
2484	279B	0"-6"	7.0-7.5	.03	0.38	69.00	7.33	23.67
2485	"	6"-1'	7.0-7.5	.02	1.4	63.60	11.33	25.07
2486	"	1'-2'	8.00	.03	1.4	62.85	12.68	24.47
2487	"	2'-3'	8.00	.03	0.3	55.90	14.03	30.07
2488	"	3'-4'	8.00	.02	1.9	55.00	11.88	33.12
2489	279C	0"-6"	6.00	.03	1.04	57.85	21.48	20.67
2490	"	6"-1'	8.00	.02	1.1	54.85	23.38	21.77
2491	"	1'-2'	8.00	.02	1.6	46.35	28.53	25.12
2492	"	2'-3'	7.0-7.5	.02	1.2	47.25	26.28	26.47
2493	"	3'-4'	8.50	.02	3.8	72.85	5.83	21.32
2494	"	4'-5'	8.50	.02	7.2	72.10	9.67	18.23
2495	"	5'-6'	8.50	.02	19.6	81.80	4.03	14.17
2496	"	6'-7'	8.50	.08	32.7	76.20	6.43	17.37
2497	"	7'-8'	9.00	.04	23.6	71.65	7.98	20.37
2498	"	8'-9'	9.00	.06	8.1	60.30	10.23	26.47
2499	280A	0"-6"	6.50	.01	2.2	70.00	26.58	13.42
2500	"	6"-1'	7.0-7.5	.02	2.72	76.95	10.53	12.52
2501	"	1'-2'	8.00	.02	2.92	57.00	15.55	27.45
2502	"	2'-3'	9.00	.06	8.47	44.70	17.25	38.05



Sample No.	Site No.	Depth	pH.	Total Soluble Salts	% Gravel	Mechanical Analysis		
						% Sand	% Silt	% clay
2503	280B	0"-6"	6.00	.02	3.58	58.05	19.05	22.90
2504	"	6"-1'	8.00	.02	3.7	59.40	16.80	23.80
2505	"	1'-2'	8.00	.02	8.60	56.40	13.60	30.00
2506	280C	0"-6"	8.50	.05	3.3	45.50	15.40	39.10
2507	"	6"-1'	8.50	.04	2.7	43.95	17.40	38.65
2508	"	1'-2'	8.50	.06	5.94	44.70	15.90	39.40
2509	"	2'-3'	8.50	.06	6.4	45.35	15.40	39.25
2510	"	3'-4'	8.50	.07	12.00	46.25	12.05	41.70
2511	"	4'-5'	8.50	.08	3.00	53.05	10.70	36.25
2512	281A	0"-6"	5.50	.02	2.8	70.95	16.60	12.45
2513	"	6"-1'	6.00	.02	4.00	64.08	13.20	22.72
2514	"	1'-2'	7.0-7.5	.02	10.1	61.55	11.80	26.65
2515	281B	0"-6"	7.0-7.5	.02	3.1	73.80	14.00	12.20
2516	"	6"-1'	7.0-7.5	.02	1.4	62.75	9.70	27.55
2517	"	1'-2'	8.00	.02	4.00	62.00	6.35	31.65
2518	"	2'-3'	8.00	.02	51.6	62.15	8.90	28.95
2519	281C	0"-6"	8.00	.04	22.6	70.95	8.60	20.45
2520	"	6"-1'	8.00	.02	5.3	67.90	10.45	21.65
2521	"	1'-2'	8.00	.04	4.8	64.33	10.75	24.92
2522	"	2'-3'	7.0-7.5	.02	19.84	67.68	13.35	18.97
2523	282A	0"-6"	7.0-7.5	.02	20.7	83.43	4.55	12.02
2524	"	6"-1'	7.0-7.5	.02	30.5	78.58	2.75	18.67
2525	"	1'-2'	8.00	.02	6.7	78.73	10.90	10.37
2526	282B	0"-6"	8.00	.02	5.2	82.33	4.30	13.37
2527	"	6"-1'	7.0-7.5	.03	4.00	74.33	5.45	20.22
2528	282C	0"-6"	8.00	.05	11.30	58.13	12.95	28.92
2529	"	6"-1'	8.00	.06	10.30	76.88	6.85	16.27

TABLE 2 : SHOWING THE RESULTS OF CHEMICAL ANALYSIS  
OF SOILS, i.e. EXCHANGEABLE BASES, BASE  
EXCHANGE CAPACITY AND NPK.

