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Sediment records of modern and prehistoric hurricane strikes in Weeks Bay, Alabama

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SEDIMENT RECORDS OF MODERN AND PREHISTORIC HURRICANE STRIKES
IN WEEKS BAY, ALABAMA

A Thesis

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Master of Science

in

The Department of Geography and Anthropology

by
Yun Huang
B.S., Nanjing University, 2005
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ABSTRACT

This study aims to find modern and prehistoric hurricane records in sediment from marsh and swamp forest surrounding Weeks. Hurricane Ivan made landfall in this area at category 3 intensity in 2004. Hurricane Katrina and Hurricane Frederic also seriously affected this region in 2005 and 1979, respectively.

Seventy two cores were taken from marshes, swamps, and bay bottom. The cores, taken from baymouth marsh, contain a prominent Ivan sand layer, and possibly a prominent Frederic sand layer as well. For those cores taken from the marshes and swamps around the eastern, western, and northern Weeks Bay, there is no distinct sand layer at the top that could be attributed to Hurricane Ivan, Katrina, or Frederic. However, a distinct mud or clay layer, probably representing the storm deposit left by Ivan, was found at the top of many of these cores except those from the northern and eastern swamps forest. Hurricane Katrina may have left a marker in sediments of the Weeks Bay region. However, Hurricanes Ivan and Katrina's signatures in these cores are not individually distinguishable because of the short time interval between them and the slow sedimentation rate.

Overall, the occurrence of the Ivan storm deposit is spatially variable in different places around Weeks Bay. Research results show that sediment supply and sediment transport mechanism are important factors affecting the nature and strength of the proxy signal in the paleohurricane records. The temporal analysis of past catastrophic hurricanes from core WB 3-1 and WB 06-9 shows that four periods with different frequencies of major hurricane activities exist. Due to the limited dating control and the complexity of the depositional environment around Weeks Bay, it is premature to

evaluate these frequent estimates in the context of chronological pattern of paleohurricane activity derived from other Gulf Coast lakes and marshes. Better dating control and more data on environment changes in Weeks Bay are needed to further test the Bermuda High hypothesis.

CHAPTER 1

INTRODUCTION

Hurricanes, especially the major hurricanes (Saffir/Simpson categories 3, 4, 5), play a very important role in affecting the Gulf coastal region's economy and ecosystems. For example, Hurricane Katrina (2005) and Ivan (2004) made destructive impacts to New Orleans and southern Alabama, respectively. However, official historical records of hurricane events are only confined to the last 158 years since 1851 (Landsea, 2004). Fortunately, the development of paleotempestology has made it possible to reconstruct the history of hurricane events back to centuries or even millennia (Liu, 2004, 2007a). In paleotempestology research, overwash sand deposits in backbarrier lakes and marshes were used as a proxy to reconstruct the major events in the past (Liu and Fearn, 1993, 2000a; Donnelly et al., 2001a, 2001b, 2004a). However, whether any other kinds of storm deposition, such as compacted mud layer, can be used effectively as a proxy in the muddy environments of embayment marshes with little sand supply remains to be explored.

In addition, modern analogs obtained from recent hurricane events are needed to calibrate the paleo-hurricane records for more accurate interpretation. In Alabama, the last two intense hurricane landfalls by Hurricanes Frederic (1979) and Ivan (2004) could be used as modern analogs. However, because Hurricane Frederic occurred in 1979, long before the development of the science of paleotempestology (Liu and Fearn, 1993), researchers had not been able to promptly take advantage of the opportunity offered by Hurricane Frederic to link the geomorphic processes of a modern intense hurricane strike to the paleohurricane records deposited in the coastal lake sediment. Thus Ivan, which

made landfall in Alabama in 2004, provides an excellent but rare opportunity to directly compare pre-storm and post-storm conditions at the same. In my thesis research, I will study the deposition patterns of two modern major hurricanes, Ivan (2004) and Katrina (2005), and use these two storms as modern analogs to calibrate paleo-hurricane reconstruction work.

This research investigates the depositional pattern of Hurricanes Ivan and Katrina around Weeks Bay, Alabama, to understand the spatial and temporal dynamics of storm deposition caused by intense hurricanes. Then this modern evidence is applied to interpret the paleohurricane records obtained from Weeks Bay. This research will try to seek answers for the following questions:

1. What is the spatial distribution of storm surge deposits in coastal marshes without a major sand barrier? Is the presence or distribution of a storm deposit dependent on the storm surge height, distance from the sediment source, and sediment type?
2. Can mud or other sediment layers beside sand layer be used as the proxy indicator to interpret paleohurricane records? And what factors determine the use of proxy indicator of paleohurricane records?

In addition, this research also seeks to investigate the frequency of past hurricane strikes in Weeks Bay. The reconstructed chronological pattern of hurricane strikes in Weeks Bay could be used to evaluate the Bermuda High hypothesis (Liu, 2004).

The results of this research will provide an unusual case study in paleotempestology in a bay with a complex environment.

CHAPTER 2

LITERATURE REVIEW

2.1 Paleotempestology

Paleotempestology is a young field of science that studies past tropical cyclone (hurricane) activity based on geological proxy evidence as well as historical documentary records (Liu, 2007a). Since Liu and Fearn (1993) pioneered this research field, there have been several proxies or evidences used to reconstruct past hurricane activities.

Historical documents, including historical newspapers, plantation diaries, government records, and ship logs, can help researchers reconstruct detailed records of hurricane activities during the historical period. For instance, Louie and Liu (2003) found the earliest known written reference and description of typhoons (Pacific tropical cyclones) in an ancient Chinese text dating to the fifth century AD. Because of the voluminous archives of imperial government documents and semi-official regional gazettes, there is a long valuable record of typhoon activities in China. Louie and Liu (2003) also obtained a historical record of a typhoon that struck the coastal city of Mizhou in Shandong Province of northern China in AD 816, which is the earliest recorded tropical cyclone landfall in China, and perhaps also in the world. In addition, Liu et al. (2001) reconstructed a 935-year time series of typhoon landfalls for Guangdong Province from AD 975 to 1909. Written records of North Atlantic hurricanes can also be obtained from Spanish colonial records and British naval logs (Herrera et al., 2004). Using other historical records such as plantation logs and newspapers, Mock (2004) has produced the most complete historical tropical cyclone reconstruction for the U.S., a 222-year record (1778-2000) for the Charleston, South Carolina, area.

Geological evidence is the most important data source for studying prehistoric hurricane activities. There are several useful sources of geological proxy data, including lake and marsh sediments, as well as isotopic records from tree rings and stalagmites. For instance, Miller et al. (2006) built a 220-year record of oxygen isotope values in longleaf pine tree rings that preserves evidence corresponding with known 19th and 20th century landfalling/near-coastal tropical storms and hurricanes. Frappier et al. (2007) also produced a 23-year stalagmite record (1977–2000) of oxygen isotope variations associated with the 11 tropical cyclones that affected the Actun Tunichil Muknal cave area in central Belize.

Because of the extreme energy, hurricanes, especially the major hurricanes (\geq category 3), can cause strong winds and high storm surges when they make landfall. Then they may leave distinct storm deposits in coastal or backbarrier lagoons and lakes. These deposits, typically sandy overwash deposits, are easily distinguishable from the normal-deposited organic lacustrine sediments. Each layer can be interpreted as one hurricane event. If there is no dramatic geologic change through time at the site, the thickness and horizontal extent of these layers should reflect the intensity of the individual storms (Liu and Fearn, 1993). Liu and Fearn (1993, 2000a, 2000b) made a fundamental contribution in applying the overwash sand layers to reconstruct a millennial-scale record of hurricane activities in coastal lakes in southern Alabama and northwestern Florida. Furthermore, Donnelly and et al. (2001a, 2001b, 2004a, 2004b) and Donnelly and Webb (2004) produced millennial-scale stratigraphic records of paleohurricane activities from a series of vibracores from backbarrier marshes in New England and New Jersey. Moreover, based on the discovery that rainfall from hurricanes

has distinct oxygen isotopic signature that can be distinguished from other kinds of precipitation (Lawrence and Gedzelman, 1995), recently scientists have successfully used the isotopic signature measured from the growth bands of tree rings and speleothems to reconstruct recent and historical hurricane events (Miller et al., 2006; Frappier et al., 2007).

2.2 Storm Deposition in Coastal Marshes

One method to study paleotempestology uses the overwash deposits caused by major hurricanes in coastal marshes. Storm surges caused by major hurricanes may overtop sandy barriers such as beaches or sand dunes and deposit overwash fans across back-barrier marshes. Due to rising sea level, the accumulation of marsh sediments on top of these storm deposits would preserve a record of overwash deposition if the sediment stratigraphy is not disturbed or destroyed by subsequent disturbance (Donnelly, 2001a and 2001b).

According to Schwartz (1975), tidal flow through inlets and overwash process associated with storm surge are the most common mechanisms that transport barrier sediments landward into back-barrier marshes or lagoons. Also, Davis et al. (1989) found that intense hurricanes result in significant alteration of the coastal sedimentary environment and can preserve a geological record of these events under appropriate depositional circumstances. Later, Kelley et al. (1995) concluded that backbarrier salt marsh sediments could contain evidence of past storms.

Through researching these storm-deposited layers, Liu and Fearn (1993, 2000a, 2000b) deduced prehistoric landfall records of major hurricanes in Alabama and northwestern Florida, while Donnelly et al. (2001a, 2001b, 2004a and 2004b) and

Donnelly (2005) documented back-barrier sedimentary records of intense hurricane landfalls in New Jersey, Rhode Island, Maine, and Puerto Rico. Moreover, Scileppi and Donnelly (2007) also found sedimentary evidence of hurricane strikes in New York. Furthermore, Cheung et al. (2007) used numerical modeling and field evidence of coastal overwash in southern New England to support the usefulness of overwash deposit in interpreting prehistorical hurricane records.

Based on past research, several factors can affect the overwash impact and the resultant deposits. Liu and Fearn (2000b) postulated that the stronger the hurricane, the greater the storm surge level and wave amplitude, and thus the more severe the overwash impacts and the more extensive the overwash fan. And this principle has been supported by Donnelly and Webb's (2004) research on recent or historical hurricane record and model study. Moreover, according to Donnelly and Webb (2004), spatial and temporal variability in barrier beach height can further complicate the sedimentary record of storms, thus affecting the sensitivity of backbarrier locations.

In defining hurricane-caused overwash layers in sediment, Scileppi and Donnelly (2007) identified overwash layers on the basis of their sedimentary characteristics that fit a set of criteria. Typical backbarrier sedimentation is characterized by fine-grained, organic-rich mud and peat while barrier beach sediment in western Long Island consists of well-sorted and rounded sand. Sand units punctuating the backbarrier sediments are interpreted as overwash deposits given that barrier beaches are the most likely sediment source and the relatively coarse grain size must result from higher transport energy. Overwash deposits commonly have sharp lower contacts, which indicate a sudden onset of high transport energy and, in some cases, the erosion of substrate during the event

(Donnelly et al., 2001b; Donnelly and Webb, 2004). Dark, parallel laminations of heavy minerals are common features of overwash deposits (Schwartz, 1975; Hennessy and Zarillo, 1987) and similarity between the buried sand and modern beach sand point to the barrier beach as the major sediment source.

In addition to Donnelly and et al. (2001a, 2001b, 2004a, 2004, 2005)'s work in paleohurricane study in backbarrier marshes in northeastern Atlantic coast and Caribbean region, several studies on estuarine and coastal marshes along the Gulf of Mexico coast have been done for paleotempestology records (Zhou, 1998, Liu and Fearn, 2000b, Liu, 2004). When a hurricane makes landfall on the estuarine and coastal marshes, the storm wind usually blows out the water of the bay area or forces out the surface water of the coastal water to inundate the surrounding marshes, depositing the sediment brought from the bottom of the bay or coastal environment on the marsh surface. These storm deposits usually contain clastic sand, silt or clay, as well as distinct assemblages of pollen, diatoms, and marine microfossils (Liu et al., 2008). Hence, studying these storm deposits can also serve as indicators of paleohurricanes.

CHAPTER 3

STUDY SITE

3.1 Weeks Bay

Weeks Bay is located on the east side of Mobile Bay in Baldwin County, Alabama, approximately 40 miles southeast of Mobile, Alabama, and 50 miles west of Pensacola, Florida (Figure 3-1 and Figure 3-2). The bay and the most of the land surrounding it are managed as a National Estuarine and Research Reserve (NERR) that is administered jointly by the Alabama Department of Natural Resources and National Oceanographic and Atmospheric Administration (NOAA).

Weeks Bay is a small estuarine embayment averaging a depth of 1.4 m and a drainage area of almost 8 km². It has two major inputs of fresh water: the Fish River in the north and the Magnolia River in the east. One input of brackish water is from a southern inlet into Mobile Bay. During extreme flooding, the speed of water input from Fish River has been estimated at 243 m³s⁻¹. Fish and Magnolia Rivers have depth ranges from 2 to 14 meters (6-42 feet). Estimates of the replacement for water in Weeks Bay from freshets are about two or three days, and normal tidal exchange can do the same in three days. Tidal range in the estuary is from 0.3 to 0.5 meters (1.0 - 1.5 feet)

([www.eoearth.org/article/Weeks Bay National Estuarine Research Reserve, Alabama](http://www.eoearth.org/article/Weeks_Bay_National_Estuarine_Research_Reserve,_Alabama)).

The water in Weeks Bay is considered to be brackish, but the salinity is variable depending on rivers, inlet, tides, and seasons (Haywick et al., 2003).

Surrounding fringed areas of Weeks Bay are covered by marsh (*Spartina*, *Juncus*) and swamp (*Pinus*, *Quercus*, *Magnolia*, *Acer*, *Cupressus*, *Myrica pensylvanica*, *Nyssa*, and others). Fish River, Magnolia River and several small tidal streams in the Weeks Bay

area are bordered by a forested wetland type known as bay, tupelo, and cypress swamp. In those swamps, the vegetation varies, partly depending on the amount and duration of flooding. If flooding is extensive, pond cypress (*Cupressus*) and swamp tupelo (*Nyssa*) may dominate the canopy. Red maple (*Acer Rubrum*), swamp tupelo (*Nyssa*), swamp bay (*Laurus Nobilis*), and tulip (*Tulipa*) may also occur in these swamps. Along upper reaches of streams, especially along Fish and Magnolia rivers, white cedar (*Thuja Occidentalis*) becomes more common in swamps. Few plants live under the dense shade of these trees; some of the exceptions are Virginia willow (*Itea Virginica*), star anise (*Illicium Anisatum*), and fetterbrush (*Leucothoe*). The edge of Weeks Bay supports marshes that are dominated by salt-tolerant herbs and grass-like plants. In the intertidal zone there are two local abundant species of cordgrass (*Spartina Alterniflora* and *S. Cynosuroides*). Moreover, other frequent species are salt grass (*Distichlis Spicata*), saltmeadow cordgrass (*Spartina Patens*), salt marsh aster (*Aster Subulatus*), marsh gardenia (*Gardenia*) and sea lavender (*Limonium Vulgare*). The submerged grassbeds have decreased during recent decades. Remaining grassbeds are dominated by four species. Among those four species, widgeon grass (*Ruppia Megacarpa*) is most abundant, while other three are Eurasian waterfoil (*Myriophyllum Spicatum*), tapegrass (*Vallisneria Spiralis*) and slender pondweed (*Potamogeton Pusillus*). Furthermore, the reserve lands also include upland and bottomland hardwood forests, freshwater marsh (*Typha*, *Cladium*), and unique bog habitats (*Sarracenia*, *Drosera*) (www.eoearth.org/article/Weeks_Bay_National_Estuarine_Research_Reserve,_Alabama).

According to Haywick et al.'s (2003) study, the bottom of Weeks Bay is largely covered by fine siliciclastic sediment (clayey silt), which is typical of fair-weather



Figure 3-1: Google Earth® Image of Gulf of Mexico and Weeks Bay

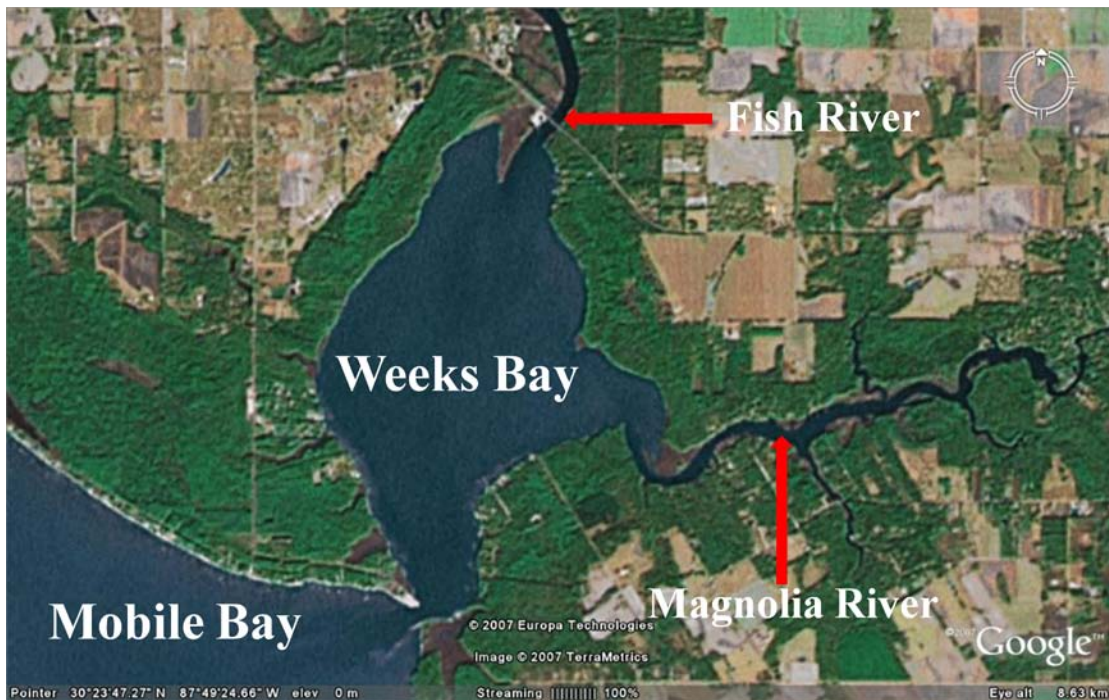


Figure 3-2: Google Earth® Image of Mobile Bay and Weeks Bay



Figure 3-3: Photos of Weeks Bay

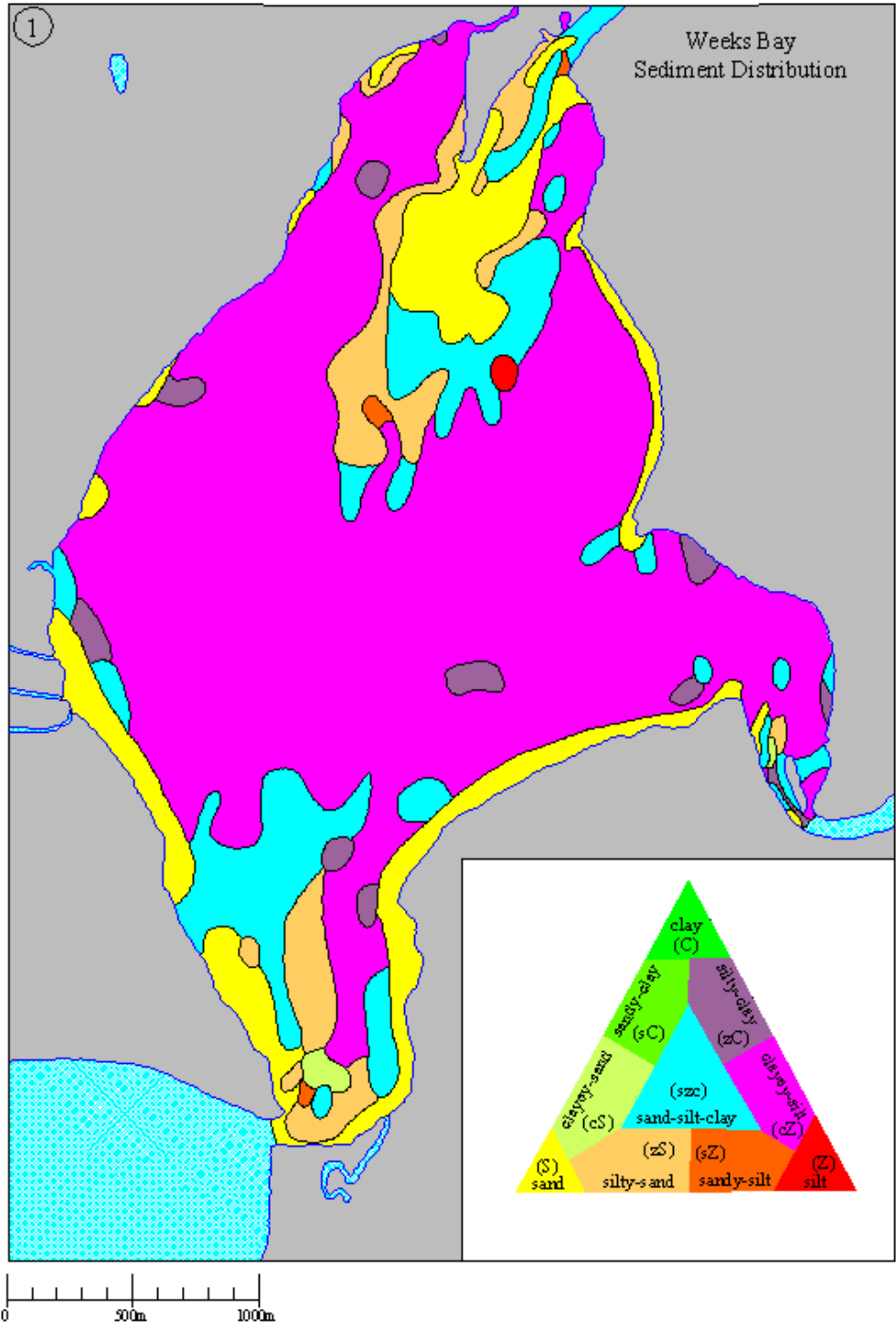


Figure 3-4: Weeks Bay Sediment Distribution (Haywick et al., 1998)

sedimentation in all but the shoreline areas of the bay. Shorelines in the east and south are dominated by fine to medium quartz sand. Figure 3-4 shows the sediment distribution of Weeks Bay. The surface of the marsh and swamp at Weeks Bay NERR is characterized by two types of surface soils - Malbis-Orangeburg-Pansey Association and Dorovan-Plummer-Tidal March Association. The Malbis-Orangeburg-Pansey Association is deep, moderate to well-drained, level- to gently-sloping, sandy clay loams. The Dorovan-Plummer-Tidal March Association is variable, depending on location, normally level, poorly-drained, organic soils (<http://www.nerrs.noaa.gov/WeeksBay/>).

Weeks Bay has been hit by many major hurricanes since 1851. From Figure 3-5 and Table 3-1, we can see that Hurricane Frederic in 1979, Elena in 1985, Opal in 1995, Ivan in 2004, and Dennis in 2005 all passed within 65 km of Weeks Bay in recent years.

Among these hurricanes, Hurricane Frederic and Ivan had the biggest impact on Weeks Bay due to their storm energy and proximity. In addition, Hurricane Katrina in 2005 also had significant impact on Weeks Bay due to its high storm surge at 2.5 m (personal communication, Dr. Scott Phipps, Weeks Bay NERR), although it made landfall in southern Louisiana, which is far from Weeks Bay.

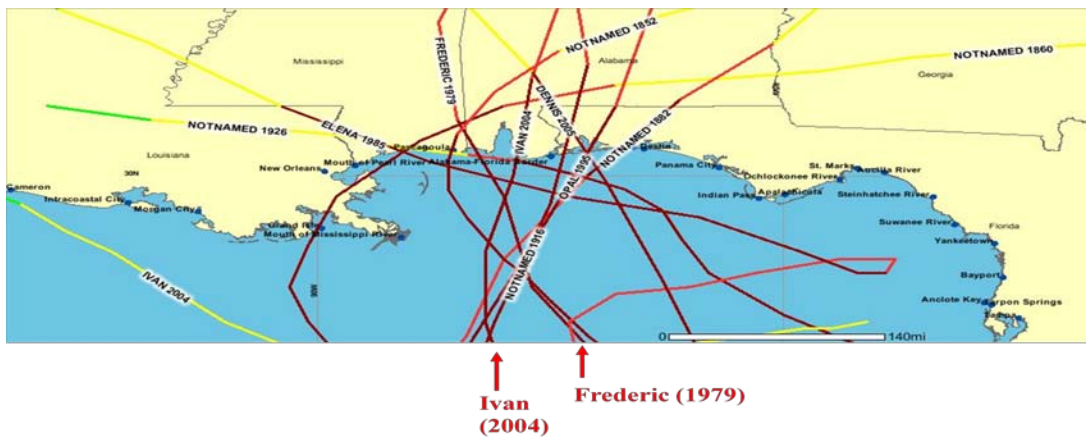


Figure 3-5: Track Map of Intense Hurricanes (cat 3-5) within 65 km Radius from Weeks Bay since 1850 (<http://maps.csc.noaa.gov/hurricanes/viewer.html>)

Table 3-1: Intense Hurricanes (cat 3-5) within 65 km Radius from Weeks Bay since 1850
 (<http://maps.csc.noaa.gov/hurricanes/viewer.html>)

Record	Year	Month	Day	Storm Name	Wind Speed (KTS)	Pressure (MB)	Category
1	1852	8	26	NOTNAMED	100	0	H3
2	1852	8	26	NOTNAMED	100	961	H3
3	1860	8	12	NOTNAMED	100	0	H3
4	1882	9	10	NOTNAMED	100	949	H3
5	1916	10	18	NOTNAMED	100	974	H3
6	1926	9	20	NOTNAMED	110	0	H3
7	1926	9	20	NOTNAMED	105	0	H3
8	1979	9	12	FREDERIC	115	950	H4
9	1979	9	13	FREDERIC	115	946	H4
10	1985	9	2	ELENA	105	957	H3
11	1995	10	4	OPAL	110	938	H3
12	2004	9	16	IVAN	110	931	H3
13	2004	9	16	IVAN	105	943	H3
14	2005	7	10	DENNIS	110	942	H3
15*	2005	8	29	Katrina	125	913	H4

* Katrina was not in the search radius, but it is added here due to its impacts

3.2 Hurricane Ivan

Hurricane Ivan was the ninth named storm, the sixth hurricane, and the strongest hurricane of the 2004 Atlantic hurricane season. Hurricane Ivan killed 25 people in the United States and caused an estimated \$17.7 billion in damage in the United States alone. The heaviest damage on the U.S. coastline was observed in Baldwin County in Alabama, and the storm's eye made landfall near Pensacola (Stewart, 2005).

Tropical Depression Ivan developed on the afternoon of Thursday, September 2, 2004, 885 km southwest of the Cape Verde Islands. It became a Tropical Storm early on Saturday, September 4, approximately 2,574 km east-southeast of the Lesser Antilles. Then Ivan became the 5th Hurricane of the 2004 Atlantic season at around 5:00 AM,

Sunday, September 5, 2004. From September 7 through September 13, Hurricane Ivan maintained at least category 4 intensity during its journey across the central Atlantic into the Caribbean. Ivan gradually turned toward the north as it moved through the Gulf of Mexico on September 14 and 15 of 2004. Before landfall, Ivan maintained in the category 4 intensity. And it slightly decreased into a strong Category 3 storm, just before making landfall around 2:00 am of September 16 in Gulf Shores of Alabama. The maximum sustained winds at landfall were estimated to be near 209 km hr^{-1} , with a minimum pressure of 943 millibars (Stewart, 2005).

Hurricane Ivan weakened rapidly as it moved north and then northeast across Alabama on Thursday, and was downgraded to a tropical storm. It was further downgraded to a tropical depression late on Thursday evening. It is very interesting that the Ivan remained a tropical depression as it slowly moved northeast across Georgia and Tennessee during Thursday night and Friday morning, respectively. Later, Ivan turned south and crossed the Florida peninsula, and made a final landfall near Cameron, Louisiana, on the evening of September 23, as a tropical depression. At last, Ivan quickly dissipated as it traveled overland into southeast Texas.

When Ivan's eye was approaching Weeks Bay, the offshore wind blew the water out from the bay in the beginning. When the eye passed by Weeks Bay, water level in Weeks Bay rose 2.4 m in 0.5 hour during Ivan's storm surge. In fact, Ivan caused 1.4-1.5 m storm surge there. By comparison, Hurricane Katrina made landfall in southeastern Louisiana on August 29 of 2005, and it made storm surge of 2.5 m in Weeks Bay. Marshes around Weeks Bay were inundated during Ivan, and again during Katrina (personal communication, Dr. Scott Phipps, Weeks Bay NERR).

The impact of Ivan on Weeks Bay was different from Katrina's. Water initially retreated from Weeks Bay and then came back quickly with dramatic fluctuation of water level during Ivan, while water came up more gradually during Katrina (personal communication, Dr. Scott Phipps, Weeks Bay NERR). Hence, Ivan had a bigger impact on Weeks Bay than Katrina even though Ivan's storm surge was lower.

CHAPTER 4

METHODOLOGY

4.1 Coring/Trips/Core Locations

Seventy-two cores were taken during three expeditions to Weeks Bay. The first expedition was undertaken on August 12th- 13th, 2005. Twenty-five cores were taken in five different areas around the bay (Figure 4-1). Core WB 1 was taken in the small marsh on the west side of a spit formed by the Fish River. Cores WB 2 to WB 4 were taken along the northern marsh south of the Gazebo. Cores WB 5 and WB 6 were taken in the swamp on the east side of Weeks Bay. Cores WB 7 to WB 16 were taken in the marsh at the mouth of the Magnolia River. Cores WB 17 to WB 25 were taken in the marsh on the west side of Weeks Bay.

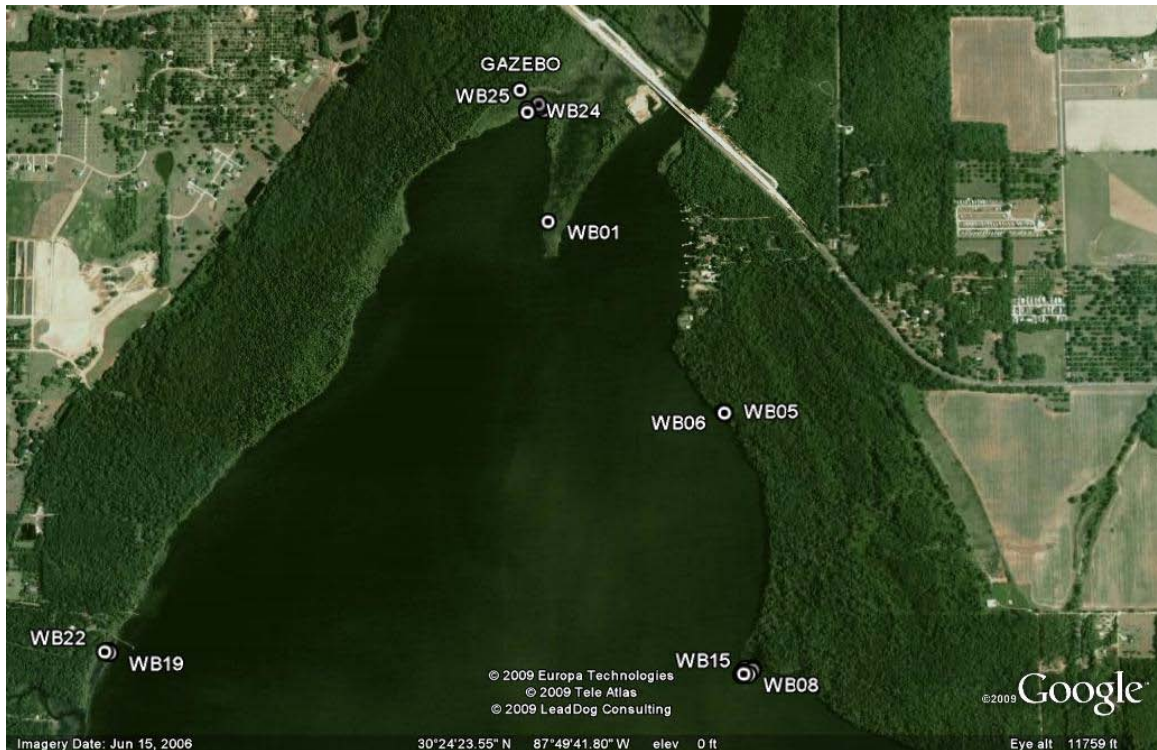


Figure 4-1: Google Earth[®] Image with GPS Records of Coring Sites in August 2005

The second expedition was done on February 26-27, 2006, after Katrina. The purpose was to find the storm deposit caused by Katrina in 2005. Cores WB 06-1 to WB 06-18 were taken along the transect from the swamp to marsh on the northern area of Weeks Bay. Cores WB 06-19 and WB 06-20 were taken in the same site as WB 1 in 2005. Cores WB 06-21 and WB 06-22 were taken in the same swamp as cores WB 5 and WB 6. Similarly, six cores of WB 06-23 to WB 06-28 were taken in the same marsh as cores WB 7 to WB 16. Also, six cores of WB 06-29 to WB 06-34 were taken in coordination with WB 17 to WB 25 in the same marsh. In the end, three cores of WB 06-35 to WB 06-37 were taken in the marsh on the west side of the Fish River mouth (Figure 4-2).

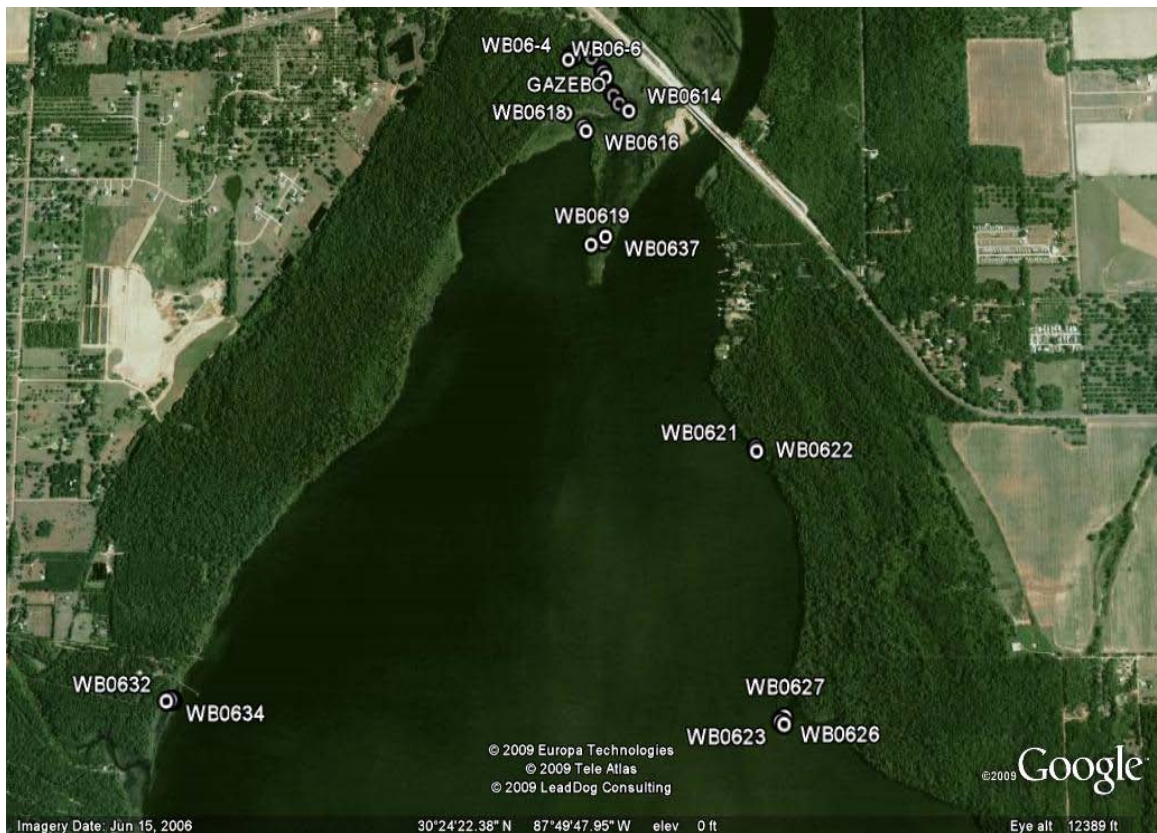


Figure 4-2: Google Earth[®] Image with GPS Records of Coring Sites in February 2006

To obtain a more complete areal coverage of storm deposition, a third expedition was carried out on May 22-23, 2006. Cores WB 3-1 to WB 3-7 were taken along a transect in the marsh southwest of the Gazebo, which is in the north of Weeks Bay where no cores had been taken previously. In addition, for detecting the overwash deposition pattern in the mouth of Weeks Bay, four cores, WB 3-8 to WB 3-11, were taken in a north-to-south transect in the marsh behind the parking lot (a sand beach) near the mouth of Weeks Bay. Furthermore, cores WB 3-12 and WB 3-13 were taken in the same swamp as WB 5 but further landward into the swamp. Moreover, in order to reveal the pattern of sedimentation in the bottom of Weeks Bay, core WB 3-14 was taken under open water in the northern part of Weeks Bay at a site not far from core WB 3-1. At last, WB 3-15 was taken in the same marsh as WB 17 to check the sediment condition of the marsh (Figure 4-3).



Figure 4-3: Google Earth[®] Image with GPS Records of Coring Sites in May 2006

Modified Livingstone piston corer was used to retrieve long cores from marsh sediment. The core tubes consist of a 1.5-m-long detachable clear-PVC tube fitted with a stainless steel cutting shoe at the end. After retrieval from the site, the coring tube containing the sediment was held upright and sealed with rubber stoppers at both ends to minimize disturbance during transportation. In order to avoid the compression problem inherent in cores taken by the Livingstone piston corer, a Russian peat corer was used from time to time to collect uncompressed, albeit short, cores from some marsh. The corer, which is made of stainless steel, can take a half-cylinder of short cores each about 0.5 m long. After coring, the undisturbed sediment was transferred to a plastic tube which was then covered by plastic wrap and aluminium foil and wrapped around by duct tape for protection. All these cores were transported to the Biogeography Lab at LSU for storage and analysis. During coring, a GPS was used to record the coordinates of each coring site.

4.2 Loss-on-ignition Analysis

After being transported back to the laboratory, the cores were kept in a 4°C cold room until lab analysis. Livingstone cores were opened longitudinally by means of an electric table saw. When the cores were opened, they were visually inspected to detect any visible sand layers and other stratigraphics characteristic of the sediment. The observations were described in a stratigraphic diagram. Before the loss-on-ignition (LOI) analysis, the cores were photographed with a digital camera. For LOI analysis the cores were sampled continuously at 1 cm intervals along the cores by using a small spatula. Rubber gloves were worn during sampling to keep oil from the fingers away from the sample.

Loss-on-ignition (LOI) analysis is a common and widely-used method to estimate the

organic and carbonate contents of sediments (e.g., Dean, 1974; Bengtsson and Enell, 1986; Shuman et al., 2004). The samples were put into cleaned and pre-weighted crucibles (Tare) and then weighed (Tare+Wet) with an electronic balance. All LOI analyses were carried out in a Nabertherm® Controller C6 muffle furnace with digital temperature display and thermostatic temperature control. First, samples were placed into an oven and heated at 105°C overnight to dry them. Then the samples were cooled in a desiccator to room temperature and then weighed (Tare+Dry) to determine the percentage of water loss. The samples were then put into a muffle furnace and heated at 550°C for two hours to determine the organic matter content. After cooling in the desiccator to room temperature the samples were weighed again (Tare+550). Finally, the samples were heated in the furnace at 1000°C for one hour to determine the carbonate content (Tare+1000). The weight loss percentages were calculated according to the equations below and plotted on the loss-on-ignition graphs.

Percentage Calculation

$$\% \text{ Water} = 100 \times (\text{Wet Weight} - \text{Dry Weight}) / \text{Wet Weight}$$

$$\% \text{ Organic} = 100 \times (\text{Dry Weight} - 550 \text{ Ash Weight}) / \text{Dry Weight}$$

$$\% \text{ Carbonate} = 100 \times (550 \text{ Ash Weight} - 1000 \text{ Ash Weight}) / \text{Dry Weight}$$

$$\% \text{ Residual} = 100 \times 1000 \text{ Ash Weight} / \text{Dry Weight}$$

And

$$\text{Wet Weight} = (\text{Tare} + \text{Wet}) - \text{Tare}$$

$$\text{Dry Weight} = (\text{Tare} + \text{Dry}) - \text{Tare}$$

$$550 \text{ Ash Weight} = (\text{Tare} + 550) - \text{Tare}$$

$$1000 \text{ Ash Weight} = (\text{Tare} + 1000) - \text{Tare}$$

4.3 Radiocarbon Dating

Radiocarbon (^{14}C) dating is a widely-used method to determine the age of organic materials found in the sediments. It is a radiometric dating method which uses the naturally-occurring radioisotope ^{14}C to determine the age of carbonaceous materials up to about 60,000 years (Plastino et al., 2001). ^{14}C has a half-life of about 5,568 years, and the fluctuations in atmospheric concentration of ^{14}C in time require that radiocarbon ages be calibrated to calendar years when interpreting these paleoenvironmental records (Bartlein et al., 1995). Conventional ^{14}C dates then are converted to calendar years by using the Calib 4.1 program (Stuiver et al., 1998) at two standard deviations. Ages of storm deposits are estimated by ^{14}C dating of the organic sediment above or below them.

In this study, six samples were submitted to Beta Analytic, Inc., of Miami, Florida, for Accelerator Mass Spectrometry (AMS) dating analysis. Among those six samples, two including WB06-9D-46cm and WB06-10-35cm were derived from the northern swamp forest of Weeks Bay; three including WB3-1B 108, WB3-1C 72 and WB06-15B-94cm were derived from the northern marsh of Weeks Bay; and one sample of WB06-33-39cm was derived from the western marsh of Weeks Bay. WB06-9D-46cm was sampled between two distinct sand layers at 155 cm of WB 06-9. WB06-10-35cm was sampled at 35 cm, which is a distinct boundary between the peat layer and mud layer of WB 06-10. WB3-1B 108 and WB3-1C 72 were respectively sampled below a light gray clay layer at 194 cm and 266 cm of WB 3-1. WB06-15B-94cm was sampled below a clay stratigraphic boundary at 94 cm of WB 06-15. And WB06-33-39cm was sampled above a distinct white sand layer at 39 cm of WB 06-33. Original data from Beta Analytic are presented in the Appendix.

CHAPTER 5

CORE STRATIGRAPHIES

The cores are divided into seven major groups according to their coring location relative to the mouth of Weeks Bay (Figure 5-1): (1) the northern transect across the ecotone from swamp forest to marsh near the shore, (2) the northern marsh near Fish River, (3) open water in the northern Weeks Bay, (4) western marsh, (5) eastern swamp, (6) eastern marsh at the Magnolia River mouth, and (7) baymouth marsh. In the area of group 1, the land coverage changed from swamp forest in the north to the ecotone in the middle and marsh in the south. The swamp forest is dominated by pine, oak, magnolia, maple, cypress, and other trees, while the marsh is dominated by salt-tolerant herbs and grass-like plants. Surface sediment also changed from organic-rich peat in the northern swamp forest to the mud and clay in the marsh near the water body of Weeks Bay. The area of group 2 is the marsh which is mainly covered by salt-bearing herbs and grass-like plants. During the second trip, the soil salinity inside was very high (Dr. William J. Platt, personal communication). The area of group 3 is water body of Weeks Bay, and it is very close to the areas of groups 1 and 2. In the area of group 4, there is a narrow sand beach separating the marsh from the bay. The marsh is mostly covered by rush (*Juncus* spp). In addition, the marsh borders with the pine forest abruptly about 40 m from the shore of Weeks Bay. The eastern swamp of group 5 is similar to the swamp in the north of Weeks Bay. The eastern marsh of group 6 is located on the eastern shore line of Weeks Bay. Few shrubs were found in the marsh, while the most area was covered by rush (*Juncus* spp). and other salt-tolerant grasses. About over 100 m away from the shoreline, there is a clear border which separates the marsh from the inland swamp forest. Coring sites of

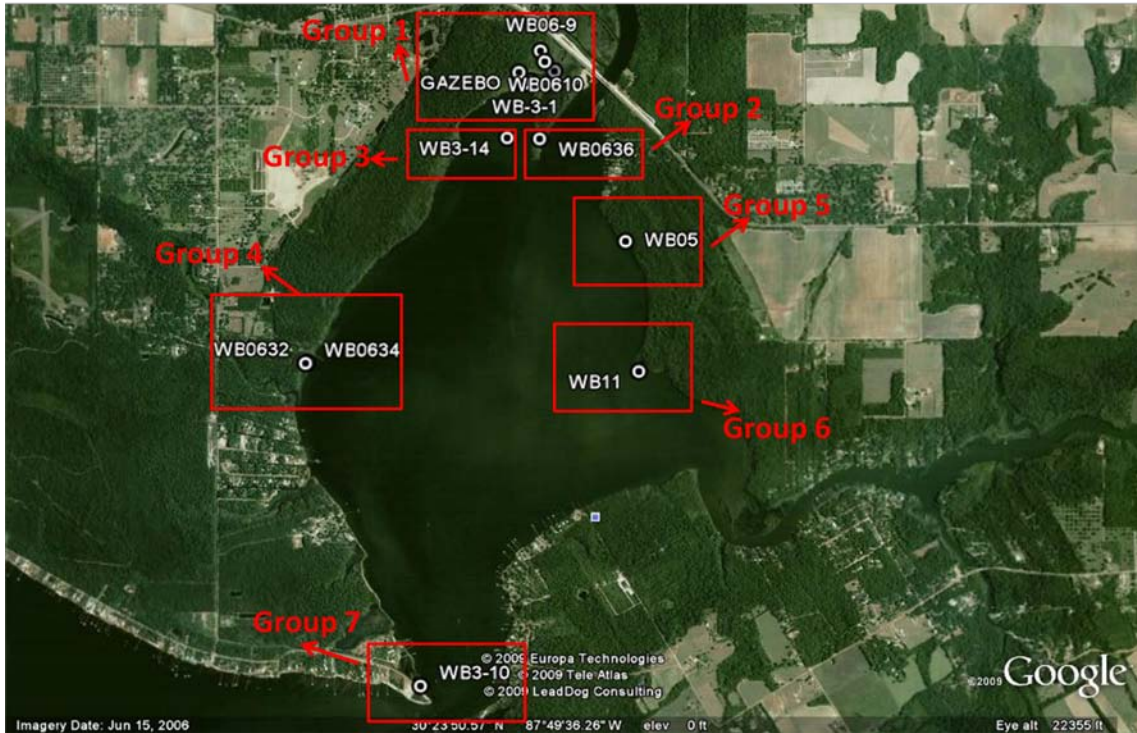


Figure 5-1: Google Earth® Image of Coring Sites Group in Weeks Bay

group 7 are located at the marsh on the west side of the baymouth, behind a parking lot and a sand beach. A small man-made moat lies between this marsh and the baymouth bar.

5.1 Northern Swamp and Marsh Transect

A number of cores, WB 06-1 to 06-18, were taken along this transect from the swamp through the ecotone to the marsh close to the bay (Figure 5-2).

5.1.1 Northern Swamp Forest

WB 06-9 was taken by the Russian peat corer on the edge of the swamp forest transect to the ecotone (Figure 5-2 A). There were five pushes: A, B, C, D, and E. The whole core is 195 cm long (Figure 5-3).