Sample No.	Site No.	Depth	Exchangeable in M.E.S				Base-exchange capacity in M.E.S	% age		
			Na+K	Mg.	Ca.	Total		N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
183	37A	0"-6"	2.0	1.2	4.0	7.2	8.8	.0476	.074	.282
184	"	6"-1'	2.4	0.8	9.2	12.4	15.3	.0338	.071	.238
185	"	1'-2'	2.4	0.8	9.4	12.6	17.0	.0280	.078	.266
186	37B	0"-6"	3.0	1.6	11.2	15.8	17.8	.0560	.055	.372
187	"	6"-1'	3.2	2.0	11.6	16.8	19.2	.0364	.047	.452
188	"	1'-2'	3.0	2.6	11.4	17.0	21.9	.0420	.075	.291
189	"	2'-3'	3.2	2.6	14.6	20.4	22.4	.0252	.108	.251
190	37C	0"-6"	4.6	3.2	15.6	23.4	32.9	.0728	.089	.268
191	"	6"-1'	4.4	3.0	15.4	22.8	32.5	.0392	.063	.245
192	"	1'-1½'	2.4	3.2	10.8	16.4	18.1	.0476	.078	.259
419	b2A	0"-6"	2.6	0.0	5.4	8.0	11.3	.0420	.108	.291
420	"	6"-1'	1.8	1.0	2.4	5.2	7.4	.0336	.137	.197
421	"	1'-2'	2.6	2.0	8.2	12.8	17.2	.0420	.142	.280
422	"	2'-3'	1.4	2.6	7.6	11.6	18.1	.0366	.142	.239
423	"	3'-4'	1.8	1.8	8.6	12.2	16.9	.0366	.143	.255
424	b2B	0"-6"	2.2	1.6	3.8	7.6	9.3	.0366	.037	.218
425	"	6"-1'	1.6	1.0	4.4	7.0	8.1	.0366	.037	.349
426	"	1'-2'	2.0	2.0	7.6	11.6	15.7	.0308	.049	.293
427	"	2'-3'	2.6	1.4	10.0	14.0	17.1	.0280	.063	.243
428	b2C	0"-6"	3.4	1.4	14.0	18.8	24.2	.0224	.052	.253
429	"	6"-1'	5.0	3.2	17.4	25.6	33.4	.0252	.061	.442
430	"	1'-2'	5.4	3.2	17.0	25.6	33.2	.0308	.055	.378
431	"	2'-3'	3.4	2.6	16.6	22.6	30.5	.0280	.063	.340
432	"	3'-4'	3.4	2.6	19.4	25.4	27.3	.0280	.054	.355
908	101A	0"-6"	1.4	1.2	5.0	7.6	9.3	.0532	.034	.273
909	"	6"-1'	2.8	3.0	8.8	14.6	17.5	.0476	.040	.344
910	"	1'-2'	0.6	3.0	14.8	18.4	19.3	.0368	.056	.350
911	"	2'-3'	6.4	1.6	19.2	27.2	27.4	.0308	.080	.377
912	101B	0"-6"	1.8	2.0	6.4	10.2	11.7	.0588	.045	.298
913	"	6"-1'	1.2	3.2	6.8	11.2	11.6	.0420	.063	.363
914	"	1'-2'	1.8	4.0	5.8	11.6	13.5	.0336	.043	.319
915	"	2'-3'	2.2	2.0	17.0	21.2	26.9	.0364	.063	.487

Sample No.	Site No.	Depth	Ex-changeable bases in M.E.S				Base-Ex-change capacity in M.E.S	% age		
			Na+K	Mg	Ca	Total		N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
1092	117A	0"-6"	1.4	0.0	8.2	9.6	11.3	.0532	.034	.273
1093	"	6"-1'	2.0	0.8	6.8	9.6	11.3	.0476	.040	.344
1094	"	1'-2'	2.4	0.8	7.4	10.6	12.5	.0368	.0356	.350
1095	"	2'-3'	3.6	0.4	14.4	18.4	18.6	.0392	.031	.273
1096	117B	0"-6"	3.2	2.0	3.6	8.8	13.6	.0782	.0880	.267
1097	"	6"-1'	2.4	3.4	6.2	12.0	18.1	.0448	.026	.282
1098	"	1'-2'	2.2	4.4	12.8	19.4	20.8	.0336	.036	.290
1099	117C	0"-6"	2.0	1.2	20.0	23.2	23.7	.0210	.042	.246
1100	"	6"-1'	4.0	0.2	15.6	19.8	21.30	.0315	.039	.321