The uppermost 7 cm of WB 06-9 is an organic fibrous and detrital layer with some roots and leaves. It should be the normal swamp forest horizon rich in plant litter and



A. Swamp Forest



B. Ecotone



C. Marsh

Figure 5-2 Photos of the Transect from Swamp to Ecotone, and Marsh

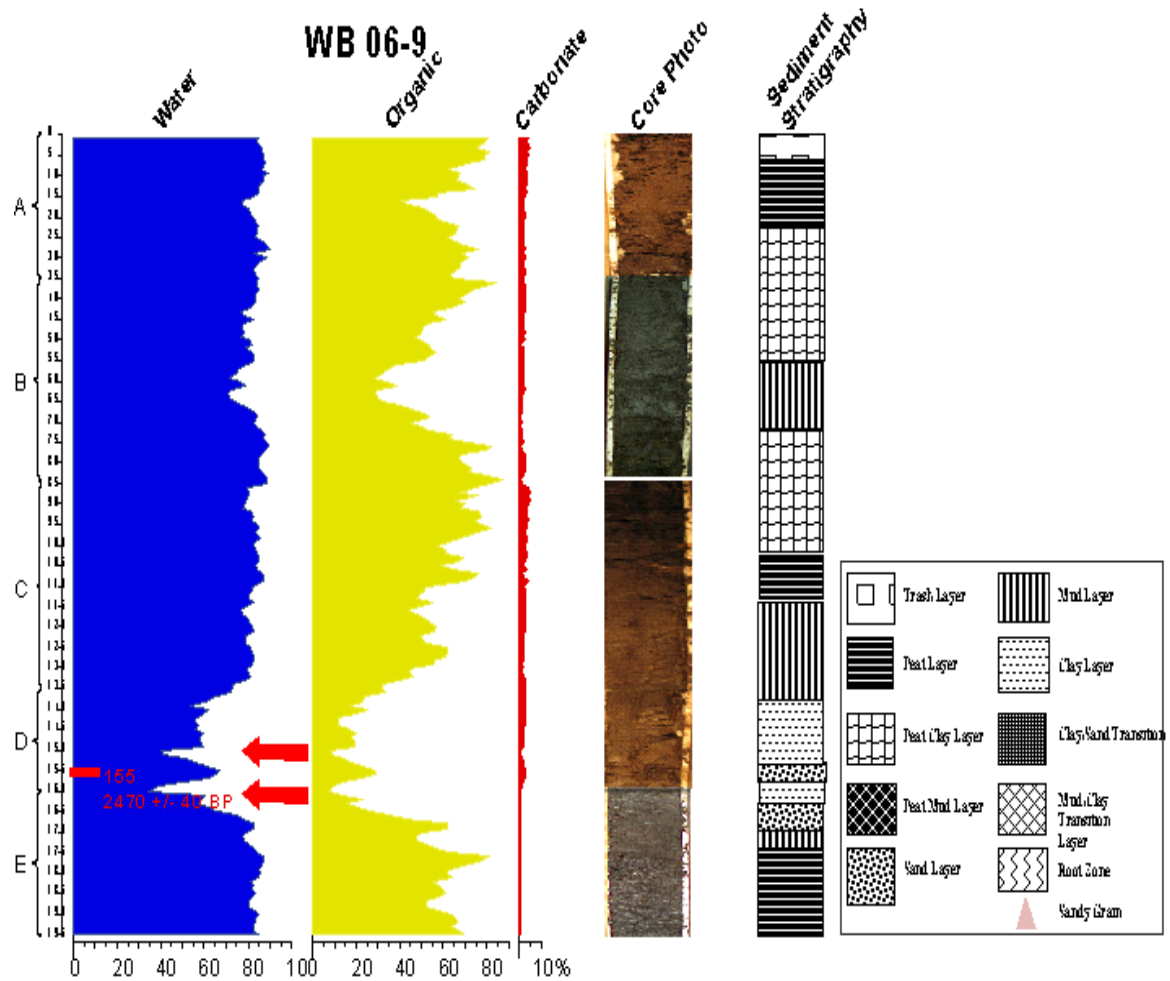


Figure 5-3: Loss-On-Ignition, Core Photo, and Stratigraphy Results of WB 06-9

semi-decomposed organic detritus. From 7 to 24 cm is a medium-brown peat layer mixed with some roots. In the LOI graph, it is very clear that the organic content decreases from about 80% in the top 0-7 cm to around 65% in 7-12 cm. It is possible that this trough was a deposit record of Hurricane Ivan, or Katrina, or both, although this interpretation must be verified by data analysis with better dating control. At the bottom of this section is a clay-rich layer (15-24 cm). The organic content decreases to about 45% in 15-21 cm. This clay layer is possibly the deposit caused by Hurricane Frederic in 1979 because it is the latest major hurricane which had a major impact on Weeks Bay before Hurricane Ivan. From 24 to 56 cm is a medium-brown peat layer with some fiber. The peat layer

corresponds with high organic contents in the LOI graph. Below this peat layer is a distinct dark mud layer between 56 and 72 cm. The sharp upper and lower contact (as reflected in the LOI graph) suggests that it may represent a big event such as a major hurricane strike. Between 72 and 101 cm, the core stratigraphy changes gradually to medium- to dark-brown peat again. The organic content in this layer generally returns to 60-80%. The stratigraphy of upper half of the core from 1 to 101 cm suggests that this place was covered by swamp forest or marsh during the time. From 101 to 114 cm is a peaty clay layer with lower organic content at about 60%. This is a transition layer from peat to the underlying lagoon mud. Below that is a light-brown lagoon mud layer between 114 and 136 cm. From 136 to 153 cm is a medium-brown clay layer with a distinct grey lagoon clay layer at 145-151 cm. The grey lagoon clay layer could be interpreted as another event layer. Remarkably, a distinct sand layer occurs at 153-157 cm. In fact, LOI analysis indicates that the water, organic, and carbonate contents all decrease sharply. This must be a record of a big event, because the coring site currently is very far from the baymouth bar, the main source of sand at Weeks Bay. Only a very big event such as a category 5 hurricane strike could have been powerful enough to transport the sand over such long distance. Between 157 and 161 cm, there is another lagoon clay layer which directly overlies a distinct sand layer at 161-166 cm, suggesting another major hurricane strike similar in intensity to the one registered above (at 153-157 cm).

An AMS ^{14}C sample taken from the lagoonal clay at 155 cm between the two sand layers yielded a conventional ^{14}C date of 2470 +/- 40 BP, or 2730 to 2360 cal yr BP (Table 5-1). Lagoonal mud occurs again from 166 to 172 cm. Then at 172-195 cm, the sediment returns to a dark peat with very high organic and low carbonate content. In

summary, WB 06-9 is a very good core, which provides important information on the history of sedimentation as well as environmental changes, including hurricane events, in the Weeks Bay area.

Table 5-1: Radiocarbon (¹⁴C) Dates from Core Sample from Weeks Bay

Core#	Sample Name	Depth	Measured Radiocarbon Age	Conventional Radiocarbon Age(*)	2 SIGMA CALIBRATION	¹³ C/ ¹² C Ratio
WB 06-9	WB06-9D-46cm	155 cm	2500 +/- 40 BP	2470 +/- 40 BP	Cal BC 780 to 410 (Cal BP 2730 to 2360)	-26.9 o/oo
WB 06-10	WB06-10-35cm	35 cm	120 +/- 40 BP	150 +/- 40 BP	Cal AD 1660 to 1960 (Cal BP 290 to 0)	-23.4 o/oo
WB 06-15	WB06-15B-94cm	94 cm	100 +/- 40 BP	220 +/- 40 BP	Cal AD 1640 to 1690 (Cal BP 310 to 260) AND Cal AD 1730 to 1810 (Cal BP 220 to 140) Cal AD 1930 to 1950 (Cal BP 20 to 0)	-17.8 o/oo
WB 06-33	WB06-33-39cm	39 cm	130 +/- 40 BP	110 +/- 40 BP	Cal AD 1670 to 1780 (Cal BP 280 to 170) AND Cal AD 1800 to 1950 (Cal BP 150 to 0) Cal AD 1950 to 1960 (Cal BP 0 to 0)	-26.3 o/oo
WB 3-1	WB3-1B 108	194 cm	3060 +/- 40 BP	3040 +/- 40 BP	Cal BC 1410 to 1200 (Cal BP 3360 to 3150)	-26.1 o/oo
WB 3-1	WB3-1C 72	266 cm	4230 +/- 40 BP	4190 +/- 40 BP	Cal BC 2890 to 2830 (Cal BP 4840 to 4780) AND Cal BC 2820 to 2630 (Cal BP 4770 to 4580)	-27.7 o/oo

5.1.2 Northern Ecotone

WB 06-15 was taken by the Russian peat corer in the middle of the transect from swamp forest to the marsh near the bay shore in the northern part of Weeks Bay (Figure 5-2 B). The core was taken in four pushes, A, B, C and D, resulting in 201 cm of recovery (Figure 5-4). At the top of 1-10 cm, it is a medium-brown (4/1, 7.5 YR sheet of Munsell Soil Color Charts) mud layer mixed with some fibers. The segment 10-11 cm is the root zone. From 20 to 26 cm is a detrital peat layer with some plant fibers. At 26-45 cm it is a medium-brown (4/3, 7.5 YR sheet of munsell soil color charts) compact clay

5.1.3 Northern Marsh

WB 3-1 was taken by a Livingstone piston corer in the northern marsh very near the bay shore (Figure 5-2 C). In fact, this coring site is very close to the sites of Core WB 25 and Core WB 06-18. WB 3-1 is the longest core taken from Weeks Bay with a total length of 356 cm (Figure 5-5). At 0-8 cm, it is a medium brown (4/1, 10 YR sheet of munsell soil color charts) soft mud layer. This layer is distinct from the underlying peat layer at 8-16 cm in having lower water and organic contents. This top 8 cm of soft mud may be attributed to Hurricane Ivan or the combination of Ivan and Katrina. From 16 to 24 cm is another light brown (3/3, 10 YR sheet of munsell soil color charts) clay layer with a lower water and organic content than the sediment above and below, possibly indicating another major storm event, probably Hurricane Frederic of 1979. Below that, from 24 to 78 cm is a broad transition from mud to clay, and the sediment becomes harder along with increasing depth. Notably, at 56-58 cm, there is a very distinct clay layer marked by a dramatic decrease in water and organic content, probably representing another major storm event. Following this transactional section, at 78-101 cm is a thick light-brown clay layer. But between 101 and 106 cm, there is a distinct dark organic-rich layer with unusually high water and organic contents. From 106 to 187 cm is a dark peat section with high water content averaging around 85% and high but fluctuating organic contents averaging around 50%. An AMS ^{14}C sample taken at 194 cm has yielded a conventional date of 3040 +/- 40 BP , or calendar date at 2 sigma calibration of Cal BP 3360 to 3150 (Table 5-1). An AMS ^{14}C sample taken at 266 cm has yielded a conventional date of 4190 +/- 40 BP, or calendar date at 2 sigma calibration of Cal BP 4840 to 4780 and Cal BP 4770 to 4580 (Table 5-1). The sample of 194 cm was taken

below a layer with abrupt drop in organic content, although the surrounding sediment is still peat. And the sample of 266 cm was taken below a thin grey lagoonal clay layer. This may represent a major event at that time. Dark peat resumes below this clay layer to 310 cm, which has very high water content around 90% and organic content around 60%. Below 310 cm to the end of the core especially in 310-317 cm, the organic content of the peat layer decreases to around 45%, and the water content decreases to about 82%.

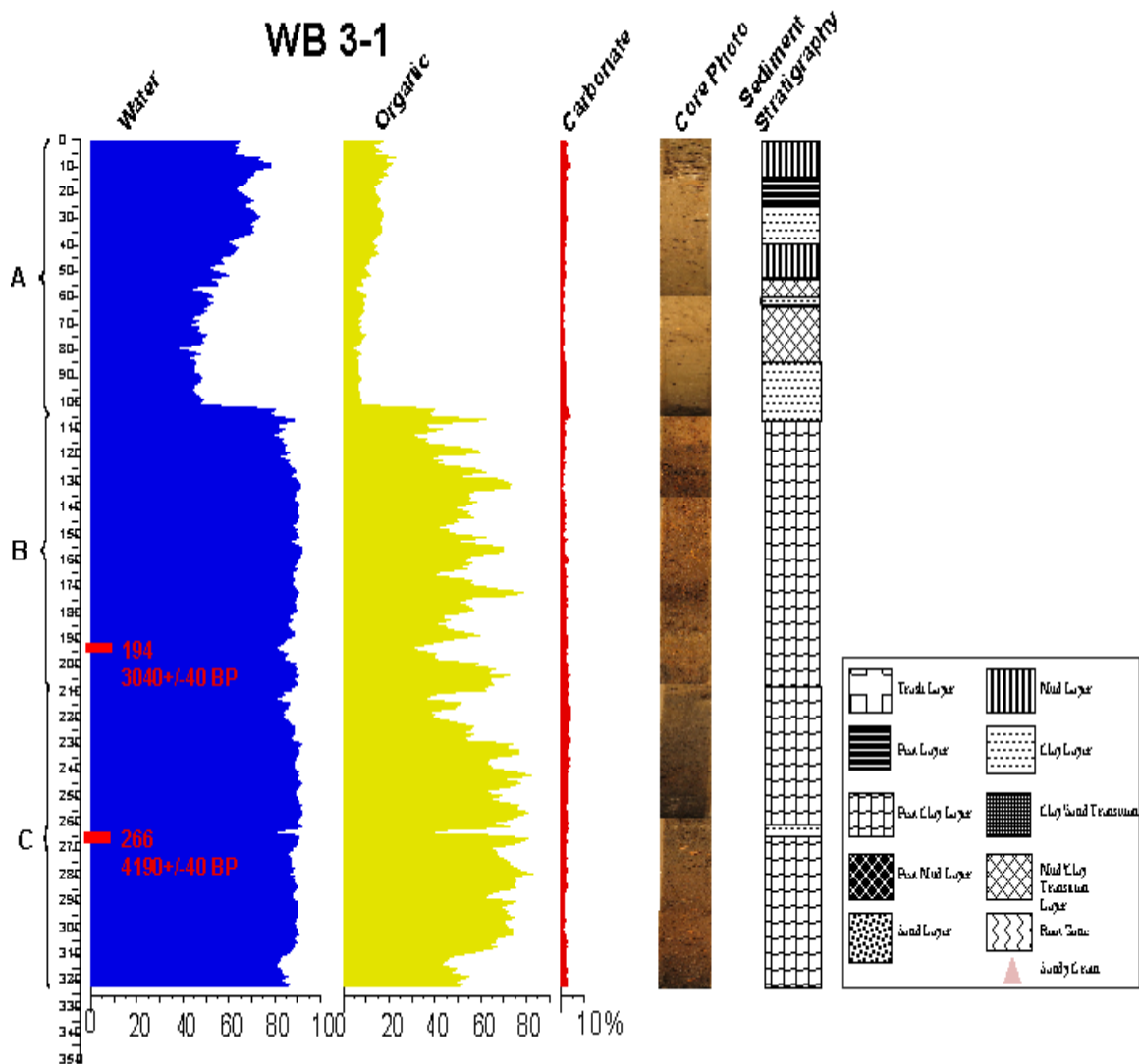


Figure 5-5: Loss-On-Ignition, Core Photo, and Stratigraphy Results of WB 3-1

5.2 Small Marsh Near Fish River

Core WB 06-35 was taken from the inside of the small marsh developed on the spit formed at the outlet of Fish River to Weeks Bay. Soil salinity measured on the marsh surface in February 2006 remained very high, suggesting impoundment of Katrina water (Dr. William J. Platt, personal communication). The results of LOI analysis reveal the stratigraphic feature of this short core (Figure 5-6). The top 13 cm of the core has high water (>58%) and organic (30-40%) contents. Below that, the sediment changes from peat clay to clay, and the water and organic contents drop dramatically to 30% and < 5%, respectively. This core shows that the spit and the marsh growing over it were developed relatively recently (above the 13 cm age horizon). No visible sand layer or clastic band was found in the top of this core, but the marked drop in water and organic contents at the top 2 cm mud layer of the core likely represents the storm deposit caused by Hurricane Ivan and/or Katrina.

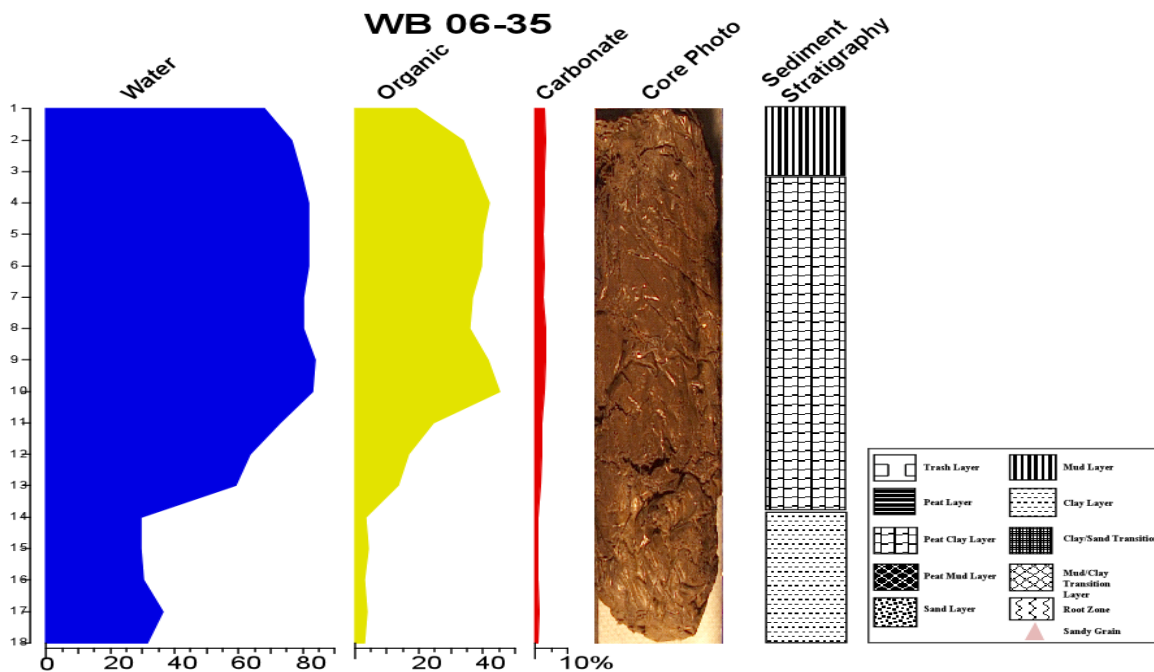


Figure 5-6: Loss-On-Ignition, Core Photo, and Stratigraphy Results of WB 06-35

5.3 Bottom of Weeks Bay

WB 3-14 was taken in open water in the bottom of the northern part of Weeks Bay. It was an attempt to determine whether a useful stratigraphic record of storm events could be retrieved from the bottom sediment of the shallow bay. This 123-cm-long core was taken by the Livingstone piston corer (Figure 5-7). A brown muddy clay occurs in the upper half of the core at 1-51 cm, representing a lagoonal deposit under the modern shallow-bay environment. The LOI curves do not show any change at the top of the core, suggesting that Ivan and Katrina did not leave any record in this core. A hard brown mud layer occurs at 51-54 cm, which is characterized by low organic and water contents in the LOI analysis. This may represent an event which disturbed the normal sediment distribution of Weeks Bay. From 54 to 102 cm is lagoonal clay containing some indistinct muddy layer. Remarkably, a distinct sandy clay (5/2, 10 YR sheet of munsell soil color charts) layer occurs between 102 and 104 cm. Most likely this sand layer points to a very large hurricane event that interrupted the normal clay sedimentation in the bay. From 104 cm to the bottom of the core is a stiff middle-brown clay layer (3/2, 10 YR sheet of munsell soil color charts). The stratigraphic sequence of the core therefore suggests that sediment in the bottom of the bay evolves from hard clay to clay/mud to lagoonal muddy clay. During the history represented by this 123 cm-length core, there have been two big events that probably exceeded Ivan or Katrina in magnitude.

5.4 Western Marsh

Fourteen cores have been taken in the marsh on the west side of Weeks Bay during all three trips: seven (WB 17 to WB 23) in the first trip; six (WB 06-29 to WB 06-34) in

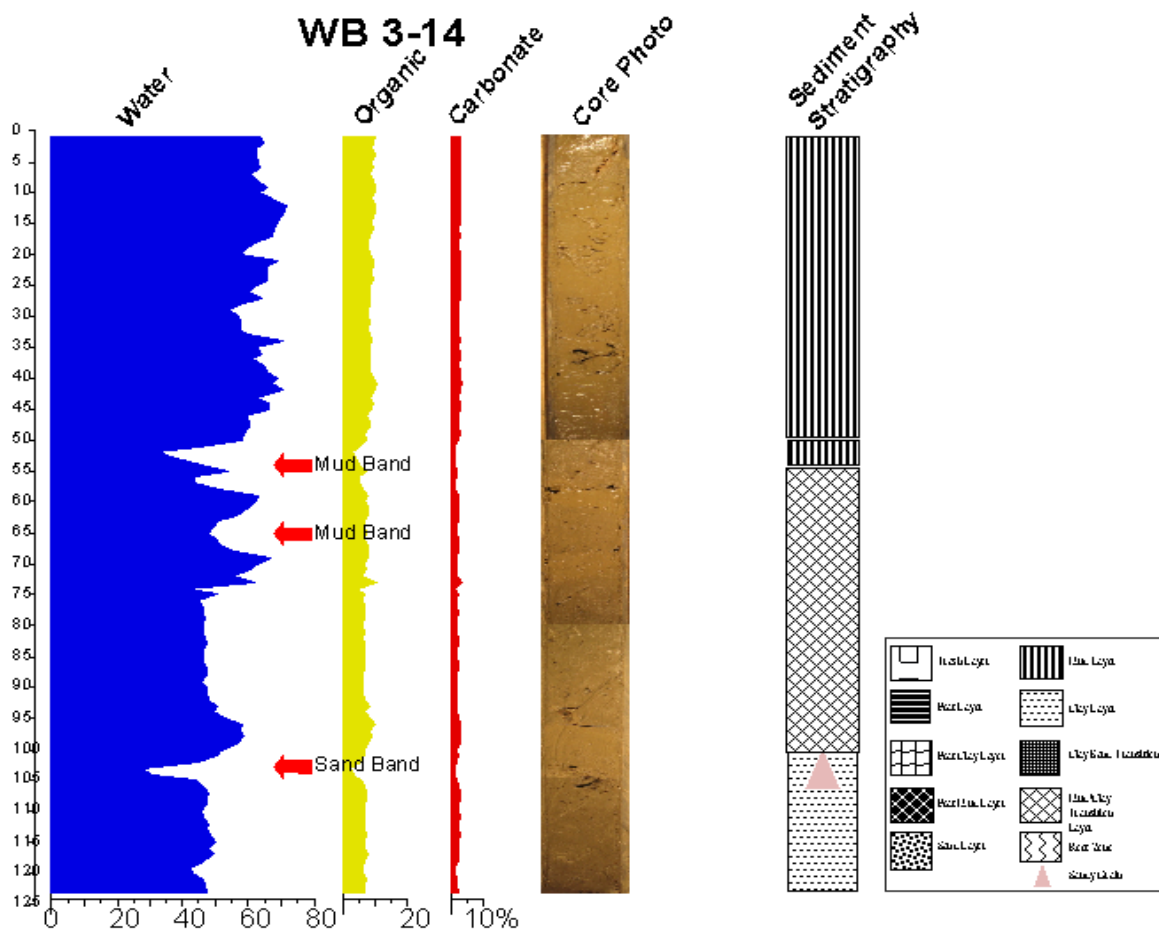


Figure 5-7: Loss-On-Ignition, Core Photo, and Stratigraphy Results of WB 3-14

the second trip; one (WB 3-15) in the third trip. There is a narrow sand beach separating the marsh and the bay water. The main area of the marsh is covered by rush (*Juncus* spp). The marsh bordered by pine forest ends abruptly only 40 m from the shore of Weeks Bay. WB 06-33 was taken with the Russian peat corer in the middle of a transect of cores between the sand beach and the pine forest.

This core was taken in two pushes: Core A is from 1-42 cm while Core B is from 42 to 92 cm (Figure 5-8). A brown mud occurs at the top 2 cm of the core. This deposit is similar to the brown mud observed on the marsh surface at the coring site, and is probably the storm deposit laid down by Ivan and/or Katrina. Two root zones are present

at 3 cm and 7 cm, which are embedded in darker mud that looked different from the brown mud above. Between 8 and 10 cm, there is a dense root zone that corresponds with very high organic contents from the loss-on-ignition analysis. At 11-14 cm, there is a mud layer without roots, possibly another storm deposit. This layer is reflected in the LOI curves by a sharp decrease in organic contents. Once again, roots appear in the layer between 15 and 17 cm. At 17-20 cm, a trash layer with many macrofossils such as leaves appears again. At 20-25 cm is a light brown (4/2, 10 YR sheet of munsell soil color charts) clay layer mixed with coarse plant detritus. Between 28 and 32 cm is a clay and root layer containing coarse sand grains. At 32-39 cm is clay mixed with sand grains. An AMS ^{14}C sample taken at 39 cm has yielded a conventional date of 110 +/- 40 BP (Table 5-1).

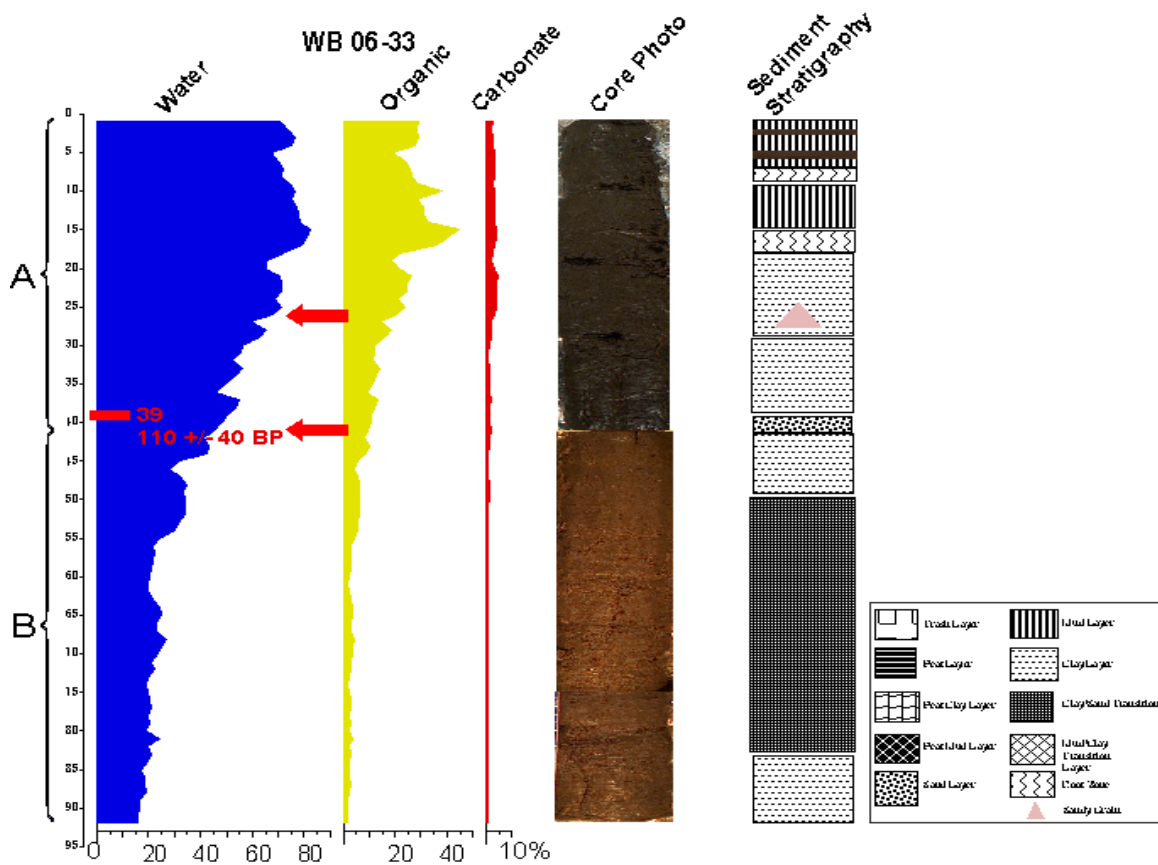


Figure 5-8: Loss-On-Ignition, Core Photo, and Stratigraphy Results of WB 06-33

A distinct white sand layer occurs at 44-47 cm at the bottom of core A. This sand layer overlies a dense clay at 48-55 cm, which contains some sand at 49 cm. The core breaks at 55 cm due to the presence of sand. From 55-92 cm, the sediment is a clay/sand mixed transition which becomes increasingly sandy and lighter color downward. The coarsening of the sediment is also reflected by the decreasing water contents from the LOI results.

5.5 Eastern Swamp

Core WB 5 was taken in a small puddle on the edge of the swamp forest on the eastern side of Weeks Bay, only about 10 m from the bay shore. This Russian peat corer core is 97 cm long (Figure 5-9). The top 1-2 cm of the core is rich in plant litter including semi-decomposed leaves and roots. At 3-6 cm is a brown very sandy layer with a trough in water and organic contents of LOI results. This layer may be the deposit caused by Hurricane Ivan. Then from 7 cm to the bottom of the core is dark organic coarse sand. This sand may have been derived from the small sand beach that fringes the edge of swamp forest along the bay shore. The stratigraphy of this core, as well as those of two other cores taken near the same site, lacks any clear sand layer or storm deposit that could be attributed to Hurricane Ivan or Katrina.

5.6 Eastern Marsh

Core WB 11 was one of a dozen cores taken in a brackish marsh on the eastern side of Weeks Bay near the mouth of the Magnolia River. The coring site is about 46 meters from the shore, though still near the marsh edge. This core was taken with the Russian peat corer in two pushes, A and B. WB 11 is 97 cm long (Figure 5-10). The top 4 cm of the core is a brown mud layer, which was observed to be occurring extensively on the

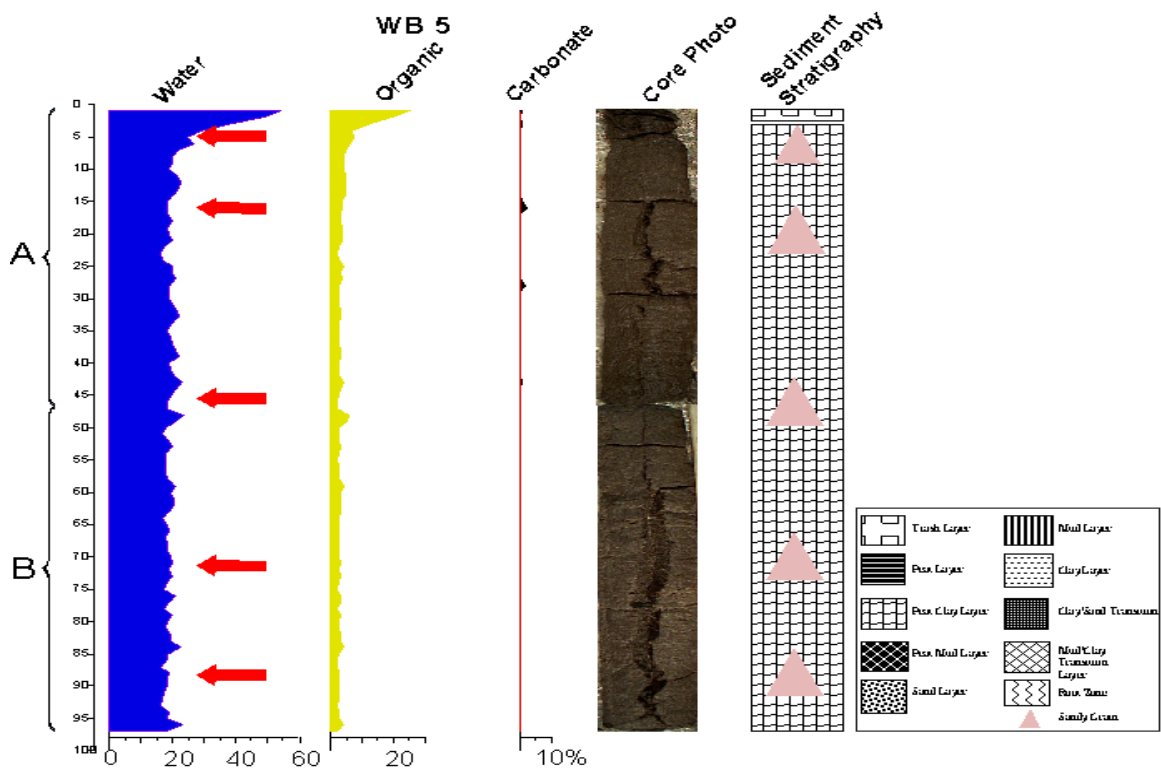


Figure 5-9: Loss-On-Ignition, Core Photo, and Stratigraphy Results of WB 5

marsh surface at the coring site. This brown mud layer, which appeared to be a fresh deposit that looked different from the much darker peat below is most likely the storm deposit carried by Hurricane Ivan which hit this area in 2004. The LOI analysis results depict this brown mud layer by an abrupt decrease in organic and water contents. At 5-6 cm is a root zone with some plant detritus. Another much darker brown mud layer occurs at 6-10 cm, probably indicating another storm event. From 10 to 23 cm is a medium brown (4/2, 10 YR sheet of munsell soil color charts) peat layer with high organic content. Then, between 23 and 27 cm, there is an abrupt decrease in organic and water contents, probably suggesting another storm event.

The following layer at 28 and 29 cm shows relatively high organic content suggesting normal marsh sediment accumulation. A thick muddy peat layer occurs

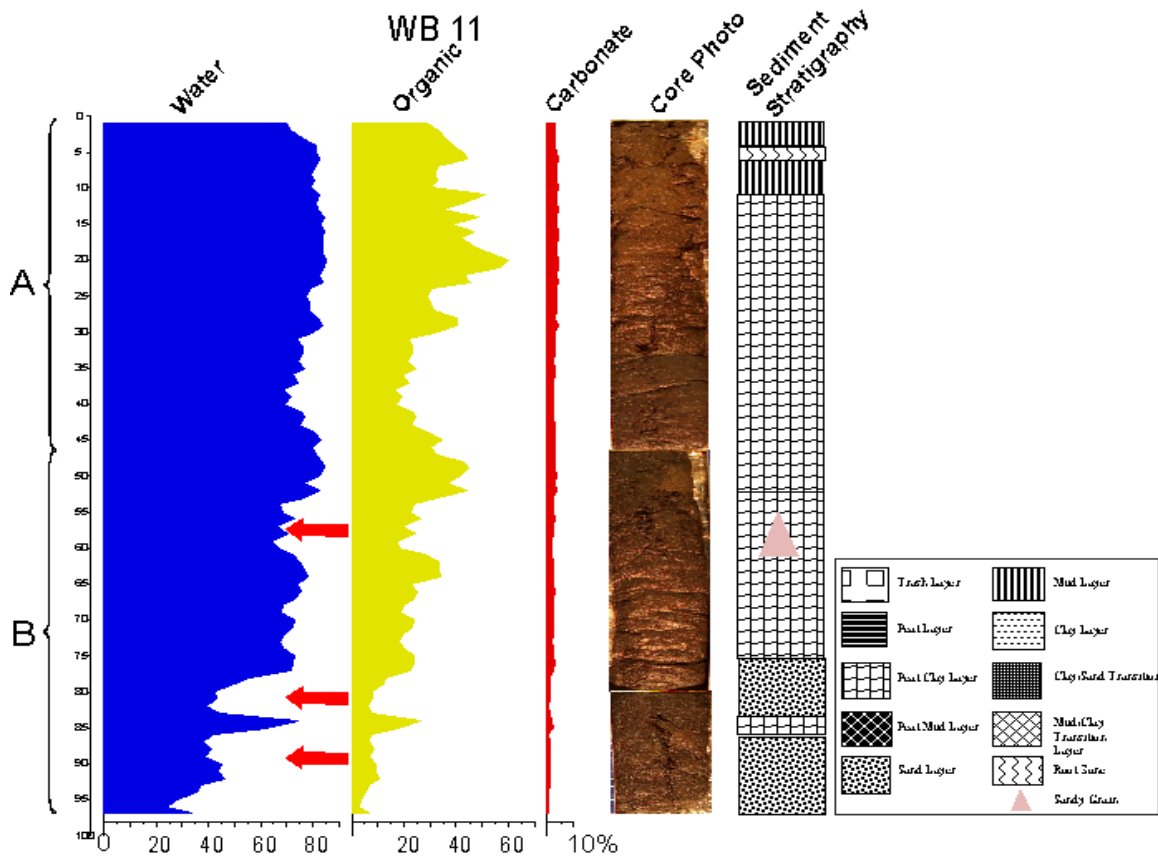


Figure 5-10: Loss-On-Ignition, Core Photo, and Stratigraphy Results of WB 11

between 29 and 47 cm. This thick section, albeit having lower water and organic contents, does not have sharp boundary with the sediment above and below; therefore, it may not be a storm deposit. A black peat layer occurs again at 47-53 cm. Below that, at 53-61 cm, is a black (2/1, 10 YR sheet of munsell soil color charts) muddy peat layer mixed with some grain sand, which suggests that it may be a storm deposit. Another dark peat layer occurs at 61-77 cm. What lies below this, at 77 to 83 cm, is a distinct dark (2/2, 10 YR sheet of munsell soil color charts) sand layer marked by a dramatic decrease in water and organic contents. This sand layer, which overlies peat (84-85 cm), probably records a major storm event. From 85 cm to the bottom of the core, the sediment is coarse sand with very low organic content at about 7%. In summary, several storm events are

recorded in this core, including a mud layer at the core top that could be attributed to Hurricane Ivan.

5.7 Baymouth Marsh

Four cores were collected from the marsh at the mouth of Weeks Bay. All cores were taken with the Russian peat corer. At the mouth of Weeks Bay to Mobile Bay, there is a parking lot where much sand and some red soil and clay are exposed. This is the only place where red soil and clay are exposed in this region (Scott Phipps, WBNERR, personal communication). This parking lot was built around 1980, one year after Hurricane Frederic, a category 3 hurricane that directly hit this area in 1979 (Figure 5-11). Between the parking lot and the marsh where core WB3-10 was taken, there is a small artificial moat that separates the parking lot and the marsh. These factors may affect the pattern of storm deposition during a storm surge.

Among these four cores, core WB 3-10 is a typical core taken in two pushes, A & B. Two distinct sand layers occur within the top 10 cm of core WB 3-10, at 1-3 cm and 4-9 cm (Figure 5-12). These two sand layers clearly represent two recent storm events. The color of sand in the top layer is orange red, while the color of sand in the second layer is white and grey. Considering that the red soil was not exposed before 1980 when the parking lot was constructed, the top sand layer most likely represents an event occurring after 1980. Only two major hurricanes, Ivan and Katrina, hit this area after 1980. In the interim, there was no other major storm event which could move a great deal of sand from the parking lot to the marsh. Hence, the top red sand layer should record the impact by Hurricane Ivan or Katrina, or both. Moreover, it is notable that Ivan's impact to Weeks Bay was greater than Katrina's because water initially retreated and then came



Figure 5-11: Google Earth® Image of Coring Marsh and Parking Lot in the Baymouth

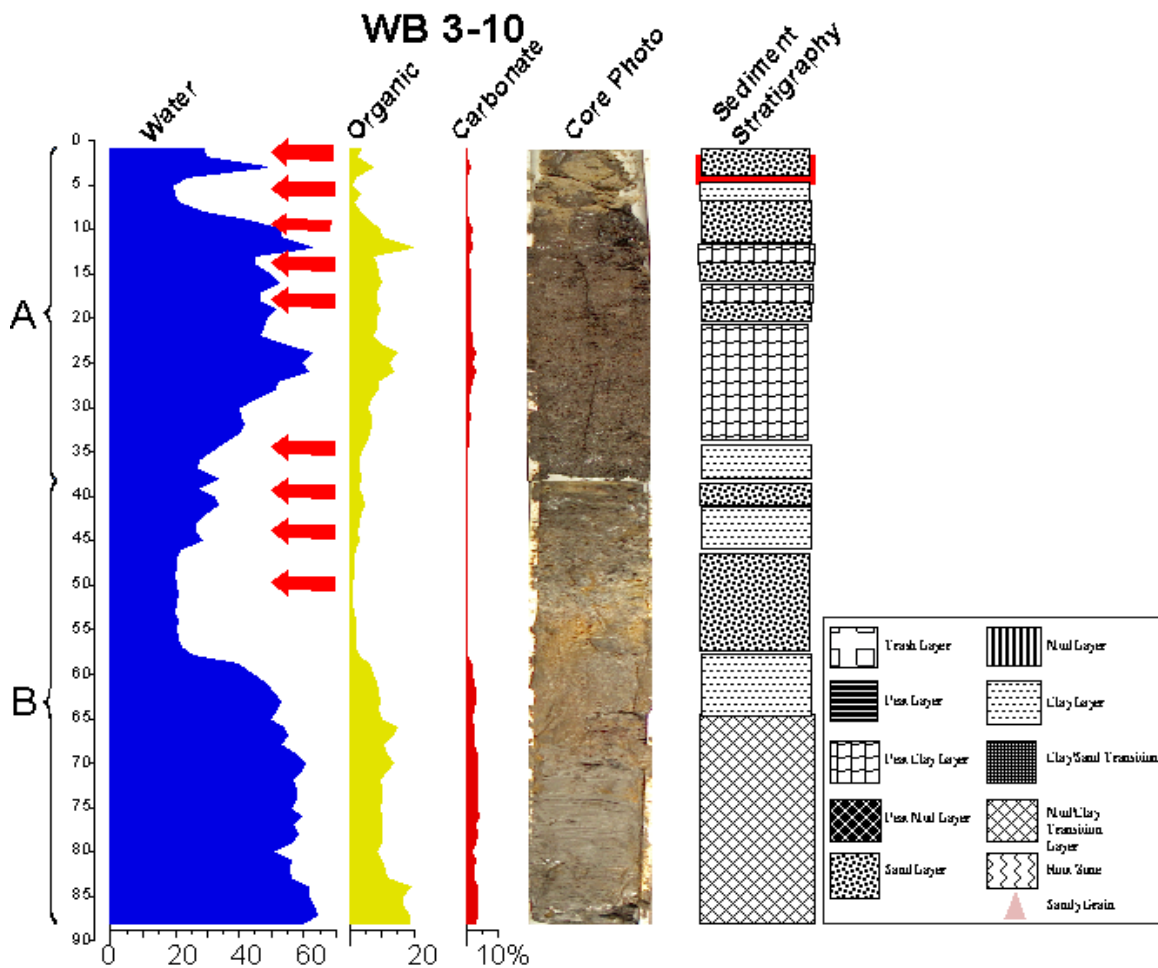


Figure 5-12: Loss-On-Ignition, Core Photo, and Stratigraphy Results of WB 3-10

back quickly with dramatic fluctuation of water level, while water came up more gradually during Katrina. Since there is only one distinct red sand layer at the top, it is more likely that this represents Ivan's record than Katrina's, although it is also possible that this layer is the combined deposition of both Ivan and Katrina, which struck only about one year apart, thus the sediment formed between these two hurricane strikes may be too thin to be recognized. The white and grey color of the second sand layer suggests that this layer was deposited before 1980; most likely by Hurricane Frederic of 1979. Hurricane Frederic's impact on the Weeks Bay area was probably greater than that of

Ivan as this category 3 hurricane's path passed Weeks Bay to the west. This may explain the greater thickness of the second sand layer than the first one. From 10 to 12 cm is a dark brown (5/2, 10 YR sheet of munsell soil color charts) peat layer mixed with some sand and plant fibers. At 12-15 cm and 17-19 cm, there are two distinct sand layers. At 19-33 cm, it is a medium brown (4/1, 10 YR sheet of munsell soil color charts) peat layer mixed many small fibers and sand, and some clay begins to appear in the core.

Immediately below that, there is an indistinct medium brown sandy clay layer at 35-38 cm. Another sand layer occurs at 39-40 cm. From 41 to 44 cm, the sediment changes to middle brown clay layer with some sandy grain. At 47-58 cm, there is a distinct sand layer which also corresponds with the decrease of water and organic content in loss-on-ignition results. Sandy grain in this band is coarser than the top 20 cm. At 59-65cm is a sandy mud layer. And at the bottom 66-88 cm of the core, a light brown (3/1, 10 YR sheet of munsell soil color charts) mud layer exists.

The deposition pattern in the top of core WB 3-10 is confirmed by the same patterns in the other three cores (WB 3-8, WB3-9, and WB 3-11) taken in the same marsh (Figure 5-13 and 5-14). The top sand layer in these cores is all red colored, which is distinct from the second white and grey sand layer. This layer mostly ranges from 1-3 cm in thickness. For all four cores, the second sand layer is much thicker than the first layer, and is mostly 5-9 cm thick. Furthermore, the top two sand layers in core WB 3-8 are comparatively thicker than cores WB 3-9, WB3-10, and WB 3-11. It supports the idea that the deposited sand was derived from the beach near the baymouth parking lot, because coring site WB 3-8 is closest to the baymouth and it is easiest for overwashed sand to deposit there.

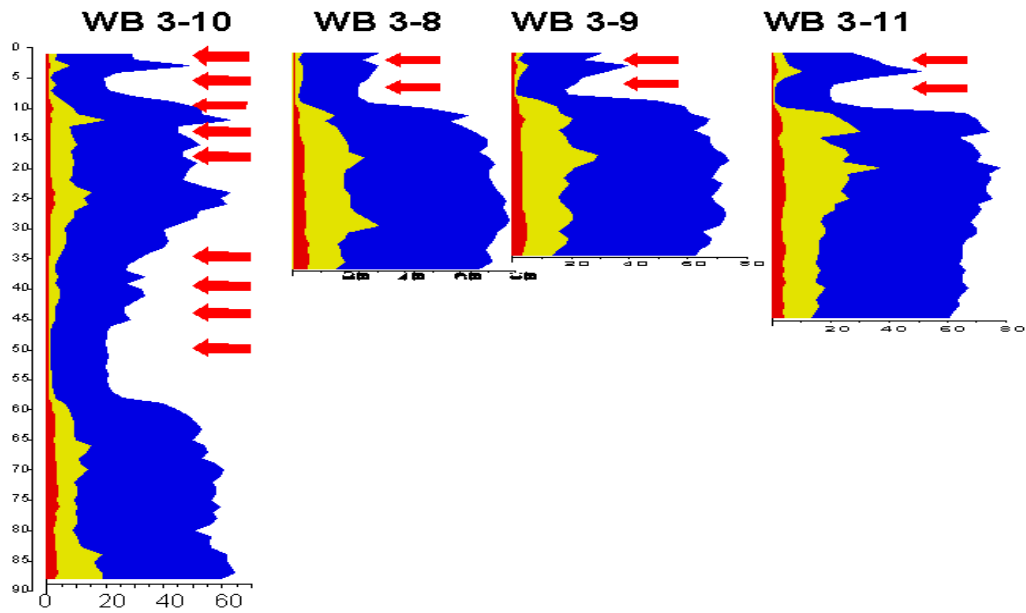


Figure 5-13: Loss-On-Ignition Results of WB 3-8, WB 3-9, WB 3-10, and WB 3-11



Figure 5-14: Google Earth® Image of coring sites of WB 3-8, WB 3-9, WB 3-10, and WB 3-11

CHAPTER 6

SPATIAL VARIABILITY AMONG SITES

Seven groups (Table 6-1) of coring sites can be differentiated based on the distance of the coring sites to the mouth of Weeks Bay to analyze the spatial variability of storm deposition between sites (Figure 5-1). The first group includes those cores taken in the transect from north swamp to the north marsh of Weeks Bay. There are three typical cores, WB 06-9, WB 06-15, and WB 3-1, which were individually taken in the swamp, ecotone, and marsh, respectively, along the transect. Group two consists of WB 06-35, which was taken in the small marsh on the spit at the mouth of Fish River. WB 3-14 which was taken from the bay bottom in northern Weeks Bay comprises Group three. Group four is represented by core WB 06-33 in the marsh on the western side of Weeks Bay, while Group five contains core WB 5 in the swamp forest on the east side of Weeks Bay. Core WB 11 represents Group six in the eastern marsh near the mouth of Magnolia River. In the marsh near the baymouth bar, WB 3-10 represents Group seven.

Table 6-1: Coring Site Groups in Weeks Bay

	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7
Cores	WB 06-9 WB 06-15 WB 3-1	WB 06-35	WB 3-14	WB 06-33	WB 5	WB 11	WB 3-10
Location	Northern Swamp and Marsh Transect	Small Marsh near Fish River	Bottom of northern Weeks Bay	West Marsh	Eastern Swamp	Eastern Marsh	Baymouth Marsh

Liu (2004a) created a model of storm surge deposition in a coastal or estuarine marsh (Figure 6-1). In addition to coastal lakes, coastal marshes can also be an ideal place to provide continuous long records of historical hurricane strikes. Figure 6-1 is a schematic diagram showing the stratigraphic pattern of storm deposits in an estuarine marsh. When

a low-lying marshy coast is struck by an intense hurricane, the storm surge is very likely to inundate a large part of the coastal marsh with saline floodwater, which contains clastic sediments derived from the marsh surfaces and the adjacent shallow bays and estuaries. The cores taken in the marsh can contain multiple layers of storm deposits. These storm deposits usually contain clastic sand, silt, or clay, as well as distinct assemblages of pollen, diatoms, and marine microfossils (Zhou, 1998; Liu and Fearn, 2000a, Liu et al., 2008). This model is most applicable to the environmental setting of cores in Groups 1-6 (except 3) taken from the estuarine marshes on the northern, eastern, and western side of Weeks Bay. On the other hand, Donnelly and Webb (2004) proposed a different model of storm deposition in a backbarrier marsh situated behind a major sand barrier (beach or dunes) (Figure 6-2). This model seems to be more applicable to the environmental setting of cores in Group seven, which are situated behind a beach next to a parking lot, which provides a proximal source of sand transported by overwash processes. When a storm surge overwashes the baymouth bar and spreads seawater into the inner part of the bay, it will transport sand from the beach to the marsh behind it. Due to the loss of energy as the waves propagate behind the sand barrier, less and less sand is transported by the storm surge into the bay and deposited on the surrounding marshes and swamps fringing Weeks Bay. This sand layer will not be deposited in areas far from the baymouth beach. Thinning out of overwash sand will occur similarly in a coastal lake in Liu's and Donnelly & Webb's models. On the other hand, the marshes and swamp forests around Weeks Bay were inundated by the storm surges during Ivan and Katrina (Scott Phipps, WBNERR, personal communication). So, according to the model built by Liu (2004), the stormy waves and the storm surge may stir up the silt and mud from the

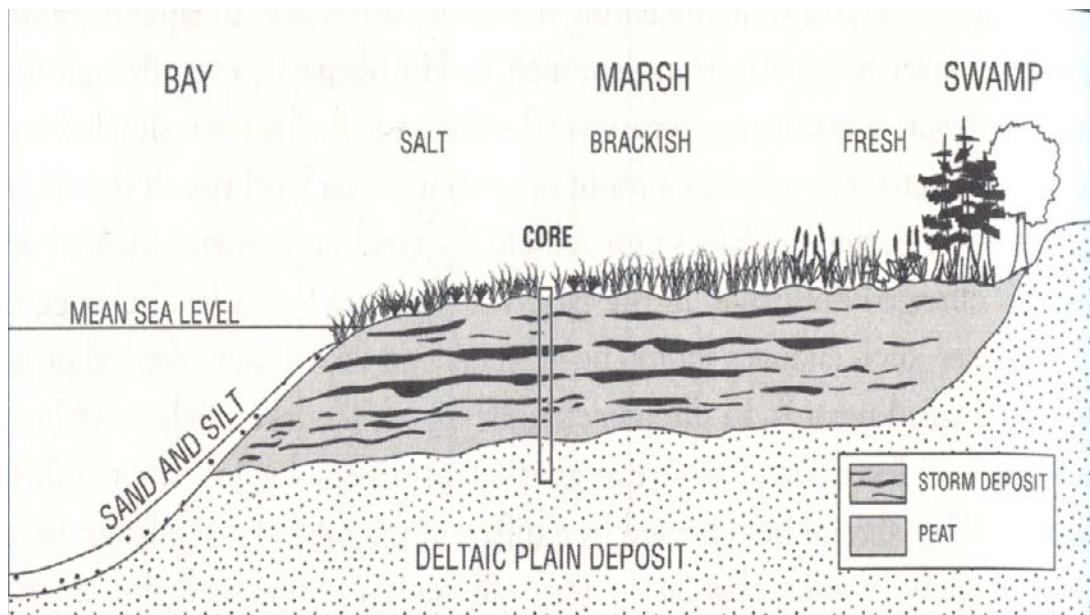


Figure 6-1: Hypothetical Pattern of Storm Deposits in An Estuarine Marsh Subjected to Repeated Hurricane Strikes and Storm Surges in the Past (Liu, 2004).

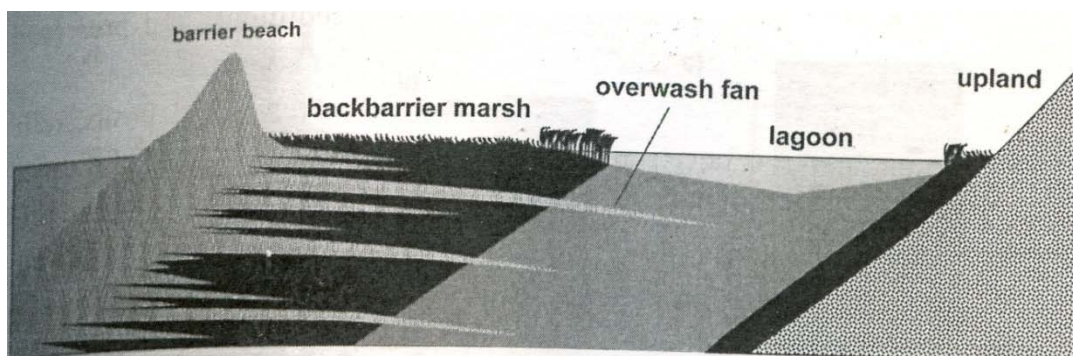


Figure 6-2: Conceptual Model of Overwash Storm Deposition and the Landward Translocation of the Barrier-marsh System (Donnelly and Webb, 2004)

bottom of the bay, and a layer of silt or clay will be deposited on the marsh surface, forming a storm deposit. However, since much of the surging water's energy had been dissipated when it passed over the baymouth barrier, only fine-grained sediments will be deposited on the marsh surface as a storm deposit; hence, the lack of a distinct sand layer at the top of most cores taken from inside the bay.

Because three cores are used in the first group and one core is used in each other group, so nine typical cores are totally used to analyze the deposition variability among the seven groups of coring sites (Figures 6-3, 6-4, 6-5 and 6-6). From the above analysis of WB 3-10, the red sand layer at the top probably represents Hurricane Ivan, and/or Hurricane Katrina. As discussed before, the grey one below the red sand layer is likely the record of Hurricane Frederic. This clear pattern of hurricane deposition in WB 3-10 can be compared with depositional patterns found in the other eight cores. Among the nine cores, two cores, WB 06-9 and WB 5, are distinct from other seven cores by having a plant litter or detritus layer at the top. The reason is that these two cores were taken in puddles under a canopy of trees from the northern and eastern swamp forests. Defoliation due to the two hurricanes probably contributed to these highly organic layers.



Figure 6-3: Google Earth[®] Image of Coring Site Groups 1, 2, and 3 in Weeks Bay



Figure 6-4: Google Earth® Image of Coring Site Group 4 in Weeks Bay



Figure 6-5: Google Earth® Image of Coring Site Group 5, and 6 in Weeks Bay



Figure 6-6: Google Earth® Image of Coring Site Group 7 in Weeks Bay

In core WB 06-9, below the top plant detritus layer is a peat/clay mixture layer in 7-12 cm which corresponds with a sharp decrease in organic contents in LOI results. Although there is no distinct stratigraphic sandy character to the layer, the special LOI results also could support the hypothesis that Hurricane Ivan and/or Katrina contributed to the sharp drop of organic content in the LOI curve. The reason why there is no special visible sediment deposits on top of WB 06-9 may be because it is very far from the bay, so that the storm surge energy had almost dissipated before reaching this coring site. And in 15-21 cm, there is another distinct trough in LOI results with low water and organic contents. In stratigraphy, it is a clay-rich peat layer. This layer is likely the record of Hurricane Frederic in 1979 because it is the latest major hurricane which had a big impact on Weeks Bay before Hurricane Ivan.

In core WB 5, there was a sandy layer at 3-6 cm below the plant trash layer which is also reflected by a dramatic drop of water and organic contents in LOI results. It is believed that this sandy layer should represent the record of Hurricane Ivan. This may be explained by several factors. Although the energy of storm surge is expected to decrease significantly after passing the baymouth area, it still could make some impacts to the coring site of WB 5 because it is not far away from the shoreline of Weeks Bay. In addition, from the sediment distribution of Figure 3-4, it could be found that the sediment in the shoreline of Weeks Bay near the eastern swamp forest is sandy. Thus, it is possible for the storm surge of Hurricane Ivan to move the sandy sediment to the coring site of WB 5.

In cores WB 06-15 and WB 3-1 which were respectively taken in the northern ecotone and marsh, the top of these two cores were covered by mud and clay layer as indicated by an abrupt drop in organic and water contents in LOI results. In core WB 3-14, the drop in organic and water contents was not so obvious as in WB 06-15 and WB 3-1. This is due to the lack of contrasting lithological difference between the storm deposition and the normal sedimentation in the bay. The mud/clay layer on top of WB 06-15, WB 3-1, and WB 3-14 might be derived from the nearby bay- bottom sediment of Weeks Bay by the storm surge of Hurricane Ivan and/or Katrina. In other cores, especially WB 06-35 from the spit marsh, WB 06-33 from the western marsh, and WB 11 from the eastern marsh, there is also an obvious abrupt decrease in organic and water contents at the top of these cores. The presence of low-organic mud layer in both WB 06-35 and WB 11 and the clay-peat layer in WB 06-33 suggests rapid deposition of a clay-rich sediment on the marsh surface. This is probably the sedimentary signature of Hurricane Ivan and/or Katrina in Weeks Bay.

Furthermore, in cores of WB 06-9, WB 06-15, WB 3-1, WB 5, WB 06-33 and WB 11, there is a second trough in water and organic contents between 6 and 13 cm (Figure 6-7). This may correspond with the second sand layer identified in WB 3-10, which is possibly the Frederic deposit. The possible presence of both the Ivan and Frederic layers reinforces the interpretation of these storm deposits in the Weeks Bay cores.

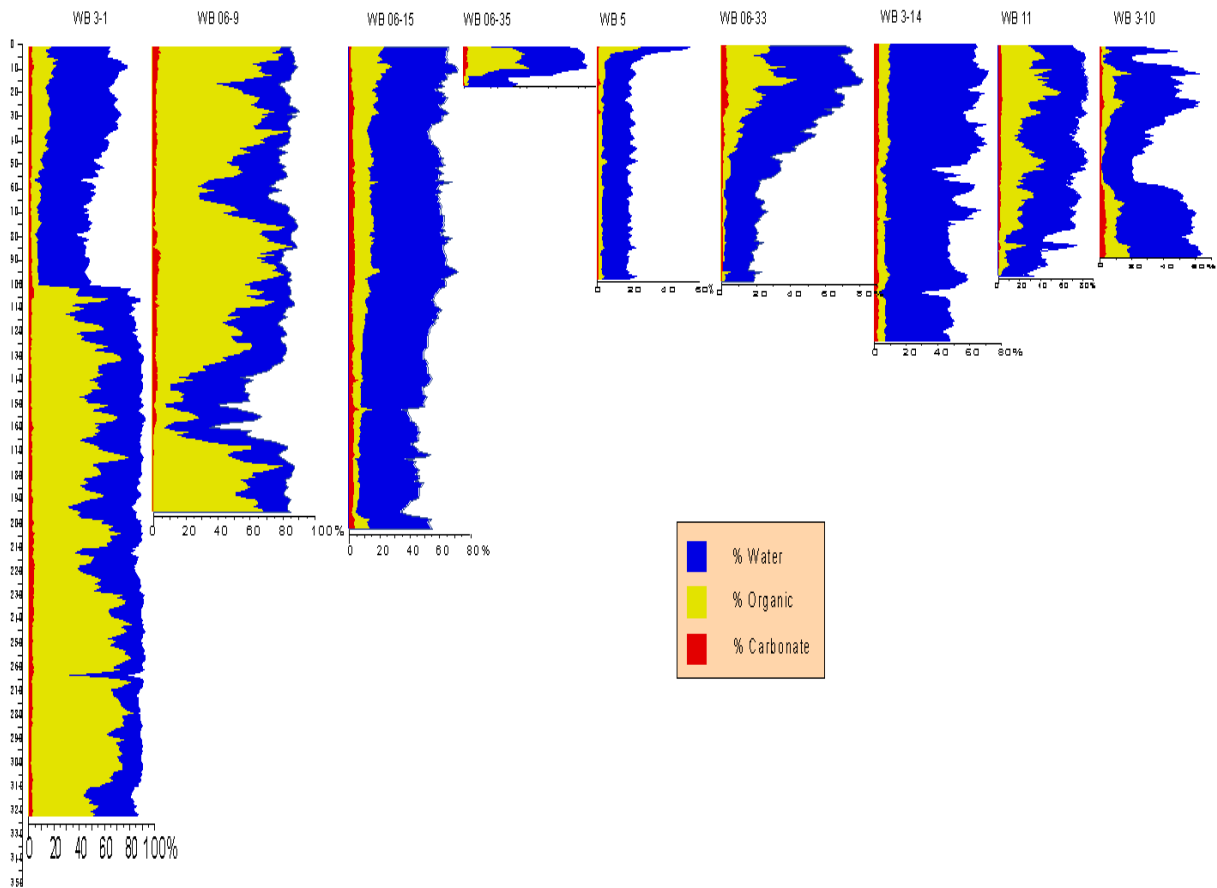


Figure 6-7: LOI Results of the Typical Cores in Seven Groups

The spatial pattern of storm deposition can be analyzed further by examining the sources and sinks of sediments. Core WB 3-14 was taken from the bottom of Weeks Bay, a potential source of sediments deposited on the marsh surface during a storm surge (Liu, 2004a). During Hurricane Ivan's passage, water was initially blown out from Weeks Bay

and then rushed back by the storm surge. Hence, it is possible that the surface sediment on the bay bottom was resuspended and was brought to the surrounding marshes and swamps. The core stratigraphy of core WB 3-14 suggests that the bottom of Weeks Bay is covered by lagoonal mud and clay poor in organic matter (~ 7%), which is consistent with the map of Haywick et al. (1998) showing that sediment distribution in most areas of the bay bottom of Weeks Bay is clay and silt-clay type (Figure 3-4). Except for cores WB 06-9 and WB 5 which were taken in the swamp forests and core WB 3-10 which was taken from the baymouth marsh, the top of all other cores is covered by a mud layer, peat-clay layer, or silt-clay layer instead of a sand layer. Therefore, it is clear that sand was transported only over a very short distance from its source on the baymouth bar to the marsh and bay behind it, and never reached the northern part of the bay (WB 3-14) or the marshes fringing the interior of the bay. In fact, Ivan's rapidly rising storm surge only had enough energy to resuspend the mud from the bottom of the bay and redeposit it on the surrounding marsh areas as a mud clay layer. Because the site of WB 06-9 is farthest away from the shore compared with the other coring sites in its group, this core lacks a mud layer at the top or immediately underneath the top litter or detritus layer. In fact, along the transect of cores from WB 3-1 (nearest to the shore) to WB 06-15 (on the ecotone) and WB 06-9 (in the swamp forest farthest away from shore), the thickness of the mud layer decreases from 8 cm to 6 cm and to 0 cm, respectively. It is obvious that the thickness of the storm deposit decreases landward from the bay shore (Figure 6-8).

In summary, a sandy layer is not present at the top of all of the cores discussed in this chapter. Only core WB 5 contains a sandy layer beneath the top plant trash layer, and WB 3-10 contains a distinct red sand layer. Therefore, it is reasonable to use the presence

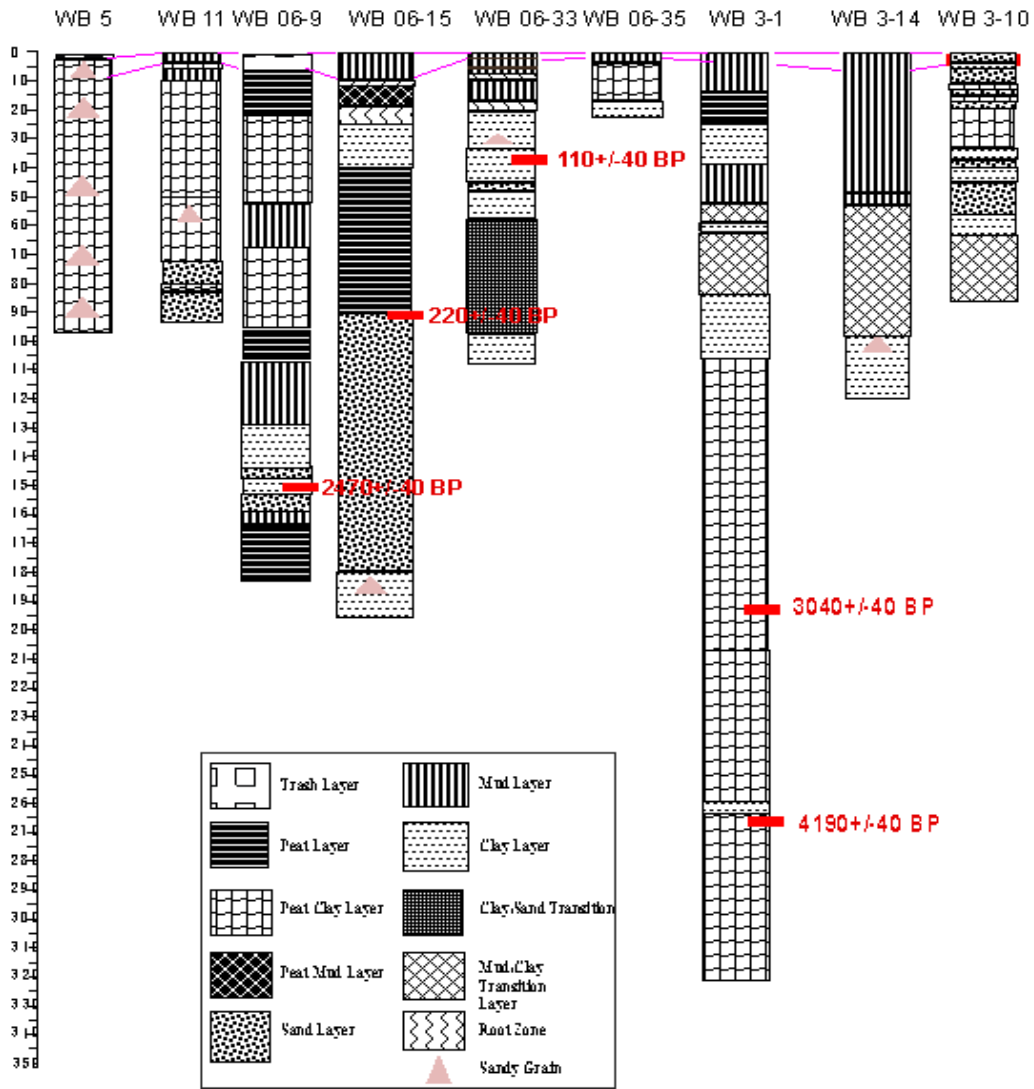


Figure 6-8: Stratigraphy of the Typical Cores in Seven Groups

of a silt-clay or mud layer to indicate the storm deposit of Hurricane Ivan and/or Katrina. This storm deposit record is represented by an abrupt drop of water and organic contents in the LOI results. The spatial distribution of the storm deposit is determined by several factors including the distance between the coring site and the sand barrier, storm energy, and the type of sediments in the bottom of Weeks Bay.

CHAPTER 7

TEMPORAL VARIABILITY

7.1 Ivan, Katrina, and Frederic Records

According to Haywick et al. (2003), the central areas of Weeks Bay have a sedimentation rate of 0.2 to 2 mm/year for the past 4000 years, and the modern sedimentation rate was extrapolated at about 10 mm/year. Based on the ^{14}C dates obtained in this study, the sedimentation rate in surrounding marshes is estimated at 0.54 to 2.57 mm/year (Table 7-1). Hence, normal sedimentation in one year may not be thick enough to be detected visually in a core taken from the bay bottom or surrounding marshes. Considering that the time between Hurricanes Ivan and Katrina is less than one year, it would be difficult to detect the boundary between the Ivan and Katrina layers even if both hurricanes left records in the sediment. For example, in WB 3-10, the sand with red color was deposited after Hurricane Frederic, as suggested by the color marker. However, there is only one red sand layer in the top of the core, even though the marsh was inundated by the storm surges of both Ivan and Katrina. So, although it is possible that both hurricanes deposited a layer of red sediment on this marsh, no distinct boundary can be detected within the red layer.

Table 7-1: Marsh Sedimentation Rate Estimation Based on the Radiocarbon Dating Data

Core	Cal Year	Year to 2006	Depth (cm)	Rate (mm/yr)
WB 06-10	1660 AD	346	155	1.01
WB 06-15	1640 AD	366	35	2.57
WB 06-33	1670 AD	336	94	1.16
WB 06-9	780 BC	2786	39	0.56
WB 3-1B	1410 BC	3416	194	0.57
WB 3-1C	2890 BC	4896	266	0.54

In the northern marsh near the shore of Weeks Bay, cores were taken in pre- and post-Katrina times. Hence, these cores offer a unique opportunity to identify the storm deposit of Hurricane Katrina. There, cores WB 2 (taken in August 2005 before Katrina) and WB 3-1 (taken in May 2006 after Katrina) are a good pair to compare, because their coring sites are very close. Two abrupt drops in water and organic contents are present at the top of each core (Figure 7-1). As discussed in the previous chapter, the uppermost trough in LOI value at 0-8 cm in WB 3-1 is interpreted to be the Hurricane Ivan and/or Katrina storm deposit. The second LOI trough at 16-24 cm is inferred to be the storm deposit caused by Hurricane Frederic. Similarly in WB 2, the LOI trough at the top 5 cm is inferred to be the Hurricane Ivan deposit, while the second trough at 10-15 cm is attributable to Hurricane Frederic. The general stratigraphic patterns at the top of these two cores (as reflected by their LOI curves) are very similar. The biggest difference between them is that the uppermost storm layer is thicker in WB 3-1 (8 cm) than in WB 2

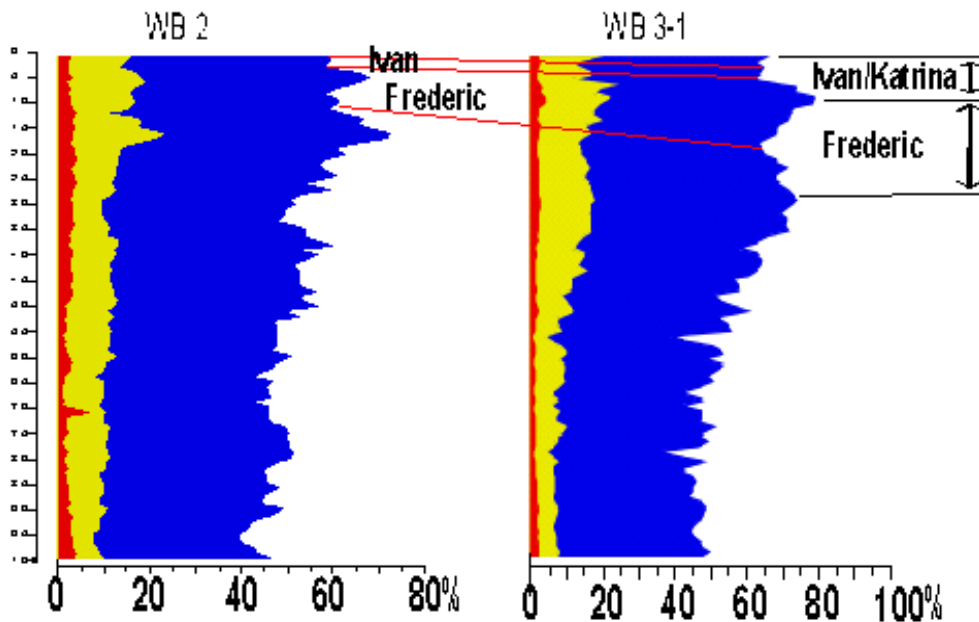


Figure 7-1: Comparison between WB 2 and WB 3-1

(5 cm). Moreover, a minor secondary LOI trough seems to occur at the uppermost 1 cm within the top storm layer of WB 3-1. This drop might suggest the presence of a Hurricane Katrina layer above the Ivan layer, which would occur only in WB 3-1 but not in WB 2. However, this interpretation remains speculative unless it can be supported by further analysis.

In another case study, cores WB 06-33 and WB 22, both taken at virtually the same spot in the western marsh but in 2006 and 2005, respectively, are used to detect the difference between the Ivan and Katrina layers. As shown in Figure 7-2, two abrupt drops in organic and water contents exist at the top of both cores, probably representing the same two storm deposits as in WB 3-1 and WB 2. The top layer at core WB 22 should represent Hurricane Ivan only because the core was taken before Hurricane Katrina. For core WB 06-33, which was taken after Hurricane Katrina, the top trough of water and

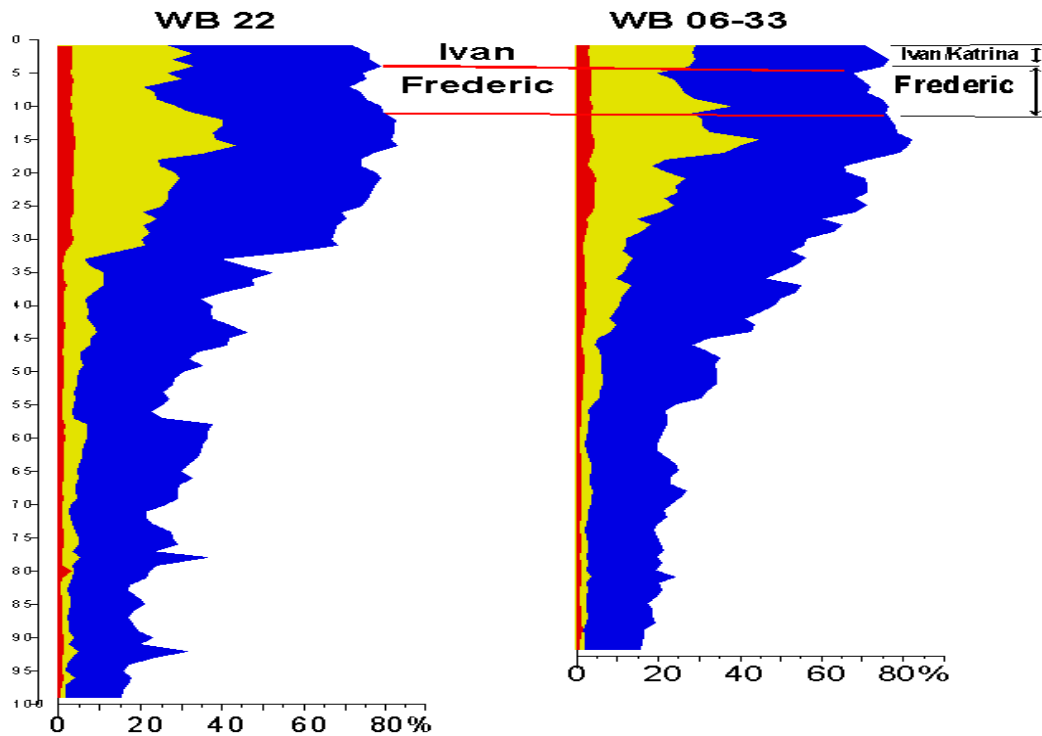


Figure 7-2: Comparison between WB 06-33 and WB 22

organic content corresponds with the top layer of WB 22. The thickness of that top layer is almost identical between these two cores, suggesting that the Hurricane Katrina storm layer, if present, is insignificant. However, there is no distinct boundary between Hurricane Ivan and Hurricane Katrina layers due to short time interval between these two events. Below this top layer in cores WB 22 and WB 06-33 is another distinct layer between 4 cm and 12 cm as reflected in an abrupt drop in water and organic contents in the LOI results. The thickness of this second layer in both cores is also similar. Consequently, this may represent another recent storm deposit, most likely that of Hurricane Frederic.

In conclusion, there is no distinct Katrina layer at the top of cores due to the short interval of time between the two events and the slow sedimentation rate in Weeks Bay. However, a storm deposit of Hurricane Frederic is found below the top layer of Ivan and/or Katrina layer.

7.2 Prehistorical Hurricane Records

Among all of these cores, WB 3-10 has the most visible sand layers, which could be interpreted as major storm deposits (Figure 7-3). It is easy to explain this phenomenon, because the coring site of WB 3-10 is closest to the overwash sand source at baymouth parking lot of Weeks Bay. Below the Ivan (and/or Katrina) and Frederic layers at the top of WB 3-10 are seven visible sand layers. Hence, in core WB 3-10, a total of nine major storm deposits were found, and these layers represent nine major hurricane records in history. Interestingly, the boundary between the seventh and eighth layer (at 41 cm) corresponds with the stratigraphic position of the (also at 39) cm of the ^{14}C sample obtained from core WB 06-33. In the LOI curves, layers on both core WB 3-10 and WB

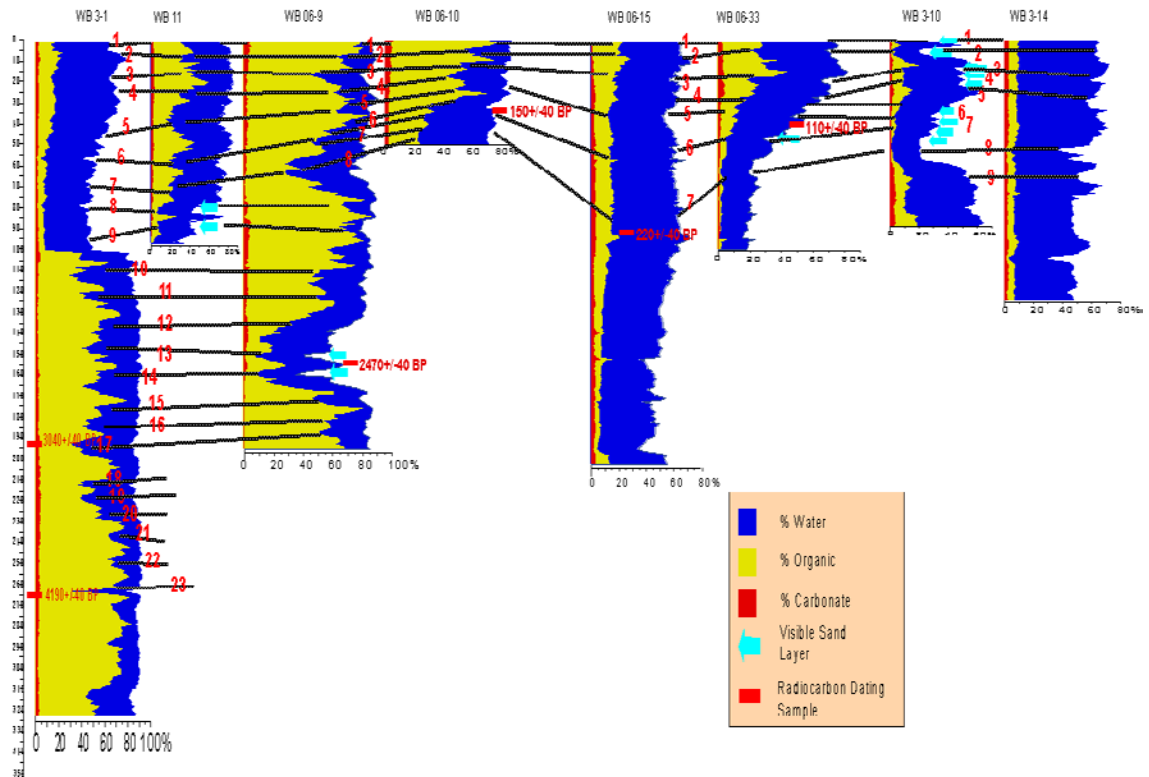


Figure 7-3: Possible Historical Storm Deposits

06-33 match up very well. Hence, it could be hypothesized that the age of boundary between the seventh and eighth layer in WB 3-10 is comparable to that ^{14}C dated 39 cm of WB 06-33, which is calibrated to Cal BP 280 to 170, Cal BP 150 to 0, and Cal BP 0 to 0 at the 2-sigma calibration. Hence, there were at least seven major hurricane strikes at Weeks Bay after Cal BP 280. Furthermore, two other radiocarbon dating samples were taken at 35 cm of WB 06-10, which is calibrated to Cal BP 290 to 0 at the 2-sigma calibration, and at 94 cm of WB 06-15, which is calibrated to Cal BP 310 to 260, Cal BP 220 to 140, and Cal BP 20 to 0. These two ages were similar to the one obtained from 39 cm of WB 06-33, and these three samples all have ages between seventeenth and twentieth century at the 2-sigma confidence range. Six event layers were also found to occur since the seventeenth century in core WB 06-10 and WB 06-15. In Table 3-1, five

major hurricanes were recorded to have occurred within a 65 km radius from Weeks Bay after 1852 and before Hurricane Frederic in 1979. Considering that not all of those hurricanes would have left storm deposits in those cores, it is still reasonable to accept that at least seven major hurricanes had struck Weeks Bay within the last 400 years as recorded in the sediments of those cores.

In addition, there are three other radiocarbon dates from cores WB 3-1 and WB 06-9. A ^{14}C date of 2470 \pm 40 BP was obtained at 155 cm of WB 06-9. This sample was at the boundary between two visible sand layers. These two sand layers are correlated in depth with the thirteenth and fourteenth event layer of WB 3-1 based on the LOI results and sediment stratigraphy between these two cores. Hence, we may interpret that 13 major events happened since 2730 cal yr BP. The radiocarbon dating sample taken at 194 cm of WB 3-1 lay beyond the eighteenth event layer at WB 3-1. And it might indicate that at least 17 events have occurred since 3360 Cal yr BP. Another radiocarbon date of 4190 \pm 40 yr BP was obtained from 266 cm of WB 3-1 below the twenty third event layer. This suggests that at least 23 major events have happened since 4840 cal yr BP.

Although it remains to be validated that the clastic layers in WB 3-1 and WB 06-9 are all records of major hurricane strikes, they are likely to be so because no other mechanisms could likely deposit a large of sand, silt, or clay in the middle of a coastal wetland. From the above analysis, at least seven major hurricanes were recorded in the last 400 years. Probably six other major hurricanes occurred in the 2,400- year interval between 400 years and 2,800 years ago, while another four major hurricanes occurred in the 600 years between 2,800 and 3,420 years ago. In addition, six major hurricanes may have occurred in the 1,500 years between 3,420 and 4,900 years ago. Based on this

estimation, it appears that during past 400 years, hurricane events were more frequent than in the preceding periods.

However, it should be noted that the frequency estimation is based on different cores with very different sedimentation rates representing different depositional environments, even within the same core. Therefore, the reconstruction of long-term changes in hurricane frequency must await better dating control and further analysis of environmental change in the Weeks Bay area. At this point, it is premature to evaluate the proxy data from Weeks Bay in the context of the other Gulf Coast records and the Bermuda High hypothesis (Liu, 2004).

CHAPTER 8

CONCLUSION

Several conclusions can be drawn from this study.

(1) A storm deposit of Hurricane Ivan was found in all cores studied. LOI results and stratigraphic analysis support this conclusion. The best proxy evidence for Hurricane Ivan is the distinct red-colored sand layer at the top of WB 3-8, 3-9, 3-10, and 3-11. A storm deposit attributed to Hurricane Frederic was found below the Hurricane Ivan layer based on its stratigraphic position and sand color differences.

(2) Hurricanes Ivan and Katrina's signatures in these cores are not individually distinguishable because of the short time interval between them and the slow sedimentation rate.

(3) Other than sand bands, silt, clay, or mud layers can also be used as proxy evidence for paleohurricane strikes in coastal marshes under certain circumstances. The mud and silt layers might be deposited by flood events. However, there is no major flood record in Weeks Bay in recent years. For better distinguishing the flood and hurricane effects on those prehistoric deposit layers, further research in past environment change in Weeks Bay should be conducted.

(4) Storm deposition around Weeks Bay is unevenly distributed spatially. Storm deposition in the baymouth marsh is mainly in the form of overwashed sand deposit. Storm deposition in the northern, eastern, and western marshes, which are far from the sand beach in the baymouth, is mainly in the form of mud and clay layers. In addition, the thickness of storm deposit decreases in the direction of the storm surge with increasing distance away from the sediment source. The spatial distribution of the storm

deposit is determined by several factors including storm energy, wind, and storm surge directions, distance between the site and sediment source, and types and spatial distribution of sediments in the bottom of the bay.

(5) Nine visible sand layers were found in core WB 3-10. The top seven sand layers were deposited after approximately 280 cal yr BP, based on the correlation analysis of LOI results and sediment stratigraphy.

(6) Based on the limited chronological control, it seems that at least seven major hurricane strikes occurred in Weeks Bay during the past 400 years. In addition, 6 major hurricanes struck in the 2,400-year period between 400 years and 2,800 years ago; another four major hurricane strikes occurred in the 600-year period between 2,800 and 3,420 years ago; and six major hurricane strikes occurred in the 1,500-year period between 3,420 and 4,900 years ago. However, the complexity of the depositional environment around Weeks Bay and the limited dating control on the cores do not provide a reliable base to evaluate these frequency estimates in the context of other proxy records from the Gulf Coast.

In conclusion, sediment supply and sediment transport mechanism are important factors affecting nature and strength of proxy signals in sedimentary paleohurricane records. In the case of Weeks Bay, mud layer can be used as effectively as sand layer due to some special circumstances involving sediment supply and the physical setting of this embayment.

For future research, better dating control is needed to differentiate the storm deposits attributable to Katrina, Ivan, and Frederic. Longer cores are needed in every major marsh around Weeks Bay to correlate all the recent and ancient storm layers.

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APPENDIX A

RADIOCARBON RESULTS 1

Dr. Kam-biu Liu

Report Date: 9/11/2007

Louisiana State University

Material Received: 8/14/2007

Sample Data	Measured Radiocarbon Age	13C/12C Ratio	Conventional Radiocarbon Age(*)
Beta - 233699 SAMPLE : LS 34-2 19-20 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (organic sediment): acid washes 2 SIGMA CALIBRATION : Cal BC 1760 to 1610 (Cal BP 3710 to 3560)	3320 +/- 40 BP	-20.9 o/oo	3390 +/- 40 BP
Beta - 233700 SAMPLE : LS 34-2 121-122 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (organic sediment): acid washes 2 SIGMA CALIBRATION : Cal BC 1500 to 1380 (Cal BP 3450 to 3330) AND Cal BC 1330 to 1330 (Cal BP 3280 to 3280)	3060 +/- 40 BP	-19.7 o/oo	3150 +/- 40 BP
Beta - 233701 SAMPLE : ML2-2 104-105 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (organic sediment): acid washes 2 SIGMA CALIBRATION : Cal BC 5480 to 5310 (Cal BP 7420 to 7260)	6370 +/- 40 BP	-22.8 o/oo	6410 +/- 40 BP
Beta - 233702 SAMPLE : ML02 85-86 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (organic sediment): acid washes 2 SIGMA CALIBRATION : Cal BC 3700 to 3630 (Cal BP 5650 to 5580) AND Cal BC 3560 to 3540 (Cal BP 5510 to 5490)	4810 +/- 40 BP	-22.0 o/oo	4860 +/- 40 BP
Beta - 233703 SAMPLE : WB3-1B 108 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (plant material): acid/alkali/acid 2 SIGMA CALIBRATION : Cal BC 1410 to 1200 (Cal BP 3360 to 3150)	3060 +/- 40 BP	-26.1 o/oo	3040 +/- 40 BP

Dr. Kam-biu Liu

Report Date: 9/11/2007

Sample Data	Measured Radiocarbon Age	$^{13}\text{C}/^{12}\text{C}$ Ratio	Conventional Radiocarbon Age(*)
Beta - 233704 SAMPLE : WB3-1C 72 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (plant material): acid/alkali/acid 2 SIGMA CALIBRATION : Cal BC 2890 to 2830 (Cal BP 4840 to 4780) AND Cal BC 2820 to 2630 (Cal BP 4770 to 4580)	4230 +/- 40 BP	-27.7 o/oo	4190 +/- 40 BP

CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-26.1:lab. mult=1)

Laboratory number: **Beta-233703**

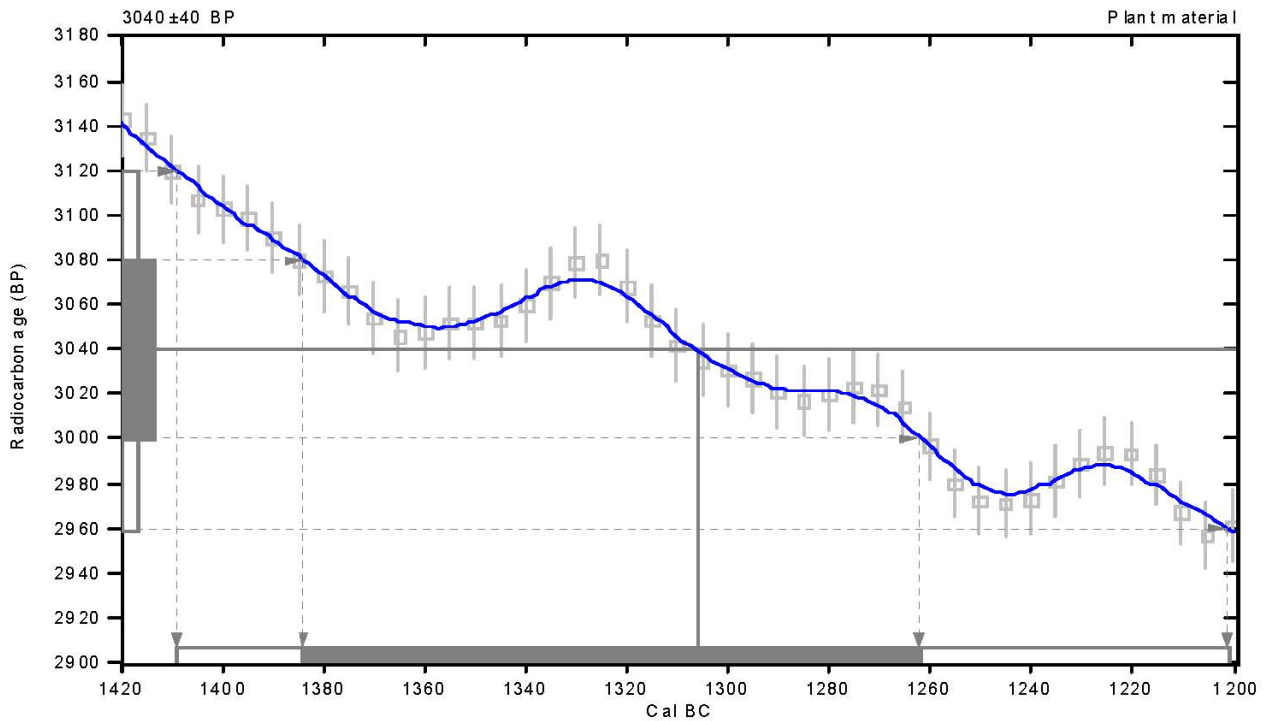
Conventional radiocarbon age: **3040±40 BP**

2 Sigma calibrated result: Cal BC 1410 to 1200 (Cal BP 3360 to 3150)
(95% probability)

Intercept data

Intercept of radiocarbon age
with calibration curve: Cal BC 1310 (Cal BP 3260)

1 Sigma calibrated result: Cal BC 1380 to 1260 (Cal BP 3330 to 3210)
(68% probability)



References:

Database used

INTCAL04

Calibration Database

INTCAL04 Radiocarbon Age Calibration

IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).

Mathematics

A Simplified Approach to Calibrating C14 Dates

Talma, A. S., Vogel, J. C., 1993, Radiocarbon 35(2), p317-322

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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-27.7:lab. mult=1)

Laboratory number: **Beta-233704**

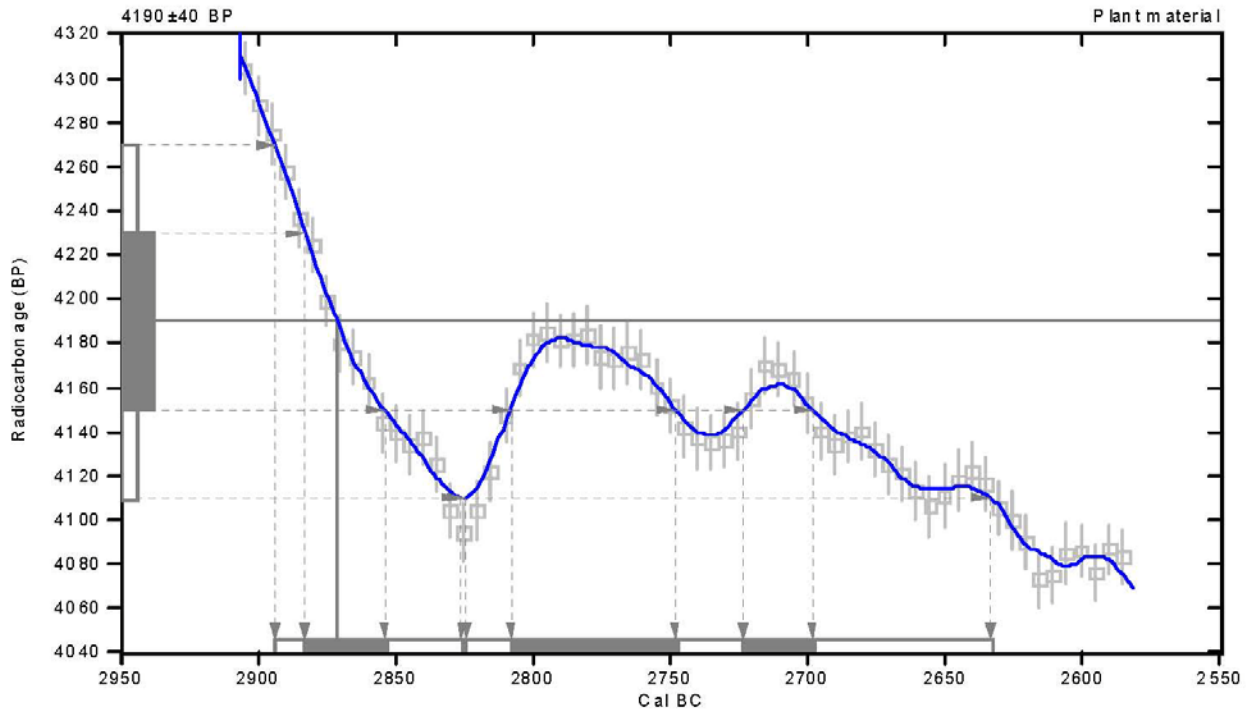
Conventional radiocarbon age: **4190±40 BP**

2 Sigma calibrated results: Cal BC 2890 to 2830 (Cal BP 4840 to 4780) and
(95% probability) Cal BC 2820 to 2630 (Cal BP 4770 to 4580)

Intercept data

Intercept of radiocarbon age
with calibration curve: Cal BC 2870 (Cal BP 4820)

1 Sigma calibrated results: Cal BC 2880 to 2850 (Cal BP 4830 to 4800) and
(68% probability) Cal BC 2810 to 2750 (Cal BP 4760 to 4700) and
Cal BC 2720 to 2700 (Cal BP 4670 to 4650)



References:

- Database used*
INTCAL04
Calibration Database
INTCAL04 Radiocarbon Age Calibration
In1Cal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).
- Mathematics*
A Simplified Approach to Calibrating C14 Dates
Talma, A. S., Vogel, J. C., 1993, Radiocarbon 35(2), p317-322

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APPENDIX B

RADIOCARBON RESULTS 2

Dr. Kam-biu Liu

Report Date: 6/7/2007

Louisiana State University

Material Received: 5/3/2007

Sample Data	Measured Radiocarbon Age	13C/12C Ratio	Conventional Radiocarbon Age(*)
Beta - 230365 SAMPLE : WB06-9D-46cm ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (plant material): acid washes 2 SIGMA CALIBRATION : Cal BC 780 to 410 (Cal BP 2730 to 2360)	2500 +/- 40 BP	-26.9 o/oo	2470 +/- 40 BP
Beta - 230366 SAMPLE : WB06-10-35cm ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (plant material): acid/alkali/acid 2 SIGMA CALIBRATION : Cal AD 1660 to 1960 (Cal BP 290 to 0)	120 +/- 40 BP	-23.4 o/oo	150 +/- 40 BP
Beta - 230367 SAMPLE : WB06-15B-94cm ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (plant material): acid/alkali/acid 2 SIGMA CALIBRATION : Cal AD 1640 to 1690 (Cal BP 310 to 260) AND Cal AD 1730 to 1810 (Cal BP 220 to 140) Cal AD 1930 to 1950 (Cal BP 20 to 0)	100 +/- 40 BP	-17.8 o/oo	220 +/- 40 BP
Beta - 230368 SAMPLE : WB06-33-39cm ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (plant material): acid/alkali/acid 2 SIGMA CALIBRATION : Cal AD 1670 to 1780 (Cal BP 280 to 170) AND Cal AD 1800 to 1950 (Cal BP 150 to 0) Cal AD 1950 to 1960 (Cal BP 0 to 0)	130 +/- 40 BP	-26.3 o/oo	110 +/- 40 BP

CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-26.9:lab. mult=1)

Laboratory number: **Beta-230365**

Conventional radiocarbon age: **2470±40 BP**

2 Sigma calibrated result: Cal BC 780 to 410 (Cal BP 2730 to 2360)
(95% probability)

Intercept data

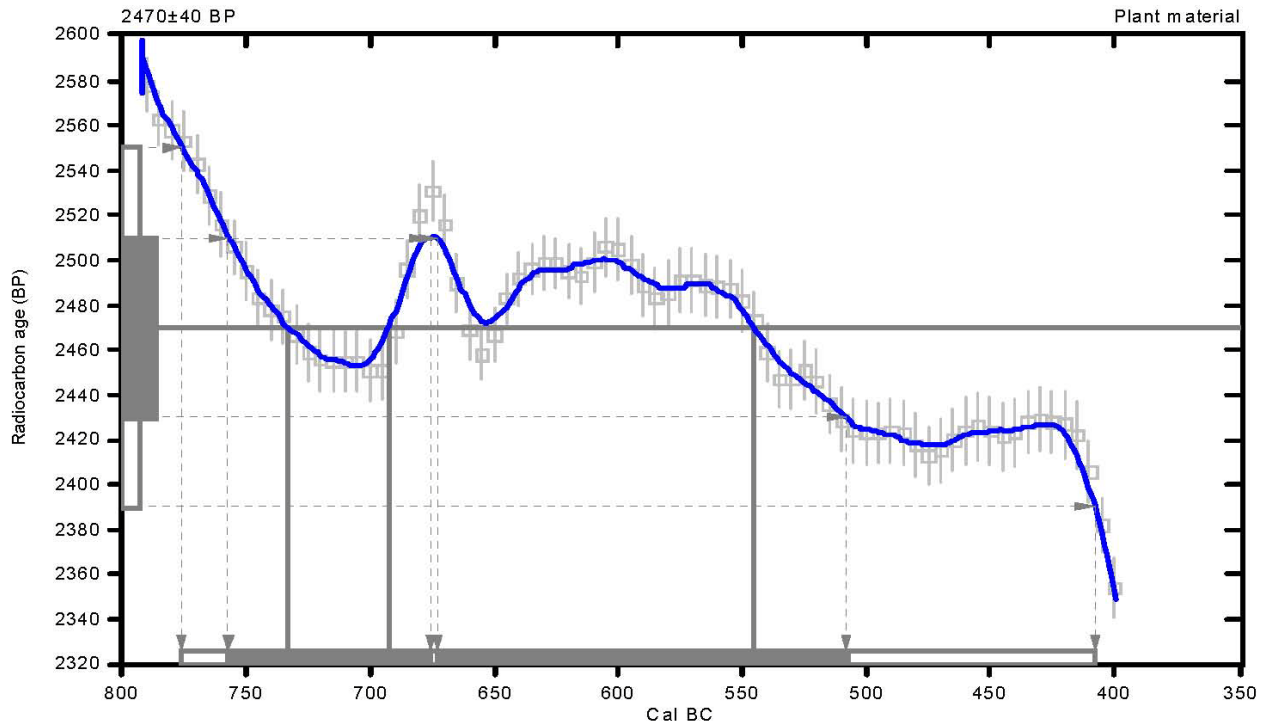
Intercepts of radiocarbon age
with calibration curve:

Cal BC 730 (Cal BP 2680) and

Cal BC 690 (Cal BP 2640) and

Cal BC 540 (Cal BP 2500)

1 Sigma calibrated results: Cal BC 760 to 680 (Cal BP 2710 to 2630) and
(68% probability) **Cal BC 670 to 510 (Cal BP 2620 to 2460)**



References:

Database used

Intcal04

Calibration Database

INTCAL04 Radiocarbon Age Calibration

IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).