1101	"	1'-2'	2.4	2.0	15.8	20.2	20.8	.0308	.049	.329
1102	"	2'-3'	1.6	1.2	14.4	17.2	17.6	.0616	.056	.344
1187	126A	0"-6"	1.0	0.0	7.0	8.0	9.1	.0308	.065	.292
1188	"	6"-1'	2.0	0.6	4.6	7.2	9.6	.0616	.059	.296
1189	126B	0"-6"	2.0	1.4	7.4	10.8	14.0	.0588	.027	.342
1190	"	6"-1'	3.0	2.2	12.2	17.4	17.9	.0476	.048	.307
1191	"	1'-2'	3.2	3.4	11.2	17.8	18.0	.0616	.028	.296
1192	"	2'-3'	6.0	4.4	10.8	21.2	21.6	.0728	.022	.325
1193	"	3'-4'	8.6	4.2	11.4	24.2	26.2	.0560	.019	.336
1194	"	4'-5'	4.8	2.4	10.6	17.8	18.3	.0392	.020	.332
1195	126C	0"-6"	5.6	0.6	5.4	11.6	14.8	.0700	.031	.325
1196	"	6"-1'	3.2	1.0	5.6	9.8	11.4	.0364	.025	.323
1197	"	1'-2'	4.8	0.8	8.2	13.8	14.2	.0644	.034	.263
1551	155A	0"-6"	3.8	0.2	6.2	10.2	16.3	.0784	.085	.455
1552	"	6"-1'	3.8	0.2	10.8	14.8	19.1	.0812	.053	.416
1553	155B	0"-6"	2.8	0.8	3.4	7.0	9.2	.0756	.062	.457
1554	"	6"-1'	3.6	1.6	3.8	9.0	9.8	.0368	.064	.411
1555	155C	0"-6"	4.0	0.2	6.2	10.4	17.6	.0672	.063	.442
1556	"	6"-1'	2.0	2.2	6.6	10.8	18.9	.0588	.072	.538
1557	"	1'-2'	4.4	2.4	11.6	18.1	22.7	.0504	.080	.500
1558	"	2'-3'	2.0	2.6	10.2	14.8	16.20	.0224	.057	.430

Sample No.	Site No.	Depth	Exchangeable bases in M.E.S.				Base exchange capacity in M.E.S.	% age		
			Na+K	Mg	Ca	Total		N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
1753	172A	0"-6"	1.4	1.2	2.6	5.2	6.0	.0504	.030	.523
1754	"	6"-1'	1.0	2.0	4.6	7.6	9.1	.0364	.038	.410
1755	"	1'-2'	1.4	3.0	9.6	14.0	14.6	.0280	.029	.395
1756	"	2'-3'	0.8	1.8	9.4	12.0	16.2	.0280	.033	.395
1757	"	3'-4'	1.8	1.8	11.6	15.2	22.0	.0252	.027	.430
1758	"	4'-5'	1.8	4.6	16.0	22.4	25.1	.0616	.060	.474
1759	"	5'-6'	2.4	0.0	20.4	22.8	23.3	.0224	.069	.579
1760	"	6'-7'	2.6	2.8	19.0	24.4	24.9	.0168	.126	.687
1761	"	7'-8'	2.2	1.6	20.0	23.8	24.3	.0168	.132	.674
1762	172B	0"-6"	1.2	1.2	2.6	5.0	5.3	.0280	.018	.362
1763	"	6"-1'	0.6	3.0	17.2	20.8	29.7	.0338	.026	.368
1764	"	1'-2'	3.2	2.0	20.2	25.4	33.8	.0532	.023	.358
1765	"	2'-3'	3.2	2.2	21.0	26.4	35.7	.0506	.020	.335
1766	172C	0"-6"	1.8	3.0	8.6	13.4	15.4	.0700	.027	.345
1767	"	6"-1'	1.8	2.2	15.0	19.0	22.6	.0336	.037	.335
1768	"	1'-2'	2.8	3.2	14.0	20.0	24.2	.0392	.035	.370
1769	"	2'-3'	1.6	3.6	16.4	21.6	23.7	.0392	.046	.376
1770	"	3'-4'	1.6	2.8	10.0	14.4	18.5	.1568	.074	.331
1968	190A	0"-6"	1.8	0.2	1.6	3.6	6.9	.0616	.030	.666
1969	"	6"-1'	0.8	0.4	2.8	4.0	9.0	.0672	.026	.612
1970	"	1'-2'	3.2	1.2	7.0	11.4	14.2	.0588	.026	.552
1971	190B	0"-6"	2.8	1.2	5.6	9.6	16.6	.0616	.034	.633
1972	"	6"-1'	2.4	2.0	9.6	14.0	17.9	.0728	.037	.360
1973	"	1'-2'	2.8	1.6	9.2	13.6	19.7	.0672	.026	.356
1974	190C	0"-6"	2.4	1.6	9.2	13.2	21.5	.0616	.046	.476
1975	"	6"-1'	2.4	1.8	8.6	12.8	17.4	.0644	.047	.403
2115	209A	0"-6"	2.0	2.2	7.6	11.8	17.2	.0588	.050	.478
2116	"	6"-1'	3.0	1.4	6.8	11.2	15.2	.0644	.049	.500
2117	209B	0"-6"	3.0	1.4	8.8	13.2	17.2	.0728	.055	.397
2118	"	6"-1'	3.5	1.0	13.4	17.9	18.9	.0756	.049	.457
2119	"	1'-2'	4.4	3.0	16.6	24.0	24.7	.0924	.045	.560
2120	209C	0"-6"	3.4	0.6	11.0	15.0	19.0	.0868	.038	.365
2121	"	6"-1'	3.6	0.8	8.8	13.2	15.8	.0700	.044	.453

Sample No.	Site No.	Depth	Exchangeable bases in M.E.S.				Base Exchange Cap. in M.E.S.	% age		
			Na+K	Mg.	Ca.	Total		N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
2294	254A	0"-6"	2.4	4.8	15.0	22.2	28.8	.0588	.085	.565
2295	"	6"-1'	2.2	4.0	17.6	23.8	26.3	.0588	.062	.647
2296	254B	0"-6"	2.6	7.0	24.2	33.8	45.7	.0616	.098	.710
2297	"	6"-1'	1.8	7.6	26.2	35.6	43.7	.0896	.134	.780
2298	254C	0"-6"	2.6	4.6	24.4	31.6	41.8	.0840	.112	.643
2299	"	6"-1'	2.2	3.6	26.4	32.2	40.8	.0840	.134	.600
2300	"	1'-2'	1.4	3.8	20.0	25.2	31.1	.0868	.058	.455
2301	"	2'-3'	1.6	3.4	15.8	20.8	21.4	.0792	.120	.399
2302	"	3'-4'	2.0	4.2	12.8	19.0	23.2	.0952	.114	.358
2303	"	4'-5'	1.8	4.0	13.8	19.6	24.3	.0980	.094	.314
2437	271A	0"-6"	1.8	3.0	8.4	13.2	19.6	.1036	.045	.335
2438	"	6"-1'	2.0	3.6	12.4	18.0	23.4	.0868	.045	.376
2439	"	1'-2'	1.4	3.6	12.6	17.6	25.7	.1008	.028	.360
2440	271B	0"-6"	2.2	4.4	10.8	17.4	26.0	.0980	.030	.372
2441	"	6"-1'	2.0	5.4	14.8	22.2	25.7	.0952	.026	.370
2442	"	1'-2'	2.0	6.4	14.0	22.4	25.6	.1008	.030	.405
2443	271C	0"-6"	2.8	3.2	13.6	19.6	25.2	.0840	.049	.416
2444	"	6"-1'	1.0	3.2	9.4	13.6	17.1	.1120	.035	.387
2445	"	1'-2'	1.0	4.0	6.8	11.8	13.5	.1008	.040	.430
2499	280A	0"-6"	0.6	1.6	4.6	6.8	7.9	.0924	.035	.370
2500	"	6"-1'	0.8	1.8	3.8	6.4	7.0	.0952	.024	.391
2501	"	1'-2'	1.4	2.2	8.6	12.2	14.3	.1036	.022	.376
2502	"	2'-3'	1.0	3.2	13.4	17.6	23.5	.1064	.034	.418
2503	280B	0"-6"	1.6	2.0	7.0	10.6	12.5	.0868	.071	.395
2504	"	6"-1'	1.2	2.2	10.0	13.4	18.9	.0924	.049	.382
2505	"	1'-2'	1.6	2.6	14.4	18.6	28.2	.1036	.030	.445
2506	280C	0"-6"	2.8	5.2	22.0	30.0	47.0	.0868	.062	.351
2507	"	6"-1'	3.6	5.4	21.6	30.6	45.6	.0784	.059	.349
2508	"	1'-2'	4.0	5.2	18.8	28.0	38.3	.0784	.044	.341
2509	"	2'-3'	2.8	7.6	19.0	29.4	48.4	.0700	.041	.401
2510	"	3'-4'	2.8	7.4	20.8	31.0	46.0	.0728	.034	.753
2511	"	4'-5'	2.8	5.8	20.0	28.6	28.7	.0700	.038	.589