Mathematics

A Simplified Approach to Calibrating C14 Dates

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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-23.4:lab. mult=1)

Laboratory number: **Beta-230366**

Conventional radiocarbon age: **150±40 BP**

2 Sigma calibrated result: Cal AD 1660 to 1960 (Cal BP 290 to 0)
(95% probability)

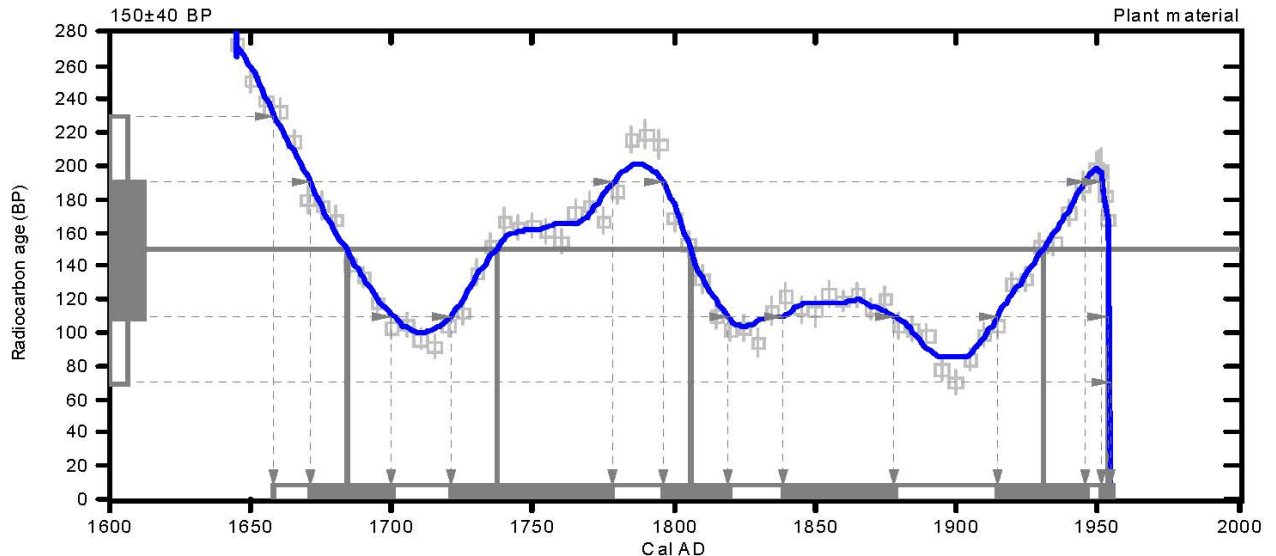
Intercept data

Intercepts of radiocarbon age
with calibration curve:

Cal AD 1680 (Cal BP 270) and
Cal AD 1740 (Cal BP 210) and
Cal AD 1810 (Cal BP 140) and
Cal AD 1930 (Cal BP 20) and
Cal AD 1950 (Cal BP 0)

1 Sigma calibrated results:
(68% probability)

Cal AD 1670 to 1700 (Cal BP 280 to 250) and
Cal AD 1720 to 1780 (Cal BP 230 to 170) and
Cal AD 1800 to 1820 (Cal BP 150 to 130) and
Cal AD 1840 to 1880 (Cal BP 110 to 70) and
Cal AD 1920 to 1950 (Cal BP 40 to 0) and
Cal AD 1950 to 1950 (Cal BP 0 to 0)



References:

Database used

Intcal04

Calibration Database

INTCAL04 Radiocarbon Age Calibration

IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).

Mathematics

A Simplified Approach to Calibrating C14 Dates

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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-17.8;lab. mult=1)

Laboratory number: **Beta-230367**

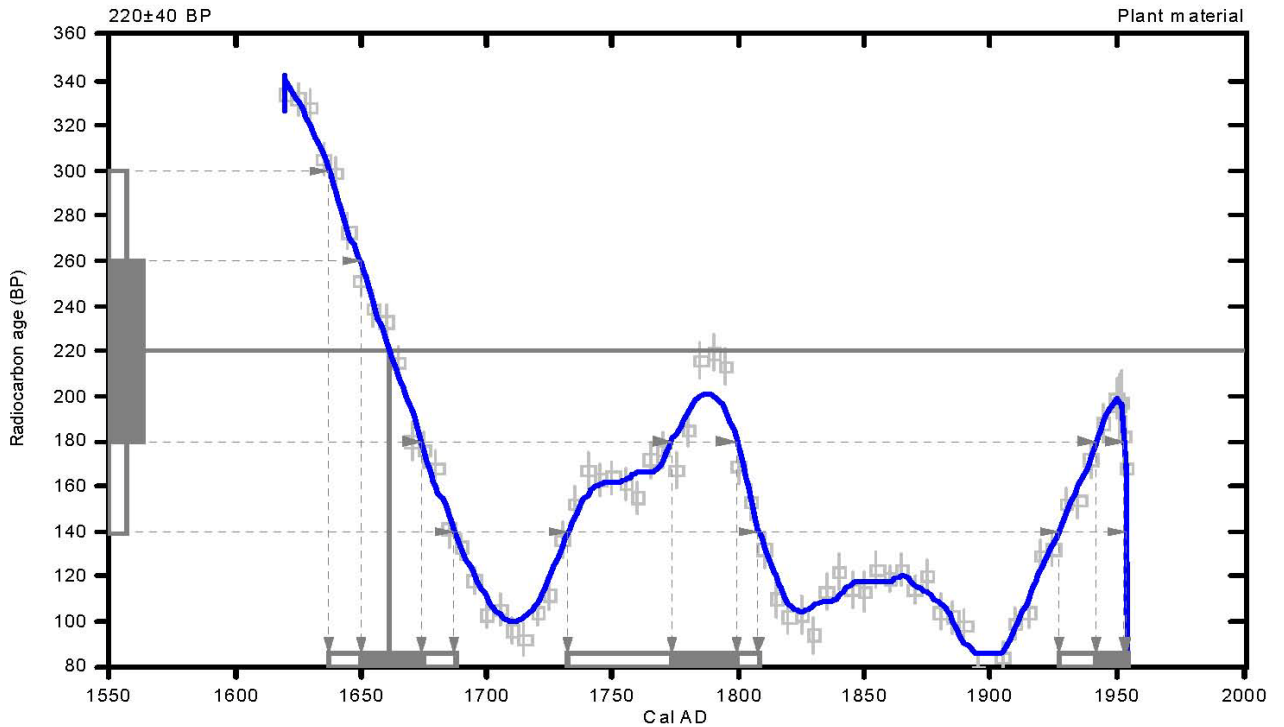
Conventional radiocarbon age: **220±40 BP**

**2 Sigma calibrated results: Cal AD 1640 to 1690 (Cal BP 310 to 260) and
(95% probability) Cal AD 1730 to 1810 (Cal BP 220 to 140) and
Cal AD 1930 to 1950 (Cal BP 20 to 0)**

Intercept data

Intercept of radiocarbon age
with calibration curve: Cal AD 1660 (Cal BP 290)

**1 Sigma calibrated results: Cal AD 1650 to 1670 (Cal BP 300 to 280) and
(68% probability) Cal AD 1770 to 1800 (Cal BP 180 to 150) and
Cal AD 1940 to 1950 (Cal BP 10 to 0)**



References:

Database used
Intcal04

Calibration Database
INTCAL04 Radiocarbon Age Calibration

IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).

Mathematics

A Simplified Approach to Calibrating C14 Dates

Talma, A. S., Vogel, J. C., 1993, Radiocarbon 35(2), p31 7-322

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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-26.3;lab. mult=1)

Laboratory number: **Beta-230368**

Conventional radiocarbon age: **110±40 BP**

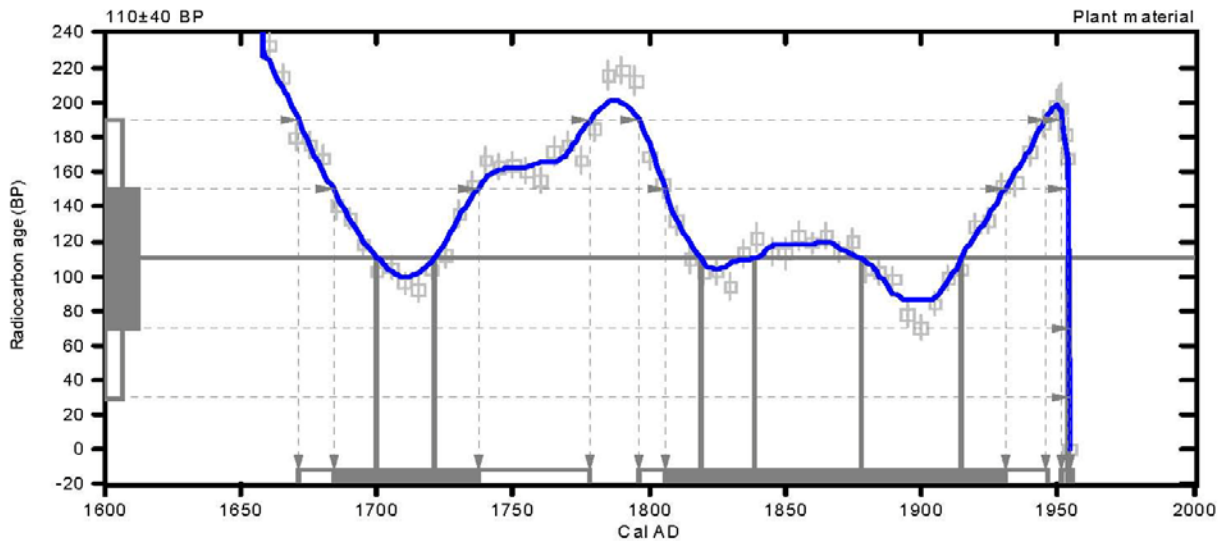
2 Sigma calibrated results: Cal AD 1670 to 1780 (Cal BP 280 to 170) and
(95% probability) Cal AD 1800 to 1950 (Cal BP 150 to 0) and
Cal AD 1950 to 1960 (Cal BP 0 to 0)

Intercept data

Intercepts of radiocarbon age
with calibration curve:

Cal AD 1700 (Cal BP 250) and
Cal AD 1720 (Cal BP 230) and
Cal AD 1820 (Cal BP 130) and
Cal AD 1840 (Cal BP 110) and
Cal AD 1880 (Cal BP 70) and
Cal AD 1920 (Cal BP 40) and
Cal AD 1950 (Cal BP 0)

1 Sigma calibrated results: Cal AD 1680 to 1740 (Cal BP 270 to 210) and
(68% probability) Cal AD 1810 to 1930 (Cal BP 140 to 20) and
Cal AD 1950 to 1960 (Cal BP 0 to 0)



References:

Database used

Intcal04

Calibration Database

INTCAL04 Radiocarbon Age Calibration

IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).

Mathematics

A Simplified Approach to Calibrating C14 Dates

Talma, A. S., Vogel, J. C., 1993, Radiocarbon 35(2), p317-322

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**APPENDIX C
LOSS-ON-IGNITION RESULTS**

WB 2

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	%Carbonate	Residual
1	5.0127	5.7828	5.3232	5.2741	5.2667	59.68056097	15.81320451	2.383252818	81.80354267
2	4.7175	5.7853	5.1607	5.096	5.087	58.49410002	14.59837545	2.030685921	83.37093863
3	4.8315	5.8741	5.2791	5.2189	5.2097	57.0688663	13.44950849	2.055406613	84.4950849
4	4.5014	5.3019	4.7743	4.7283	4.7225	65.908807	16.85599121	2.12532063	81.01868816
5	4.6847	5.7752	5.0371	4.9729	4.9633	67.68454837	18.21793417	2.724177072	79.05788876
6	4.9085	6.2724	5.3784	5.2886	5.2809	65.54732752	19.11044903	1.638646521	79.25090445
7	5.7004	6.9926	6.2052	6.1233	6.1122	60.93483981	16.22424723	2.19889065	81.57686212
8	4.85	6.1615	5.4029	5.316	5.305	57.84216546	15.71712787	1.989509857	82.29336227
9	5.1042	6.3849	5.608	5.5261	5.5145	60.66213789	16.25645097	2.302500992	81.44104803
10	5.867	6.9164	6.2767	6.208	6.1983	60.95864303	16.7683671	2.367586039	80.86404686
11	4.7892	5.7384	5.1817	5.1204	5.1097	58.64938896	15.61783439	2.72611465	81.65605096
12	5.1685	6.5442	5.6972	5.6412	5.6224	61.56865596	10.59201816	3.55589181	85.85209003
13	4.9261	6.2795	5.3829	5.3012	5.2896	66.24796808	17.88528897	2.539404553	79.57530648
14	4.384	5.4797	4.766	4.6969	4.6859	65.13644246	18.08900524	2.879581152	79.03141361
15	4.5461	5.8648	4.9769	4.9023	4.8895	67.3314628	17.31662024	2.971216342	79.71216342
16	4.9051	6.1006	5.2336	5.1574	5.148	72.52195734	23.19634703	2.861491629	73.94216134
17	5.1373	6.2688	5.4556	5.3879	5.3794	71.86920018	21.26924285	2.670436695	76.06032045
18	4.7114	5.8858	5.1409	5.072	5.0621	63.42813351	16.0419092	2.305005821	81.65308498
19	5.3289	6.7489	5.8886	5.8114	5.7932	60.58450704	13.79310345	3.251742005	82.95515455
20	5.5486	6.1517	5.7766	5.7447	5.7372	62.19532416	13.99122807	3.289473684	82.71929825
21	4.7325	6.0167	5.2708	5.2004	5.1811	58.08285314	13.07820918	3.585361323	83.3364295
22	4.8557	6.1839	5.425	5.3513	5.3337	57.1374793	12.94572282	3.091515897	83.96276129
23	4.5737	5.5517	4.9875	4.9347	4.9244	57.68916155	12.75978734	2.489125181	84.75108748
24	4.5849	5.8247	5.0727	5.0108	4.995	60.65494435	12.6896269	3.23903239	84.07134071
25	4.9865	6.64	5.6996	5.6129	5.5909	56.87329906	12.15818258	3.085121301	84.75669612
26	4.4384	5.1414	4.7635	4.7254	4.7143	53.75533428	11.71947093	3.414334051	84.86619502
27	4.8648	5.9065	5.2932	5.239	5.2273	58.874916	12.65172736	2.731092437	84.61718021
28	5.2531	7.0191	6.083	5.9839	5.9599	53.00679502	11.94119773	2.891914689	85.16688758
29	4.6242	5.4	5.0076	4.9723	4.9633	50.5800464	9.207094418	2.34741784	88.44548774
30	4.9477	6.8906	5.888	5.7949	5.7708	51.60327346	9.901095395	2.563011805	87.5358928
31	4.8617	6.5899	5.7384	5.652	5.6273	49.27091772	9.855138588	2.817383369	87.32747804
32	5.1485	6.2317	5.698	5.6438	5.629	49.27067947	9.863512284	2.693357598	87.44313012
33	4.9293	6.3298	5.6624	5.5863	5.5659	47.65440914	10.38057564	2.782703588	86.83672077
34	5.413	7.4673	6.4169	6.3076	6.278	51.13177238	10.8875386	2.948500847	86.16396055
35	4.7792	6.0544	5.3679	5.3012	5.2844	53.8346926	11.33004926	2.853745541	85.8162052
36	4.5154	5.5972	5.0168	4.9645	4.9547	53.65132187	10.43079378	1.954527323	87.6146789
37	5.5088	7.0079	6.1726	6.0867	6.0714	55.72009873	12.94064477	2.304911118	84.75444411
38	5.6861	6.6037	6.0568	6.0093	6.0016	59.60113339	12.8135959	2.077151335	85.10925277
39	5.7265	6.859	6.2794	6.2117	6.1972	51.17880795	12.24452885	2.622535721	85.13293543

40	5.0736	7.3638	6.0697	5.9437	5.9157	56.50598201	12.6493324	2.810962755	84.53970485
41	4.6538	5.6804	5.1324	5.0757	5.065	53.38008962	11.84705391	2.235687422	85.91725867
42	5.1513	6.3453	5.7352	5.6685	5.6541	51.09715243	11.4231889	2.466175715	86.11063538
43	4.47	6.3388	5.3572	5.2544	5.2333	52.52568493	11.58701533	2.378268711	86.03471596
44	5.0385	6.5052	5.7359	5.6557	5.637	52.45108066	11.49985661	2.681388013	85.81875538
45	5.0945	6.978	5.9887	5.8854	5.8598	52.52455535	11.55222545	2.862894207	85.58488034
46	5.5108	6.4824	5.9701	5.9169	5.9054	52.72745986	11.58284346	2.503810146	85.9133464
47	4.8566	6.7094	5.6703	5.5703	5.5486	56.08268566	12.2895416	2.666830527	85.04362787
48	4.99	5.8715	5.4034	5.3537	5.3426	53.10266591	12.02225448	2.685050798	85.29269473
49	4.6596	5.9209	5.2532	5.1761	5.1619	52.93744549	12.98854447	2.392183288	84.61927224
50	5.1222	6.1406	5.563	5.5097	5.5051	56.71641791	12.09165154	1.043557169	86.86479129
51	5.1964	6.7072	5.9672	5.8833	5.8711	48.98067249	10.88479502	1.582771147	87.53243383
52	5.1185	6.179	5.6209	5.56	5.5514	52.62611975	12.12181529	1.711783439	86.16640127
53	4.7932	5.913	5.3983	5.3285	5.3211	45.96356492	11.53528342	1.222938357	87.24177822
54	5.5662	6.7113	6.1718	6.1046	6.0946	47.11378919	11.09643329	1.651254954	87.25231176
55	5.5718	6.5298	6.0779	6.0173	6.0101	47.17118998	11.9739182	1.422643746	86.60343806
56	4.9093	5.7385	5.3416	5.2927	5.2906	47.86541245	11.31158917	0.485773768	88.20263706
57	4.5007	5.5915	5.0762	5.0101	5.0011	47.24055739	11.48566464	1.563857515	86.95047785
58	5.2374	6.566	5.9297	5.8509	5.8423	47.89251844	11.38234869	1.242236025	87.37541528
59	4.8703	6.0421	5.504	5.4346	5.4253	45.9208056	10.95155436	1.467571406	87.58087423
60	4.8694	6.1128	5.4852	5.4068	5.3953	50.47450539	12.7314063	1.867489445	85.40110425
61	4.7491	6.5815	5.7045	5.6016	5.5769	47.8607291	10.77035797	2.585304584	86.64433745
62	4.5682	6.1859	5.4284	5.3367	5.3171	46.82574025	10.66031156	2.278539874	87.06114857
63	5.3055	8.3143	6.9473	6.7821	6.7454	45.43339537	10.06212693	2.235351444	87.70252162
64	4.9151	5.9045	5.4895	5.4451	5.4392	41.9446129	7.729805014	1.027158774	91.24303621
65	5.222	6.3396	5.8198	5.7585	5.7514	46.51037938	10.25426564	1.18768819	88.55804617
66	4.8806	6.2162	5.6106	5.5378	5.5358	45.34291704	9.97260274	0.273972603	89.75342466
67	4.3866	5.4368	4.9558	4.8985	4.894	45.80079985	10.06676037	0.790583275	89.14265636
68	4.9408	5.8056	5.4072	5.3591	5.3564	46.06845513	10.31303602	0.57890223	89.10806175
69	5.0665	6.3503	5.8087	5.7359	5.7282	42.18725658	9.808676906	1.037456211	89.15386688
70	5.224	6.1616	5.7347	5.686	5.6817	45.53114334	9.535931075	0.841981594	89.62208733
71	4.9824	6.5731	5.8466	5.7565	5.7018	45.67171685	10.42582735	6.329553344	83.2446193
72	4.3957	5.4889	4.9905	4.9311	4.9222	45.59092572	9.986550101	1.496301278	88.51714862
73	4.7564	6.1725	5.5201	5.443	5.4323	46.07019278	10.09558727	1.40107372	88.50333901
74	5.147	6.419	5.7912	5.719	5.7082	49.35534591	11.20769947	1.676497982	87.11580255
75	4.8065	5.7358	5.2714	5.2208	5.2125	49.97309803	10.88406109	1.785330179	87.33060873
76	5.0269	5.8715	5.4514	5.4051	5.4003	49.73952167	10.90694935	1.130742049	87.9623086
77	5.1021	6.1543	5.6248	5.5686	5.564	50.32313248	10.75186531	0.880045915	88.36808877
78	5.17	6.3431	5.7556	5.6927	5.6851	50.08098201	10.74112022	1.297814208	87.96106557
79	4.8603	8.1145	6.4581	6.2838	6.2502	50.9003749	10.90874953	2.102891476	86.98835899
80	5.0141	6.7573	5.8784	5.7809	5.7696	50.41877008	11.28080528	1.307416406	87.41177832
81	4.6113	5.7286	5.1965	5.1335	5.1267	47.62373579	10.76555024	1.161995899	88.07245386
82	4.6287	6.121	5.4458	5.361	5.3468	45.24559405	10.37816669	1.737853384	87.88397993

83	4.1078	5.5527	4.9048	4.8287	4.8182	44.84047339	9.548306148	1.317440402	89.13425345
84	4.9963	6.3183	5.7212	5.6531	5.6432	45.16641452	9.394399227	1.365705615	89.23989516
85	5.2596	6.5105	5.9442	5.8758	5.8667	45.27140459	9.991235758	1.329243354	88.67952089
86	5.6025	6.9752	6.3133	6.2397	6.2259	48.21883878	10.35453011	1.941474395	87.7039955
87	4.3434	6.0315	5.2698	5.1768	5.1585	45.12173449	10.0388601	1.975388601	87.9857513
88	4.9578	6.5505	5.8371	5.7537	5.7355	44.79186287	9.484817468	2.069828272	88.44535426
89	4.9795	6.4893	5.824	5.7449	5.7266	44.06543913	9.366489047	2.1669627	88.46654825
90	5.0836	6.001	5.5524	5.5001	5.4934	48.89906257	11.15614334	1.429180887	87.41467577
91	4.9783	6.5332	5.803	5.7194	5.6996	46.96121937	10.13701952	2.400873045	87.46210743
92	4.3806	6.1891	5.4055	5.3148	5.2878	43.32872546	8.849643868	2.634403356	88.51595278
93	4.9527	5.7913	5.4377	5.3925	5.3818	42.16551395	9.319587629	2.206185567	88.4742268
94	4.532	5.6113	5.1678	5.1117	5.0962	41.09144816	8.823529412	2.437873545	88.73859704
95	4.8359	6.7056	5.9669	5.8777	5.8504	39.50901214	7.886825818	2.413793103	89.69938108
96	4.9114	7.2542	6.3401	6.2286	6.1916	39.01741506	7.804297613	2.589766921	89.60593547
97	5.1415	7.6913	6.6741	6.5531	6.5129	39.89332497	7.895080256	2.622993606	89.48192614
98	4.9332	6.0037	5.5513	5.4979	5.4816	42.26062588	8.639378741	2.637113736	88.72350752
99	4.8908	7.6591	6.4527	6.3153	6.2574	43.57909186	8.79697804	3.707023497	87.49599846
100	4.2597	5.1704	4.7509	4.7002	4.6841	46.06346766	10.32166124	3.277687296	86.40065147

WB 3

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	%Carbonate	Residual
1	5.0561	6.7801	5.7416	5.6636	5.6427	60.23782	11.378556	3.04886944	85.572575
2	5.0187	6.5439	5.5842	5.5047	5.4856	62.9229	14.058355	3.377542	82.564103
3	4.8349	6.3029	5.4003	5.3235	5.3045	61.48501	13.583304	3.36045278	83.056243
4	5.0373	6.5675	5.7399	5.665	5.6409	54.08443	10.660404	3.43011671	85.909479
5	4.7816	6.1025	5.3251	5.2601	5.2398	58.85381	11.959522	3.7350506	84.305428
6	4.8191	6.103	5.3162	5.2518	5.2328	61.28203	12.95514	3.82216858	83.222692
7	4.7252	6.176	5.2729	5.1959	5.1741	62.24841	14.058791	3.98028118	81.960928
8	4.7868	5.975	5.282	5.2176	5.1987	58.32351	13.004847	3.81663974	83.178514
9	4.2999	5.5467	4.7452	4.6782	4.6592	64.28457	15.046036	4.26678644	80.687177
10	4.9161	6.4775	5.4947	5.4056	5.3832	62.94351	15.39924	3.87141376	80.729347
11	4.7526	6.5831	5.4157	5.3298	5.3035	63.77492	12.954306	3.96621927	83.079475
12	5.4933	6.8444	5.9644	5.8982	5.879	65.13211	14.052218	4.07556782	81.872214
13	4.8888	6.3356	5.4409	5.3653	5.3441	61.83992	13.693172	3.83988408	82.466944
14	5.1529	6.7669	5.8462	5.7637	5.7393	57.04461	11.899611	3.51939997	84.580989
15	4.7738	6.4004	5.3579	5.2705	5.2476	64.09074	14.963191	3.92056155	81.116247
16	4.6788	6.53	5.3905	5.2897	5.2617	61.55467	14.163271	3.93424196	81.902487
17	4.4539	6.2349	5.1975	5.0979	5.0664	58.24818	13.394298	4.23614847	82.369554
18	4.9541	6.47	5.3522	5.2703	5.2535	73.73837	20.57272	4.22004521	75.207234
19	4.7616	5.9677	5.0119	4.9447	4.9336	79.24716	26.847783	4.43467839	68.717539
20	4.4208	6.0047	4.9587	4.8804	4.8601	66.03952	14.556609	3.77393568	81.669455
21	5.0269	6.152	5.4514	5.3932	5.3772	62.27002	13.710247	3.76914016	82.520612
22	4.6648	6.6149	5.497	5.4081	5.3784	57.32527	10.682528	3.56885364	85.748618
23	4.5034	6.1315	5.226	5.1519	5.1242	55.61698	10.254636	3.83337946	85.911985

24	4.3358	6.0108	5.066	4.9897	4.9614	56.40597	10.449192	3.87565051	85.675157
25	4.6824	6.335	5.4386	5.3604	5.3315	54.2418	10.34118	3.82174028	85.83708
26	4.7393	6.5565	5.5395	5.4571	5.4305	55.96522	10.297426	3.32416896	86.378405
27	4.8306	6.672	5.6315	5.5492	5.523	56.50592	10.27594	3.27131977	86.452741
28	5.0104	7.7261	6.3189	6.2114	6.1754	51.81721	8.2155139	2.75124188	89.033244
29	4.5711	5.9531	5.1239	5.0619	5.0438	60	11.21563	3.27424023	85.51013
30	4.8931	6.3563	5.4788	5.4111	5.3883	59.9713	11.558819	3.89277787	84.548404
31	4.812	6.8084	5.6909	5.5973	5.5668	55.97576	10.649676	3.4702469	85.880077
32	5.0093	6.4301	5.5922	5.5255	5.5036	58.97382	11.442786	3.75707669	84.800137
33	4.5544	5.6713	4.9903	4.9378	4.922	60.97233	12.044047	3.62468456	84.331269
34	5.1254	6.6155	5.7651	5.6937	5.6686	57.07	11.161482	3.92371424	84.914804
35	4.7734	6.7677	5.6186	5.5274	5.4957	57.61921	10.790345	3.75059158	85.459063
36	4.4542	6.192	5.2673	5.1896	5.163	53.21096	9.5560202	3.27143033	87.17255
37	4.9926	6.6667	5.7927	5.7202	5.6949	52.20716	9.0613673	3.16210474	87.776528
38	4.9786	6.8708	5.8234	5.7449	5.7162	55.35356	9.2921402	3.39725379	87.310606
39	5.3137	6.8148	6.0101	5.9448	5.9212	53.60735	9.3767949	3.38885698	87.234348
40	4.5323	5.9396	5.169	5.1047	5.0828	54.75734	10.098948	3.43961049	86.461442
41	4.6036	5.9526	5.2327	5.171	5.1502	53.36546	9.8076617	3.3063106	86.886028
42	5.0992	6.9407	5.9085	5.8225	5.7947	56.05213	10.626467	3.43506734	85.938465
43	4.4126	6.5819	5.3558	5.2517	5.2184	56.52054	11.036896	3.53053435	85.43257
44	5.2313	6.986	6.0366	5.9519	5.9242	54.10612	10.517819	3.43971191	86.042469
45	5.0874	6.3027	5.5979	5.5424	5.5248	57.99391	10.871694	3.44760039	85.680705
46	4.817	6.6012	5.5865	5.5023	5.4756	56.87143	10.94217	3.46978558	85.588044
47	4.8081	6.3346	5.4701	5.3993	5.377	56.63282	10.694864	3.36858006	85.936556
48	4.901	6.6454	5.6233	5.5437	5.5187	58.59321	11.020352	3.46116572	85.518483
49	4.5299	5.7967	5.1051	5.0471	5.0278	54.59425	10.083449	3.35535466	86.561196
50	5.0384	6.5736	5.6742	5.6055	5.5836	58.5852	10.805285	3.4444794	85.750236
51	4.993	6.2672	5.5496	5.4947	5.478	56.31769	9.8634567	3.00035932	87.136184
52	5.1146	6.5681	5.7769	5.7112	5.689	54.43412	9.9199758	3.35195531	86.728069
53	4.7196	6.2898	5.4477	5.3795	5.3576	53.63011	9.3668452	3.00782859	87.625326
54	4.9843	6.5112	5.7654	5.6961	5.6731	48.84406	8.8721034	2.94456536	88.183331
55	4.3854	6.051	5.1654	5.0929	5.0698	53.17003	9.2948718	2.96153846	87.74359
56	4.8216	6.8578	5.7835	5.6985	5.6707	52.76004	8.8366774	2.89011332	88.273209
57	4.4213	6.4671	5.4235	5.3322	5.3039	51.01183	9.1099581	2.82378767	88.066254
58	5.1402	6.5603	5.8302	5.7648	5.7459	51.41187	9.4782609	2.73913043	87.782609
59	4.7695	6.9985	5.8693	5.7695	5.7399	50.65949	9.0743772	2.69139844	88.234224
60	4.7547	7.0439	5.8794	5.7724	5.7371	50.8693	9.5136481	3.13861474	87.347737
61	4.6776	6.3699	5.4467	5.3649	5.3395	54.55298	10.635808	3.30256144	86.06163
62	4.4981	5.9265	5.1143	5.0411	5.0212	56.86082	11.87926	3.22947095	84.891269
63	5.2406	6.9159	5.9543	5.8753	5.8534	57.39867	11.069077	3.06851618	85.862407
64	4.8524	6.5402	5.6274	5.5488	5.525	54.08224	10.141935	3.07096774	86.787097
65	5.1183	6.6926	5.791	5.716	5.6938	57.2699	11.149101	3.30013379	85.550766
66	4.806	7.4608	5.9809	5.8577	5.8177	55.74431	10.485999	3.40454507	86.109456
67	4.3259	6.3295	5.2472	5.1557	5.1276	54.01777	9.9316184	3.05003799	87.018344
68	4.8644	7.0679	5.8636	5.7654	5.7346	54.65396	9.8278623	3.08246597	87.089672

69	4.8584	6.6579	5.7587	5.6802	5.6557	49.96944	8.7193158	2.72131512	88.559369
70	5.1192	6.7234	5.927	5.8536	5.8299	49.64468	9.0864075	2.93389453	87.979698
71	4.8003	6.0379	5.462	5.4024	5.3824	46.53361	9.0071029	3.02251776	87.970379
72	4.3282	5.7318	5.0133	4.95	4.9288	51.1898	9.2395271	3.09443877	87.666034
73	4.6705	5.9028	5.279	5.2246	5.2074	50.62079	8.9400164	2.82662284	88.233361
74	5.0839	6.8209	6.0215	5.9477	5.9216	46.02188	7.8711604	2.78370307	89.345137
75	4.3479	6.2235	5.3566	5.2783	5.2513	46.21988	7.7624665	2.6767126	89.560821
76	4.9542	6.9174	6.048	5.9657	5.9383	44.28484	7.5242275	2.50502834	89.970744
77	5.024	6.8421	6.0822	6.0075	5.9817	41.79638	7.0591571	2.43810244	90.502741
78	5.1104	6.7682	6.0458	5.9801	5.9576	43.57582	7.0237332	2.40538807	90.570879
79	4.7977	6.8392	5.9781	5.8985	5.8722	42.17977	6.7434768	2.22805829	91.028465
80	4.9323	6.3373	5.7374	5.6789	5.6591	42.69751	7.2661781	2.45932182	90.2745
81	4.535	7.3257	6.1031	5.9931	5.9561	43.8098	7.0148587	2.3595434	90.625598
82	4.5688	6.8193	5.9081	5.8348	5.8101	40.48878	5.4730083	1.84424699	92.682745
83	4.0296	6.0039	5.2096	5.1507	5.1315	40.23198	4.9915254	1.62711864	93.381356
84	4.9292	7.0912	6.2034	6.1338	6.1115	41.06383	5.4622508	1.75011772	92.787631
85	5.1771	6.5646	5.9986	5.9502	5.9328	40.79279	5.8916616	2.11807669	91.990262
86	5.532	7.5973	6.6734	6.5908	6.56	44.73442	7.2367268	2.69844051	90.064833
87	4.2835	7.5339	5.9951	5.8708	5.8234	47.34187	7.2622108	2.76933863	89.968451
88	4.9022	7.5245	6.3441	6.248	6.2164	45.01392	6.6648173	2.19155281	91.14363
89	4.9185	6.886	5.9572	5.8771	5.853	47.20712	7.7115625	2.32020795	89.96823
90	5.014	6.4646	5.7963	5.7392	5.7215	46.07059	7.2989902	2.26255912	90.438451
91	4.9404	6.9388	6.0412	5.963	5.9398	44.91593	7.1039244	2.10755814	90.788517
92	4.3442	6.4724	5.45	5.3583	5.3325	48.0406	8.2926388	2.33315247	89.374209
93	4.9203	7.7647	6.3354	6.2046	6.1627	50.24961	9.243163	2.96092149	87.795915
94	4.5025	6.3976	5.3136	5.2229	5.2003	57.20015	11.182345	2.78633954	86.031315
95	4.8017	7.2428	5.94	5.8292	5.8016	53.36938	9.7338136	2.42466837	87.841518
96	4.8821	6.7934	5.8745	5.7967	5.7717	48.07722	7.8395808	2.51914551	89.641274
97	5.11	6.8863	5.9136	5.8404	5.8204	54.75989	9.1090095	2.4888004	88.40219
98	4.9034	6.6705	5.9237	5.8511	5.8282	42.26133	7.1155542	2.24443791	90.640008
99	4.8562	7.7376	6.4967	6.3791	6.3438	43.06587	7.1685462	2.15178299	90.679671
100	4.2205	6.6199	5.6719	5.5844	5.5579	39.50988	6.028662	1.82582334	92.145515

WB4A

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	%Carbonate	Residual
1	4.704	6.6954	5.5689	5.4524	5.4288	56.56824345	13.46976529	2.728639149	83.80159556
2	5.2156	6.499	5.7547	5.6833	5.6673	57.9943899	13.24429605	2.967909479	83.78779447
3	4.8741	6.5479	5.6457	5.541	5.5188	53.90130243	13.56920684	2.877138414	83.55365474
4	4.4514	6.3196	5.2537	5.143	5.1186	57.05491917	13.79783124	3.041256388	83.16091238
5	4.6375	6.1637	5.2991	5.2074	5.187	56.65050452	13.86033857	3.083434099	83.05622733
6	4.5025	6.1271	5.2217	5.1245	5.1053	55.73064139	13.51501669	2.669632925	83.81535039
7	4.7889	6.6108	5.626	5.5153	5.4921	54.05346067	13.2242265	2.771472942	84.00430056
8	4.6221	6.9659	5.6418	5.5085	5.4783	56.49372813	13.0724723	2.961655389	83.96587232

9	4.9616	7.0282	5.8572	5.7324	5.7037	56.66311817	13.93479232	3.204555605	82.86065208
10	4.8186	7.4075	5.9916	5.8421	5.8082	54.69118158	12.74509804	2.890025575	84.36487639
11	4.9626	6.9216	5.8569	5.7476	5.7185	54.34915773	12.22184949	3.25394163	84.52420888
12	4.8542	6.8413	5.747	5.6404	5.6126	55.07020281	11.93996416	3.113799283	84.94623656
13	4.3297	6.1113	5.0333	4.9323	4.9076	60.50740907	14.35474702	3.510517339	82.13473565
14	4.3732	6.9305	5.5058	5.3613	5.3288	55.71110155	12.75825534	2.869503797	84.37224086
15	4.9933	6.6327	5.721	5.6307	5.6071	55.6118092	12.40895974	3.243094682	84.34794558
16	4.709	7.7043	5.9703	5.8004	5.7649	57.89069542	13.47022913	2.81455641	83.71521446
17	5.105	7.0197	5.8091	5.6954	5.67	63.22661514	16.14827439	3.607442125	80.24428348
18	4.7605	7.298	5.8002	5.6549	5.624	59.02660099	13.97518515	2.972011157	83.05280369
19	4.6104	6.9089	5.5668	5.4382	5.4083	58.39025451	13.4462568	3.126306985	83.42743622
20	4.4866	7.4872	5.8016	5.6351	5.5989	56.17543158	12.66159696	2.752851711	84.58555133
21	4.7053	7.1588	5.7875	5.657	5.6245	55.89158345	12.05876917	3.003141748	84.93808908
22	4.8931	6.9739	5.7381	5.6326	5.6058	59.39061899	12.4852071	3.171597633	84.34319527
23	4.3382	6.8283	5.3538	5.2264	5.1947	59.21448938	12.54430878	3.121307601	84.33438362
24	4.8155	7.2403	5.8799	5.7574	5.7244	56.10359617	11.50883127	3.100338219	85.39083051
25	4.896	7.0805	5.761	5.6428	5.6168	60.40283818	13.66473988	3.005780347	83.32947977
26	4.6732	7.0192	5.5734	5.4349	5.4089	61.6283035	15.3854699	2.888247056	81.72628305
27	4.8772	6.6226	5.532	5.4244	5.4047	62.4842443	16.43249847	3.00855223	80.5589493
28	4.3571	6.0307	4.8373	4.7224	4.7047	71.30736138	23.9275302	3.685964182	72.38650562
29	4.2005	6.2518	5.0119	4.8939	4.8735	60.44459611	14.54276559	2.514173034	82.94306138
30	4.339	8.2305	5.9046	5.6911	5.6562	59.76872671	13.6369443	2.229177312	84.13387839
31	4.7639	7.2139	5.825	5.6999	5.6762	56.68979592	11.78965225	2.233531241	85.97681651
32	4.5399	6.5866	5.4776	5.376	5.3545	54.18478526	10.83502186	2.292844193	86.87213394
33	4.7674	7.169	5.8979	5.7804	5.7554	52.92721519	10.39363114	2.21141088	87.39495798
34	4.5837	6.9544	5.6916	5.5768	5.5506	53.26696756	10.36194602	2.364834371	87.2732196
35	4.9511	8.4215	6.5667	6.399	6.3638	53.44628861	10.38004457	2.178757118	87.44119832
36	4.5674	6.5676	5.4036	5.3023	5.28	58.19418058	12.11432672	2.666826118	85.21884717
37	4.6262	7.9662	6.1314	5.9646	5.9319	54.93413174	11.08158384	2.172468775	86.74594738
38	4.4957	7.8762	5.9819	5.807	5.7734	56.03608934	11.76826807	2.260799354	85.97093258
39	4.3435	6.8163	5.2842	5.1486	5.1232	61.95810417	14.41479749	2.700116934	82.88508557
40	5.0159	9.7253	6.9412	6.6995	6.6561	59.11793434	12.55388771	2.254194152	85.19191814
41	4.3825	7.2147	5.5011	5.3481	5.3197	60.50420168	13.67781155	2.538887896	83.78330055
42	4.4314	6.5457	5.2746	5.1568	5.1345	60.11918838	13.97058824	2.644686907	83.38472486
43	4.5344	6.9757	5.5075	5.3743	5.3487	60.1400893	13.68821293	2.63076765	83.68101942
44	4.5903	7.0224	5.548	5.4067	5.3804	60.6225073	14.75409836	2.746162681	82.49973896
45	5.0387	7.2978	5.8389	5.7163	5.6935	64.57881457	15.32116971	2.849287678	81.82954261
46	4.615	6.8356	5.4707	5.3502	5.3258	61.46536972	14.0820381	2.851466636	83.06649527
47	4.5455	7.6321	5.7168	5.5505	5.5174	62.05209616	14.19789977	2.825919918	82.97618031
48	4.4864	8.8453	6.0376	5.7956	5.7486	64.41303999	15.60082517	3.029912326	81.36926251
49	4.4861	6.318	5.0321	4.9116	4.8951	70.19487963	22.06959707	3.021978022	74.90842491
50	4.7427	7.4968	5.6125	5.4433	5.4199	68.41799499	19.45274776	2.690273626	77.85697862

WB4C

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	%Carbonate	Residual
1	4.2635	7.2428	5.357	5.1758	5.1394	63.29674756	16.57064472	3.32876086	80.10059442
2	4.2457	7.0502	5.2092	5.0252	4.9933	65.64449991	19.09704203	3.310845874	77.59211209
3	4.5788	7.7337	5.7499	5.5483	5.5107	62.8799645	17.21458458	3.210656648	79.57475877
4	5.2662	7.4102	6.0846	5.9468	5.9219	61.82835821	16.83773216	3.042521994	80.11974585
5	4.2395	6.4401	5.1017	4.9419	4.9213	60.81977642	18.53398283	2.389236836	79.07678033
6	4.4257	6.2366	5.043	4.8977	4.8819	65.91197747	23.53798801	2.559533452	73.90247854
7	4.4367	6.1723	5.068	4.9239	4.9105	63.62641162	22.82591478	2.12260415	75.05148107
8	4.5587	7.4401	5.5773	5.3458	5.323	64.6491289	22.72727273	2.238366385	75.03436089
9	4.5538	6.5258	5.2539	5.0878	5.0724	64.4979716	23.72518212	2.199685759	74.07513212
10	4.6841	6.8237	5.4658	5.3015	5.2824	63.46513367	21.01829346	2.443392606	76.53831393
11	4.8442	6.8045	5.5389	5.3846	5.3692	64.5615467	22.21102634	2.216784223	75.57218943
12	4.6247	6.8917	5.5228	5.3203	5.3017	60.38376709	22.54760049	2.07103886	75.38136065
13	4.8229	7.8407	6.1214	5.906	5.8793	56.97196633	16.5883712	2.056218714	81.35541009
14	4.8937	6.7371	5.6178	5.4826	5.4669	60.71932299	18.67145422	2.168208811	79.16033697
15	4.7489	6.9939	5.6952	5.5502	5.5336	57.84855234	15.32283631	1.754200571	82.92296312
16	5.4059	7.8919	6.4242	6.266	6.2485	59.03861625	15.53569675	1.718550525	82.74575273
17	5.0746	7.5134	6.022	5.8544	5.8386	61.15302608	17.69052143	1.667722187	80.64175639
18	5.1355	7.465	5.9609	5.7905	5.7733	64.56750376	20.64453598	2.083838139	77.27162588
19	5.1946	7.2081	5.9275	5.7909	5.7747	63.60069531	18.63828626	2.210397053	79.15131669
20	5.1517	7.7218	6.0268	5.8486	5.8293	65.95074122	20.36338704	2.205462233	77.43115073
21	4.8054	6.9286	5.4188	5.2624	5.2458	71.10964582	25.49722856	2.706227584	71.79654385
22	5.0144	7.5815	5.7125	5.5209	5.5003	72.80588991	27.44592465	2.950866638	69.60320871
23	5.0643	6.8524	5.5307	5.3932	5.3784	73.91644763	29.48113208	3.173241852	67.34562607
24	4.8276	6.3574	5.1498	5.0239	5.0145	78.93842332	39.07510863	2.917442582	58.00744879
25	4.7464	6.4382	5.0652	4.9236	4.9123	81.15616503	44.41656211	3.544542033	52.03889586
26	4.5392	6.182	4.9163	4.7844	4.7732	77.04528853	34.97745956	2.970034474	62.05250597
27	4.8332	7.0456	5.336	5.162	5.1453	77.27354909	34.60620525	3.321400159	62.07239459
28	4.5761	6.8772	5.1337	4.9499	4.9313	75.7681109	32.96269727	3.335724534	63.70157819
29	5.2848	7.6674	5.9616	5.7799	5.759	71.59405691	26.84692671	3.088061466	70.06501182
30	4.9768	7.2797	5.5502	5.3512	5.3336	75.10095966	34.70526683	3.069410534	62.22532264
31	5.0364	7.2032	5.5477	5.3312	5.3135	76.40299059	42.34304713	3.461764131	54.19518873
32	5.2782	7.2349	5.6788	5.5081	5.4928	79.52675423	42.61108337	3.819271093	53.56964553
33	4.7943	6.4247	5.1605	5.0228	5.0091	77.53925417	37.60240306	3.741125068	58.65647187
34	5.1243	6.6479	5.4766	5.3508	5.3383	76.87713311	35.70820324	3.548112404	60.74368436
35	4.6075	7.3037	5.2398	5.0039	4.9848	76.54847563	37.30823976	3.020718014	59.67104223
36	5.2601	8.3409	6.099	5.8285	5.8064	72.77005972	32.24460603	2.634402193	65.12099177
37	4.7229	6.996	5.3076	5.1332	5.1138	74.2774185	29.82726184	3.317940824	66.85479733
38	4.4892	8.2509	6.0299	5.8005	5.7681	59.04245421	14.88933602	2.102940222	83.00772376
39	4.7578	7.8403	6.0267	5.8281	5.8066	58.83536091	15.65135156	1.69438096	82.65426748
40	4.4014	8.0012	5.8882	5.699	5.676	58.69770543	12.72531612	1.546946462	85.72773742
41	4.787	7.8562	5.9585	5.779	5.756	61.83044442	15.32223645	1.963294921	82.71446863

42	4.9991	7.7392	6.0147	5.8579	5.8397	62.93565928	15.43914927	1.792044112	82.76880662
43	4.9353	9.1353	6.5879	6.3665	6.3364	60.65238095	13.39707128	1.821372383	84.78155634
44	4.5594	7.421	5.5709	5.4137	5.3896	64.65264188	15.54127533	2.382600099	82.07612457
45	4.3821	6.5973	5.2608	5.1519	5.1311	60.33315276	12.3933083	2.367133265	85.23955844
46	4.3888	7.18	5.4278	5.2867	5.2614	62.77586701	13.58036574	2.435033686	83.98460058
47	4.8244	7.4484	5.7645	5.6234	5.6011	64.17301829	15.00904159	2.372088076	82.61887033
48	4.7255	8.0743	6.2241	6.0671	6.0422	55.24964166	10.47644468	1.661550781	87.86200454
49	4.8982	7.5965	5.8726	5.731	5.7074	63.88837416	14.5320197	2.422003284	83.04597701
50	4.6749	7.1667	5.4411	5.2971	5.2739	69.25114375	18.79404855	3.027930044	78.1780214

WB5

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	%Carbonate	Residual
1	4.7134	5.6291	5.1291	5.023	5.0198	54.60304	25.523214	0.769785903	73.70700024
2	5.2228	6.1139	5.6771	5.5888	5.5872	49.01807	19.436496	0.352190183	80.21131411
3	4.8829	5.8595	5.4956	5.4231	5.4202	37.26193	11.832871	0.473314836	87.69381426
4	4.4586	6.3192	5.78	5.6904	5.6864	28.9799	6.7806871	0.302709248	92.9166036
5	4.6446	5.9428	5.6192	5.5448	5.5417	24.92682	7.6339011	0.318079212	92.0480197
6	4.5062	6.0127	5.6087	5.5407	5.5371	26.81713	6.1678005	0.326530612	93.50566893
7	4.7949	6.6538	6.2443	6.1751	6.1699	22.02916	4.7743894	0.358769146	94.86684145
8	4.6301	6.8504	6.4124	6.34	6.3347	19.72706	4.0621669	0.297368569	95.64046457
9	4.9657	7.1421	6.7158	6.6474	6.6426	19.58739	3.9083481	0.274270042	95.81738186
10	4.8245	6.7674	6.4017	6.3391	6.3343	18.82238	3.9690591	0.304336799	95.72660411
11	4.9692	7.4504	6.9171	6.831	6.8243	21.49363	4.4201448	0.343960162	95.23589507
12	4.8578	7.8016	7.132	7.0304	7.0232	22.74611	4.4675051	0.316594847	95.2159001
13	4.3399	6.806	6.2725	6.1799	6.1729	21.63335	4.7914726	0.362206354	94.84632102
14	4.3828	7.2323	6.6436	6.5441	6.5361	20.65976	4.401097	0.353857042	95.245046
15	5.0011	7.5533	7.0911	7.0143	6.9995	18.10987	3.6746411	0.708133971	95.61722488
16	4.7208	7.0198	6.6007	6.532	6.4918	18.22967	3.6544497	2.138411618	94.20713868
17	5.107	7.7104	7.2295	7.1576	7.1501	18.472	3.3875147	0.35335689	96.25912839
18	4.7652	7.9121	7.2884	7.2042	7.1986	19.8195	3.3370323	0.221940393	96.44102727
19	4.6187	8.1829	7.5345	7.4332	7.4257	18.19202	3.4741752	0.257219288	96.26860553
20	4.4936	7.381	6.8329	6.7493	6.7428	18.98248	3.5737186	0.277860899	96.14842047
21	4.7112	7.6806	7.087	7.0022	6.9931	19.99057	3.569324	0.383028874	96.04764711
22	4.9035	7.4541	7.0168	6.9594	6.9519	17.14499	2.7161312	0.354895188	96.92897364
23	4.345	7.5596	7.0368	6.9826	6.9732	16.2633	2.0135225	0.349208708	97.63726874
24	4.8235	7.776	7.2764	7.2213	7.2129	16.92125	2.2463207	0.342451792	97.41122753
25	4.905	7.7847	7.2209	7.1309	7.1246	19.57843	3.8861782	0.272032471	95.84178937
26	4.6838	7.2431	6.7327	6.6688	6.6616	19.94295	3.1187466	0.351408073	96.52984528
27	4.8849	7.8476	7.2232	7.1392	7.1311	21.07537	3.5923534	0.346405508	96.06124107
28	4.3681	6.7471	6.295	6.2419	6.2093	19.00378	2.7557216	1.691836629	95.55244175
29	4.2058	7.1101	6.5556	6.4912	6.4855	19.09238	2.7406588	0.242573836	97.01676738
30	4.353	7.3224	6.7561	6.6911	6.6844	19.07119	2.7048396	0.278806542	97.01635388
31	4.7798	7.2293	6.7478	6.6929	6.6885	19.65707	2.7896341	0.223577236	96.98678862
32	4.5485	7.1697	6.6111	6.5461	6.5403	21.31085	3.1513624	0.281198487	96.56743915
33	4.7719	8.359	7.5637	7.4685	7.4613	22.17111	3.4099864	0.25789813	96.33211548
34	4.5896	8.4624	7.7104	7.6369	7.6311	19.41748	2.3551653	0.185849782	97.45898488

35	4.9598	8.2081	7.6134	7.5538	7.5489	18.30804	2.2460054	0.184654809	97.56933976
36	4.5764	7.233	6.7202	6.6604	6.6539	19.30287	2.7894393	0.303199925	96.90736076
37	4.6374	8.1921	7.4995	7.4229	7.4138	19.48406	2.6763565	0.31794836	97.00569512
38	4.5049	7.2466	6.6788	6.6094	6.6013	20.70978	3.1924192	0.372602236	96.43497861
39	4.3543	7.2015	6.5809	6.5128	6.5049	21.79685	3.0584748	0.354801042	96.58672415
40	5.0337	8.1701	7.5803	7.5209	7.5149	18.805	2.3325218	0.235608262	97.43186994
41	4.4	7.7529	7.1083	7.0357	7.0293	19.22515	2.6806484	0.236310601	97.08304102
42	4.442	7.165	6.612	6.5523	6.5455	20.30848	2.7511521	0.313364055	96.93548387
43	4.54	7.2938	6.6518	6.5679	6.5585	23.31324	3.9729141	0.445117909	95.58196799
44	4.5979	7.2217	6.669	6.5983	6.5906	21.06487	3.4136449	0.37178311	96.21457197
45	5.0454	7.597	7.0945	7.0413	7.0339	19.69353	2.5962618	0.361134156	97.04260407
46	4.6254	7.4583	6.9422	6.8914	6.8854	18.21808	2.1926796	0.258977901	97.54834254
47	4.5505	7.8917	7.2772	7.2171	7.2103	18.3916	2.2041295	0.249385704	97.54648476
48	4.9564	6.9905	6.5138	6.4244	6.4198	23.43543	5.7403365	0.295364068	93.96429947
49	4.4994	7.5347	6.8935	6.7652	6.757	21.12477	5.3590076	0.342508667	94.29848377
50	4.5672	6.7818	6.3849	6.3342	6.3287	17.92197	2.7892391	0.302580184	96.90818067
51	4.2806	7.0636	6.601	6.5456	6.5388	16.62235	2.3875194	0.293052922	97.31942768
52	4.2624	7.5634	6.945	6.8735	6.8649	18.73372	2.6653247	0.320584508	97.01409081
53	4.5967	7.7456	7.1275	7.0523	7.0434	19.62908	2.9713924	0.351667457	96.6769401
54	5.2837	8.1096	7.6103	7.5539	7.5465	17.66871	2.4241382	0.318060689	97.25780108
55	4.2564	7.848	7.2223	7.1573	7.1481	17.42121	2.1915776	0.310192522	97.49822988
56	4.4396	7.5123	6.9659	6.9052	6.8971	17.78241	2.4027234	0.320627004	97.27664965
57	4.4476	7.448	6.9273	6.8699	6.863	17.35435	2.3147961	0.278259467	97.40694439
58	4.5806	7.337	6.8387	6.7816	6.7753	18.07793	2.5286745	0.278995616	97.19232983
59	4.5655	7.8734	7.179	7.069	7.0615	20.99217	4.2089152	0.286971494	95.50411326
60	4.3925	7.129	6.5982	6.5335	6.5268	19.39704	2.9333092	0.303758444	96.7629324
61	4.853	8.4109	7.6864	7.5976	7.5887	20.36314	3.1340439	0.314110256	96.55184584
62	4.6324	7.5536	6.956	6.8774	6.8694	20.45735	3.382682	0.344293338	96.27302462
63	4.8358	8.0396	7.4434	7.3691	7.3623	18.60915	2.8493634	0.260776193	96.88986041
64	4.9099	7.6533	7.1896	7.1317	7.1263	16.90238	2.5398079	0.236873273	97.22331886
65	4.7838	7.6693	7.1362	7.0776	7.0718	18.47513	2.4910729	0.246556708	97.26237035
66	4.404	7.4727	6.8949	6.8308	6.8233	18.82882	2.5733671	0.301095989	97.12553695
67	5.0802	8.0681	7.5339	7.4787	7.473	17.87878	2.2496638	0.232302237	97.51803399
68	5.1443	8.9246	8.2421	8.1671	8.1603	18.05412	2.421073	0.21951062	97.35941636
69	5.2065	9.1868	8.4689	8.3935	8.3858	18.03633	2.311182	0.23602256	97.45279549
70	5.1599	8.1863	7.5987	7.5362	7.5303	19.41581	2.5627358	0.241922257	97.19534197
71	4.8179	8.9276	8.1117	8.0147	8.0064	19.85303	2.9449268	0.251988585	96.80308458
72	5.0249	7.9279	7.375	7.3096	7.3039	19.04581	2.7828603	0.242542871	96.97459683
73	5.0747	8.4934	7.823	7.7353	7.7273	19.60979	3.1910636	0.291089037	96.5178474
74	4.8366	8.1466	7.544	7.4686	7.4585	18.20544	2.7849597	0.373051636	96.84198862
75	4.7587	7.9549	7.4064	7.353	7.3471	17.161	2.0168448	0.222834913	97.76032028
76	4.5473	7.3177	6.7443	6.6743	6.6682	20.69737	3.1861629	0.277651343	96.53618571
77	4.8411	7.7901	7.2298	7.1581	7.1515	18.99966	3.0016327	0.276300917	96.7220664
78	4.592	8.6576	7.9528	7.8793	7.8716	17.33569	2.1869793	0.229112116	97.58390859
79	5.2965	7.6105	7.1493	7.0905	7.0857	19.93086	3.1735751	0.259067358	96.56735751
80	4.995	7.284	6.8607	6.8106	6.8057	18.49279	2.6853192	0.262636008	97.05204481
81	4.6833	7.3504	6.8769	6.8254	6.8187	17.75337	2.3477389	0.30543399	97.34682713
82	5.2899	9.3404	8.5524	8.4591	8.4513	19.45439	2.8597701	0.23908046	96.90114943

83	4.8069	7.3994	6.9011	6.8399	6.8343	19.22083	2.922357	0.267405214	96.8102378
84	5.1319	8.3903	7.65	7.5479	7.5403	22.71974	4.0546444	0.30181486	95.64354076
85	4.631	7.23	6.7569	6.7075	6.7015	18.20316	2.3237217	0.282233407	97.39404488
86	5.283	7.9756	7.4905	7.4476	7.4428	18.01604	1.9433749	0.217440544	97.8391846
87	4.7473	7.7302	7.2455	7.1991	7.1936	16.24929	1.8573373	0.220158514	97.9225042
88	4.5068	7.2374	6.7265	6.6737	6.6673	18.71017	2.3786998	0.288327251	97.33297292
89	4.7925	7.704	7.1745	7.113	7.1063	18.1865	2.581864	0.281276238	97.13685978
90	4.4276	8.2075	7.5193	7.4446	7.4368	18.20683	2.4161465	0.252288385	97.33156516
91	4.8189	7.2443	6.8243	6.7792	6.7741	17.31673	2.2489279	0.254313354	97.49675875
92	5.0144	7.0227	6.684	6.6458	6.641	16.86501	2.2879732	0.287494011	97.42453282
93	4.9557	7.5976	7.1691	7.1243	7.1195	16.21939	2.0240354	0.216860938	97.75910364
94	4.5666	6.9147	6.4779	6.4288	6.4234	18.60227	2.5689321	0.282530215	97.14853764
95	4.3943	7.0367	6.5619	6.5035	6.4972	17.96851	2.694224	0.29064403	97.01513194
96	4.3993	6.6904	6.1622	6.0881	6.0815	23.05443	4.2033014	0.374383119	95.4223155
97	4.6808	8.7842	8.0414	7.9762	7.97	18.10206	1.9401297	0.184490865	97.8753794

WB 07B

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	%Carbonate	Residual
1	4.9946	7.1843	6.8475	6.8346	6.8325	15.38110243	0.696205947	0.113335852	99.1904582
2	4.6966	7.0464	6.6581	6.6388	6.6357	16.52481062	0.983940862	0.158042315	98.85801682
3	4.9332	6.6709	6.026	5.9362	5.9273	37.11227485	8.217423133	0.814421669	90.9681552
4	4.4923	5.751	5.0982	4.9989	4.9896	51.86303329	16.38884304	1.53490675	82.07625021
5	4.6745	5.7779	5.117	5.0275	5.0192	59.89668298	20.2259887	1.875706215	77.89830508
6	4.5307	5.4959	4.7529	4.6644	4.657	76.97886448	39.8289829	3.330333033	56.84068407
7	5.0358	6.0985	5.2189	5.0747	5.0687	82.77030206	78.75477881	3.27689787	17.96832332
8	4.6547	5.3212	4.8049	4.7413	4.7371	77.46436609	42.34354194	2.796271638	54.86018642
9	4.9943	5.7828	5.1695	5.0807	5.0761	77.78059607	50.68493151	2.625570776	46.68949772
10	4.9595	5.8093	5.202	5.1202	5.1138	71.46387385	33.73195876	2.639175258	63.62886598
11	4.9813	5.7449	5.1565	5.0897	5.0853	77.05605029	38.12785388	2.511415525	59.36073059
12	5.534	6.6104	5.8041	5.7123	5.7044	74.90709773	33.98741207	2.924842651	63.08774528
13	5.4386	6.2573	5.6511	5.5872	5.5807	74.04421644	30.07058824	3.058823529	66.87058824
14	5.216	5.9907	5.3996	5.3425	5.3355	76.30050342	31.10021786	3.812636166	65.08714597
15	4.5966	5.2412	4.7371	4.6868	4.6821	78.20353708	35.80071174	3.34519573	60.85409253
16	4.7253	6.9678	5.2203	5.0435	5.0297	77.9264214	35.71717172	2.787878788	61.49494949
17	4.5091	5.4895	4.8125	4.7461	4.7384	69.05344757	21.88529993	2.537903757	75.57679631
18	4.8062	5.6029	5.0162	4.9572	4.9519	73.64127024	28.0952381	2.523809524	69.38095238
19	4.8132	7.2622	5.5118	5.3344	5.3179	71.47407105	25.39364443	2.36186659	72.24448898
20	4.4694	5.9408	4.8674	4.7661	4.7572	72.95093109	25.45226131	2.236180905	72.31155779
21	5.071	6.4046	5.4097	5.3133	5.3054	74.60257948	28.46176557	2.332447594	69.20578683
22	4.699	5.5561	4.9129	4.8577	4.8525	75.04375219	25.80645161	2.431042543	71.76250584
23	5.6319	7.1854	6.0293	5.9157	5.9073	74.41905375	28.58580775	2.113739305	69.30045294
24	4.5437	5.8463	4.949	4.8549	4.8462	68.88530631	23.21736985	2.146558105	74.63607205
25	4.9406	7.3505	5.5243	5.3012	5.2832	75.77907797	38.22168922	3.083775912	58.69453486
26	5.0857	6.5234	5.4592	5.3294	5.3164	74.02100577	34.7523427	3.480589023	61.76706827
27	4.8946	6.7129	5.3233	5.1516	5.1365	76.4230325	40.05131794	3.52227665	56.42640541

28	4.3674	6.1354	4.9826	4.8412	4.8209	65.20361991	22.98439532	3.299739922	73.71586476
29	5.1073	6.192	5.3876	5.316	5.3071	74.15875357	25.54405994	3.175169461	71.2807706
30	4.8105	5.6772	5.0343	4.9746	4.9675	74.17791623	26.67560322	3.172475424	70.15192136
31	4.8073	6.1393	5.3128	5.2324	5.2198	62.04954955	15.90504451	2.492581602	81.60237389
32	4.5941	6.4661	5.208	5.0759	5.0612	67.20619658	21.51816257	2.394526796	76.08731064
33	4.3441	5.1963	4.5979	4.5363	4.529	70.21825862	24.27107959	2.876280536	72.85263987
34	4.6048	5.6274	4.8868	4.7876	4.7768	72.42323489	35.17730496	3.829787234	60.9929078
35	4.9934	6.0493	5.4477	5.3746	5.3623	56.97509234	16.09068897	2.707462029	81.201849
36	4.6307	6.7978	5.5827	5.4161	5.395	56.0703244	17.5	2.216386555	80.28361345
37	4.7049	6.3285	5.2772	5.0993	5.083	64.75117024	31.08509523	2.848156561	66.06674821
38	4.5623	6.1395	5.1036	4.9332	4.922	65.67968552	31.47977092	2.069092924	66.45113615
39	4.4119	6.3718	5.0129	4.7393	4.72	69.33517016	45.52412646	3.211314476	51.26455907
40	5.1122	6.1576	5.3877	5.2664	5.2599	73.64645112	44.02903811	2.359346642	53.61161525
41	4.4582	5.5038	4.7909	4.6944	4.6891	68.18094874	29.00510971	1.593026751	69.40186354
42	4.4944	5.5014	4.8886	4.791	4.7853	60.85402185	24.75900558	1.445966514	73.7950279
43	4.6102	5.6914	4.951	4.8105	4.8045	68.47946726	41.22652582	1.76056338	57.0129108
44	4.5441	5.3099	4.7208	4.6317	4.6281	76.92609036	50.42444822	2.037351443	47.53820034
45	5.1511	6.8584	5.5389	5.3289	5.3218	77.28577286	54.15162455	1.83084064	44.01753481
46	4.674	5.7424	4.9222	4.7958	4.7902	76.76900037	50.92667204	2.256244964	46.817083
47	4.566	5.8322	5.0578	4.933	4.9257	61.15937451	25.37616917	1.484343229	73.1394876
48	4.402	6.0397	4.9045	4.7243	4.7134	69.31672467	35.86069652	2.169154229	61.97014925
49	4.5632	7.0117	5.1643	4.904	4.8888	75.45027568	43.30394277	2.528697388	54.16735984
50	5.0805	7.1729	5.9009	5.7603	5.7481	60.79143567	17.13798147	1.487079473	81.37493905
51	4.3431	5.8126	4.9325	4.7755	4.7675	59.89111943	26.63725823	1.357312521	72.00542925
52	4.3182	5.7223	4.8232	4.6271	4.6193	64.03390072	38.83168317	1.544554455	59.62376238
53	4.6363	7.057	5.763	5.4808	5.4695	53.45561201	25.04659625	1.002928907	73.95047484
54	5.3091	7.9125	6.8353	6.7087	6.6997	41.37666129	8.295112043	0.589699908	91.11518805
55	4.2813	6.2033	5.3753	5.2679	5.2608	43.08012487	9.817184644	0.648994516	89.53382084
56	4.4654	6.0788	5.4533	5.3666	5.3604	38.76905913	8.776191922	0.627593886	90.59621419
57	4.5074	6.6723	5.7656	5.6343	5.6251	41.88184212	10.43554284	0.731203306	88.83325385
58	4.6786	7.0599	6.097	5.9612	5.9509	40.43589636	9.574168077	0.726170333	89.69966159
59	4.6313	7.6875	6.6036	6.4596	6.4486	35.46561089	7.301120519	0.557724484	92.141155
60	4.7209	6.7804	5.9783	5.8649	5.856	38.9463462	9.01860983	0.707809766	90.2735804
61	4.8857	6.884	6.2185	6.1354	6.1296	33.30330781	6.234993998	0.43517407	93.32983193
62	4.6729	6.823	6.1189	6.0331	6.0268	32.74731408	5.933609959	0.435684647	93.63070539
63	4.8716	7.3394	6.5906	6.5099	6.5046	30.34281546	4.694589878	0.30831879	94.99709133
64	4.9474	7.3635	6.5461	6.4411	6.4339	33.83138115	6.567836367	0.450365922	92.98179771
65	4.7779	7.128	6.398	6.3041	6.2985	31.06250798	5.795938522	0.345657675	93.8584038
66	5.5018	7.4844	6.9379	6.8741	6.8708	27.56481388	4.442587564	0.229789012	95.32762342
67	5.2046	7.1902	6.722	6.6812	6.6788	23.57977438	2.688809806	0.158165283	97.15302491
68	5.2338	7.1317	6.5674	6.5047	6.5013	29.73286264	4.701559688	0.25494901	95.0434913
69	5.2341	7.7077	6.8581	6.7515	6.7448	34.34670116	6.564039409	0.412561576	93.02339901
70	5.2197	7.0345	6.5254	6.4651	6.4603	28.05267798	4.618212453	0.367618902	95.01416865
71	4.849	6.8757	6.2077	6.1389	6.1355	32.95998421	5.063663796	0.250239199	94.686097
72	5.0652	7.0582	6.4612	6.4015	6.3972	29.95484195	4.276504298	0.308022923	95.41547278

73	4.7399	6.455	6.0376	6.0071	6.0046	24.33677337	2.350312091	0.192648532	97.45703938
74	4.8523	6.8509	6.3774	6.3282	6.3172	23.69158411	3.226017966	0.721264179	96.05271785
75	4.8022	7.4434	6.8668	6.8175	6.8112	21.83098592	2.387871743	0.305143854	97.3069844
76	4.6155	6.9275	6.3686	6.3102	6.3036	24.17387543	3.3312418	0.376475957	96.29228224
77	4.4063	6.6792	5.9576	5.863	5.8534	31.74798715	6.098111262	0.618835815	93.28305292
78	4.6315	7.0812	6.5499	6.5022	6.4956	21.68837	2.486447039	0.344036697	97.16951626
79	5.3418	7.7268	7.175	7.1114	7.1021	23.13626834	3.469343225	0.507309623	96.02334715
80	5.0355	8.2152	7.4535	7.3651	7.3557	23.9550901	3.655913978	0.388751034	95.95533499
81	5.0995	7.1814	6.7159	6.6665	6.6607	22.35938326	3.056174214	0.358822074	96.58500371
82	5.3564	9.2408	8.3718	8.2825	8.2723	22.37153743	2.961464482	0.33826358	96.70027194
83	4.8454	7.3613	6.6484	6.5662	6.5577	28.33578441	4.55906822	0.471436495	94.96949529
84	4.903	7.1666	6.4951	6.4103	6.4011	29.66513518	5.326298599	0.57785315	94.09584825
85	4.6501	6.2539	5.8181	5.7677	5.761	27.17296421	4.315068493	0.573630137	95.11130137
86	5.4993	7.1688	6.6398	6.5771	6.5694	31.68613357	5.497588777	0.675142481	93.82726874
87	4.7785	6.6914	5.94	5.8364	5.8257	39.28067332	8.919500646	0.921222557	90.1592768
88	4.5424	6.0337	5.5489	5.4762	5.4677	32.50854959	7.223050174	0.844510681	91.93243915
89	5.1348	6.8055	6.1738	6.0867	6.0787	37.81049859	8.383060635	0.769971126	90.84696824
90	5.3969	7.1508	6.4829	6.3939	6.3852	38.0808484	8.195211786	0.801104972	91.00368324
91	4.6503	6.3253	5.7711	5.7078	5.7013	33.08656716	5.647751606	0.579942898	93.7723055
92	5.0385	6.4431	6.023	5.9772	5.9719	29.90887085	4.652107669	0.538344337	94.80954799
93	5.0004	6.4377	6.0358	5.992	5.9798	27.96215126	4.230249179	1.178288584	94.59146224
94	4.6237	6.5882	5.9255	5.8534	5.8456	33.7337745	5.538485174	0.599170379	93.86234445
95	4.414	6.7423	6.0704	5.993	5.9834	28.85796504	4.672784352	0.579570152	94.7476455
96	4.4371	6.2652	5.7507	5.7028	5.6959	28.14397462	3.646467722	0.525274056	95.82825822
97	4.735	6.5592	5.9608	5.9105	5.9031	32.80342068	4.10344265	0.603687388	95.29286996
98	4.766	6.2135	5.7833	5.749	5.742	29.72020725	3.371670107	0.68809594	95.94023395

WB 11

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	%Carbonate	Residual
1	4.709	6.043	5.1123	4.9953	4.9831	69.76761619	29.01066204	3.025043392	67.96429457
2	5.2182	6.4992	5.5762	5.4569	5.4465	72.05308353	33.32402235	2.905027933	63.77094972
3	4.8782	6.8315	5.3402	5.1751	5.1626	76.34771924	35.73593074	2.705627706	61.55844156
4	4.4547	6.1995	4.7876	4.6567	4.6466	80.92044934	39.32111745	3.033944127	57.64493842
5	4.6423	5.967	4.8899	4.7841	4.776	81.30897562	42.73021002	3.271405493	53.99838449
6	4.5049	5.8285	4.7345	4.6331	4.6243	82.6533696	44.16376307	3.832752613	52.00348432
7	4.7909	6.2211	5.0611	4.9725	4.9629	81.10753741	32.79052554	3.55292376	63.6565507
8	4.6292	5.8968	4.8869	4.8033	4.7946	79.67024298	32.44082266	3.376018626	64.18315871
9	4.9658	6.3219	5.2322	5.1453	5.1358	80.35543102	32.62012012	3.566066066	63.81381381
10	4.8234	6.2252	5.1082	5.0229	5.0121	79.68326437	29.9508427	3.792134831	66.25702247
11	4.9679	6.5839	5.2555	5.1087	5.0988	82.2029703	51.04311544	3.442280946	45.51460362
12	4.8564	6.3172	5.131	5.0146	5.0052	81.20208105	42.38892935	3.423160961	54.18790969
13	4.3384	5.9609	4.6291	4.528	4.5169	82.08320493	34.77812178	3.818369453	61.40350877
14	4.3783	7.0878	4.8019	4.595	4.5811	84.36611921	48.84324835	3.281397545	47.87535411
15	4.9988	6.6527	5.2784	5.1719	5.1622	83.0945039	38.09012876	3.469241774	58.44062947
16	4.714	6.4439	4.9813	4.8562	4.8457	84.54823978	46.8013468	3.928170595	49.2704826

17	5.1051	6.692	5.3637	5.2553	5.2453	83.70407713	41.91802011	3.866976025	54.21500387
18	4.7633	6.7326	5.0864	4.9379	4.9272	83.59315493	45.96100279	3.311668214	50.727329
19	4.6172	6.0992	4.8565	4.7311	4.7224	83.85290148	52.40284162	3.635603845	43.96155453
20	4.4911	6.3131	4.7627	4.5996	4.5889	85.09330406	60.05154639	3.939617084	36.00883652
21	4.7079	6.7988	5.0339	4.8492	4.837	84.40862786	56.65644172	3.742331288	39.60122699
22	4.9004	6.9226	5.2614	5.1077	5.0952	82.14815547	42.57617729	3.462603878	53.96121884
23	4.3435	5.7842	4.5772	4.4718	4.4618	83.77871868	45.10055627	4.278990158	50.62045357
24	4.8202	6.7506	5.2197	5.0979	5.085	79.30480729	30.48811014	3.229036295	66.28285357
25	4.9038	6.2876	5.212	5.1223	5.1128	77.72799538	29.10447761	3.082414017	67.81310837
26	4.6803	6.8179	5.1376	5.0008	4.9866	78.6068488	29.91471682	3.105182593	66.98010059
27	4.8809	6.6728	5.2566	5.1372	5.1246	79.0334282	31.78067607	3.353739686	64.86558424
28	4.3637	6.9914	4.8367	4.647	4.6328	81.99946721	40.10570825	3.002114165	56.89217759
29	4.2045	5.6134	4.4318	4.3397	4.3313	83.86684648	40.5191377	3.695556533	55.78530576
30	4.3538	7.1311	4.9083	4.7333	4.7172	80.03456595	31.55996393	2.903516682	65.53651939
31	4.7772	7.0038	5.3645	5.237	5.2209	73.62346178	21.70951813	2.74135876	75.54912311
32	4.5436	6.9672	5.1254	4.9907	4.9752	75.99438851	23.15228601	2.664145755	74.18356824
33	4.7686	7.5701	5.442	5.2886	5.2718	75.96287703	22.77992278	2.494802495	74.72527473
34	4.5866	7.147	5.2446	5.1068	5.0913	74.30089049	20.94224924	2.3556231	76.70212766
35	4.9594	7.1538	5.4782	5.3519	5.3363	76.35800219	24.34464148	3.00693909	72.64841943
36	4.5741	6.9571	5.2341	5.1053	5.0885	72.30381872	19.51515152	2.545454545	77.93939394
37	4.6349	7.1135	5.2673	5.1313	5.1163	74.48559671	21.50537634	2.371916509	76.12270715
38	4.5038	7.0017	5.293	5.1656	5.1497	68.40546059	16.14292955	2.014698429	81.84237202
39	4.3539	6.7639	5.03	4.8991	4.8842	71.94605809	19.36104127	2.203816004	78.43514273
40	5.031	7.7765	5.8873	5.7457	5.7271	68.81078128	16.53626066	2.172135934	81.29160341
41	4.3964	7.0495	5.05	4.9004	4.8848	75.36466775	22.88861689	2.386780906	74.7246022
42	4.4385	6.4808	4.9124	4.7957	4.7841	76.79576948	24.62544841	2.447773792	72.9267778
43	4.5375	6.2762	4.9751	4.878	4.867	74.83177086	22.18921389	2.513711152	75.29707495
44	4.5966	6.222	4.9152	4.8206	4.8122	80.3986711	29.69240427	2.63653484	67.67106089
45	5.0451	6.7479	5.3298	5.231	5.2224	83.28047921	34.70319635	3.020723569	62.27608008
46	4.6251	6.2656	4.956	4.8574	4.8479	79.82932033	29.79752191	2.870957993	67.3315201
47	4.5487	5.8821	4.8026	4.7195	4.7117	80.95845208	32.72942103	3.07207562	64.19850335
48	4.4946	6.282	4.7827	4.659	4.6507	83.88161575	42.93648039	2.880944117	54.18257549
49	4.4932	6.5084	4.8097	4.6679	4.6584	84.29436284	44.80252765	3.001579779	52.19589258
50	4.7592	6.5214	5.0652	4.9386	4.929	82.63534219	41.37254902	3.137254902	55.49019608
51	4.2761	5.9415	4.6624	4.5218	4.5108	76.80437132	36.39658297	2.847527828	60.75588921
52	4.2576	5.7954	4.5281	4.4097	4.4002	82.40993627	43.77079482	3.512014787	52.71719039
53	4.5903	6.8649	5.1191	4.9446	4.9322	76.75195639	32.99924357	2.344931921	64.65582451
54	5.2752	7.2539	5.9263	5.7713	5.7567	67.09455703	23.80586699	2.242359085	73.95177392
55	4.2499	6.2932	4.8946	4.752	4.7374	68.44809866	22.11881495	2.264619203	75.61656584
56	4.4318	6.6407	5.028	4.8697	4.8547	73.00919009	26.55149279	2.51593425	70.93257296
57	4.4486	6.3221	5.0888	4.9667	4.9547	65.82866293	19.07216495	1.874414246	79.05342081
58	4.5871	6.3492	5.1101	4.9825	4.9709	70.31950514	24.39770554	2.217973231	73.38432122
59	4.5615	7.1938	5.5032	5.3392	5.3246	64.22520229	17.41531273	1.550387597	81.03429967
60	4.6899	6.9169	5.4221	5.2897	5.278	67.12168837	18.08249112	1.597924064	80.31958481
61	4.8507	6.5265	5.311	5.1806	5.1726	72.53252178	28.32935042	1.737996959	69.93265262
62	4.6293	6.6965	5.1513	4.977	4.9645	74.74845201	33.3908046	2.394636015	64.21455939
63	4.8307	6.662	5.2625	5.1186	5.1084	76.42112161	33.32561371	2.362204724	64.31218157

64	4.9012	6.3031	5.2029	5.0995	5.0924	78.47920679	34.27245608	2.353331124	63.37421279
65	4.7535	6.6936	5.2509	5.1407	5.131	74.36214628	22.15520708	1.950140732	75.89465219
66	5.4105	6.8493	5.7666	5.6768	5.667	75.25020851	25.2176355	2.752035945	72.03032856
67	5.0792	7.1696	5.6394	5.5042	5.4908	73.20130119	24.13423777	2.392002856	73.47375937
68	5.1404	7.2873	5.8196	5.685	5.671	68.36368718	19.81743227	2.061248528	78.1213192
69	5.1994	7.4634	5.923	5.7885	5.775	68.03886926	18.58761747	1.865671642	79.54671089
70	5.1576	7.2105	5.711	5.5808	5.569	73.04301232	23.52728587	2.13227322	74.34044091
71	4.8136	7.2354	5.4778	5.3256	5.3124	72.57411842	22.9147847	1.987353207	75.09786209
72	5.0213	6.9875	5.632	5.5135	5.5016	68.94008748	19.40396267	1.948583593	78.64745374
73	5.0686	7.8396	5.9799	5.8117	5.796	67.11295561	18.45714913	1.722813563	79.82003731
74	4.8356	7.4338	5.6491	5.4872	5.4705	68.68986221	19.9016595	2.052858021	78.04548248
75	4.7513	6.8813	5.3316	5.1953	5.1814	72.75586854	23.48785111	2.395312769	74.11683612
76	4.5453	6.2776	5.0233	4.9099	4.8981	72.40662703	23.72384937	2.468619247	73.80753138
77	4.8404	6.7181	5.3668	5.248	5.238	71.96570272	22.56838906	1.899696049	75.53191489
78	4.5848	7.0041	5.6426	5.5022	5.4895	56.27660894	13.2728304	1.200605029	85.52656457
79	5.2925	8.0187	6.6546	6.4873	6.4705	50.03668109	12.28250496	1.233389619	86.48410543
80	4.9859	7.5727	6.4777	6.3572	6.3435	42.33029225	8.07749028	0.918353667	91.00415605
81	5.0386	7.9853	6.7102	6.5756	6.564	43.27213493	8.05216559	0.69394592	91.25388849
82	5.281	7.735	6.7724	6.6805	6.6712	39.22575387	6.161995441	0.623575164	93.2144294
83	4.7983	7.5161	6.307	6.1871	6.1738	44.48818898	7.947239345	0.881553655	91.171207
84	5.1302	7.2609	5.6771	5.5322	5.5236	74.33237903	26.49478881	1.572499543	71.93271165
85	4.6169	7.2796	5.628	5.4535	5.4292	62.02726556	17.25843141	2.403323113	80.33824548
86	5.2675	8.0167	6.8639	6.7518	6.7426	41.93219846	7.022049612	0.576296668	92.40165372
87	4.7297	7.4882	6.4372	6.3233	6.3118	38.10041689	6.670571101	0.673499268	92.65592972
88	4.5049	6.7721	5.8341	5.7224	5.7118	41.37261821	8.403551008	0.797472164	90.79897683
89	4.7708	8.0048	6.7538	6.6257	6.6119	38.68274583	6.459909228	0.69591528	92.84417549
90	4.4096	6.6903	5.6689	5.5558	5.5447	44.78449599	8.981180021	0.881442071	90.13737791
91	4.7939	7.2372	6.1651	6.0431	6.0311	43.8791798	8.897316219	0.875145858	90.22753792
92	5.0044	7.0762	6.1165	5.9984	5.9865	46.32203881	10.6195486	1.070047658	88.31040374
93	4.9508	7.6733	6.6508	6.5372	6.5261	37.5573921	6.682352941	0.652941176	92.66470588
94	4.5662	6.687	5.9384	5.8647	5.8565	35.29800075	5.370937181	0.597580528	94.03148229
95	4.3884	6.8972	6.1917	6.1253	6.1173	28.12101403	3.682138302	0.443631121	95.87423058
96	4.3968	7.2574	6.5657	6.5066	6.4982	24.18024191	2.724883582	0.387293098	96.88782332
97	4.6798	7.265	6.4017	6.2892	6.2787	33.39393471	6.533480458	0.609791509	92.85672803

WB 13(1)

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	%Carbonate	Residual
1	4.9964	5.6245	5.2024	5.1241	5.122	67.20267473	38.00970874	1.019417476	60.97087379
2	4.6984	5.68	5.0037	4.8982	4.8935	68.89771801	34.55617425	1.539469374	63.90435637
3	4.9326	6.0287	5.2538	5.1403	5.135	70.69610437	35.3362391	1.650062267	63.01369863
4	4.4923	5.3711	4.7512	4.6644	4.6592	70.53937187	33.52645809	2.008497489	64.46504442
5	4.6744	6.1554	5.1363	4.9805	4.9713	68.81161377	33.73024464	1.991773111	64.27798225
6	4.5271	7.2748	5.1667	4.9041	4.8902	76.7223496	41.05691057	2.173233271	56.76985616
7	4.8143	5.7447	5.0086	4.9159	4.9145	79.11650903	47.70972723	0.720535255	51.56973752
8	4.6476	6.6192	5.1079	4.9141	4.9032	76.65347941	42.10297632	2.368020856	55.52900282
9	4.9929	5.5562	5.1373	5.0774	5.0752	74.36534706	41.48199446	1.523545706	56.99445983
10	4.9568	5.4595	5.0694	5.0223	5.0203	77.60095484	41.8294849	1.776198934	56.39431616
11	4.9825	5.8347	5.1974	5.1168	5.1129	74.78291481	37.50581666	1.81479758	60.67938576
12	5.5286	5.9524	5.6262	5.5829	5.5819	76.97026899	44.3647541	1.024590164	54.61065574

13	5.4308	6.3262	5.7407	5.6597	5.6528	65.38976994	26.1374637	2.226524685	71.63601162
14	5.2102	6.2561	5.5753	5.4776	5.47	65.09226503	26.75979184	2.081621474	71.15858669
15	4.5953	5.4587	4.8978	4.8151	4.8105	64.96409544	27.33884298	1.520661157	71.14049587
16	4.7335	5.5529	5.0032	4.9273	4.9222	67.08567244	28.14238042	1.890989989	69.96662959
17	4.5087	5.6048	4.7767	4.6833	4.6781	75.54967612	34.85074627	1.940298507	63.20895522
18	4.8002	6.5443	5.2803	5.1396	5.1294	72.47290866	29.3063945	2.124557384	68.56904811
19	4.824	6.9383	5.3854	5.2159	5.2049	73.44747671	30.1923762	1.959387246	67.84823655
20	4.4741	5.6719	4.7963	4.6968	4.6907	73.10068459	30.8814401	1.893234016	67.22532588
21	5.0737	6.3897	5.3406	5.2287	5.2235	79.71884498	41.92581491	1.948295242	56.12588985
22	4.7019	6.55	5.1675	5.0304	5.0232	74.80655809	29.44587629	1.546391753	69.00773196
23	5.6392	7.1222	5.9369	5.8174	5.8123	79.92582603	40.14108163	1.713134028	58.14578435
24	4.5494	5.908	4.7844	4.6391	4.6327	82.70278228	61.82978723	2.723404255	35.44680851
25	4.9426	5.7334	5.0703	5.0066	5.0017	83.85179565	49.8825372	3.837118246	46.28034456
26	5.0831	5.6363	5.1826	5.131	5.1272	82.01373825	51.85929648	3.819095477	44.32160804
27	4.8996	5.951	5.1968	5.1048	5.0978	71.73292753	30.95558546	2.355316285	66.68909825
28	4.3708	6.4736	4.7772	4.5865	4.5725	80.67338786	46.9242126	3.44488189	49.63090551
29	5.1068	5.9265	5.2058	5.1371	5.1341	87.92241064	69.39393939	3.03030303	27.57575758
30	4.8088	6.7454	5.1183	4.9333	4.9227	84.01838273	59.77382876	3.424878837	36.80129241
31	4.8122	5.7996	5.0046	4.8985	4.8927	80.51448248	55.14553015	3.014553015	41.83991684
32	4.5996	6.1821	4.9506	4.8086	4.7994	77.81990521	40.45584046	2.621082621	56.92307692
33	4.3498	5.7949	4.6771	4.5649	4.557	77.35104837	34.28047663	2.413687748	63.30583562
34	4.6122	6.6207	4.9886	4.8095	4.7974	81.2596465	47.58235919	3.21466525	49.20297556
35	4.9964	6.087	5.2272	5.1349	5.1294	78.83733725	39.99133449	2.383015598	57.62564991
36	4.6386	5.367	4.7781	4.7133	4.7086	80.84843493	46.4516129	3.369175627	50.17921147
37	4.6808	5.9855	5.0613	4.9624	4.9551	70.83620756	25.99211564	1.918528252	72.08935611
38	4.5589	5.6166	4.9598	4.8756	4.8699	62.09700293	21.00274383	1.421800948	77.57545523
39	4.4033	6.1855	5.0439	4.8988	4.89	64.05566154	22.65064002	1.373712145	75.97564783
40	5.12	6.2148	5.3965	5.2707	5.2655	74.74424552	45.49728752	1.880650995	52.62206148
41	4.4687	5.969	4.9023	4.7602	4.7513	71.09911351	32.77214022	2.052583026	65.17527675
42	4.5649	6.4209	4.947	4.7715	4.7618	79.41271552	45.93038472	2.53860246	51.53101282
43	4.5983	6.5374	5.0931	4.9227	4.9127	74.48300758	34.43815683	2.021018593	63.54082458
44	4.572	7.5617	5.584	5.3793	5.367	66.15044988	20.22727273	1.21541502	78.55731225
45	5.1471	7.8662	6.1174	5.8688	5.8589	64.31539848	25.62094198	1.020302999	73.35875502
46	4.6865	6.9706	5.7185	5.5855	5.579	54.81809028	12.8875969	0.629844961	86.48255814
47	4.5603	6.2658	5.3069	5.2033	5.1972	56.22398124	13.87623895	0.817037235	85.30672381
48	4.3955	6.9599	5.273	5.0932	5.0376	65.78146935	20.49002849	6.336182336	73.17378917
49	4.5573	6.2158	5.2207	5.1094	5.1031	60	16.77720832	0.949653301	82.27313838
50	5.0806	6.5714	5.7783	5.6834	5.6783	53.19962436	13.6018346	0.730973198	85.6671922
51	4.3679	6.9225	5.5967	5.4333	5.4238	51.89853597	13.29752604	0.773111979	85.92936198
52	4.3193	6.1881	5.4029	5.3185	5.3138	42.01626712	7.788851975	0.433739387	91.77740864
53	4.6632	6.0677	5.6437	5.5966	5.5944	30.18867925	4.803671596	0.224375319	94.97195309
54	5.3208	7.5562	6.9202	6.8729	6.8692	28.45128389	2.95735901	0.231336751	96.81130424
55	4.2986	6.6988	6.0123	5.9487	5.9452	28.60178318	3.711268017	0.204236447	96.08449554
56	4.4761	7.045	6.3012	6.2282	6.2246	28.95402702	3.999780834	0.197249466	95.8029697
57	4.4982	7.7821	6.9246	6.852	6.846	26.11224459	2.992087043	0.247279921	96.76063304
58	4.6856	7.1929	6.3548	6.2639	6.259	33.42639493	5.445722502	0.293553798	94.2667237
59	4.6471	6.5487	5.8116	5.7244	5.7196	38.76209508	7.488192357	0.412194075	92.09961357
60	4.7253	6.4384	5.808	5.728	5.724	36.79878583	7.38893507	0.369446753	92.24161818
61	4.8924	6.7913	5.9201	5.8238	5.8213	45.87919322	9.370438844	0.243261652	90.3862995
62	4.6778	6.0575	5.5083	5.4432	5.4421	39.80575487	7.838651415	0.132450331	92.02889825
63	4.8877	6.8626	6.0112	5.9121	5.909	43.1110436	8.820649755	0.275923453	90.90342679
64	4.9439	6.9095	6.2922	6.2212	6.2192	31.40516891	5.26589038	0.14833494	94.58577468
65	4.8226	6.9243	6.2486	6.1683	6.167	32.15016415	5.631136045	0.091164095	94.27769986
66	5.4563	6.9857	6.4716	6.4161	6.4154	33.61448934	5.466364621	0.068945139	94.46469024
67	5.1701	8.3645	7.3091	7.1759	7.1718	33.03906837	6.227208976	0.191678354	93.58111267
68	5.2188	8.1967	7.2353	7.124	7.1194	32.28449579	5.519464419	0.228118026	94.25241756
69	5.262	9.1695	8.0804	7.9723	7.969	27.87204095	3.835509509	0.117087709	96.04740278
70	5.2111	7.8379	7.0791	7.0051	7.0034	28.88685854	3.961456103	0.091006424	95.94753747
71	4.908	6.6842	6.2	6.1478	6.1457	27.26044364	4.040247678	0.1625387	95.79721362
72	5.0632	7.6299	6.7629	6.6732	6.6713	33.77878209	5.277401894	0.111784433	94.61081367
73	4.7424	7.664	6.7141	6.6061	6.6009	32.51300657	5.47750672	0.263731805	94.25876147
74	4.847	6.3066	5.7899	5.7269	5.7253	35.40010962	6.681514477	0.169689257	93.14879627
75	4.8121	7.057	6.2932	6.2066	6.204	34.02378725	5.847005604	0.175545203	93.97744919
76	4.6044	7.9965	6.5534	6.392	6.3867	42.54296748	8.281169831	0.271934325	91.44689584
77	4.4248	6.5197	5.6568	5.5462	5.5427	41.19051029	8.977272727	0.284090909	90.73863636
78	4.6277	6.229	5.3755	5.254	5.2501	53.30044339	16.2476598	0.521529821	83.23081038

79	5.3507	7.3602	6.4293	6.3134	6.31	46.32495646	10.74541072	0.315223438	88.93936584
80	5.0384	7.6961	6.8182	6.7277	6.7253	33.03232118	5.084840993	0.134846612	94.78031239
81	5.0988	6.8073	6.3347	6.297	6.2961	27.66169154	3.050408609	0.072821426	96.87676997
82	5.3455	7.767	7.0662	7.0056	7.0037	28.94073921	3.521822514	0.110420178	96.36775731
83	4.8515	6.0947	5.6902	5.6459	5.6448	32.53700129	5.281984023	0.131155359	94.58686062
84	4.9024	6.8393	6.2541	6.1893	6.1854	30.21322732	4.793963158	0.28852556	94.91751128
85	4.6503	6.7674	6.1577	6.0816	6.0775	28.79882859	5.048427756	0.271991509	94.67958074
86	5.5031	6.9529	6.5331	6.488	6.4856	28.95571803	4.378640777	0.233009709	95.38834951
87	4.7813	6.9107	6.3112	6.2406	6.2367	28.15347046	4.614680698	0.254918622	95.13040068
88	4.548	6.763	6.2004	6.1444	6.1406	25.39954853	3.389009925	0.229968531	96.38102154
89	5.1438	7.3854	6.7476	6.6716	6.6683	28.45289079	4.738745479	0.205761317	95.0554932
90	5.236	7.325	6.804	6.7473	6.745	24.94016276	3.616071429	0.146683673	96.2372449
91	4.6533	7.3794	6.7274	6.6478	6.643	23.91695096	3.83780917	0.231425679	95.93076515
92	5.0461	7.7386	7.0243	6.9287	6.9225	26.52924791	4.83267617	0.313416237	94.85390759
93	4.9985	8.9766	7.9726	7.8561	7.8492	25.23817903	3.917151407	0.232002959	95.85084563
94	4.6133	7.6392	6.8395	6.7425	6.7361	26.42850061	4.357200611	0.287485401	95.35531399
95	4.4358	7.3381	6.6433	6.5661	6.5603	23.93963408	3.497168743	0.262740657	96.2400906
96	4.4348	6.8332	6.1134	6.0226	6.0171	30.01167445	5.409269629	0.327653997	94.26307637
97	4.7543	7.9392	7.1389	7.0556	7.047	25.1279475	3.493248344	0.360647488	96.14610417
98	4.7935	9.781	8.8173	8.6959	8.6856	19.32230576	3.017048561	0.255976937	96.7269745
99	4.7721	8.7485	7.8205	7.6749	7.666	23.33769239	4.776276079	0.291956436	94.93176748

WB 13(2)

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	%Carbonate	Residual
1	4.9746	5.7196	5.1649	5.1005	5.0959	74.45637584	33.84130321	2.417235943	63.74146085
2	4.6872	5.4204	4.8611	4.8032	4.7983	76.28205128	33.29499712	2.817711328	63.88729155
3	4.9186	5.4885	5.0424	5	4.9942	78.27689068	34.24878837	4.684975767	61.06623586
4	4.4709	5.2331	4.644	4.5806	4.5752	77.28942535	36.62622761	3.119584055	60.25418833
5	4.648	5.9061	4.9311	4.8366	4.8276	77.49781416	33.38043094	3.179088661	63.4404804
6	4.5051	6.6408	4.9775	4.8194	4.8061	77.8807885	33.46740051	2.815410669	63.71718882
7	4.7639	6.0841	5.0267	4.9307	4.9206	80.09392516	36.52968037	3.843226788	59.62709285
8	4.6179	5.9273	4.9	4.8048	4.7963	78.45578127	33.74689826	3.013115916	63.23998582
9	4.9616	6.6894	5.3087	5.1834	5.1728	79.91086931	36.09910689	3.053874964	60.84701815
10	4.9357	5.9299	5.1485	5.0729	5.0658	78.59585596	35.52631579	3.336466165	61.13721805
11	4.9621	5.7459	5.1073	5.0492	5.0457	81.47486604	40.0137741	2.41046832	57.57575758
12	5.5105	6.3852	5.689	5.628	5.6232	79.59300332	34.17366947	2.68907563	63.1372549
13	5.4122	6.8792	5.7286	5.6103	5.6024	78.43217451	37.38938053	2.496839444	60.11378003
14	5.1777	7.2787	5.5884	5.4324	5.422	80.45216564	37.98392988	2.532261992	59.48380813
15	4.5885	5.3704	4.74	4.6759	4.6713	80.62412073	42.31023102	3.03630363	54.65346535
16	4.7042	5.8235	4.9423	4.8484	4.8429	78.72777629	39.43721126	2.309953801	58.25283494
17	4.4807	5.9886	4.7222	4.5923	4.5858	83.98434909	53.78881988	2.691511387	43.51966874
18	4.7782	5.7399	4.9227	4.8429	4.8396	84.97452428	55.22491349	2.283737024	42.49134948
19	4.7854	6.1928	5.0872	4.984	4.9767	78.55620293	34.19483101	2.418820411	63.38634858
20	4.4501	6.1418	4.8842	4.7709	4.7618	74.33942188	26.09997696	2.096291177	71.80373186
21	5.0524	6.3785	5.3057	5.2074	5.2015	80.8988764	38.80773786	2.329253849	58.86300829
22	4.6847	6.2427	5.0828	4.9858	4.978	74.44801027	24.36573725	1.959306707	73.67495604
23	5.6147	6.7149	5.8469	5.7733	5.769	78.89474641	31.69681309	1.851851852	66.45133506
24	4.5166	6.6744	4.8905	4.7383	4.7292	82.6721661	40.70607114	2.43380583	56.86012303
25	4.92	6.7606	5.2652	5.1472	5.1382	81.24524612	34.18308227	2.607184241	63.20973349
26	5.0637	6.2899	5.2746	5.1903	5.1839	82.80052194	39.9715505	3.034613561	56.99383594
27	4.8746	5.8397	5.0016	4.9339	4.9299	86.84074189	53.30708661	3.149606299	43.54330709
28	4.345	5.2238	4.4527	4.393	4.3889	87.7446518	55.43175487	3.806870938	40.76137419
29	5.0864	6.1007	5.2012	5.1211	5.1163	88.68184955	69.77351916	4.181184669	26.04529617
30	4.7879	6.3233	4.9899	4.8713	4.8632	86.8438192	58.71287129	4.00990099	37.27722772
31	4.7906	5.5245	4.8858	4.8358	4.8325	87.02820548	52.5210084	3.466386555	44.01260504
32	4.571	6.5007	4.8569	4.7146	4.7058	85.18422553	49.77264778	3.0779993	47.14935292
33	4.3308	6.2529	4.595	4.4595	4.4518	86.25461735	51.28690386	2.914458743	45.7986374

34	4.5899	6.2785	4.8443	4.7301	4.7243	84.93426507	44.88993711	2.279874214	52.83018868
35	4.968	5.8887	5.1279	5.0625	5.0581	82.63277941	40.90056285	2.751719825	56.34771732
36	4.6026	5.7973	4.8201	4.7363	4.7308	81.79459278	38.52873563	2.528735632	58.94252874
37	4.6592	6.1229	5.2006	5.1203	5.1133	63.01154608	14.83191725	1.292944219	83.87513853
38	4.5335	5.5566	4.7467	4.6684	4.6633	79.1613723	36.7260788	2.392120075	60.88180113
39	4.3683	5.4686	4.5973	4.4961	4.4909	79.18749432	44.19213974	2.270742358	53.5371179
40	5.0616	5.9562	5.1952	5.118	5.1145	85.06595126	57.78443114	2.619760479	39.59580838
41	4.4219	6.6433	4.8191	4.613	4.6001	82.11938417	51.88821752	3.247734139	44.86404834
42	4.4706	6.2929	4.8886	4.72	4.7101	77.06195467	40.33492823	2.368421053	57.29665072
43	4.5608	5.3672	4.7357	4.665	4.6607	78.3110119	40.42309891	2.458547742	57.11835334
44	4.5152	5.838	4.9813	4.8946	4.8888	64.76413668	18.60115855	1.244368161	80.15447329
45	5.0582	6.2432	5.4169	5.3039	5.2986	69.72995781	31.50264845	1.477557848	67.0197937
46	4.6445	6.0209	4.9398	4.7736	4.7666	78.54548096	56.28174738	2.370470708	41.34778192
47	4.528	6.0383	4.846	4.6775	4.6677	78.94458055	52.98742138	3.081761006	43.93081761
48	4.3682	5.6834	4.6827	4.5486	4.5416	76.0872871	42.6391097	2.225755167	55.13513514
49	4.4968	5.2996	4.7682	4.7036	4.699	66.19332337	23.80250553	1.694915254	74.50257922
50	5.0294	7.0763	5.7734	5.6241	5.6133	63.65235234	20.0672043	1.451612903	78.4811828
51	4.272	6.3046	4.9269	4.7741	4.764	67.78018302	23.33180638	1.542220186	75.12597343
52	4.2537	5.7809	4.7737	4.6558	4.6488	65.95075956	22.67307692	1.346153846	75.98076923
53	4.5902	7.0423	5.4407	5.2455	5.2337	65.31544391	22.95120517	1.387419165	75.66137566
54	5.2753	7.3397	6.3518	6.2456	6.2384	47.85409804	9.865304227	0.668834185	89.46586159
55	4.2468	7.8219	6.3565	6.2135	6.2038	40.98906324	6.778214912	0.459781012	92.76200408
56	4.4368	6.2974	5.4633	5.3738	5.3681	44.82962485	8.718947881	0.555284949	90.72576717
57	4.466	6.4122	5.478	5.3627	5.3554	48.00123317	11.39328063	0.721343874	87.88537549
58	4.6072	7.3348	5.6953	5.4828	5.4703	60.10778707	19.52945501	1.148791471	79.32175352
59	4.5794	6.335	5.3451	5.2261	5.2184	56.38528139	15.54133473	1.005615776	83.4530495
60	4.6908	6.5265	5.5825	5.4636	5.4562	51.4245247	13.33408097	0.829875519	85.83604351
61	4.8548	6.8409	5.8922	5.7732	5.7679	47.76698051	11.47098516	0.510892616	88.01812223
62	4.6471	6.2521	5.4951	5.3831	5.3786	47.16510903	13.20754717	0.530660377	86.26179245
63	4.8355	7.3463	6.2828	6.142	6.1343	42.35701768	9.728459891	0.53202515	89.73951496
64	4.9161	7.6788	6.8091	6.7108	6.7059	31.48007384	5.192815637	0.258848389	94.54833597
65	4.7612	6.6411	6.0763	6.0226	6.0191	30.04415128	4.08333967	0.266139457	95.65052087
66	5.4387	7.834	7.2481	7.1979	7.1935	24.46040162	2.774400354	0.243174533	96.98242511
67	5.1036	8.7336	7.7134	7.6041	7.5959	28.1046832	4.188060388	0.314200322	95.49773929
68	5.1483	7.4798	6.8439	6.7796	6.7751	27.27428694	3.792167964	0.265392781	95.94243925
69	5.2102	7.3892	6.7803	6.7124	6.708	27.94401101	4.324565314	0.280236928	95.39519776
70	5.1648	7.5275	6.775	6.7055	6.6994	31.84915563	4.316234008	0.378834927	95.30493106
71	4.8146	7.3858	6.6914	6.6215	6.6167	27.00684505	3.724424552	0.255754476	96.01982097
72	5.0302	7.267	6.6169	6.5344	6.5301	29.0638412	5.199470599	0.27100271	94.52952669
73	4.7125	7.4851	6.6148	6.5029	6.4964	31.38930967	5.882352941	0.341691636	93.77595542
74	4.8489	7.6092	6.7992	6.7053	6.6996	29.34463645	4.814643901	0.292262729	94.89309337
75	4.7753	6.8813	6.282	6.2089	6.204	28.45679012	4.851662574	0.325214044	94.82312338
76	4.5697	6.8466	6.1865	6.1176	6.1137	28.99117221	4.261504206	0.241217219	95.49727857
77	4.3754	6.2955	5.8393	5.7945	5.7912	23.75917921	3.060318328	0.225425234	96.71425644
78	4.6093	7.4247	6.6845	6.5891	6.5816	26.29111316	4.597147263	0.361410948	95.04144179
79	5.3234	7.3331	6.8052	6.7327	6.7273	26.26760213	4.89269807	0.364421649	94.74288028
80	5.0105	7.6869	6.8565	6.728	6.7192	31.02675235	6.96099675	0.476706392	92.56229686
81	5.0676	7.3832	6.6969	6.5963	6.5899	29.63810675	6.174430737	0.392806727	93.43276254
82	5.3104	7.5753	6.9629	6.8866	6.8798	27.03872136	4.617246596	0.411497731	94.97125567
83	4.8285	7.931	7.1567	7.062	7.0544	24.95729251	4.067519973	0.326432437	95.60604759
84	4.8834	7.1054	6.4915	6.3965	6.3887	27.62826283	5.907592811	0.485044462	93.60736273
85	4.6452	7.1054	6.479	6.3837	6.3756	25.46134461	5.196858981	0.441705748	94.36143527
86	5.4819	7.867	7.0073	6.84	6.8296	36.04461029	10.96761505	0.681788383	88.35059656
87	4.7534	6.3857	5.658	5.5131	5.5036	44.5812657	16.01812956	1.050187928	82.93168251

88	4.5239	5.984	5.4933	5.4141	5.408	33.60728717	8.170002063	0.629255209	91.20074273
89	5.1205	6.4755	6.1536	6.1215	6.1184	23.75645756	3.107153228	0.300067757	96.59277901
90	5.2134	7.1444	6.5963	6.5252	6.5206	28.38425686	5.141369586	0.332634319	94.5259961
91	4.6057	5.9103	5.4563	5.3867	5.3817	34.79993868	8.18245944	0.587820362	91.2297202
92	5.014	6.5687	5.9588	5.8758	5.868	39.22943333	8.784928027	0.82557155	90.38950042
93	4.9641	6.1822	5.787	5.7228	5.7182	32.44397012	7.801676996	0.558998663	91.63932434
94	4.5814	5.8018	5.3492	5.2904	5.2865	37.08620125	7.658244334	0.507944777	91.83381089
95	4.4018	5.4601	5.1373	5.0808	5.0773	30.50174809	7.681849082	0.475866757	91.84228416
96	4.4773	5.7422	5.1981	5.1258	5.1207	43.01525812	10.03052164	0.70754717	89.26193119
97	4.7111	5.8064	5.2977	5.2277	5.2226	46.44389665	11.93317422	0.869416979	87.1974088
98	4.7733	5.6972	5.2519	5.1786	5.1742	48.19785691	15.31550355	0.919348099	83.76514835
99	4.7734	5.7361	5.2609	5.1909	5.1855	49.3611717	14.35897436	1.107692308	84.53333333
100	5.0367	5.6925	5.2853	5.2293	5.2253	62.09210125	22.52614642	1.609010459	75.86484312
101	5.3931	6.8594	5.9321	5.8011	5.7927	63.2408102	24.30426716	1.558441558	74.13729128
102	5.1948	5.9591	5.4228	5.3572	5.3523	70.16878189	28.77192982	2.149122807	69.07894737
103	5.062	5.7208	5.2618	5.201	5.1969	69.67213115	30.43043043	2.052052052	67.51751752
104	5.0401	6.2396	5.3717	5.2692	5.2616	72.35514798	30.91073583	2.291917973	66.7973462

WB 15

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	%Carbonate	Residual
1	4.7069	6.0569	5.4851	5.4326	5.4318	42.35555556	6.746337702	0.102801336	93.15086096
2	4.7567	6.4729	5.8141	5.705	5.7023	38.38713437	10.31776054	0.255343295	89.42689616
3	4.7696	6.0092	5.5961	5.5356	5.5354	33.32526621	7.320024198	0.024198427	92.65577737
4	5.0349	6.37	5.7619	5.6466	5.6442	45.54715003	15.85969739	0.330123796	83.81017882
5	5.3874	6.1929	5.8427	5.7927	5.7918	43.4761018	10.98177026	0.197671865	88.82055787
6	5.196	6.7574	6.102	6.0074	6.0039	41.97515051	10.4415011	0.386313466	89.17218543
7	5.0552	6.547	5.8939	5.791	5.7822	43.77932699	12.26898772	1.049242876	86.68176941
8	5.0353	6.3642	5.8192	5.743	5.7399	41.01136278	9.720627631	0.395458604	89.88391376
9	4.5821	5.9044	5.3292	5.2514	5.2469	43.49996219	10.41359925	0.602329005	88.98407174
10	5.1514	7.3225	6.4081	6.2924	6.2872	42.11689927	9.206652343	0.413782128	90.37956553
11	4.7999	6.6466	5.908	5.8172	5.8128	39.99566795	8.194206299	0.397076076	91.40871762
12	4.847	6.3991	5.7255	5.6307	5.6264	43.39926551	10.79112123	0.489470689	88.71940808
13	5.0225	6.5015	5.7742	5.6573	5.6521	49.17511832	15.55141679	0.691765332	83.75681788
14	5.0104	5.7974	5.4449	5.3919	5.3888	44.79034307	12.19792865	0.713463751	87.08860759
15	5.3458	7.2513	6.4326	6.3289	6.3198	42.96510102	9.541774015	0.837320574	89.62090541
16	4.4162	5.9485	5.4109	5.3593	5.354	35.08451348	5.187493717	0.532823967	94.27968232
17	5.2657	7.4377	6.5843	6.4865	6.4794	39.29097606	7.416957379	0.538449871	92.04459275
18	5.0221	7.3675	6.4669	6.3642	6.3566	38.39856741	7.108250277	0.526024363	92.36572536
19	5.1538	6.9006	6.1512	6.0537	6.0471	42.90130524	9.775416082	0.661720473	89.56286344
20	5.2606	6.7551	6.0874	6.002	5.9942	44.67714955	10.3289792	0.943396226	88.72762458
21	5.1135	6.3336	5.8899	5.8379	5.8336	36.36587165	6.697578568	0.553838228	92.7485832
22	4.845	6.0733	5.5026	5.4275	5.4213	46.46259057	11.4203163	0.942822384	87.63686131

WB 20

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	%Carbonate	Residual
1	4.975	6.5208	6.1959	6.1281	6.1215	21.01824298	5.553280367	0.540584814	93.90613482
2	4.6884	5.1802	5.08	5.0566	5.0539	20.37413583	5.975485189	0.68947906	93.33503575
3	4.9192	5.6041	5.4	5.3612	5.3557	29.7999708	8.069883527	1.143926789	90.78618968
4	4.4707	5.3422	5.1078	5.0687	5.0633	26.89615605	6.137184116	0.847590645	93.01522524

5	4.648	5.3664	5.0906	5.0428	5.0355	38.3908686	10.79981925	1.649344781	87.55083597
6	4.5039	5.4274	5.1027	5.0477	5.04	35.15971846	9.18503674	1.285905144	89.52905812
7	4.7999	6.5844	6.0982	6.0288	6.018	27.24572709	5.345451745	0.831857044	93.82269121
8	4.6175	5.3417	5.0502	5.0077	4.9995	40.25131179	9.822047608	1.895077421	88.28287497
9	4.9611	6.1461	5.5321	5.4426	5.4279	51.81434599	15.67425569	2.574430823	81.75131349
10	4.9364	5.5007	5.1383	5.089	5.08	64.22115896	24.41802873	4.457652303	71.12431897
11	4.9599	6.4499	5.3844	5.2341	5.2138	71.51006711	35.40636042	4.782096584	59.81154299
12	5.5095	6.7593	5.9364	5.8305	5.809	65.84253481	24.80674631	5.036308269	70.15694542
13	5.4121	6.9065	5.8885	5.7473	5.7198	68.12098501	29.63895886	5.772460118	64.58858102
14	5.1767	6.6333	5.6241	5.4916	5.4639	69.28463545	29.61555655	6.191327671	64.19311578
15	4.5858	5.4556	4.8555	4.7714	4.7553	68.99287192	31.1827957	5.969595847	62.84760845
16	5.1554	6.0899	5.4618	5.3723	5.355	67.21241306	29.21018277	5.646214099	65.14360313
17	4.4798	5.4234	4.7666	4.6804	4.6611	69.60576515	30.05578801	6.729428173	63.21478382
18	4.778	5.9872	5.1488	5.0472	5.0237	69.33509759	27.40021575	6.337648328	66.26213592
19	4.7852	5.6153	5.0377	4.9683	4.9512	69.58197807	27.48514851	6.772277228	65.74257426
20	4.4437	5.328	4.6712	4.5974	4.5822	74.27343662	32.43956044	6.681318681	60.87912088
21	5.0514	7.0331	5.5578	5.3911	5.3621	74.44618257	32.91864139	5.726698262	61.35466035
22	4.6836	6.4965	5.1737	5.0271	4.9995	72.96596613	29.9122628	5.631503775	64.45623342
23	5.6159	6.6434	5.9626	5.8889	5.8732	66.25790754	21.25757139	4.52841073	74.21401788
24	4.5138	6.0873	4.9896	4.8668	4.8444	69.76167779	25.80916351	4.707860446	69.48297604
25	4.9186	6.1221	5.2256	5.1199	5.1022	74.49106772	34.42996743	5.765472313	59.80456026
26	5.0597	7.1541	5.601	5.4119	5.3866	74.15488923	34.93441714	4.673933124	60.39164973
27	4.8717	6.2216	5.2512	5.1349	5.1183	71.88680643	30.6455863	4.374176548	64.98023715
28	4.3444	5.4481	4.6396	4.5422	4.5277	73.25360152	32.99457995	4.911924119	62.09349593
29	5.0856	6.2007	5.3948	5.2949	5.2805	72.27154515	32.30918499	4.657179819	63.03363519
30	4.7861	6.2887	5.1555	5.0163	4.9988	75.41594569	37.68272875	4.737412019	57.57985923
31	4.7861	6.6762	5.2814	5.1073	5.0805	73.7950373	35.15041389	5.410862104	59.43872401
32	4.5681	5.4655	4.8034	4.7246	4.7106	73.77980834	33.48916277	5.949851254	60.56098598
33	4.3249	5.7233	4.6258	4.4899	4.4746	78.48255149	45.16450648	5.084745763	49.75074776
34	4.5873	5.91	4.8707	4.7441	4.7302	78.57412868	44.67184192	4.904728299	50.42342978
35	4.967	6.1444	5.2148	5.1057	5.0925	78.95362663	44.02744149	5.326876513	50.645682
36	4.5967	6.1266	4.9772	4.8521	4.8331	75.1290934	32.87779238	4.993429698	62.12877792
37	4.659	5.5364	4.901	4.8304	4.8188	72.41850923	29.17355372	4.79338843	66.03305785
38	4.5305	6.6983	5.2068	5.0518	5.0211	68.80247255	22.91882301	4.539405589	72.5417714
39	4.3657	5.87	4.9758	4.8799	4.8617	59.44293027	15.71873463	2.983117522	81.29814784
40	5.0611	6.4132	5.5883	5.4989	5.4837	61.00880112	16.95751138	2.883156297	80.15933232
41	4.4236	5.6977	4.7655	4.6677	4.6469	73.16537163	28.60485522	6.08365019	65.31149459
42	4.4663	5.6414	4.8111	4.7249	4.7094	70.65781636	25	4.495359629	70.50464037
43	4.5542	6.0714	5.0586	4.9551	4.9314	66.75454785	20.51942902	4.698651864	74.78191911
44	4.5105	6.2193	5.1279	5.0177	4.9916	63.86938202	17.84904438	4.227405248	77.92355037
45	5.0518	8.1505	6.6466	6.4856	6.4536	48.53325588	10.09530976	2.006521194	87.89816905
46	4.6376	6.9485	5.8228	5.6944	5.6743	48.71262279	10.83361458	1.695916301	87.47046912
47	4.5247	6.2874	5.3492	5.2368	5.22	53.22516594	13.63250455	2.037598545	84.32989691

48	4.362	6.584	5.2734	5.1147	5.0864	58.98289829	17.41277156	3.105113013	79.48211543
49	4.4959	5.9138	5.2446	5.1618	5.1452	47.19655829	11.05916923	2.217176439	86.72365433
50	5.0285	6.5918	5.8555	5.7647	5.7462	47.09908527	10.97944377	2.237001209	86.78355502
51	4.2694	5.8585	5.1067	5.0158	4.9972	47.309798	10.8563239	2.221426012	86.92225009
52	4.2522	5.9999	5.23	5.1321	5.1129	44.05218287	10.01227245	1.963591737	88.02413582
53	4.5915	6.6874	5.6794	5.5517	5.5263	48.09389761	11.73821123	2.334773417	85.92701535
54	5.2738	6.5251	5.9122	5.8304	5.8159	48.9810597	12.81328321	2.271303258	84.91541353
55	4.2431	5.8551	5.2223	5.1418	5.1274	39.25558313	8.220996732	1.470588235	90.30841503
56	4.4309	6.2796	5.5567	5.4688	5.4531	39.10315357	7.807781133	1.394563866	90.797655
57	4.4486	6.2879	5.5749	5.4952	5.4816	38.76474746	7.076267424	1.207493563	91.71623901
58	4.5916	6.7616	6.0277	5.9511	5.9365	33.8202765	5.333890398	1.016642295	93.64946731
59	4.5783	6.0297	5.4253	5.3451	5.3316	41.64255202	9.468713105	1.593860685	88.93742621
60	4.6879	6.2605	5.63	5.5406	5.5186	40.09283988	9.489438488	2.335208577	88.17535293
61	4.8537	6.0111	5.5247	5.4572	5.4462	42.02522896	10.05961252	1.639344262	88.30104322
62	4.6341	7.5588	6.502	6.3531	6.3099	36.13362054	7.971518818	2.312757642	89.71572354
63	4.8307	7.5126	6.5855	6.4723	6.4501	34.56877587	6.450877593	1.265101436	92.28402097
64	4.9027	7.8008	6.9422	6.848	6.8236	29.62630689	4.618779113	1.19637166	94.18484923
65	4.7583	7.4132	6.7015	6.6352	6.6175	26.80703605	3.4118979	0.91086867	95.67723343
66	5.4279	7.8651	7.1709	7.1059	7.0953	28.48350566	3.729202524	0.608146873	95.6626506
67	5.0841	7.1287	6.3827	6.2976	6.2835	36.4863543	6.55321115	1.085784691	92.36100416
68	5.1455	7.069	6.3704	6.2857	6.2734	36.31920977	6.914850192	1.004163605	92.0809862
69	5.2033	7.2894	6.5743	6.4767	6.4583	34.27927712	7.11889132	1.342086069	91.53902261
70	5.1616	6.4402	5.978	5.9117	5.9011	36.14891287	8.121019108	1.298383146	90.58059775
71	4.8116	6.7474	5.9909	5.896	5.8833	39.07945036	8.047146612	1.076910031	90.87594336
72	5.0258	6.6338	6.1197	6.0591	6.0504	31.97139303	5.539811683	0.795319499	93.66486882
73	4.7091	6.8851	6.2786	6.2152	6.2031	27.87224265	4.039503026	0.770946161	95.18955081
74	4.8344	6.9191	6.2896	6.2153	6.1954	30.1961913	5.105827378	1.367509621	93.526663
75	4.7728	7.3134	6.7196	6.6573	6.6385	23.37243171	3.200123279	0.965687282	95.83418944
76	4.5698	6.7201	6.3067	6.2674	6.2548	19.22522439	2.262651851	0.725430364	97.01191778
77	4.3744	6.6136	6.1652	6.1284	6.1168	20.02500893	2.054947509	0.647755193	97.2972973
78	4.6062	7.8254	7.1289	7.0616	7.0405	21.63581014	2.667776589	0.836405439	96.49581797
79	5.3204	7.6295	7.1269	7.0762	7.061	21.76605604	2.806531968	0.841406034	96.352062
80	5.0051	7.4781	6.6524	6.5611	6.5467	33.38859685	5.54240272	0.874157713	93.58343957
81	5.0639	7.6804	6.9241	6.8403	6.8145	28.9050258	4.504891947	1.38694764	94.10816041
82	5.308	7.7841	7.0323	6.9531	6.9375	30.36226324	4.593168242	0.904714957	94.5021168
83	4.8273	7.787	6.9543	6.8642	6.8412	28.13460824	4.236013164	1.081335214	94.68265162
84	4.8814	6.836	6.3049	6.2542	6.2436	27.17179986	3.561643836	0.744643484	95.69371268
85	4.6338	6.7819	6.2211	6.1666	6.1547	26.10679205	3.433503434	0.74970075	95.81679582
86	5.4753	8.8027	7.921	7.833	7.8102	26.49816674	3.598151858	0.932248436	95.46959971
87	4.7515	6.8599	6.323	6.2677	6.2522	25.46480744	3.518930958	0.986318804	95.49475024
88	4.5169	6.3827	5.9671	5.9238	5.9104	22.27462751	2.985795063	0.924010481	96.09019446
89	5.1143	7.2771	6.7743	6.7195	6.7009	23.24764195	3.301204819	1.120481928	95.57831325
90	5.2054	7.689	7.1897	7.1365	7.1172	20.10388146	2.681046213	0.972635186	96.3463186

91	4.603	7.6207	7.0334	6.9802	6.9601	19.4618418	2.188940092	0.827024358	96.98403555
92	5.0107	7.2672	6.6613	6.5979	6.5763	26.85131841	3.841027505	1.308615049	94.85035745
93	4.9617	7.881	7.3045	7.2257	7.1863	19.74788477	3.363496671	1.681748335	94.95475499
94	4.5809	6.5717	6.2039	6.1545	6.1298	18.47498493	3.043746149	1.521873075	95.43438078
95	4.4013	6.5949	6.236	6.1967	6.1848	16.36123268	2.142039571	0.648607402	97.20935303

WB 21

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	%Carbonate	Residual
1	4.7118	6.0949	5.2057	5.0947	5.0756	64.29036223	22.47418506	3.867179591	73.65863535
2	5.2259	6.6679	5.7182	5.5865	5.5689	65.85991678	26.7519805	3.57505586	69.67296364
3	4.8823	6.3394	5.3524	5.217	5.2	67.73728639	28.80238247	3.616251861	67.58136567
4	4.459	7.9319	5.5032	5.1801	5.1493	69.9329091	30.94234821	2.949626508	66.10802528
5	4.6499	6.0794	5.0124	4.8775	4.8646	74.64148304	37.2137931	3.55862069	59.22758621
6	4.5088	6.3494	4.9762	4.8357	4.8185	74.6061067	30.05990586	3.679931536	66.2601626
7	4.7989	6.7241	5.3621	5.2151	5.1947	70.74589653	26.10085227	3.622159091	70.27698864
8	4.6341	6.2036	5.1689	5.0659	5.0491	65.92545397	19.25953628	3.141361257	77.59910247
9	4.9696	6.935	5.7326	5.6155	5.5959	61.17838608	15.34731324	2.568807339	82.08387942
10	4.826	6.2844	5.3191	5.2223	5.2047	66.18897422	19.63090651	3.569255729	76.79983776
11	4.9698	6.6202	5.5138	5.396	5.3758	67.03829375	21.65441176	3.713235294	74.63235294
12	4.866	6.6136	5.3929	5.273	5.2536	69.85008011	22.75574113	3.681913076	73.5623458
13	4.3407	6.1676	4.8507	4.7328	4.7143	72.0838579	23.11764706	3.62745098	73.25490196
14	4.386	6.3225	4.9428	4.821	4.8021	71.24709527	21.875	3.394396552	74.73060345
15	5.0046	6.4833	5.2969	5.1997	5.1879	80.23263678	33.25350667	4.036948341	62.70954499
16	4.7227	6.586	5.1629	5.0406	5.0231	76.37524822	27.78282599	3.975465697	68.24170831
17	5.1133	6.8447	5.5646	5.4591	5.4411	73.93438836	23.37691115	3.988477731	72.63461112
18	4.7682	6.4095	5.1955	5.0931	5.0787	73.96575885	23.9644278	3.36999766	72.66557454
19	4.6212	6.3767	5.0914	4.9786	4.9607	73.21560809	23.98979158	3.806890685	72.20331774
20	4.498	6.5372	5.0312	4.9004	4.8796	73.85249117	24.53113278	3.900975244	71.56789197
21	4.7147	6.4947	5.1816	5.0582	5.0379	73.76966292	26.42964232	4.347826087	69.22253159
22	4.9073	6.701	5.3246	5.1994	5.1802	76.73524001	30.00239636	4.60100647	65.39659717
23	4.3491	5.9219	4.7464	4.6333	4.6145	74.73931841	28.46715328	4.731940599	66.80090612
24	4.8293	6.8847	5.4126	5.2747	5.2471	71.62109565	23.64135093	4.731698954	71.62695011
25	4.9137	6.6603	5.3953	5.2758	5.2532	72.42642849	24.81312292	4.69269103	70.49418605
26	4.684	6.4328	5.163	5.0433	5.0208	72.60978957	24.98956159	4.697286013	70.3131524
27	4.8908	6.8129	5.417	5.2796	5.2544	72.62369284	26.11174458	4.789053592	69.09920182
28	4.3698	6.4694	4.9646	4.8209	4.7928	71.67079444	24.1593813	4.724277068	71.11634163
29	4.2088	5.8268	4.6659	4.5551	4.5349	71.74907293	24.23977248	4.419164297	71.34106322
30	4.3524	6.2643	4.8785	4.74	4.718	72.48287044	26.32579358	4.181714503	69.49249192
31	4.7829	7.287	5.5012	5.3232	5.2954	71.31504333	24.78073228	3.870249199	71.34901852
32	4.5531	6.1999	5.0223	4.8985	4.8797	71.50837989	26.38533674	4.006820119	69.60784314
33	4.7749	6.4854	5.3092	5.1922	5.1739	68.76351944	21.89781022	3.425042111	74.67714767
34	4.5948	6.6512	5.2025	5.06	5.0359	70.44835635	23.44907026	3.965772585	72.58515715
35	4.9648	7.5587	5.7148	5.5358	5.505	71.08600948	23.86666667	4.106666667	72.02666667
36	4.5776	6.2473	5.0305	4.9112	4.8941	72.87536683	26.34135571	3.775667918	69.88297637
37	4.6401	6.3784	5.1624	5.0501	5.0349	69.95340275	21.50105303	2.910204863	75.5887421
38	4.5064	6.0775	4.963	4.8596	4.8455	70.93755967	22.6456417	3.08804205	74.26631625
39	4.3551	6.6731	5.1536	5.0119	4.9925	65.55220017	17.74577332	2.429555416	79.82467126
40	5.0392	6.656	5.4332	5.3101	5.2971	75.6308758	31.24365482	3.299492386	65.45685279
41	4.4037	5.9418	4.7266	4.6115	4.5967	79.00656654	35.64571075	4.583462372	59.77082688
42	4.4474	6.6345	4.9128	4.768	4.7511	78.72068035	31.11302106	3.631284916	65.25569403
43	4.5402	6.5693	5.0054	4.8718	4.8553	77.07357942	28.71883061	3.546861565	67.73430782
44	5.5001	7.8125	6.2577	6.1262	6.1097	67.23750216	17.35744456	2.177930306	80.46462513
45	5.0437	7.3247	6.2736	6.184	6.1627	46.08066637	7.285145134	1.731848118	90.98300675

46	4.6307	6.5856	5.66	5.5772	5.5635	47.34769042	8.044301953	1.331001652	90.6246964
47	4.5501	6.5483	5.4838	5.3876	5.3716	53.27294565	10.30309521	1.713612509	87.98329228
48	4.4991	6.8361	5.3819	5.2481	5.2286	62.22507488	15.1563208	2.208880834	82.63479837
49	4.4981	7.1807	5.7096	5.5674	5.5463	54.83858943	11.73751548	1.741642592	86.52084193
50	4.7576	7.4855	6.0706	5.935	5.914	51.86773709	10.32749429	1.599390708	88.073115
51	4.2764	7.1558	5.3808	5.1845	5.149	61.64478711	17.77435712	3.214415067	79.01122782
52	4.2616	6.2236	5.0802	4.9462	4.924	58.27726809	16.36941119	2.711947227	80.91864158
53	4.5942	6.618	5.558	5.4316	5.4101	52.37671707	13.1147541	2.230753268	84.65449263
54	5.2795	7.4924	6.3335	6.2016	6.1785	52.37019296	12.5142315	2.191650854	85.29411765
55	4.2504	6.4199	5.3606	5.2462	5.2231	48.82691864	10.30444965	2.080706179	87.61484417
56	4.4365	7.8076	6.2162	6.0495	6.0156	47.20714307	9.366747205	1.904815418	88.72843738
57	4.4431	6.3974	5.6141	5.5388	5.5205	40.08084736	6.430401366	1.562766866	92.00683177
58	4.5798	7.0977	5.9736	5.8573	5.8299	44.64434648	8.344095279	1.965848759	89.69005596
59	4.5664	6.8132	5.9381	5.8526	5.8314	38.94872708	6.233141357	1.545527448	92.22133119
60	4.6974	7.7793	6.5815	6.4651	6.4363	38.86563484	6.178016029	1.528581285	92.29340269
61	4.8525	7.269	6.3079	6.216	6.1914	39.7723981	6.314415281	1.690256974	91.99532774
62	4.6352	7.9105	6.8259	6.7229	6.6973	33.11452386	4.701693523	1.168576254	94.12973022
63	4.8334	8.2065	7.1441	7.0329	7.002	31.49624974	4.812394512	1.337257108	93.85034838
64	4.9038	7.9821	6.9729	6.867	6.8393	32.78432901	5.118167319	1.338746315	93.54308637
65	4.7615	8.2641	7.0457	6.9217	6.8911	34.78558785	5.428596445	1.33963751	93.23176605
66	5.4139	8.1333	7.2226	7.1329	7.1121	33.48900493	4.959363078	1.149997236	93.89063969
67	5.0822	9.109	7.8089	7.677	7.6418	32.28618258	4.837349177	1.290937764	93.87171306
68	5.1458	7.4755	6.6915	6.6087	6.5873	33.6524016	5.356796274	1.384485993	93.25871773
69	5.2043	8.5315	7.4678	7.3511	7.3138	31.96982448	5.155732273	1.647890435	93.19637729
70	5.1596	8.8516	7.7955	7.6897	7.6623	28.60509209	4.013809325	1.039493152	94.94669752
71	4.8158	7.4825	6.8033	6.7359	6.7166	25.46968163	3.391194969	0.971069182	95.63773585
72	5.0251	8.3335	7.304	7.1985	7.1732	31.11776085	4.629426478	1.110184738	94.26038878
73	5.0715	8.0286	7.1054	7.0084	6.9832	31.21977613	4.769162692	1.238998968	93.99183834
74	4.8362	7.8138	6.9249	6.8301	6.8004	29.85290167	4.538708287	1.42193709	94.03935462
75	4.7605	7.7085	6.9023	6.8087	6.7802	27.34735414	4.370155944	1.330656457	94.2991876
76	4.5558	7.4138	6.642	6.5647	6.5466	27.00489853	3.705301505	0.867606174	95.42709232
77	4.8433	8.4211	7.3757	7.2649	7.2338	29.21907317	4.375296162	1.228084031	94.39661981
78	4.5837	7.924	7.1034	7.0145	6.9892	24.56665569	3.528197801	1.004087788	95.46771441
79	5.2979	8.2717	7.4597	7.3728	7.3502	27.30513148	4.019798316	1.045425109	94.93477658
80	4.9868	8.0368	7.1139	7.0084	6.9812	30.25901639	4.959804429	1.278736308	93.76145926
81	5.0491	7.441	6.645	6.5548	6.5327	33.27898324	5.651983207	1.384798546	92.96321825
82	5.2871	9.0429	7.8046	7.6665	7.633	32.97033921	5.485600794	1.330685204	93.183714
83	4.8041	7.7867	6.905	6.8064	6.7783	29.56145645	4.693226712	1.337522014	93.96925127
84	5.1337	7.7122	7.0066	6.9271	6.9048	27.36474695	4.244754125	1.19066688	94.564579
85	4.6281	7.4313	6.6268	6.5362	6.5117	28.69934361	4.532946415	1.225796768	94.24125682
86	5.274	8.4564	7.5811	7.4799	7.4537	27.5043992	4.386459191	1.13562481	94.477916
87	4.7346	7.3933	6.7393	6.6572	6.6333	24.59848798	4.095375867	1.192198334	94.7124258
88	4.504	8.2278	7.3847	7.2879	7.2254	22.64085074	3.360294373	2.169611553	94.47009407
89	4.8341	7.9715	7.3894	7.336	7.3209	18.5535794	2.089774195	0.590928658	97.31929715
90	4.412	8	7.2858	7.211	7.1893	19.90523969	2.602825527	0.75509778	96.64207669
91	4.8015	8.3187	7.5882	7.5057	7.4806	20.76936199	2.960490903	0.900706929	96.13880217
92	5.0081	8.7093	7.9806	7.9071	7.8841	19.68820923	2.472666106	0.773759462	96.75357443
93	4.9532	7.9423	7.3963	7.3499	7.3334	18.2663678	1.899226393	0.675371454	97.42540215
94	4.5675	8.1666	7.4856	7.4235	7.4003	18.92139702	2.128097049	0.795037867	97.07686508
95	4.3929	8.8365	7.9276	7.8176	7.7702	20.45413629	3.112003848	1.340990749	95.5470054
96	4.4038	7.2274	6.6206	6.5478	6.5194	21.49029608	3.284012992	1.281125947	95.43486106
97	4.9043	8.6155	7.8692	7.7832	7.752	20.10939858	2.90060373	1.052312051	96.04708422
98	4.6845	8.5876	7.849	7.7627	7.7293	18.92341985	2.727129088	1.055458998	96.21741191

WB 22

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	% Carbonate	Residual
1	4.9606	6.0852	5.2744	5.191	5.1808	72.09674551	26.57743786	3.250478011	70.17208413
2	5.0229	6.1282	5.2891	5.2033	5.195	75.91604089	32.23140496	3.117956424	64.65063862
3	4.8424	6.0906	5.1414	5.0591	5.0497	76.04550553	27.52508361	3.143812709	69.33110368
4	5.0468	6.6798	5.3969	5.2828	5.2713	78.5609308	32.59068837	3.284775778	64.12453585
5	4.7865	6.9128	5.3312	5.1886	5.1726	74.38273056	26.17954838	2.937396732	70.88305489
6	4.8257	6.1821	5.1631	5.0626	5.0507	75.12533176	29.78660344	3.526970954	66.68642561
7	4.7352	5.9965	5.1022	5.0269	5.0151	70.90303655	20.51771117	3.215258856	76.26702997
8	4.7961	6.2775	5.178	5.0878	5.0754	74.22033212	23.61874836	3.246923278	73.13432836
9	4.308	5.8957	4.7045	4.6104	4.5986	75.02676828	23.73266078	2.976040353	73.29129887
10	4.9218	6.6536	5.2931	5.1868	5.1753	78.55987989	28.62914086	3.097225963	68.27363318
11	4.7564	6.6217	5.1423	5.0189	5.0077	79.31163888	31.97719616	2.902306297	65.12049754
12	5.4939	6.9665	5.7554	5.6504	5.642	82.24229254	40.15296367	3.212237094	56.63479924
13	4.8949	6.5217	5.1893	5.0718	5.0614	81.90312269	39.91168478	3.532608696	56.55570652
14	5.1599	6.9774	5.4874	5.3648	5.3532	81.98074278	37.4351145	3.541984733	59.02290076
15	4.7812	6.1669	5.038	4.9397	4.9292	81.46785018	38.2788162	4.088785047	57.63239875
16	4.6859	6.1438	4.9365	4.8283	4.8184	82.81089238	43.1763767	3.950518755	52.87310455
17	4.4607	6.0843	4.8396	4.7066	4.6921	76.66297118	35.10160992	3.826867247	61.07152283
18	4.9606	6.7679	5.4287	5.3144	5.2984	74.09948542	24.41785943	3.418073061	72.16406751
19	4.7688	6.7399	5.2787	5.152	5.1337	74.13119578	24.84800941	3.588939008	71.56305158
20	4.428	6.5039	4.8992	4.7656	4.7481	77.30141144	28.35314092	3.713921902	67.93293718
21	5.0369	6.766	5.4025	5.2946	5.2828	78.85605228	29.5131291	3.227571116	67.25929978
22	4.6715	6.2663	5.0352	4.9329	4.9215	77.19463256	28.12757767	3.134451471	68.73797086
23	4.5115	6.275	4.9249	4.8142	4.7988	76.55798129	26.77793904	3.725205612	69.49685535
24	4.3425	6.0344	4.7553	4.6462	4.631	75.60139488	26.42926357	3.682170543	69.88856589
25	4.6888	6.0431	5.0388	4.9508	4.9371	74.15639076	25.14285714	3.914285714	70.94285714
26	4.7472	6.3148	5.2301	5.1319	5.1154	69.19494769	20.33547318	3.416856492	76.24767033
27	4.8314	6.2223	5.2449	5.1461	5.1345	70.27104752	23.89359129	2.805320435	73.30108827
28	5.0206	6.3239	5.4399	5.3543	5.3423	67.82782168	20.41497734	2.861912712	76.72310995
29	4.5779	6.4217	5.1791	5.0446	5.0256	67.39342662	22.37192282	3.160345975	74.4677312
30	4.899	6.4287	5.4113	5.3075	5.2891	66.50977316	20.26156549	3.59164552	76.14678899
31	4.8181	6.4333	5.3306	5.2224	5.2073	68.27018326	21.11219512	2.946341463	75.94146341
32	5.0214	6.7841	5.7971	5.6947	5.6824	55.99364611	13.20097976	1.585664561	85.21335568
33	4.5652	6.2378	5.5794	5.5158	5.5049	39.36386464	6.270952475	1.07473871	92.65430881
34	5.1334	6.7198	6.0089	5.941	5.9337	44.8121533	7.755568247	0.833809252	91.4106225
35	4.784	6.3034	5.5122	5.4315	5.4226	52.07318678	11.0821203	1.222191706	87.695688
36	4.4635	6.5616	5.5727	5.4507	5.4356	47.13312044	10.99891814	1.361341507	87.63974035
37	4.9988	6.8682	5.978	5.8725	5.8535	47.61955708	10.77410131	1.940359477	87.28553922
38	4.9881	6.7521	6.0457	5.9594	5.9441	40.04535147	8.159984871	1.44667171	90.39334342
39	5.3233	7.4194	6.6936	6.6047	6.5873	34.62621058	6.487630446	1.269794935	92.24257462
40	4.5412	7.1316	6.1644	6.0529	6.033	37.33786288	6.869147363	1.225973386	91.90487925
41	4.613	6.5235	5.8149	5.7309	5.7147	37.08976708	6.988934188	1.347865879	91.66319993
42	5.1115	7.6667	6.7169	6.6082	6.5869	37.17125861	6.770898219	1.326772144	91.90232964
43	4.4244	6.2823	5.5028	5.411	5.3932	41.9559718	8.512611276	1.650593472	89.83679525
44	5.2486	7.4591	6.4444	6.3361	6.3196	45.90364171	9.056698445	1.379829403	89.56347215
45	5.0981	7.7881	6.6683	6.5493	6.5316	41.62825279	7.578652401	1.127244937	91.29410266
46	4.8307	6.599	5.8731	5.7944	5.7835	41.05072669	7.549884881	1.045663853	91.40445127
47	4.8228	7.4345	6.5525	6.4597	6.4455	33.77110694	5.365092213	0.82095161	93.81395618

48	4.911	7.6151	6.7593	6.6628	6.645	31.64823786	5.221013905	0.963047124	93.81593897
49	4.542	6.8001	6.012	5.9198	5.9014	34.90102298	6.272108844	1.25170068	92.47619048
50	5.047	8.1895	7.2323	7.1237	7.1015	30.45982498	4.969569396	1.015878827	94.01455178
51	5.0097	7.4415	6.7547	6.6767	6.6611	28.24245415	4.46991404	0.893982808	94.63610315
52	5.131	7.13	6.5806	6.5184	6.5056	27.48374187	4.290838852	0.883002208	94.82615894
53	4.7328	7.4628	6.7733	6.6999	6.6847	25.25641026	3.597157559	0.744915462	95.65792698
54	4.9995	7.6013	6.8987	6.8202	6.8059	27.00438158	4.133319292	0.75294861	95.1137321
55	4.4003	6.7535	6.1542	6.0883	6.077	25.46744858	3.757340783	0.644278465	95.59838075
56	4.8381	7.5327	6.9315	6.8635	6.8495	22.31128925	3.248304194	0.668768511	96.0829273
57	4.4455	8.5244	7.4892	7.3772	7.3514	25.3793915	3.679731905	0.847652528	95.47261557
58	5.1512	7.445	6.5915	6.4936	6.4698	37.20899817	6.797195029	1.652433521	91.55037145
59	4.7836	7.3735	6.4332	6.3241	6.3	36.3064211	6.613724539	1.460960233	91.92531523
60	4.767	7.0097	6.1909	6.0969	6.0757	36.50956436	6.60158719	1.4888686	91.90954421
61	4.6922	7.8408	6.7347	6.6082	6.5814	35.129899	6.193390453	1.312117503	92.49449204
62	4.5126	7.5647	6.5071	6.3968	6.373	34.65155139	5.530208072	1.193281524	93.2765104
63	5.2583	7.4348	6.6943	6.6146	6.5971	34.02251321	5.550139276	1.218662953	93.23119777
64	4.867	7.8405	6.9129	6.8187	6.7982	31.19556079	4.604330612	1.002004008	94.39366538
65	5.1365	7.7477	6.9756	6.8955	6.8793	29.56878064	4.355391224	0.880865641	94.76374314
66	4.8211	7.1887	6.4234	6.3427	6.3266	32.32387228	5.036510017	1.004805592	93.95868439
67	4.3482	7.1258	6.3107	6.2294	6.2135	29.34547811	4.142675159	0.810191083	95.04713376
68	4.8943	7.4983	6.749	6.6771	6.6624	28.7749616	3.876637731	0.79258101	95.33078126
69	4.8729	7.3346	6.627	6.5534	6.5371	28.74436365	4.195883929	0.929251468	94.8748646
70	5.1411	7.7047	7.0372	6.9816	6.9701	26.03760337	2.932334792	0.606508096	96.46115711
71	4.8186	7.6092	7.0229	6.9682	6.9541	21.00981868	2.481513406	0.639658849	96.87882775
72	4.3494	7.4096	6.7603	6.6931	6.6754	21.21756748	2.787340827	0.734165664	96.47849351
73	4.686	7.544	6.8931	6.8225	6.8044	22.7746676	3.198767614	0.820080649	95.98115174
74	5.1013	7.7886	7.0577	6.9786	6.9604	27.19830313	4.043140462	0.930280106	95.02657943
75	4.3648	6.7952	6.1292	6.0502	6.0325	27.40289664	4.477442757	1.003173883	94.51938336
76	4.9715	7.8505	7.017	6.9228	6.902	28.95102466	4.605230995	1.016866292	94.37790271
77	5.0394	7.9202	7.2691	7.198	7.1812	22.60136073	3.18876979	0.753464592	96.05776562
78	5.1233	7.6009	6.7024	6.6202	6.6069	36.26493381	5.205496802	0.842251916	93.95225128
79	4.8139	8.0475	7.2732	7.1956	7.1789	23.9454478	3.155369414	0.679055016	96.16557557
80	4.9449	7.7716	7.1455	7.0697	7.0008	22.14950295	3.444515132	3.130964282	93.42452059
81	4.5498	8.2404	7.4625	7.3691	7.3437	21.07787352	3.206646754	0.872043122	95.92131012
82	4.5904	7.7317	7.1926	7.1394	7.1246	17.16168465	2.044423949	0.56874952	97.38682653
83	4.0473	7.0269	6.5201	6.4723	6.4607	17.0089945	1.933031381	0.46910385	97.59786477
84	4.9466	8.1767	7.5403	7.471	7.4517	19.7021764	2.671858735	0.74411073	96.58403054
85	5.1974	8.2942	7.6446	7.5753	7.5543	20.97649186	2.83180778	0.85812357	96.31006865
86	5.5475	8.7641	8.1801	8.1227	8.1053	18.1558167	2.180354023	0.660943554	97.15870242
87	4.2982	7.4644	6.9367	6.8858	6.8691	16.66666667	1.929126398	0.63293538	97.43793822
88	4.9125	7.6924	7.1929	7.1436	7.1273	17.96827224	2.161901421	0.714786879	97.1233117
89	4.9346	8.3343	7.6769	7.6142	7.5956	19.33700032	2.286401925	0.678262772	97.0353353
90	5.029	7.4815	6.9167	6.8528	6.8339	23.02956167	3.38507178	1.001218414	95.61370981
91	4.9481	7.3085	6.847	6.8017	6.7834	19.55177089	2.385591658	0.963715835	96.65069251
92	4.3565	6.6846	5.9585	5.8828	5.8603	31.18852283	4.725343321	1.404494382	93.8701623
93	4.9336	7.5231	6.9115	6.8485	6.8336	23.61845916	3.18519642	0.753324233	96.06147935
94	4.5113	7.5056	6.9897	6.9413	6.9247	17.22940253	1.952872821	0.669786959	97.37734022
95	4.8283	7.8607	7.3955	7.3579	7.3432	15.34098404	1.464630726	0.572608289	97.96276098
96	4.8909	8.0508	7.4962	7.3953	7.3711	17.55118833	3.872874525	0.928875753	95.19824972

97	5.1234	8.3027	7.7788	7.7345	7.717	16.4784701	1.668298561	0.65903442	97.67266702
98	4.9114	9.6265	8.8929	8.8306	8.8086	15.55852474	1.564736908	0.55255557	97.88270752
99	4.8739	9.4484	8.7564	8.6986	8.6778	15.12733632	1.488731487	0.535737283	97.97553123

WB 24A

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	%Carbonate	Residual
1	4.9783	5.805	5.2191	5.159	5.153	70.87214225	24.95847176	2.491694352	72.54983389
2	4.6892	5.5809	4.9624	4.9035	4.8969	69.36189301	21.55929722	2.415812592	76.02489019
3	4.9231	5.9732	5.2408	5.1645	5.157	69.7457385	24.01636764	2.360717658	73.6229147
4	4.4727	5.3954	4.7519	4.6896	4.6829	69.74097757	22.31375358	2.399713467	75.28653295
5	4.6542	5.9568	5.1013	5.0184	5.0067	65.67633963	18.54171326	2.616864236	78.8414225
6	4.5204	5.5844	4.8602	4.7917	4.7796	68.06390977	20.15891701	3.560918187	76.2801648
7	4.8094	5.5322	5.0431	4.992	4.9839	67.66740454	21.86563971	3.465982028	74.66837826
8	4.6234	5.9463	5.0633	4.9834	4.9684	66.7472976	18.16321891	3.409865879	78.42691521
9	4.9816	6.2103	5.4033	5.324	5.3092	65.67917311	18.80483756	3.509603984	77.68555845
10	4.9405	6.3817	5.5095	5.4303	5.4138	60.51901193	13.91915641	2.899824253	83.18101933
11	4.9672	6.3361	5.4383	5.3659	5.355	65.58550661	15.36828699	2.313733814	82.3179792
12	5.5123	6.5951	5.9158	5.8561	5.847	62.73550055	14.79553903	2.255266419	82.94919455
13	5.4168	6.9054	5.8721	5.7844	5.7705	69.4142147	19.26202504	3.052932133	77.68504283
14	5.1894	7.5121	5.9614	5.8073	5.7858	66.76281913	19.9611399	2.784974093	77.25388601
15	4.5892	5.8881	5.1029	5.0265	5.0135	60.45115097	14.87249367	2.530659918	82.59684641
16	4.7094	7.0541	5.5458	5.3856	5.366	64.32805903	19.15351506	2.343376375	78.50310856
17	4.4881	5.9937	5.0585	4.936	4.9231	62.11477152	21.47615708	2.261570827	76.26227209
18	4.7813	6.0803	5.1805	5.0669	5.0563	69.26866821	28.45691383	2.655310621	68.88777555
19	4.7928	6.8977	5.4871	5.3561	5.3308	67.0150601	18.86792453	3.643957943	77.48811753
20	4.4506	6.0906	4.9731	4.8696	4.8497	68.1402439	19.80861244	3.80861244	76.38277512
21	5.0581	6.5638	5.5783	5.4928	5.4749	65.45128512	16.43598616	3.440984237	80.1230296
22	4.6906	6.1367	5.1717	5.0773	5.0551	66.73120808	19.62170027	4.614425275	75.76387445
23	5.6172	6.8277	6.0431	5.9626	5.9472	64.81619166	18.9011505	3.61587227	77.48297722
24	4.5301	6.3783	5.1093	4.9923	4.9697	68.66140028	20.20027624	3.901933702	75.89779006
25	4.9281	6.5042	5.3207	5.226	5.2072	75.09041304	24.121243	4.788588895	71.09016811
26	5.0694	6.1779	5.4033	5.3323	5.3191	69.8782138	21.26385145	3.953279425	74.78286912
27	4.8794	6.513	5.2939	5.1798	5.1633	74.62659158	27.52714113	3.980699638	68.49215923
28	4.3493	6.2061	4.9201	4.8133	4.7936	69.25894011	18.71058164	3.451296426	77.83812193
29	5.0899	6.4161	5.3941	5.2999	5.2883	77.06228322	30.96646943	3.813280736	65.22024984
30	4.794	5.9885	5.0752	4.9943	4.9844	76.45876936	28.76955903	3.520625889	67.70981508
31	4.7938	6.057	5.0811	5.002	4.9915	77.25617479	27.53219631	3.654716324	68.81308737
32	4.579	6.1476	4.8075	4.7256	4.7055	85.43287008	35.84245077	8.796498906	55.36105033
33	4.335	5.132	4.4995	4.4478	4.437	79.36010038	31.42857143	6.565349544	62.00607903
34	4.5949	6.4604	5.0336	4.9199	4.9024	76.48351648	25.91748347	3.989058582	70.09345794
35	4.9714	7.9017	5.7406	5.5608	5.5342	73.75012797	23.374935	3.458138326	73.16692668
36	4.608	6.0896	4.9523	4.8631	4.8493	76.76160907	25.90763869	4.008132443	70.08422887
37	4.6964	6.7609	5.2177	5.0881	5.0699	74.74933398	24.86092461	3.49127182	71.64780357
38	4.5394	6.8906	5.1748	4.9839	4.9601	72.97550187	30.04406673	3.745672018	66.21026125
39	4.3766	6.3408	4.9023	4.773	4.7562	73.23592302	24.59577706	3.195739015	72.20848393
40	5.0662	7.534	5.6713	5.4961	5.4749	75.48018478	28.95389192	3.503553132	67.54255495
41	4.4369	6.1248	4.842	4.7175	4.7029	75.99976302	30.73315231	3.604048383	65.66279931
42	4.4855	6.2048	4.9821	4.8733	4.8482	71.11615192	21.90898107	5.054369714	73.03664921

43	4.5733	6.6857	5.1664	5.0281	5.011	71.92293126	23.31815883	2.883156297	73.79868488
44	4.5205	5.858	4.8945	4.808	4.7952	72.03738318	23.12834225	3.422459893	73.44919786
45	5.1172	9.5179	6.1787	5.8767	5.8412	75.87883746	28.45030617	3.34432407	68.20536976
46	4.6517	6.1523	5.0417	4.9424	4.9291	74.01039584	25.46153846	3.41025641	71.12820513
47	4.5352	7.022	5.2212	5.0535	5.0328	72.41434776	24.44606414	3.017492711	72.53644315
48	4.3725	6.5892	4.9953	4.8382	4.8203	71.90418189	25.22479127	2.874116891	71.90109184
49	4.4994	6.0884	4.9088	4.8015	4.7885	74.23536816	26.20908647	3.175378603	70.61553493
50	5.0377	6.3302	5.4785	5.4012	5.3906	65.89555126	17.53629764	2.404718693	80.05898367
51	4.2768	6.167	4.9439	4.8183	4.8038	64.70743837	18.82776195	2.173587168	78.99865088
52	4.2577	5.7313	4.6688	4.5716	4.561	72.10233442	23.64388227	2.578448066	73.77766967
53	4.6025	6.3197	5.2544	5.154	5.1389	62.03703704	15.40113514	2.316306182	82.28255867
54	5.277	7.1101	6.0324	5.9358	5.921	58.79111887	12.78792693	1.9592269	85.25284617
55	4.2763	6.6548	5.3669	5.2418	5.2209	54.147572	11.47075005	1.916376307	86.61287365
56	4.4392	6.6333	5.4012	5.2919	5.2767	56.15514334	11.36174636	1.58004158	87.05821206
57	4.4786	5.9235	5.0658	4.9921	4.9819	59.36050938	12.55108992	1.737057221	85.71185286
58	4.6534	6.9559	5.449	5.3172	5.2988	65.44625407	16.56611362	2.31271996	81.12116642
59	4.5847	6.6681	5.3377	5.2291	5.2128	63.85715657	14.42231076	2.164674635	83.41301461
60	4.6956	6.2795	5.2907	5.2129	5.2003	62.4281836	13.07343304	2.117291212	84.80927575
61	4.8792	6.5242	5.528	5.4442	5.4314	60.55927052	12.9161529	1.972872996	85.11097411
62	4.6399	6.7957	5.5197	5.4114	5.3951	59.18916412	12.30961582	1.852693794	85.83769038
63	4.8415	6.0242	5.3884	5.336	5.3281	53.75834954	9.581276285	1.444505394	88.97421832
64	4.9305	7.1283	5.9024	5.7185	5.7062	55.77850578	18.92169976	1.265562301	79.81273794
65	4.7777	6.3477	5.4596	5.3617	5.3531	56.56687898	14.35694383	1.261181991	84.38187418
66	5.4675	7.0075	6.1132	6.0198	6.0073	58.07142857	14.46492179	1.935883537	83.59919467
67	5.0995	7.2261	6.0063	5.8836	5.8669	57.35916486	13.53109837	1.841640935	84.6272607
68	5.1537	6.4649	5.707	5.6343	5.6227	57.80201342	13.13934574	2.096511838	84.76414242
69	5.2153	6.4969	5.7647	5.6944	5.6825	57.13171036	12.79577721	2.165999272	85.03822352
70	5.1799	6.9893	5.9758	5.8781	5.8631	56.013043	12.27541148	1.884658877	85.83992964
71	4.8198	6.2804	5.4828	5.4034	5.3911	54.60769547	11.97586727	1.85520362	86.16892911
72	5.0361	6.3968	5.606	5.5285	5.5153	58.11714559	13.598877	2.316195824	84.08492718
73	4.7287	6.4871	5.5161	5.4238	5.4039	55.22065514	11.72212344	2.527305055	85.7505715
74	4.8441	6.6329	5.5684	5.4675	5.4494	59.50916816	13.9306917	2.498964517	83.57034378
75	4.7898	7.0338	5.8305	5.7174	5.6951	53.62299465	10.86768521	2.142788508	86.98952628
76	4.6092	6.5546	5.5792	5.4909	5.4719	50.13878894	9.103092784	1.958762887	88.93814433
77	4.3818	5.9566	5.1715	5.0967	5.0806	49.85394971	9.471951374	2.038748892	88.48929973
78	4.6144	6.5121	5.5716	5.4261	5.4079	49.55999368	15.20058504	1.901379022	82.89803594
79	5.3293	6.694	6.0363	5.9734	5.9586	48.19374221	8.896746818	2.093352192	89.00990099
80	5.0177	7.3367	6.2339	6.1283	6.1063	47.5549806	8.682782437	1.808913008	89.50830456
81	5.0768	6.8827	6.0767	6.0036	5.9874	44.63148569	7.310731073	1.620162016	91.06910691
82	5.3298	8.0205	6.8459	6.7336	6.7104	43.65406771	7.407163116	1.530242068	91.06259482
83	4.8291	6.2136	5.5305	5.4552	5.4394	49.33911159	10.73567151	2.252637582	87.0116909
84	4.8947	6.6723	5.7887	5.694	5.6725	49.70747075	10.59284116	2.4049217	87.00223714
85	4.6429	6.0378	5.3576	5.2786	5.2597	48.76335221	11.05358892	2.64446621	86.30194487
86	5.4859	7.5786	6.4952	6.3688	6.3428	51.7704401	12.52353116	2.576042802	84.90042604
87	4.7618	6.9426	5.8361	5.7131	5.6869	50.73826119	11.44931583	2.438797356	86.11188681
88	4.5233	5.8889	5.2092	5.1333	5.1165	49.77299356	11.06575303	2.449336638	86.48491034
89	5.1191	6.7562	5.9121	5.8221	5.8036	51.56068658	11.34930643	2.332912989	86.31778058
90	5.2148	7.3876	6.579	6.5066	6.4882	37.2146539	5.307139716	1.348775839	93.34408445

91	4.6201	6.8307	5.9766	5.8885	5.8679	38.63656926	6.494655363	1.51861408	91.98673056
92	5.0361	6.9808	6.1847	6.0977	6.0759	40.93690544	7.574438447	1.897962737	90.52759882
93	4.9736	6.5478	5.873	5.7965	5.7788	42.86621776	8.505670447	1.967978652	89.5263509
94	4.6166	5.7723	5.2947	5.2402	5.2275	41.32560353	8.03716266	1.872880106	90.08995723
95	4.4059	5.9859	5.3588	5.2886	5.2699	39.68987342	7.366984993	1.962430475	90.67058453
96	4.4431	6.0627	5.5	5.439	5.4218	34.74314646	5.771596178	1.627400889	92.60100293
97	4.7252	6.8416	5.9079	5.8225	5.7991	44.11736912	7.220766044	1.978523717	90.80071024

WB 25

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	% Carbonate	Residual
1	4.9833	7.3033	5.8024	5.6285	5.6129	64.69396552	21.23061897	1.904529361	76.86485167
2	4.6981	5.4138	4.977	4.9248	4.9184	61.03115831	18.7163858	2.294729294	78.9888849
3	4.9306	5.7513	5.2497	5.1935	5.1865	61.11855733	17.61203385	2.193669696	80.19429646
4	4.4943	5.4497	4.8716	4.809	4.8007	60.50868746	16.59157169	2.199840975	81.20858733
5	4.6648	6.1766	5.2579	5.1609	5.1487	60.76862019	16.35474625	2.056988703	81.58826505
6	4.5229	6.9698	5.4516	5.3052	5.2856	62.04585394	15.76397114	2.110477011	82.12555185
7	4.81	5.6594	5.1343	5.083	5.0751	61.82010831	15.8186864	2.436016035	81.74529756
8	4.6338	8.4388	5.9676	5.7402	5.7129	64.94612352	17.04903284	2.046783626	80.90418354
9	5.0004	6.6321	5.3673	5.225	5.215	77.51424894	38.78440992	2.725538294	58.49005179
10	4.9559	6.0607	5.1263	5.0441	5.0391	84.57639392	48.23943662	2.9342723	48.82629108
11	4.9879	6.8237	5.5179	5.3823	5.3684	71.1297527	25.58490566	2.622641509	71.79245283
12	5.527	6.7128	5.8576	5.7729	5.763	72.1200877	25.62008469	2.994555354	71.38535995
13	5.4328	6.8745	6.0222	5.9229	5.9084	59.11770826	16.84764167	2.460128945	80.69222939
14	5.2226	6.2569	5.6495	5.5766	5.5648	58.72570821	17.07659874	2.764113375	80.15928789
15	4.6027	5.4633	4.9349	4.8746	4.8661	61.39902394	18.15171583	2.558699579	79.28958459
16	4.735	6.7174	5.4531	5.3186	5.3007	63.77623083	18.7299819	2.492689041	78.77732906
17	4.508	5.7652	4.9288	4.841	4.8288	66.52879415	20.86501901	2.899239544	76.23574144
18	4.7958	5.9765	5.1593	5.0734	5.0619	69.21317862	23.63136176	3.163686382	73.20495186
19	4.8043	6.53	5.3404	5.213	5.1976	68.93434548	23.76422309	2.872598396	73.36317851
20	4.4643	6.4905	5.0818	4.9449	4.9273	69.52423255	22.17004049	2.850202429	74.97975709
21	5.0668	7.0623	5.6915	5.5566	5.5381	68.69456277	21.5943653	2.961421482	75.44421322
22	4.6979	5.5467	4.959	4.9018	4.8922	69.23892554	21.9073152	3.676752202	74.41593259
23	5.6246	7.0837	6.0429	5.9378	5.9251	71.33164279	25.12550801	3.036098494	71.8383935
24	4.5344	6.5758	5.0866	4.95	4.9313	72.94993632	24.73741398	3.386454183	71.87613184
25	4.9349	6.9467	5.5806	5.4433	5.4258	67.90436425	21.26374477	2.710236952	76.02601827
26	5.0789	6.0055	5.3769	5.3143	5.3057	67.83941291	21.00671141	2.88590604	76.10738255
27	4.8948	6.1442	5.3088	5.2198	5.2079	66.86409477	21.49758454	2.874396135	75.62801932
28	4.3643	5.6977	4.7957	4.7073	4.6964	67.64661767	20.49142327	2.526657395	76.98191933
29	5.0992	6.8811	5.709	5.5862	5.5714	65.77810203	20.13775008	2.427025254	77.43522466
30	4.8035	6.565	5.4225	5.3007	5.2861	64.85949475	19.67689822	2.358642973	77.9644588
31	4.8102	5.5744	5.0833	5.0267	5.0203	64.26328186	20.72500915	2.343463933	76.93152691
32	4.5947	6.291	5.167	5.0335	5.0203	66.26186406	23.32692644	2.306482614	74.36659095
33	4.3419	5.7104	4.7759	4.6653	4.6537	68.28644501	25.48387097	2.67281106	71.84331797
34	4.603	5.8711	5.0325	4.933	4.9226	66.13043135	23.16647264	2.421420256	74.4121071
35	4.9912	5.9947	5.3763	5.3026	5.2944	61.6243149	19.13788626	2.129317061	78.73279668
36	4.6173	6.5999	5.4546	5.3347	5.3216	57.76757793	14.31983757	1.564552729	84.1156097
37	4.7025	6.5682	5.4241	5.3011	5.2886	61.32282789	17.04545455	1.732261641	81.22228381
38	4.5447	6.6972	5.3949	5.2478	5.2336	60.50174216	17.30181134	1.670195248	81.02799341
39	4.3849	5.5466	4.8446	4.7716	4.7642	60.4286821	15.87992169	1.609745486	82.51033283
40	5.078	8.3337	6.2744	6.0627	6.0447	63.2521424	17.69475092	1.504513541	80.80073554
41	4.4449	5.6132	4.8558	4.7775	4.7696	64.82923907	19.05573132	1.922608907	79.02165977

42	4.4939	6.1648	5.06	4.9497	4.939	66.12005506	19.48419007	1.89012542	78.62568451
43	4.5996	6.5912	5.2042	5.0415	5.0291	69.64249849	26.91035395	2.050942772	71.03870327
44	4.5338	5.7694	4.8776	4.7843	4.7768	72.17546131	27.13787086	2.181500873	70.68062827
45	5.1288	8.0284	6.026	5.8123	5.7949	69.05780108	23.81854659	1.939366919	74.24208649
46	4.6605	6.8151	5.2195	5.0486	5.0352	74.05550914	30.57245081	2.397137746	67.03041145
47	4.548	6.2877	5.241	5.1361	5.1235	60.16554578	15.13708514	1.818181818	83.04473304
48	4.3821	5.2999	4.7839	4.736	4.7286	56.221399	11.92135391	1.841712295	86.2369338
49	4.5086	6.2469	5.0957	4.9836	4.9757	66.22562273	19.09385113	1.345597002	79.56055187
50	5.0405	6.5059	5.6417	5.5688	5.5628	58.97365907	12.1257485	0.998003992	86.8762475
51	4.2923	5.235	4.5949	4.5384	4.5348	67.90071072	18.67151355	1.189689359	80.13879709
52	4.2773	5.9584	4.8203	4.7235	4.7171	67.69972042	17.82688766	1.178637201	80.99447514
53	4.612	5.588	4.8869	4.8217	4.8165	71.83401639	23.71771553	1.891596944	74.39068752
54	5.2996	6.5337	5.7779	5.716	5.7101	61.2430111	12.94166841	1.233535438	85.82479615
55	4.273	6.2791	5.1988	5.1295	5.1225	53.8507552	7.485418017	0.75610283	91.75847915
56	4.4646	5.5274	4.9448	4.9041	4.8989	54.8174633	8.475635152	1.082882132	90.44148272
57	4.4928	6.4303	5.3838	5.3121	5.3043	54.01290323	8.047138047	0.875420875	91.07744108
58	4.6693	5.6273	5.1456	5.1101	5.105	50.28183716	7.453285744	1.070753727	91.47596053
59	4.6114	6.7977	5.7114	5.6397	5.6291	49.68668527	6.518181818	0.963636364	92.51818182
60	4.7144	5.8261	5.1898	5.1437	5.1383	57.23666457	9.697097181	1.13588557	89.16701725
61	4.8708	6.0933	5.485	5.4494	5.4459	49.75869121	5.796157603	0.569846955	93.63399544
62	4.6549	7.0026	5.7748	5.6943	5.6843	52.29799378	7.188141798	0.892936869	91.91892133
63	4.862	5.8861	5.2518	5.2127	5.2081	61.93731081	10.03078502	1.180092355	88.78912263
64	4.9516	5.9346	5.3207	5.2783	5.2729	62.45167854	11.48740179	1.463018152	87.04958006
65	4.7714	5.9908	5.2762	5.2273	5.222	58.60259144	9.687004754	1.049920761	89.26307448
66	5.4638	7.527	6.2458	6.1663	6.1575	62.09771229	10.16624041	1.125319693	88.7084399
67	5.119	7.5049	6.1805	6.093	6.0853	55.50945136	8.243052285	0.725388601	91.03155911
68	5.1679	6.7711	5.9565	5.903	5.898	50.81087824	6.784174486	0.634034999	92.58179051
69	5.2223	6.1714	5.5877	5.5445	5.5408	61.50036877	11.8226601	1.012588944	87.16475096
70	5.1743	7.6608	6.0854	5.9738	5.963	63.35813392	12.24892986	1.18538031	86.56568983
71	4.8408	5.8164	5.2211	5.1787	5.1738	61.01886019	11.14909282	1.288456482	87.5624507
72	5.0499	6.291	5.5445	5.4915	5.4819	60.14825558	10.71572988	1.940962394	87.34330772
73	4.726	6.4492	5.3323	5.2584	5.2484	64.81545961	12.18868547	1.649348507	86.16196602
74	4.843	5.602	5.0525	5.0102	5.0042	72.39789196	20.19093079	2.863961814	76.9451074
75	4.7998	5.5419	4.9693	4.925	4.9214	77.15941248	26.13569322	2.123893805	71.74041298
76	4.6097	5.4834	4.8376	4.7878	4.7822	73.91553165	21.85168934	2.457218078	75.69109258
77	4.3973	6.1411	4.8548	4.7619	4.7497	73.76419314	20.30601093	2.666666667	77.0273224
78	4.642	5.3895	4.8299	4.7925	4.7875	74.86287625	19.90420436	2.660989888	77.43480575
79	5.3357	6.7055	5.694	5.6116	5.6011	73.84289677	22.99748814	2.930505163	74.0720067
80	5.0309	5.9874	5.3117	5.2595	5.2519	70.64296916	18.58974359	2.706552707	78.7037037
81	5.0872	6.993	5.7056	5.61	5.5927	67.55168433	15.45924968	2.797542044	81.74320828
82	5.347	7.1631	5.8659	5.7686	5.7537	71.42778481	18.75120447	2.871458855	78.37733667
83	4.8346	6.3565	5.3345	5.2522	5.2369	67.15290098	16.46329266	3.060612122	80.47609522
84	4.9056	5.6005	5.033	4.9778	4.9723	81.66642682	43.32810047	4.31711146	52.35478807
85	4.647	5.4579	4.9017	4.8277	4.8189	68.59045505	29.05378877	3.455045151	67.49116608
86	5.4934	7.462	6.133	6.0094	5.9891	67.50990552	19.32457786	3.173858662	77.50156348
87	4.7723	6.1325	5.22	5.1295	5.1141	67.08572269	20.21442931	3.43980344	76.34576725
88	4.5295	6.3089	5.2236	5.1163	5.0952	60.99246937	15.4588676	3.039907794	81.50122461
89	5.132	6.6735	5.699	5.6086	5.591	63.21764515	15.94356261	3.104056437	80.95238095
90	5.219	6.6942	5.7375	5.6503	5.6337	64.85222343	16.81774349	3.201542912	79.9807136
91	4.6363	6.4799	5.385	5.2643	5.2412	59.38923845	16.12127688	3.085347936	80.79337518

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	%Carbonate	Residual
1	4.7119	7.8751	6.7762	6.6277	6.6261	34.74013657	7.193721843	0.077508114	92.72877004
2	5.227	8.0651	6.6582	6.4268	6.4248	49.57189669	16.16825042	0.139742873	83.69200671
3	4.8846	8.1191	6.2053	5.8365	5.8329	59.16834132	27.92458545	0.272582721	71.80283183
4	4.4646	7.3558	5.8844	5.6364	5.6339	50.89236303	17.46724891	0.176081138	82.35666995
5	4.6562	7.5441	6.027	5.7791	5.777	52.53298244	18.08433032	0.153195214	81.76247447
6	4.5144	7.4197	6.326	6.1625	6.1589	37.64499363	9.025171119	0.198719364	90.77610952
7	4.7993	9.0904	7.4244	7.1629	7.1578	38.82454382	9.961525275	0.194278313	89.84419641
8	4.6351	8.0437	6.4189	6.1557	6.1521	47.66766414	14.75501738	0.201816347	85.04316627
9	4.9724	9.8305	8.2216	7.9745	7.9688	33.11788559	7.604948911	0.175427798	92.21962329
10	4.8265	8.4086	7.6308	7.5319	7.5281	21.71352	3.526726812	0.135506187	96.337767
11	4.9711	9.5656	8.6159	8.4993	8.4933	20.67036674	3.199078139	0.164618086	96.63630378
12	4.8646	9.8496	8.9072	8.8026	8.7952	18.90471414	2.587443724	0.183050512	97.22950576
13	4.3406	7.826	7.2058	7.143	7.1378	17.79422735	2.19181907	0.181488203	97.62669273
14	4.385	8.6401	7.9256	7.8502	7.8445	16.79161477	2.129582557	0.160989663	97.70942778
15	5.0067	8.8234	8.2033	8.1337	8.1264	16.24701968	2.177313395	0.228367641	97.59431896
16	4.7243	9.4551	8.6501	8.5563	8.5484	17.01614949	2.389321922	0.20123287	97.40944521
17	5.1119	9.4948	8.736	8.6522	8.6451	17.31273814	2.312298226	0.195910709	97.49179107
18	4.7684	9.3513	8.6032	8.5239	8.5177	16.32372515	2.067904454	0.161677271	97.77041827
19	4.622	9.1505	8.3718	8.2759	8.2694	17.19553936	2.557469732	0.173342578	97.26918769
20	4.4989	7.8443	7.2266	7.1556	7.131	18.46415974	2.602925542	0.901858709	96.49521575
21	4.713	8.5436	7.7981	7.7146	7.7072	19.46170313	2.706557324	0.239862565	97.05358011
22	4.9089	11.1701	10.1131	10.0073	9.9929	16.88174791	2.032973368	0.276699589	97.69032704
23	4.3492	8.1761	7.5797	7.5269	7.5181	15.58441558	1.634421916	0.272403653	98.09317443
24	4.8287	11.0263	10.1107	10.0388	10.0267	14.77346069	1.361226808	0.229079894	98.4096933
25	4.9124	9.9039	9.1491	9.0905	9.0812	15.1217069	1.383151981	0.219510468	98.39733755
26	4.6832	10.0627	9.2485	9.1865	9.1788	15.13523562	1.358070663	0.168663615	98.47326572
27	4.8908	10.3409	9.5097	9.4453	9.4365	15.25109631	1.394271363	0.190521553	98.41520708
28	4.3693	9.5348	8.7779	8.7159	8.7089	14.65298616	1.406342149	0.158780565	98.43487729
29	4.2094	10.8589	9.9181	9.8418	9.8313	14.14843221	1.336556484	0.183929791	98.47951372
30	4.354	10.4971	9.6374	9.5663	9.5572	13.99456301	1.345724344	0.172237574	98.48203808

WB 06-3

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	%Carbonate	Residual
1	4.9213	5.4033	5.0604	4.9665	4.9605	71.14107884	67.5053918	4.313443566	28.18116463
2	5.0642	5.5467	5.1774	5.0852	5.0788	76.5388601	81.44876325	5.653710247	12.8975265
3	4.9209	5.4665	5.0455	4.939	4.9337	77.1627566	85.47351525	4.253611557	10.27287319
4	4.3453	4.9622	4.4897	4.3665	4.3654	76.59264062	85.31855956	0.761772853	13.91966759
5	4.2181	5.4381	4.5847	4.3797	4.3782	69.95081967	55.91925805	0.409165303	43.67157665
6	4.3601	5.1653	4.8639	4.7965	4.7949	37.43169399	13.37832473	0.317586344	86.30408892
7	4.802	5.8747	5.3717	5.26	5.2573	46.89102265	19.6068106	0.473933649	79.91925575
8	4.5661	5.6422	5.2072	5.1029	5.101	40.42375244	16.26891281	0.296365622	83.43472157
9	4.4464	6.3294	5.5753	5.4164	5.4134	40.04779607	14.07564886	0.265745416	85.65860572
10	4.5867	6.6307	5.8621	5.7081	5.7048	37.60273973	12.07464325	0.258742355	87.6666144
11	4.5759	5.8324	5.2914	5.1816	5.1792	43.05610824	15.34591195	0.335429769	84.31865828

12	4.874	6.4524	5.8755	5.7686	5.7598	36.54967055	10.67398902	0.878681977	88.44732901
13	4.6525	6.428	5.8314	5.7201	5.7157	33.60180231	9.441004326	0.373229282	90.18576639
14	4.5218	5.8465	5.4817	5.3994	5.396	27.53831056	8.573809772	0.354203563	91.07198667
15	4.3667	5.616	5.3184	5.2655	5.262	23.82133995	5.558474309	0.367762951	94.07376274
16	5.0515	6.9962	6.5491	6.475	6.4628	22.99069265	4.947916667	0.814636752	94.23744658
17	4.4136	5.8406	5.5604	5.5115	5.5096	19.63559916	4.264039065	0.165678409	95.57028253
18	4.4638	5.8853	5.5658	5.5073	5.5051	22.47625747	5.308529946	0.199637024	94.49183303
19	4.5565	6.4827	6.0917	6.0335	6.0305	20.29903437	3.791036998	0.195414278	96.01354872
20	4.5109	5.8306	5.5102	5.4527	5.4498	24.27824506	5.754027819	0.290203142	93.95576904
21	5.4222	6.9247	6.528	6.4656	6.4594	26.40266223	5.642973413	0.560680051	93.79634654
22	4.6375	6.6313	6.1518	6.0663	6.0624	24.04955362	5.646173149	0.25754474	94.09628211
23	4.5505	7.0554	6.4205	6.314	6.3089	25.34632121	5.695187166	0.272727273	94.03208556
24	4.5139	7.17	6.6529	6.5834	6.5801	19.46839351	3.249181861	0.1542777	96.59654044
25	5.0855	7.6223	7.0828	7.0189	7.0172	21.26695049	3.199319081	0.085114905	96.71556601
26	4.8311	8.5158	7.7649	7.6865	7.6793	20.37886395	2.672302134	0.245415502	97.08228236
27	4.7707	7.2326	6.7346	6.68	6.6758	20.22827897	2.78018229	0.213860176	97.00595753

WB 06-9A

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	% Carbonate	Residual
1	4.5685	5.4851	4.7007	4.5948	4.5896	85.57713288	80.10590015	3.933434191	15.96066566
2	4.8601	5.9077	5.0194	4.8937	4.888	84.79381443	78.90772128	3.578154426	17.51412429
3	4.6067	5.3107	4.7015	4.6305	4.6255	86.53409091	74.89451477	5.274261603	19.83122363
4	5.3271	6.6053	5.5038	5.3598	5.3534	86.17587232	81.49405772	3.621958121	14.88398415
5	5.0064	5.9405	5.1246	5.0316	5.0268	87.34610855	78.68020305	4.060913706	17.25888325
6	5.0652	6.4801	5.2459	5.1036	5.0974	87.22877942	78.74930825	3.431101273	17.81959048
7	5.3099	6.8995	5.5038	5.3662	5.3603	87.80196276	70.96441465	3.04280557	25.99277978
8	4.8342	6.322	5.0369	4.9102	4.9052	86.37585697	62.50616675	2.466699556	35.0271337
9	5.1568	6.3578	5.283	5.1973	5.1934	89.49208993	67.90808241	3.090332805	29.00158479
10	4.6334	5.9382	4.7945	4.6864	4.6806	87.6532802	67.10117939	3.600248293	29.29857232
11	5.2889	6.7382	5.4727	5.3507	5.345	87.31801559	66.37649619	3.101196953	30.52230686
12	4.7515	6.0221	4.93	4.8051	4.7998	85.95151897	69.9719888	2.969187675	27.05882353
13	4.5201	5.7803	4.7082	4.5689	4.5638	85.07379781	74.056353	2.711323764	23.23232323
14	5.1168	6.4108	5.3123	5.1997	5.194	84.89180835	57.59590793	2.915601023	39.48849105
15	4.7808	5.9715	4.9818	4.8669	4.8627	83.1191736	57.1641791	2.089552239	40.74626866
16	4.8092	5.6801	5.0036	4.9246	4.9215	77.67826386	40.63786008	1.594650206	57.76748971
17	5.0103	5.9759	5.2249	5.1298	5.126	77.77547639	44.31500466	1.770736253	53.91425909
18	4.9613	6.4564	5.2498	5.1026	5.0979	80.70363186	51.02253033	1.629116118	47.34835355
19	4.5803	5.9698	4.8403	4.6958	4.6904	81.28823318	55.57692308	2.076923077	42.34615385
20	4.4053	5.2957	4.5599	4.4722	4.4687	82.63701707	56.72703752	2.263906856	41.00905563
21	4.4169	5.5514	4.5995	4.4891	4.4856	83.90480388	60.46002191	1.916757941	37.62322015
22	4.4711	5.5335	4.6317	4.5241	4.522	84.88328313	66.99875467	1.307596513	31.69364882
23	4.8328	5.8038	4.9829	4.8841	4.8818	84.54170958	65.82278481	1.532311792	32.6449034
24	4.7729	6.1873	4.992	4.8494	4.8457	84.50933258	65.08443633	1.688726609	33.22683706

25	5.6751	7.9782	6.0531	5.8207	5.8141	83.5873388	61.48148148	1.746031746	36.77248677
26	4.8148	5.7532	4.935	4.8566	4.8543	87.19096334	65.22462562	1.913477537	32.86189684
27	5.0915	6.2129	5.2121	5.1286	5.1262	89.24558587	69.2371476	1.990049751	28.77280265
28	5.8515	6.9849	5.9597	5.8778	5.8749	90.45350274	75.69316081	2.680221811	21.62661738
29	5.1683	6.4347	5.3856	5.2368	5.2332	82.84112445	68.47676024	1.656695812	29.86654395
30	4.5968	5.3938	4.6863	4.6223	4.6204	88.77038896	71.50837989	2.122905028	26.36871508
31	5.4121	6.7929	5.6189	5.4794	5.4755	85.02317497	67.45647969	1.885880077	30.65764023
32	5.4769	6.3544	5.6238	5.5239	5.5217	83.25925926	68.00544588	1.497617427	30.49693669
33	4.5926	5.6888	4.7798	4.6568	4.6525	82.9228243	65.70512821	2.297008547	31.99786325
34	4.8899	5.83	5.0467	4.9476	4.9439	83.32092331	63.20153061	2.359693878	34.43877551
35	5.117	6.3246	5.2991	5.1817	5.1781	84.92050348	64.47007139	1.97693575	33.55299286

WB 06-10

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	% Carbonate	Residual
1	5.1177	6.3131	5.2733	5.1627	5.1549	86.98343651	71.07969152	5.01285347	23.90745501
2	4.4325	5.7698	4.623	4.4766	4.4698	85.75487923	76.8503937	3.569553806	19.58005249
3	5.2523	6.0229	5.3691	5.2851	5.281	84.8429795	71.91780822	3.510273973	24.57191781
4	5.1039	5.94	5.2195	5.1548	5.1494	86.17390264	55.96885813	4.671280277	39.35986159
5	4.8361	5.7709	4.9803	4.902	4.897	84.57424048	54.29958391	3.46740638	42.23300971
6	4.8242	5.7948	4.9602	4.8958	4.8899	85.98804863	47.35294118	4.338235294	48.30882353
7	4.9178	5.9065	5.0425	4.9648	4.96	87.38747851	62.3095429	3.849238172	33.84121893
8	4.5515	5.4795	4.6804	4.6056	4.6001	86.10991379	58.02948022	4.266873545	37.70364624
9	5.0559	6.1131	5.1985	5.1011	5.0962	86.51153992	68.3029453	3.436185133	28.26086957
10	5.131	5.7654	5.2161	5.1526	5.1499	86.58575032	74.61809636	3.172737955	22.20916569
11	5.1322	5.9905	5.2936	5.2123	5.2061	81.19538623	50.37174721	3.841387856	45.78686493
12	4.8214	5.8329	4.9901	4.9007	4.8942	83.32179931	52.99347955	3.85299348	43.15352697
13	5.5262	6.5508	5.6989	5.6134	5.6058	83.14464181	49.50781702	4.400694847	46.09148813
14	5.5329	6.7607	5.7198	5.6145	5.6068	84.77765108	56.34028892	4.119850187	39.53986089
15	4.8442	5.8961	5.012	4.9279	4.9203	84.0479133	50.11918951	4.52920143	45.35160906
16	4.4388	5.7151	4.6552	4.5487	4.541	83.0447387	49.21441774	3.558225508	47.22735675
17	5.1558	6.0982	5.3553	5.2685	5.2622	78.83064516	43.50877193	3.157894737	53.33333333
18	4.7905	5.6425	4.9637	4.8916	4.887	79.6713615	41.62817552	2.655889145	55.71593533
19	4.7732	5.8478	4.963	4.8773	4.8717	82.337614	45.15279241	2.950474183	51.8967334
20	4.7004	5.7166	4.8582	4.7717	4.767	84.47156072	54.81622307	2.978453739	42.20532319
21	4.5152	5.8181	4.7308	4.6157	4.6093	83.45229872	53.38589981	2.968460111	43.64564007
22	5.2587	6.3849	5.441	5.3395	5.3346	83.81282188	55.67745474	2.687877126	41.63466813
23	4.8663	5.9028	5.0617	4.9649	4.9592	81.14809455	49.53940635	2.917093142	47.54350051
24	5.1375	5.9863	5.3037	5.2275	5.2231	80.41941565	45.84837545	2.647412756	51.50421179
25	4.8239	5.95	5.0028	4.9039	4.8986	84.11331143	55.2822806	2.96254891	41.75517049
26	4.3428	5.395	4.4856	4.3851	4.3813	86.42843566	70.37815126	2.661064426	26.96078431
27	4.8857	6.2567	5.1372	5.017	5.0109	81.65572575	47.79324056	2.425447316	49.78131213
28	4.8737	6.2429	5.1405	5.0063	5.0007	80.51416886	50.29985007	2.098950525	47.6011994
29	5.138	6.6684	5.4406	5.2958	5.2882	80.22739153	47.85194977	2.511566424	49.63648381

30	4.819	5.8812	5.0989	5.0076	5.0005	73.64903031	32.61879243	2.536620222	64.84458735
31	4.3461	5.7721	4.7251	4.6057	4.5973	73.42215989	31.50395778	2.216358839	66.27968338
32	4.6899	6.0219	5.079	4.9617	4.9527	70.78828829	30.1464919	2.313030069	67.54047803
33	5.0968	7.4038	5.8738	5.7019	5.6858	66.31989597	22.12355212	2.072072072	75.8043758
34	4.3665	5.7758	4.7342	4.6256	4.6174	73.90903285	29.53494697	2.230078869	68.23497416
35	4.9712	7.3247	5.5067	5.3255	5.3131	77.24665392	33.83753501	2.315592904	63.84687208
36	5.0453	6.7951	5.5227	5.396	5.3852	72.71688193	26.53958944	2.262253875	71.19815668
37	5.1278	6.9903	5.6186	5.4886	5.4771	73.64832215	26.48736756	2.343113284	71.16951915
38	4.8171	6.6296	5.2569	5.1376	5.1263	75.73517241	27.12596635	2.569349704	70.30468395
39	4.951	6.7359	5.4048	5.2871	5.2762	74.57560648	25.93653592	2.40193918	71.6615249
40	4.5519	6.0112	4.8915	4.7915	4.7828	76.72856849	29.44640754	2.561837456	67.99175501
41	4.5924	6.0872	4.9518	4.8435	4.8348	75.95664972	30.13355593	2.420701169	67.4457429
42	4.0606	5.6733	4.4612	4.3524	4.3437	75.15967012	27.15926111	2.171742386	70.66899651
43	4.955	6.8386	5.4711	5.341	5.3302	72.60033977	25.20829297	2.09261771	72.69908932
44	5.2048	6.9236	5.696	5.5785	5.5692	71.42192227	23.92100977	1.893322476	74.18566775
45	5.5516	7.6506	6.1655	6.0252	6.0127	70.7527394	22.853885	2.036162241	75.10995276
46	4.3034	6.1773	4.8554	4.7293	4.7174	70.54271839	22.8442029	2.155797101	75
47	4.9191	6.6652	5.4253	5.3079	5.2978	71.00967871	23.19241407	1.995258791	74.81232714
48	4.9419	7.3093	5.6698	5.5097	5.4931	69.25318915	21.9947795	2.28053304	75.72468746
49	5.0344	7.4209	5.7424	5.5832	5.5686	70.33312382	22.48587571	2.062146893	75.4519774
50	4.951	7.0858	5.5534	5.4093	5.3942	71.78189994	23.92098274	2.506640106	73.57237716

WB 06-15A

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	% Carbonate	Residual
1	4.9156	6.4511	5.4367	5.315	5.3076	66.06317161	23.35444253	1.420072923	75.22548455
2	5.0619	6.1371	5.4275	5.3468	5.3436	65.99702381	22.07330416	0.875273523	77.05142232
3	4.9193	6.1066	5.3318	5.2452	5.2402	65.25730649	20.99393939	1.212121212	77.79393939
4	4.345	5.186	4.6379	4.5809	4.5774	65.17241379	19.46056675	1.194947081	79.34448617
5	4.2209	5.1409	4.5462	4.4807	4.4773	64.64130435	20.13525976	1.045189056	78.81955118
6	4.3683	5.458	4.7431	4.6612	4.6567	65.60521244	21.85165422	1.200640342	76.94770544
7	4.7985	5.9758	5.2139	5.1357	5.132	64.71587531	18.8252287	0.890707752	80.28406355
8	4.5672	5.4284	4.8466	4.7738	4.7705	67.55689735	26.05583393	1.181102362	72.76306371
9	4.4457	5.6112	4.7757	4.6816	4.6776	71.68597169	28.51515152	1.212121212	70.27272727
10	4.5828	5.8915	4.9432	4.8537	4.8469	72.46122106	24.83351831	1.886792453	73.27968923
11	4.5738	5.5171	4.8387	4.7738	4.7703	71.91773561	24.49981125	1.321253303	74.17893545
12	4.8746	6.1864	5.3376	5.2394	5.2324	64.70498552	21.20950324	1.51187905	77.27861771
13	4.6521	6.1181	5.1572	5.0453	5.0376	65.54570259	22.15402891	1.524450604	76.32152049
14	4.5225	5.9569	5.0206	4.9157	4.9065	65.27467931	21.06002811	1.847018671	77.09295322
15	4.3669	5.3725	4.7514	4.6826	4.6752	61.76412092	17.89336801	1.924577373	80.18205462
16	5.0551	5.8816	5.3821	5.3254	5.3217	60.43557169	17.33944954	1.131498471	81.52905199
17	4.4117	5.5936	4.8467	4.7622	4.7554	63.19485574	19.42528736	1.563218391	79.01149425
18	4.466	5.8931	5.0706	4.9759	4.9659	57.63436339	15.66324843	1.653986107	82.68276546
19	4.5571	5.6665	5.0249	4.9524	4.9431	57.83306292	15.4980761	1.988029072	82.51389483

20	4.5097	5.608	4.9135	4.8399	4.8298	63.23408905	18.22684497	2.501238237	79.27191679
21	5.4236	6.5604	5.8473	5.7735	5.7637	62.72871217	17.41798442	2.312957281	80.2690583
22	4.64	6.3889	5.2429	5.1252	5.1073	65.52690262	19.52230884	2.968983248	77.50870791
23	4.5479	5.288	4.8079	4.7588	4.7532	64.86961221	18.88461538	2.153846154	78.96153846
24	4.5126	6.5563	5.2554	5.1293	5.1091	63.65415668	16.97630587	2.719439957	80.30425417
25	5.0844	6.5261	5.6639	5.5719	5.5566	59.80439759	15.87575496	2.640207075	81.48403796
26	4.8289	6.3291	5.4095	5.3135	5.2938	61.29849353	16.53461936	3.393041681	80.07233896
27	4.77	5.7734	5.1373	5.0695	5.0578	63.39445884	18.45902532	3.185407024	78.35556766
28	4.5685	5.8383	4.9996	4.9147	4.9004	66.04977162	19.69380654	3.317095801	76.98909766
29	4.8575	6.5382	5.4976	5.3985	5.3807	61.91467841	15.48195594	2.780815498	81.73722856
30	4.6044	6.2608	5.2334	5.1376	5.1226	62.02608066	15.23052464	2.384737679	82.38473768
31	5.3265	6.7894	5.8848	5.8003	5.785	61.83607902	15.13523195	2.740462117	82.12430593
32	5.006	6.8176	5.7546	5.6529	5.6327	58.67741223	13.58535934	2.698370291	83.71627037
33	5.0654	6.2702	5.6012	5.5265	5.5148	55.52788845	13.94176932	2.183650616	83.87458007
34	5.3101	6.662	5.9247	5.8463	5.8326	54.53805755	12.75626424	2.229092092	85.01464367
35	4.8314	6.5326	5.619	5.5266	5.5104	53.70326828	11.73184358	2.056881666	86.21127476
36	5.1512	6.8979	5.9845	5.8874	5.8713	52.29289517	11.6524661	1.932077283	86.41545662
37	4.6304	6.3468	5.4361	5.3355	5.3192	53.05872757	12.48603699	2.023085516	85.4908775
38	5.2866	7.5413	6.3386	6.2028	6.1823	53.34190801	12.90874525	1.948669202	85.14258555
39	4.7534	6.745	5.6846	5.5611	5.5425	53.24362322	13.26245704	1.99742268	84.74012027
40	4.5301	5.978	5.1724	5.0843	5.0697	55.6392016	13.71633193	2.273081115	84.01058695
41	5.1167	6.9039	5.9123	5.8022	5.7841	55.48343778	13.83861237	2.275012569	83.88637506
42	4.778	6.4345	5.4672	5.37	5.3537	58.39420465	14.10330818	2.36506094	83.53163088
43	4.8118	6.5832	5.5221	5.4169	5.3993	59.90177261	14.81064339	2.477826271	82.71153034
44	5.0085	6.569	5.6217	5.5242	5.508	60.70490227	15.90019569	2.641878669	81.45792564
45	4.9625	6.5465	5.5986	5.5089	5.4944	59.84217172	14.10155636	2.279515799	83.61892784
46	4.5736	6.5503	5.361	5.2444	5.222	60.16593312	14.80822962	2.84480569	82.34696469
47	4.398	6.2362	5.088	4.9735	4.9543	62.46327929	16.5942029	2.782608696	80.62318841
48	4.4135	5.9231	4.993	4.8966	4.8781	61.61234764	16.6350302	3.192407248	80.17256255
49	4.4684	6.4145	5.1905	5.0789	5.0532	62.89502081	15.45492314	3.559063842	80.98601302
50	4.8325	7.1851	5.6785	5.54	5.505	64.03978577	16.37115839	4.137115839	79.49172577

WB 06-15B

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	% Carbonate	Residual
1	4.9171	9.2534	6.7412	6.5149	6.4764	57.93418352	12.40611809	2.1106299	85.48325201
2	5.0605	7.1647	5.8926	5.7778	5.7494	60.45527992	13.7964187	3.413051316	82.79052998
3	4.9193	6.315	5.4437	5.3688	5.3532	62.42745576	14.28299008	2.974828375	82.74218154
4	4.3433	5.862	4.9513	4.8667	4.8511	59.96576019	13.91447368	2.565789474	83.51973684
5	4.2166	5.7327	4.8225	4.736	4.7215	60.0356177	14.27628322	2.393134181	83.3305826
6	4.3671	6.2462	5.1486	5.0396	5.0198	58.41094141	13.94753679	2.533589251	83.51887396
7	4.799	6.4044	5.3077	5.2076	5.1859	68.31319297	19.67760959	4.265775506	76.0566149
8	4.5669	6.0206	5.1452	5.062	5.0447	60.21875215	14.38699637	2.991526889	82.62147674
9	4.446	6.0525	5.1003	5.0112	4.9954	59.27170868	13.6176066	2.414794437	83.96759896

10	4.5863	6.4145	5.3445	5.239	5.2194	58.5275134	13.91453442	2.585069902	83.50039567
11	4.5747	6.8205	5.4417	5.3088	5.2762	61.39460326	15.32871972	3.760092272	80.911188
12	4.8742	6.3864	5.5133	5.4227	5.4021	57.73707182	14.17618526	3.223282741	82.600532
13	4.6532	6.0036	5.2072	5.1299	5.1126	58.97511848	13.95306859	3.122743682	82.92418773
14	4.5214	6.1303	5.1614	5.0683	5.0452	60.22126919	14.546875	3.609375	81.84375
15	4.3665	6.0444	5.0474	4.9533	4.9305	59.41951249	13.81994419	3.348509326	82.83154648
16	5.0545	6.8086	5.7352	5.6347	5.6108	61.19377459	14.76421331	3.511091523	81.72469517
17	4.4138	6.2083	5.1053	4.9982	4.9743	61.4655893	15.48806941	3.456254519	81.05567607
18	4.4661	5.8038	4.9914	4.914	4.8995	60.73110563	14.73443746	2.760327432	82.5052351
19	4.5588	5.7797	5.0317	4.9628	4.95	61.26627897	14.56967646	2.70670332	82.72362022
20	4.5107	5.8705	5.0401	4.9632	4.948	61.06780409	14.52587835	2.871174915	82.60294673
21	5.4239	6.8498	5.9468	5.8634	5.8482	63.32842415	15.94951234	2.906865557	81.14362211
22	4.6435	6.2073	5.2144	5.119	5.0999	63.49277401	16.71045717	3.345594675	79.94394815
23	4.5582	6.5412	5.2856	5.167	5.1453	63.31820474	16.30464669	2.983227935	80.71212538
24	4.5168	6.3127	5.1875	5.0813	5.0601	62.6538226	15.83420307	3.160876696	81.00492023
25	5.1065	6.6643	5.6786	5.5829	5.5657	63.2751316	16.72784478	3.006467401	80.26568782
26	4.8322	6.4379	5.4461	5.35	5.3306	61.76745345	15.65401531	3.160123799	81.18586089
27	4.7716	6.1982	5.2846	5.198	5.1839	64.04037572	16.88109162	2.748538012	80.37037037
28	4.5714	6.1538	5.1865	5.099	5.0818	61.12866532	14.22532921	2.796293286	82.9783775
29	4.8595	6.3636	5.4411	5.3619	5.3444	61.33235822	13.6176066	3.008940853	83.37345254
30	4.6072	6.0986	5.0791	4.998	4.9828	68.35858925	17.18584446	3.221021403	79.59313414
31	5.3357	7.1548	5.9858	5.8881	5.8658	64.26254741	15.02845716	3.430241501	81.54130134
32	5.0091	6.9129	5.667	5.5574	5.5367	65.44279861	16.65906673	3.146374829	80.19455844
33	5.0671	6.5932	5.6398	5.5539	5.5313	62.47297032	14.99912694	3.946219661	81.0546534
34	5.3097	7.0299	5.954	5.8622	5.8393	62.5450529	14.24802111	3.554244917	82.19773397
35	4.8319	6.687	5.5258	5.4282	5.4066	62.59500836	14.06542729	3.112840467	82.82173224
36	5.1556	7.148	5.8899	5.7848	5.7592	63.14495081	14.31295111	3.486313496	82.20073539
37	4.631	7.3398	5.5846	5.4361	5.4024	64.79621973	15.57256711	3.53397651	80.89345638
38	5.2871	7.2756	5.997	5.8923	5.8666	64.29972341	14.74855613	3.620228201	81.63121566
39	4.7528	6.903	5.4988	5.3865	5.3587	65.30555297	15.0536193	3.726541555	81.21983914
40	4.5258	6.477	5.2206	5.1222	5.0987	64.39114391	14.16234888	3.382268279	82.45538284
41	5.1169	6.4245	5.5815	5.5129	5.4977	64.46925665	14.76538958	3.271631511	81.96297891
42	4.7792	6.5111	5.35	5.2603	5.2394	67.04197702	15.71478626	3.66152768	80.62368605
43	4.8112	6.1275	5.2072	5.1291	5.1145	69.91567272	19.72222222	3.686868687	76.59090909
44	5.0101	6.4941	5.4176	5.3325	5.3171	72.54043127	20.88343558	3.779141104	75.33742331
45	4.9638	6.3935	5.4176	5.348	5.3323	68.25907533	15.33715293	3.459673865	81.2031732
46	4.578	6.3333	5.1643	5.0816	5.0624	66.59830228	14.10540679	3.274774006	82.61981921
47	4.4014	6.6608	5.2652	5.169	5.1414	61.76861114	11.13683723	3.19518407	85.6679787
48	4.4175	6.0164	4.9954	4.9243	4.9042	63.85640128	12.30316664	3.4781104	84.21872296
49	4.7828	6.7514	5.4742	5.386	5.362	64.87859392	12.75672548	3.471217819	83.7720567
50	4.6146	7.1066	5.4915	5.3759	5.3471	64.81139647	13.18280306	3.284296955	83.53289999

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	%Carbonate	Residual
1	4.7731	7.0573	5.5979	5.4608	5.4378	63.89107784	16.62221145	2.788554801	80.58923375
2	5.6783	6.6321	5.9807	5.9183	5.9098	68.29524009	20.63492063	2.810846561	76.5542328
3	4.8115	6.0223	5.2198	5.136	5.1244	66.27849356	20.52412442	2.841048249	76.63482733
4	5.0906	6.0773	5.4483	5.3865	5.3762	63.74784636	17.27704781	2.879507968	79.84344423
5	5.8525	6.8893	6.2347	6.1743	6.1624	63.13657407	15.80324437	3.113553114	81.08320251
6	5.1688	6.5937	5.6931	5.6118	5.5962	63.2044354	15.50638947	2.975395766	81.51821476
7	4.6042	5.855	5.0722	5.0005	4.985	62.58394627	15.32051282	3.311965812	81.36752137
8	5.415	6.9028	5.9324	5.8495	5.8318	65.22382041	16.02241979	3.420950908	80.5566293
9	5.4872	6.3808	5.7714	5.716	5.706	68.19606088	19.49331457	3.518648839	76.98803659
10	4.5934	5.8767	4.9715	4.8895	4.875	70.53689706	21.68738429	3.834964295	74.47765141
11	4.8912	5.8598	5.2011	5.1382	5.1259	68.00536857	20.29686996	3.969022265	75.73410778
12	5.1186	6.7937	5.6563	5.5574	5.5359	67.90042386	18.39315603	3.998512182	77.60833178
13	5.2091	6.1945	5.5383	5.4768	5.4628	66.5922468	18.68165249	4.2527339	77.06561361
14	5.3074	6.4151	5.6922	5.62	5.6023	65.26135235	18.76299376	4.5997921	76.63721414
15	5.5202	6.6948	5.9198	5.8476	5.8304	65.97990805	18.06806807	4.304304304	77.62762763
16	5.0562	6.2041	5.4525	5.386	5.3691	65.47608677	16.78021701	4.264446127	78.95533687
17	5.1115	6.3261	5.5394	5.4697	5.4552	64.77029475	16.28885254	3.388642206	80.32250526
18	5.6167	6.7802	6.0419	5.9782	5.9651	63.45509239	14.98118532	3.080903104	81.93791157
19	4.5672	5.3826	4.8836	4.8388	4.8295	61.19695855	14.15929204	2.93931732	82.90139064
20	4.9716	6.2125	5.4836	5.4172	5.4033	58.73962447	12.96875	2.71484375	84.31640625
21	5.1505	7.0481	5.8664	5.7601	5.7389	62.27339798	14.84844252	2.961307445	82.19025003
22	4.7741	6.3669	5.361	5.273	5.2553	63.15293822	14.99403646	3.01584597	81.99011757
23	5.0348	6.1626	5.3922	5.3269	5.3134	68.30998404	18.27084499	3.777280358	77.95187465
24	5.391	6.4895	5.8009	5.7414	5.7286	62.6854802	14.51573555	3.122712857	82.3615516
25	5.1982	6.5028	5.687	5.6183	5.6032	62.53257704	14.05482815	3.089198036	82.85597381
26	5.0578	6.3418	5.5408	5.4755	5.4621	62.38317757	13.51966874	2.774327122	83.70600414
27	5.126	6.4795	5.6335	5.561	5.5448	62.50461766	14.28571429	3.192118227	82.52216749
28	4.8968	6.3752	5.4295	5.3523	5.3359	63.96780303	14.4922095	3.078655904	82.4291346
29	5.3843	7.2295	6.0644	5.9708	5.9496	63.14220681	13.76268196	3.117188649	83.12012939
30	4.5904	6.0868	5.1418	5.0645	5.0479	63.15156375	14.01886108	3.01051868	82.97062024
31	4.8362	5.819	5.2043	5.1526	5.1434	62.54578755	14.04509644	2.499320837	83.45558272
32	5.4729	6.7756	5.9627	5.8936	5.8803	62.40116681	14.1077991	2.715394038	83.17680686
33	5.6567	7.0401	6.1826	6.1104	6.0961	61.98496458	13.72884579	2.719148127	83.55200608
34	5.7012	7.209	6.2781	6.2001	6.184	61.73895742	13.52054082	2.790778298	83.68868088
35	5.0495	7.0134	5.7877	5.6917	5.6706	62.41152808	13.0046058	2.858303983	84.13709022
36	5.2629	6.5741	5.7391	5.673	5.6586	63.68212325	13.88072239	3.023939521	83.09533809
37	5.0176	6.4267	5.5096	5.4382	5.4227	65.08409623	14.51219512	3.150406504	82.33739837
38	5.1521	7.1026	5.8544	5.7565	5.7342	63.99384773	13.93991172	3.175281219	82.88480706
39	5.0166	6.7766	5.6664	5.5796	5.5582	63.07954545	13.35795629	3.293321022	83.34872268
40	5.0731	6.9161	5.7435	5.6503	5.6307	63.62452523	13.90214797	2.923627685	83.17422434
41	5.4935	7.2006	6.1371	6.0527	6.0347	62.29863511	13.11373524	2.796768179	84.08949658
42	5.2178	7.7462	6.1791	6.0611	6.0323	61.97990824	12.27504421	2.995942994	84.7290128

43	4.9328	6.8944	5.716	5.6221	5.6011	60.07340946	11.98927477	2.681307457	85.32941777
44	4.8637	6.3258	5.4568	5.3879	5.3714	59.43505916	11.61692801	2.781992919	85.60107908
45	5.4262	7.9786	6.4121	6.2888	6.26	61.37360915	12.50633939	2.921188762	84.57247185
46	5.0122	6.6978	5.682	5.5974	5.5769	60.26340769	12.63063601	3.060615109	84.30874888
47	4.364	5.2244	4.6966	4.6515	4.6398	61.34356113	13.55983163	3.517739026	82.92242934
48	4.9387	6.3379	5.5011	5.4354	5.4183	59.8056032	11.68207681	3.040540541	85.27738265
49	4.5189	6.3574	5.2237	5.1338	5.1115	61.66440033	12.7553916	3.164018161	84.08059024

WB 06-19A

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	% Carbonate	Residual
1	4.7173	6.3239	5.1941	5.0689	5.0557	70.32242002	26.25838926	2.768456376	70.97315436
2	5.2387	6.6876	5.6328	5.5179	5.5068	72.80005521	29.15503679	2.816544024	68.02841918
3	4.8891	6.8578	5.3562	5.2149	5.2017	76.27368314	30.2504817	2.825947335	66.92357097
4	4.4675	5.9821	4.8097	4.7099	4.6992	77.40657599	29.16423144	3.126826417	67.70894214
5	4.6628	6.0533	4.9739	4.8775	4.8678	77.62675297	30.98682096	3.117968499	65.89521054
6	4.5143	6.4152	4.9411	4.81	4.798	77.54747751	30.71696345	2.811621368	66.47141518
7	4.8008	6.7303	5.2632	5.1401	5.1258	76.03524229	26.62197232	3.092560554	70.28546713
8	4.641	6.7596	5.1951	5.0651	5.0498	73.845936	23.46146905	2.761234434	73.77729652
9	4.9721	6.6844	5.4042	5.2894	5.2778	74.76493605	26.56792409	2.684563758	70.74751215
10	4.8259	6.3847	5.1847	5.0831	5.0706	76.98229407	28.31661093	3.483835006	68.19955407
11	4.9732	6.9791	5.4339	5.2832	5.2685	77.03275338	32.71109182	3.190796614	64.09811157
12	4.8608	6.7443	5.2846	5.1569	5.1427	77.49933634	30.1321378	3.350637093	66.51722511
13	4.3393	6.2944	4.7546	4.6176	4.6026	78.75811979	32.9882013	3.611846858	63.39995184
14	4.3829	5.7004	4.6611	4.5715	4.5612	78.88425047	32.20704529	3.702372394	64.09058231
15	5.0025	6.9711	5.405	5.2677	5.2545	79.55399776	34.11180124	3.279503106	62.60869565
16	4.724	6.1022	5.0084	4.8954	4.8855	79.36438833	39.73277075	3.481012658	56.7862166
17	5.1132	6.0982	5.3075	5.2326	5.2245	80.27411168	38.54863613	4.168811117	57.28255275
18	4.7678	6.2587	5.0721	4.9744	4.9633	79.58950969	32.10647387	3.64771607	64.24581006
19	4.6212	6.3158	4.9481	4.8337	4.8206	80.70931193	34.99541144	4.007341695	60.99724686
20	4.5073	6.7009	4.9707	4.8373	4.8203	78.87490883	28.78722486	3.668536901	67.54423824
21	4.7126	6.8733	5.1718	5.0412	5.0242	78.74762808	28.44076655	3.702090592	67.85714286
22	4.7771	6.2039	5.1191	5.0407	5.0284	76.03027754	22.92397661	3.596491228	73.47953216
23	4.3455	6.4245	4.8078	4.6947	4.6761	77.76334776	24.46463335	4.023361454	71.51200519
24	4.824	6.5757	5.1739	5.0718	5.0568	80.02511846	29.17976565	4.286939125	66.53329523
25	4.9085	6.6198	5.254	5.1558	5.1423	79.81067025	28.42257598	3.907380608	67.67004342
26	4.6846	6.3558	5.0473	4.9368	4.9221	78.29703207	30.46594982	4.052936311	65.48111387
27	4.8875	7.243	5.3411	5.1284	5.1106	80.74294205	46.89153439	3.924162257	49.18430335
28	4.366	6.1445	4.7335	4.6024	4.587	79.33651954	35.67346939	4.19047619	60.13605442
29	4.2079	5.9994	4.5225	4.3834	4.3703	82.43929668	44.21487603	4.1640178	51.62110617
30	4.3506	5.6728	4.6371	4.5318	4.5197	78.3315686	36.7539267	4.223385689	59.02268761
31	4.7818	6.4624	5.1314	4.9926	4.9783	79.19790551	39.70251716	4.090389016	56.20709382
32	4.5516	6.31	4.9142	4.8006	4.7865	79.37898089	31.32928847	3.88858246	64.78212907
33	4.7754	6.4128	5.1523	5.0566	5.0438	76.98180042	25.39135049	3.396126293	71.21252322

34	4.5937	7.1262	5.1506	5.0041	4.985	78.00987167	26.30633866	3.429700126	70.26396121
35	4.966	7.1344	5.5422	5.4235	5.4014	73.42741192	20.60048594	3.835473794	75.56404026
36	4.5786	6.3157	5.0593	4.9677	4.952	72.32744229	19.055544	3.266070314	77.67838569
37	4.6411	6.2094	5.0465	4.9619	4.9478	74.15035389	20.86827824	3.478046374	75.65367538
38	4.5063	7.2582	5.1398	4.9645	4.9413	76.97954141	27.67166535	3.662194159	68.66614049
39	4.3521	6.5997	4.9486	4.8181	4.7986	73.46058017	21.87761945	3.269069573	74.85331098
40	5.0378	7.4094	5.6704	5.5218	5.5009	73.32602462	23.49035726	3.303825482	73.20581726
41	4.4063	5.9247	4.8522	4.7439	4.727	70.63356164	24.28795694	3.790087464	71.9219556
42	4.446	7.1168	5.2569	5.0533	5.019	69.63831062	25.1079048	4.229868048	70.66222716
43	4.5418	6.5359	5.103	4.9381	4.9149	71.85697809	29.38346401	4.133998574	66.48253742
44	5.5036	7.6367	6.1698	6.0136	5.9844	68.76845905	23.44641249	4.383068148	72.17051936
45	5.0456	7.1513	5.674	5.5133	5.4885	70.15719238	25.57288351	3.946530872	70.48058561
46	4.6283	7.148	5.3477	5.1663	5.1336	71.44898202	25.21545733	4.545454545	70.23908813
47	4.5539	7.4126	5.4177	5.2197	5.1815	69.78346801	22.92197268	4.422319981	72.65570734

WB 06-19B

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	% Carbonate	Residual
48	4.9089	5.3838	5.0505	5.0164	5.0104	70.18319646	24.0819209	4.237288136	71.68079096
49	4.5381	5.1713	4.7267	4.6832	4.6754	70.21478206	23.06468717	4.13573701	72.79957582
50	5.0455	5.602	5.1856	5.1451	5.1378	74.82479784	28.90792291	5.210563883	65.8815132
51	5.0009	5.6941	5.1599	5.1129	5.1059	77.06289671	29.55974843	4.402515723	66.03773585
52	5.1219	5.7122	5.2993	5.2612	5.2521	69.94748433	21.47688839	5.129650507	73.3934611
53	4.7247	5.8094	5.018	4.9402	4.9272	72.96026551	26.52574156	4.432321855	69.04193658
54	4.9919	5.8524	5.2008	5.1414	5.1326	75.72341662	28.43465773	4.212541886	67.35280038
55	5.5252	6.3974	5.7551	5.6977	5.6867	73.64136666	24.96737712	4.784688995	70.24793388
56	4.833	6.5468	5.2904	5.1839	5.163	73.31077139	23.28377787	4.569304766	72.14691736
57	4.4334	4.8038	4.5289	4.5039	4.4999	74.21706263	26.17801047	4.188481675	69.63350785
58	5.146	6.4167	5.4741	5.4037	5.3901	74.17958605	21.4568729	4.14507772	74.39804938
59	4.7769	5.8141	5.0779	5.0251	5.0167	70.97956035	17.54152824	2.790697674	79.66777409
60	4.7623	5.5504	4.9382	4.8936	4.8865	77.6804974	25.35531552	4.036384309	70.60830017
61	4.6879	5.6383	4.8913	4.8306	4.821	78.59848485	29.84267453	4.719764012	65.43756146
62	4.5052	5.5417	4.7275	4.6623	4.6511	78.552822	29.32973459	5.038236617	65.63202879
63	5.2477	6.7492	5.4803	5.3908	5.3799	84.50882451	38.47807395	4.686156492	56.83576956
64	4.8595	6.0076	5.1755	5.1194	5.1063	72.47626513	17.75316456	4.14556962	78.10126582
65	5.1279	6.3606	5.7424	5.7025	5.689	50.15007707	6.493083808	2.196908055	91.31000814
66	4.8186	6.0365	5.1579	5.1025	5.0882	72.14056983	16.32773357	4.214559387	79.45770704
67	4.3403	5.6778	4.6431	4.579	4.5653	77.36074766	21.16908851	4.524438573	74.30647292
68	4.8893	5.9229	5.1227	5.0718	5.0622	77.41873065	21.80805484	4.11311054	74.07883462
69	4.8679	5.7875	5.0936	5.0494	5.0394	75.45672031	19.58351794	4.430660168	75.98582189
70	5.1323	6.3675	5.4109	5.3523	5.3421	77.44494819	21.03374013	3.661162958	75.30509691
71	4.8105	5.7318	5.0467	5.0034	4.9947	74.36231412	18.3319221	3.683319221	77.98475868
72	4.3397	5.9215	4.7496	4.6734	4.6575	74.08648375	18.58989998	3.878994877	77.53110515
73	4.683	6.1575	5.0379	4.9649	4.9511	75.93082401	20.56917442	3.888419273	75.54240631
74	5.0975	6.485	5.4537	5.3835	5.3683	74.32792793	19.7080292	4.267265581	76.02470522

75	4.3617	5.8357	4.744	4.6684	4.6529	74.06377205	19.77504578	4.054407533	76.17054669
76	4.9657	6.6076	5.3799	5.2936	5.2765	74.77312869	20.83534524	4.128440367	75.03621439
77	5.0341	6.4755	5.4566	5.3834	5.3601	70.68821979	17.32544379	5.514792899	77.15976331
78	5.1195	6.3194	5.464	5.3987	5.3781	71.28927411	18.95500726	5.979680697	75.06531205
79	4.8102	6.2583	5.2928	5.221	5.1905	66.67357227	14.87774554	6.319933692	78.80232076
80	4.9422	6.6493	5.5588	5.4855	5.4504	63.88026478	11.88777165	5.692507298	82.41972105
81	4.5439	5.8373	4.9992	4.9474	4.9204	64.79820628	11.37711399	5.930155941	82.69273007
82	4.5877	5.9936	5.0906	5.0338	5.0072	64.2293193	11.29449195	5.289321933	83.41618612
83	4.0473	5.4036	4.5593	4.5044	4.4807	62.25023962	10.72265625	4.62890625	84.6484375
84	4.9446	5.986	5.3453	5.304	5.2879	61.52294988	10.30696282	4.017968555	85.67506863
85	5.1949	6.4485	5.6368	5.5869	5.5678	64.74952138	11.29214754	4.322244852	84.3856076
86	5.5454	6.8316	6.0206	5.9719	5.9506	63.05395739	10.2483165	4.482323232	85.26936027
87	4.2963	5.3381	4.6808	4.6431	4.6235	63.09272413	9.804941482	5.097529259	85.09752926
88	4.9111	5.9841	5.324	5.2838	5.267	61.51910531	9.736013563	4.068781787	86.19520465
89	4.9333	6.4302	5.5357	5.4849	5.4579	59.75683078	8.432934927	4.482071713	87.08499336
90	5.0258	6.5573	5.629	5.5752	5.5486	60.61377734	8.919098143	4.409814324	86.67108753
91	4.946	6.5242	5.5533	5.4976	5.4699	61.51945254	9.171743784	4.561172402	86.26708381
92	4.356	5.7295	4.8583	4.8037	4.7803	63.42919549	10.86999801	4.658570575	84.47143142
93	4.9338	6.1182	5.3362	5.2851	5.269	66.02499156	12.69880716	4.000994036	83.30019881
94	4.5103	5.6416	4.9081	4.8627	4.8468	64.83691329	11.41277024	3.996983409	84.59024635
95	4.8267	6.6388	5.5325	5.4667	5.4405	61.05071464	9.322754321	3.712099745	86.96514593
96	4.8906	6.1783	5.4148	5.3699	5.3497	59.2917605	8.565433041	3.853491034	87.58107593
97	5.1228	6.5962	5.7107	5.6628	5.638	60.09909054	8.147644157	4.218404491	87.63395135
98	4.9107	6.603	5.73	5.6765	5.653	51.58659812	6.529964604	2.868302209	90.60173319
99	4.8748	6.2155	5.6582	5.6204	5.6053	41.5678377	4.825121266	1.927495532	93.2473832

WB 06-27

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	% Carbonate	Residual
1	4.9616	5.71	5.1339	5.0547	5.0449	76.97755211	45.96633778	5.687753918	48.3459083
2	5.0227	6.2454	5.278	5.1653	5.1568	79.11998037	44.14414414	3.329416373	52.52643948
3	4.8408	5.9224	5.0636	4.9743	4.9661	79.40088757	40.08078995	3.68043088	56.23877917
4	5.0442	5.7589	5.1982	5.1351	5.1293	78.45249755	40.97402597	3.766233766	55.25974026
5	4.7856	5.4758	4.9486	4.8933	4.8877	76.38365691	33.92638037	3.435582822	62.63803681
6	4.8251	6.7348	5.2772	5.1342	5.1194	76.32612452	31.63017032	3.273612033	65.09621765
7	4.7314	5.8845	4.9917	4.916	4.9077	77.42606886	29.08182866	3.188628506	67.72954284
8	4.7913	5.3268	4.8969	4.8623	4.8587	80.28011204	32.76515152	3.409090909	63.82575758
9	4.3056	5.205	4.5038	4.45	4.443	77.9630865	27.14429869	3.531786075	69.32391524
10	4.921	6.8663	5.3161	5.202	5.1893	79.68950805	28.87876487	3.214376107	67.90685902
11	4.7559	5.8518	4.9671	4.9	4.8928	80.72816863	31.77083333	3.409090909	64.82007576
12	5.4942	6.85	5.7761	5.7019	5.6929	79.20784777	26.32139056	3.192621497	70.48598794
13	4.8954	5.7753	5.0675	5.0106	5.0037	80.4409592	33.06217316	4.00929692	62.92852992
14	5.1599	5.8503	5.3146	5.2725	5.2664	77.59269988	27.21396251	3.943115708	68.84292178
15	4.783	6.6271	5.1655	5.0425	5.0278	79.25817472	32.15686275	3.843137255	64
16	4.6868	5.3494	4.8275	4.7835	4.7776	78.76546936	31.27221038	4.193319119	64.5344705

17	4.4624	6.3032	4.8547	4.7259	4.7107	78.68861365	32.83201631	3.874585776	63.29339791
18	4.9619	5.8772	5.15	5.0933	5.0857	79.44936087	30.14354067	4.04040404	65.81605529
19	4.77	5.9338	5.0064	4.9344	4.9255	79.68723148	30.45685279	3.764805415	65.77834179
20	4.4281	5.0574	4.5791	4.5391	4.5334	76.00508502	26.49006623	3.774834437	69.73509934
21	5.0341	6.0831	5.2794	5.2153	5.2059	76.61582459	26.13126784	3.832042397	70.03668977
22	4.6696	6.0665	4.9679	4.8812	4.871	78.64557234	29.06469997	3.419376467	67.51592357
23	4.5088	6.2406	4.8791	4.7711	4.7575	78.61762328	29.16554145	3.672697813	67.16176073
24	4.3427	5.4674	4.5879	4.5211	4.5127	78.19863075	27.24306688	3.425774878	69.33115824
25	4.6884	5.6992	4.9143	4.8534	4.8448	77.65136526	26.95883134	3.806994245	69.23417441
26	4.7452	6.3735	5.0595	4.9648	4.9529	80.69766014	30.13044862	3.786191537	66.08335985
27	4.8292	6.0097	5.0589	4.992	4.983	80.54214316	29.12494558	3.918154114	66.9569003
28	5.0182	5.8406	5.1963	5.1433	5.1369	78.3438716	29.75856261	3.593486805	66.64795059

WB 06-30A&B

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	% Carbonate	Residual
1	4.9762	5.6555	5.1914	5.1438	5.1394	68.32032975	22.11895911	2.044609665	75.83643123
2	4.688	5.6071	4.9668	4.8971	4.8922	69.66597759	25	1.757532281	73.24246772
3	4.8543	5.2351	4.9822	4.9559	4.955	66.41281513	20.5629398	0.703674746	78.73338546
4	4.4638	5.4984	4.787	4.7159	4.7103	68.76087377	21.99876238	1.732673267	76.26856436
5	4.8093	5.5237	5.0309	4.9814	4.9778	68.98096305	22.33754513	1.624548736	76.03790614
6	4.8388	5.2411	4.9313	4.8983	4.8976	77.00720855	35.67567568	0.756756757	63.56756757
7	4.7474	5.2512	4.8553	4.8178	4.8151	78.58277094	34.75440222	2.50231696	62.74328082
8	4.8205	5.3923	4.9233	4.8814	4.879	82.0216859	40.75875486	2.33463035	56.90661479
9	4.3289	5.4409	4.5146	4.4319	4.428	83.30035971	44.53419494	2.100161551	53.36564351
10	4.9394	5.452	5.047	5.0119	5.0104	79.00897386	32.62081784	1.394052045	65.98513011
11	4.7735	5.7021	5.0449	4.9902	4.9851	70.77320698	20.15475313	1.879145173	77.96610169
12	5.509	6.674	5.8732	5.8046	5.7984	68.73819742	18.8358045	1.70236134	79.46183416
13	4.9106	5.4133	5.0597	5.0294	5.0258	70.34016312	20.32193159	2.414486922	77.26358149
14	5.1787	6.2283	5.4579	5.3901	5.3833	73.39939024	24.28366762	2.435530086	73.28080229
15	4.8009	5.7401	4.9891	4.919	4.9135	79.96166951	37.24760893	2.922422954	59.82996812
16	4.7027	5.9012	4.9808	4.9024	4.8958	76.79599499	28.19129809	2.373247033	69.43545487
17	4.4779	5.2925	4.657	4.6016	4.5973	78.01374908	30.93243998	2.400893356	66.66666667
18	4.6959	5.6597	4.8992	4.8326	4.828	78.90641212	32.75946877	2.262666011	64.97786522
19	4.7833	6.1904	5.072	4.9769	4.9692	79.48262384	32.94076896	2.667128507	64.39210253
20	4.4417	5.6136	4.6826	4.6075	4.6006	79.44363854	31.17476131	2.864259029	65.96097966
21	5.0486	6.2777	5.296	5.2212	5.2151	79.87145065	30.23443816	2.465642684	67.29991916
22	4.6821	5.8049	4.906	4.8299	4.8242	80.05878162	33.98838767	2.545779366	63.46583296
23	4.5216	5.4552	4.7232	4.6553	4.6498	78.40616967	33.68055556	2.728174603	63.59126984
24	4.3595	5.1336	4.5319	4.4801	4.4753	77.72897558	30.04640371	2.784222738	67.16937355
25	4.7043	5.6939	4.9598	4.8902	4.8826	74.18148747	27.2407045	2.974559687	69.78473581
26	4.7542	5.5659	4.9869	4.9216	4.9144	71.33177282	28.06188225	3.094112591	68.84400516
27	4.8393	5.7743	5.1173	5.0444	5.0347	70.26737968	26.22302158	3.489208633	70.28776978
28	5.2324	6.8678	5.6825	5.5573	5.5393	72.4776813	27.81604088	3.999111309	68.18484781

29	4.5973	5.7973	4.8883	4.8009	4.7897	75.75	30.03436426	3.848797251	66.11683849
30	4.9167	5.9367	5.1923	5.108	5.1008	72.98039216	30.58780842	2.612481858	66.79970972
31	4.8336	6.0719	5.2014	5.1154	5.1044	70.29798918	23.38227297	2.990755846	73.62697118
32	5.0318	5.8612	5.2796	5.223	5.2177	70.12298047	22.84100081	2.13882163	75.02017756
33	4.5793	5.6538	4.8664	4.7942	4.7861	73.28059563	25.14803204	2.821316614	72.03065134
34	5.1469	6.409	5.4539	5.371	5.3618	75.67546153	27.00325733	2.996742671	70
35	4.7954	5.8395	5.0495	4.9823	4.9763	75.66325065	26.44628099	2.361275089	71.19244392
36	4.4802	5.973	4.9402	4.8511	4.8422	69.18542337	19.36956522	1.934782609	78.69565217
37	5.0162	6.5924	5.4901	5.39	5.3792	69.93401853	21.1225997	2.278961806	76.59843849
38	5.0036	6.8477	5.6983	5.5918	5.5804	62.32850713	15.33035843	1.640996113	83.02864546
39	5.338	6.8579	5.7954	5.69	5.6813	69.90591486	23.04328815	1.902055094	75.05465676
40	4.5526	6.1573	4.9587	4.8395	4.833	74.69308905	29.35237626	1.600590987	69.04703275
41	4.6251	6.149	4.9482	4.8326	4.8243	78.79782138	35.77839678	2.568864129	61.65273909
42	5.1238	6.8153	5.5937	5.4762	5.468	72.21992315	25.00532028	1.745052139	73.24962758
43	4.4361	4.9509	4.59	4.5398	4.5367	70.1048951	32.6185835	2.014294997	65.36712151
44	5.256	6.725	5.7834	5.671	5.6615	64.09802587	21.31209708	1.801289344	76.88661358
45	5.1088	6.3389	5.5416	5.4412	5.4327	64.81586863	23.19778189	1.963955638	74.83826248
46	4.8419	6.4871	5.3891	5.2474	5.2337	66.73960613	25.89546784	2.503654971	71.60087719
47	4.8292	6.3631	5.3729	5.248	5.2346	64.55440381	22.97222733	2.464594445	74.56317822
48	4.9211	5.8716	5.3289	5.2592	5.25	57.09626512	17.09171162	2.256007847	80.65228053
49	4.5563	6.0182	5.2078	5.1097	5.0963	55.43470826	15.05755948	2.056792018	82.8856485
50	5.061	6.8927	6.1089	6.0214	6.0091	42.79085003	8.3500334	1.173776124	90.47619048
51	5.1355	6.8421	6.0544	5.9652	5.9513	46.15609985	9.707258679	1.512678202	88.78006312
52	5.1344	7.0255	6.2495	6.1673	6.1532	41.03431865	7.371536185	1.264460586	91.36400323
53	4.8264	6.0741	5.5119	5.4497	5.44	45.05890839	9.073668855	1.415025529	89.51130562
54	5.531	7.2093	6.5366	6.4627	6.448	40.08222606	7.34884646	1.461813842	91.1893397
55	5.5381	7.0875	6.5658	6.5147	6.506	33.67109849	4.972268172	0.84655055	94.18118128
56	4.8483	6.7676	6.0885	6.0184	6.0051	35.38269161	5.652314143	1.072407676	93.27527818
57	4.4445	6.7821	6.0361	5.9579	5.9435	31.91307324	4.913294798	0.904749937	94.18195527
58	5.1594	7.4364	6.703	6.6289	6.6136	32.20904699	4.800466442	0.991189427	94.20834413
59	4.7939	7.1371	6.398	6.32	6.3046	31.54233527	4.862539742	0.960039898	94.17742036
60	4.7775	6.3107	5.8216	5.7701	5.7603	31.90060005	4.932477732	0.938607413	94.12891485
61	4.7033	6.4308	5.8898	5.8248	5.8116	31.31693198	5.478297514	1.112515803	93.40918668
62	4.5184	6.7627	5.9329	5.8329	5.8146	36.97366662	7.069635914	1.293743372	91.63662071
63	5.2625	7.5402	6.6897	6.5877	6.5673	37.34029942	7.146860987	1.429372197	91.42376682
64	4.8694	6.5548	6.0398	5.9733	5.9551	30.55654444	5.681818182	1.555023923	92.76315789
65	5.1388	7.973	6.9318	6.8082	6.7846	36.73699809	6.893474624	1.316229782	91.79029559
66	4.8267	6.0718	5.5416	5.4749	5.4619	42.58292507	9.32997622	1.818436145	88.85158763
67	4.3462	5.6349	5.1119	5.0417	5.0289	40.58353379	9.168081494	1.671672979	89.16024553
68	4.8886	6.9649	6.4086	6.344	6.332	26.79285267	4.25	0.789473684	94.96052632
69	4.8768	7.3574	6.7221	6.6573	6.645	25.61073934	3.511624126	0.666558283	95.82181759
70	5.1425	7.1722	6.5672	6.4951	6.4813	29.80736069	5.060714536	0.968624974	93.97066049
71	4.8259	7.1564	6.295	6.1853	6.1638	36.96202532	7.467156763	1.463481043	91.06936219

72	4.3514	6.7323	5.7843	5.6643	5.6413	39.81687597	8.374624887	1.605136437	90.02023868
73	4.6909	6.8647	6.0323	5.9194	5.8978	38.2923912	8.416579693	1.610257939	89.97316237
74	5.103	7.269	6.4585	6.3505	6.331	37.41920591	7.967539653	1.438583549	90.5938768
75	4.3732	6.9999	6.2348	6.1417	6.1239	29.12780295	5.001074345	0.956166738	94.04275892
76	4.9764	7.886	7.0482	6.9449	6.9197	28.79433599	4.98600251	1.216333623	93.79766387
77	5.0453	7.3947	6.7276	6.6496	6.6315	28.3944837	4.636509541	1.075907983	94.28758248
78	5.1359	7.641	6.9667	6.879	6.8585	26.91708914	4.790255626	1.11972908	94.09001529
79	4.8234	6.8396	6.3454	6.2866	6.273	24.5114572	3.863337714	0.893561104	95.24310118
80	4.9552	6.7711	6.4022	6.3625	6.3526	20.31499532	2.743607464	0.684174153	96.57221838
81	4.5594	7.4731	6.8437	6.7764	6.7623	21.60140028	2.94619796	0.617256928	96.43654511
82	4.5968	6.5558	6.0551	6.0008	5.9893	25.55895865	3.72351368	0.788589453	95.48789687
83	4.0699	5.9284	5.4384	5.3849	5.3751	26.3653484	3.909389843	0.716112532	95.37449763
84	4.9576	6.5853	6.0249	5.9604	5.949	34.42894882	6.043286798	1.068115806	92.8885974
85	5.2082	7.6593	6.907	6.8138	6.793	30.69234221	5.486225571	1.22439369	93.28938074
86	5.5554	7.3977	6.8808	6.8128	6.7958	28.05731965	5.130526633	1.282631658	93.58684171
87	4.3067	6.2714	5.7772	5.724	5.7142	25.15396753	3.617817069	0.666439986	95.71574294
88	4.9263	7.3225	6.6969	6.6325	6.6186	26.10800434	3.637185135	0.785044618	95.57777025
89	4.9445	7.6089	6.8736	6.7996	6.7835	27.59720763	3.835985693	0.834586076	95.32942823
90	5.0415	6.938	6.5067	6.459	6.4469	22.74189296	3.255528256	0.825825826	95.91864592
91	4.9569	7.1834	6.7589	6.7141	6.7	19.06579834	2.486126526	0.782463929	96.73140954
92	4.6808	6.8567	6.4777	6.4375	6.4245	17.41807987	2.237186265	0.723468195	97.03934554

WB 06-33

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	% Carbonate	Residual
1	4.7114	6.504	5.2338	5.0827	5.067	70.85797166	28.92419602	3.005359877	68.0704441
2	5.2266	6.9379	5.6804	5.5518	5.5415	73.48214807	28.3384751	2.269722345	69.39180256
3	4.8844	6.2721	5.2148	5.119	5.1095	76.19081934	28.99515738	2.875302663	68.12953995
4	4.4603	6.1214	4.8771	4.7626	4.7508	74.90819337	27.47120921	2.83109405	69.69769674
5	4.6515	6.2227	5.1631	5.0647	5.0487	67.4389002	19.23377639	3.127443315	77.6387803
6	4.5074	5.9023	4.9271	4.8271	4.8141	69.91182164	23.82654277	3.09745056	73.07600667
7	4.7992	6.3056	5.2268	5.1166	5.1022	71.61444503	25.7717493	3.367633302	70.8606174
8	4.6333	6.3485	5.1267	4.9968	4.9811	71.23367537	26.32752331	3.182002432	70.49047426
9	4.9688	6.3141	5.3081	5.2092	5.1988	74.77885973	29.14824639	3.0651341	67.78661951
10	4.8234	6.0335	5.1113	5.0023	4.9923	76.2085778	37.86036818	3.473428274	58.66620354
11	4.9677	6.649	5.3827	5.2666	5.2535	75.31671921	27.97590361	3.156626506	68.86746988
12	4.865	6.9125	5.3388	5.192	5.1763	76.85958486	30.98353736	3.313634445	65.7028282
13	4.3404	6.4259	4.8018	4.6593	4.6448	77.87580916	30.88426528	3.14260945	65.97312527
14	4.3828	6.3591	4.8089	4.6695	4.6563	78.43950817	32.71532504	3.097864351	64.18681061
15	5.0021	6.362	5.2465	5.1378	5.1287	82.0280903	44.47626841	3.723404255	51.80032733
16	4.7189	6.2617	5.009	4.8919	4.8807	81.1965258	40.36539124	3.860737677	55.77387108
17	5.106	7.1049	5.528	5.3753	5.3607	78.88838861	36.18483412	3.45971564	60.35545024
18	4.766	6.4055	5.2297	5.1273	5.1147	71.71698689	22.08324348	2.7172741	75.19948242
19	4.6223	6.2824	5.2003	5.0925	5.0784	65.18282031	18.65051903	2.439446367	78.9100346

20	4.4928	6.1001	5.0476	4.9279	4.9089	65.48248616	21.57534247	3.424657534	75
21	4.7065	6.6188	5.2646	5.1167	5.0915	70.81524865	26.50062713	4.515319835	68.98405304
22	4.8992	6.6915	5.4147	5.2903	5.2709	71.23807398	24.13191077	3.763336566	72.10475267
23	4.356	6.229	4.8967	4.7636	4.7435	71.131874	24.61623821	3.717403366	71.66635842
24	4.8212	7.0703	5.53	5.3783	5.3514	68.48517185	21.4023702	3.795146727	74.80248307
25	4.9112	7.519	5.6675	5.4865	5.4546	70.99854283	23.932302	4.217902949	71.84979505
26	4.6802	6.7879	5.3538	5.2161	5.1929	68.04099255	20.44239905	3.444180523	76.11342043
27	4.885	7.2072	5.8228	5.6852	5.6659	59.61588149	14.67263809	2.058008104	83.26935381
28	4.3703	6.7388	5.1957	5.0441	5.0258	65.15093941	18.36685244	2.217106857	79.41604071
29	4.205	6.2576	4.9638	4.8419	4.827	63.03225178	16.06483922	1.963626779	81.971534
30	4.3523	6.2969	5.2031	5.0978	5.087	56.24807158	12.37658674	1.269393512	86.35401975
31	4.7861	7.1932	5.8541	5.7264	5.7136	55.63125753	11.95692884	1.198501873	86.84456929
32	4.5498	6.8304	5.6348	5.5124	5.4992	52.42480049	11.28110599	1.216589862	87.50230415
33	4.774	6.712	5.6285	5.5095	5.4972	55.90815273	13.92627267	1.439438268	84.63428906
34	4.5928	6.6508	5.5531	5.4324	5.4188	53.33819242	12.56898886	1.416224097	86.01478705
35	4.9659	6.8756	5.927	5.8145	5.7975	49.67272346	11.70533763	1.768806576	86.52585579
36	4.5787	6.8592	5.8134	5.6969	5.6785	45.85836439	9.435490403	1.490240544	89.07426905
37	4.6385	6.8714	5.6492	5.5154	5.4937	54.73599355	13.23834966	2.147026813	84.61462353
38	4.5025	6.5413	5.4463	5.3311	5.3169	53.70806357	12.20597584	1.50455605	86.28946811
39	4.3536	7.3654	5.8592	5.6975	5.6735	50.00996082	10.73990436	1.594048884	87.66604676
40	5.055	7.6347	6.3923	6.2543	6.2321	48.16063883	10.31930008	1.660061318	88.0206386
41	4.407	7.153	5.9109	5.771	5.7426	45.23306628	9.302480218	1.888423432	88.80909635
42	4.444	7.4365	6.2078	6.0688	6.0407	41.05931495	7.880712099	1.593151151	90.52613675
43	4.539	7.1917	6.0415	5.8946	5.8743	43.35959588	9.77703827	1.351081531	88.8718802
44	5.496	7.6331	6.7179	6.6135	6.5985	42.82438819	8.54407071	1.227596366	90.22833292
45	5.0437	7.2336	6.5265	6.4478	6.4343	32.28914562	5.307526302	0.910439709	93.78203399
46	4.6264	7.2464	6.507	6.4262	6.4116	28.22137405	4.296501117	0.776347974	94.92715091
47	4.5486	6.8457	6.1133	6.027	6.0113	31.88367942	5.515434269	1.003387231	93.4811785
48	4.4994	7.3836	6.3747	6.2568	6.2306	34.98023715	6.286994081	1.397109796	92.31589612
49	4.5001	7.9185	6.7672	6.6346	6.6052	33.67949918	5.848881831	1.296810904	92.85430726
50	4.765	7.9039	6.8377	6.7149	6.6874	33.96731339	5.924639359	1.326771843	92.7485888
51	4.2774	6.3531	5.6398	5.5528	5.5362	34.36431083	6.385789783	1.21843805	92.39577217
52	4.2611	6.5434	5.7602	5.6642	5.6461	34.31625991	6.403842305	1.207391101	92.38876659
53	4.5954	7.1372	6.3372	6.2371	6.2161	31.47375875	5.746928465	1.205649328	93.04742221
54	5.2869	7.9849	7.1695	7.0642	7.0434	30.22238695	5.593328376	1.104854988	93.30181664
55	4.2512	6.523	5.9747	5.9062	5.8918	24.1350471	3.974470554	0.835509138	95.19002031
56	4.4379	7.2501	6.6491	6.5825	6.5659	21.37116848	3.011939219	0.750723589	96.23733719
57	4.4476	7.2851	6.6563	6.5883	6.5686	22.16035242	3.078734097	0.891927378	96.02933852
58	4.5948	7.786	7.0937	7.0227	7.0068	21.69403359	2.84125015	0.636279963	96.52246989
59	4.5725	7.3595	6.7677	6.703	6.6919	21.23430212	2.94733965	0.505648688	96.54701166
60	4.7006	8.2007	7.4862	7.4197	7.4066	20.41370247	2.387277427	0.470275704	97.14244687
61	4.8536	8.7938	8.0353	7.9692	7.955	19.25029186	2.077505736	0.446302291	97.47619197
62	4.6356	7.9983	7.3461	7.2889	7.2762	19.39512891	2.110311751	0.468548238	97.42114001

63	4.8376	7.7949	7.1603	7.091	7.0755	21.45876306	2.983596676	0.667326818	96.34907651
64	4.9079	8.409	7.5678	7.4753	7.4547	24.02673445	3.477574345	0.774465205	95.74796045
65	4.7621	9.0023	7.9497	7.8358	7.8121	24.82430074	3.573221232	0.743506086	95.68327268
66	5.4212	9.1663	8.3179	8.23	8.2115	22.6536007	3.03448752	0.638657783	96.3268547
67	5.0805	8.3293	7.5892	7.5122	7.4951	22.78071903	3.069318771	0.681627935	96.24905329
68	5.1461	8.6907	7.741	7.6387	7.6158	26.79286802	3.942348453	0.882500289	95.17515126
69	5.2053	8.3764	7.5809	7.4925	7.4711	25.08593233	3.721165179	0.900825055	95.37800977
70	5.1623	8.1438	7.4456	7.3698	7.352	23.41774275	3.319756493	0.779573424	95.90067008
71	4.8168	7.9112	7.2503	7.1819	7.1631	21.35793692	2.810766386	0.772549825	96.41668379
72	5.0256	8.8161	7.9778	7.8971	7.8778	22.11581586	2.733554637	0.653749746	96.61269562
73	5.0735	7.6794	7.1647	7.1157	7.1053	19.75133351	2.343152257	0.497322112	97.15952563
74	4.8415	10.1444	9.1493	9.059	9.0374	18.76520395	2.096197595	0.501416036	97.40238637
75	4.7607	7.8841	7.2686	7.2055	7.188	19.70608952	2.516049284	0.697794968	96.78615575
76	4.5483	7.4752	6.882	6.8161	6.7978	20.26717688	2.823841968	0.784162489	96.39199554
77	4.8429	8.4732	7.7008	7.6172	7.5964	21.27647853	2.925224815	0.727807131	96.34696805
78	4.5865	8.4841	7.7108	7.6315	7.6126	19.84041461	2.53816855	0.604935506	96.85689594
79	5.2953	8.4832	7.8267	7.7572	7.7389	20.59349415	2.745516315	0.722920123	96.53156356
80	4.9862	8.8072	8.078	8.001	7.9813	19.08400942	2.490458633	0.637169286	96.87237208
81	5.0558	7.7546	7.1053	7.0369	7.0223	24.05884097	3.337399366	0.71236887	95.95023176
82	5.2891	9.9525	9.0169	8.9179	8.8938	20.06261526	2.655721873	0.646493911	96.69778422
83	4.8058	8.9696	8.0973	8.0072	7.9872	20.94961333	2.73735379	0.607625703	96.65502051
84	5.1346	8.5314	7.8638	7.791	7.7739	19.6537918	2.667448337	0.626557233	96.70599443
85	4.6275	7.5686	7.07	7.0165	7.0012	16.95284077	2.19037871	0.626407369	97.18321392
86	5.2822	8.8632	8.2128	8.1432	8.1217	18.16252443	2.374940285	0.733638163	96.89142155
87	4.739	8.0491	7.4394	7.3655	7.3404	18.4193831	2.73663161	0.929491927	96.33387646
88	4.5075	7.6819	7.0788	7.0095	6.9868	18.99886593	2.695134757	0.882821919	96.42204332
89	4.7746	7.6085	7.1466	7.1044	7.0817	16.29909312	1.779089376	0.956998314	97.26391231
90	4.4194	7.5752	7.0609	7.0113	6.9944	16.29697699	1.877720992	0.639787999	97.48249101
91	4.8107	8.1402	7.6081	7.5566	7.5401	15.98137859	1.84099521	0.589833417	97.56917137
92	5.0078	8.3029	7.7984	7.7474	7.7305	15.31061273	1.827563965	0.605604529	97.56683151

WB 06 - 13B

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	% Carbonate	Residual
1	5.0032	6.8316	5.3938	5.1874	5.1783	78.63705972	52.84178187	2.329749104	44.82846902
2	5.1245	6.2627	5.2993	5.1613	5.1595	84.64241785	78.94736842	1.029748284	20.0228833
3	4.7273	5.4491	4.8748	4.8051	4.8028	79.56497645	47.25423729	1.559322034	51.18644068
4	4.9938	5.4009	5.0846	5.0521	5.0501	77.69589781	35.79295154	2.202643172	62.00440529
5	5.5256	6.1776	5.6635	5.6148	5.6135	78.84969325	35.31544598	0.94271211	63.74184191
6	4.8411	5.9994	5.1091	5.0323	5.025	76.86264353	28.65671642	2.723880597	68.61940299
7	4.4352	6.1982	4.8455	4.7353	4.7267	76.7271696	26.8583963	2.096027297	71.04557641
8	5.1512	6.7182	5.5045	5.4084	5.4014	77.45373325	27.20067931	1.981318992	70.8180017
9	4.7787	5.9122	5.0332	4.9634	4.9595	77.5474195	27.42632613	1.532416503	71.04125737
10	4.7637	5.8122	5.0176	4.9513	4.9493	75.78445398	26.11264277	0.787711698	73.09964553

11	4.69	6.0602	5.0355	4.952	4.9466	74.78470296	24.16787265	1.562952243	74.26917511
12	4.5077	5.8763	4.8536	4.7724	4.7642	74.72599737	23.47499277	2.370627349	74.15437988
13	5.2552	6.5859	5.5681	5.4889	5.4803	76.48605997	25.31160115	2.748481943	71.93991691
14	4.8622	6.2279	5.194	5.1162	5.111	75.70476679	23.44786016	1.567209162	74.98493068
15	5.13	6.4515	5.4592	5.3855	5.3782	75.08891411	22.38760632	2.217496962	75.39489672
16	4.8207	6.131	5.1702	5.0976	5.0913	73.32671907	20.77253219	1.802575107	77.4248927
17	4.345	6.1536	4.8078	4.7042	4.6948	74.41114674	22.38547969	2.031114952	75.58340536
18	4.8938	6.331	5.2992	5.219	5.2117	71.79237406	19.78293044	1.800690676	78.41637889
19	4.8707	6.0942	5.2152	5.1451	5.1401	71.84307315	20.34833091	1.45137881	78.20029028
20	5.1364	6.327	5.4823	5.4124	5.4068	70.94742147	20.20815265	1.618965019	78.17288234
21	4.813	6.2403	5.2295	5.1435	5.1364	70.81902894	20.6482593	1.704681873	77.64705882
22	4.3434	6.0187	4.8599	4.7585	4.7478	69.16970095	19.6321394	2.071636012	78.29622459
23	4.6879	5.6345	4.9827	4.9248	4.9181	68.85696176	19.64043419	2.272727273	78.08683853
24	5.101	6.391	5.6257	5.5539	5.5433	59.3255814	13.68400991	2.02020202	84.29578807
25	4.3657	5.6732	4.8511	4.777	4.7648	62.87571702	15.2657602	2.513391018	82.22084878
26	4.9695	6.7113	5.6499	5.5648	5.5494	60.93696176	12.50734862	2.263374486	85.2292769
27	5.0382	6.661	5.6746	5.5963	5.5846	60.78383042	12.30358265	1.838466373	85.85795097
28	5.1235	6.182	5.5389	5.4848	5.4768	60.75578649	13.02359172	1.925854598	85.05055368
29	4.8137	6.1216	5.3224	5.2544	5.2429	61.10558911	13.36740712	2.260664439	84.37192845
30	4.9453	6.2304	5.4169	5.3504	5.3385	63.30246673	14.10093299	2.523324852	83.37574215
31	4.5479	5.9816	5.0883	5.019	5.0069	62.30731673	12.8238342	2.239082161	84.93708364
32	4.591	5.7118	5.0528	4.9955	4.9862	58.79728765	12.40796882	2.013858813	85.57817237
33	4.0489	5.3572	4.6109	4.5439	4.5316	57.04349155	11.92170819	2.1886121	85.88967972
34	4.9463	6.3883	5.5732	5.5038	5.4892	56.52565881	11.07034615	2.328920083	86.60073377
35	5.1961	6.6442	5.8465	5.778	5.7639	55.08597473	10.53198032	2.167896679	87.300123
36	5.5466	7.1379	6.2685	6.1922	6.1765	54.6345755	10.56933093	2.174816457	87.25585261
37	4.2981	5.3974	4.7787	4.722	4.7123	56.2812699	11.79775281	2.018310445	86.18393675
38	4.9116	6.1471	5.4228	5.36	5.3486	58.62403885	12.28482003	2.230046948	85.48513302
39	4.9359	6.3204	5.4847	5.4164	5.4011	60.36114121	12.44533528	2.787900875	84.76676385
40	5.03	6.2016	5.5091	5.4499	5.438	59.10720382	12.35650177	2.483823836	85.15967439
41	4.9476	6.2665	5.4993	5.4382	5.4241	58.16968686	11.07485953	2.555736813	86.36940366
42	4.3575	5.4164	4.8097	4.7582	4.7495	57.29530645	11.38876603	1.923927466	86.6873065
43	4.9356	6.2659	5.519	5.4566	5.4429	56.1452304	10.69592047	2.348303051	86.95577648
44	4.5119	5.9979	5.1972	5.1261	5.11	53.88290713	10.37501824	2.349336057	87.2756457
45	4.8301	6.2216	5.4873	5.4232	5.4127	52.77039166	9.753499696	1.597687158	88.64881315
46	4.892	6.3845	5.6984	5.6371	5.6239	45.96984925	7.601686508	1.636904762	90.76140873
47	5.1239	6.3434	5.7524	5.6996	5.6871	48.46248462	8.400954654	1.988862371	89.61018298
48	4.9115	6.0179	5.5015	5.4506	5.4408	46.67389732	8.627118644	1.661016949	89.71186441
49	4.876	6.344	5.6142	5.5426	5.5287	49.71389646	9.699268491	1.882958548	88.41777296
50	4.233	5.6401	4.9295	4.8558	4.843	50.50103049	10.58147882	1.83776023	87.58076095
51	4.5292	5.8789	5.2225	5.1565	5.1424	48.63302956	9.519688447	2.033751623	88.44655993
52	4.615	5.9424	5.3326	5.268	5.2562	45.93943047	9.002229654	1.644370123	89.35340022

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	%Carbonate	Residual
1	4.9631	5.9301	5.3738	5.0131	5.0052	57.52843847	87.8256635	1.923545167	10.25079133
2	5.0238	5.9831	5.585	5.0719	5.0639	41.49900969	91.42908054	1.42551675	7.145402708
3	4.8411	5.6717	5.4213	4.9487	4.9387	30.14688177	81.4546708	1.723543606	16.82178559
4	5.0454	5.773	5.543	5.1306	5.1229	31.61077515	82.8778135	1.547427653	15.57475884
5	4.7867	6.0044	5.6469	4.9549	4.9404	29.35862692	80.44640781	1.685654499	17.86793769
6	4.826	5.4829	5.2646	4.94	4.9281	33.23184655	74.00820793	2.713178295	23.27861377
7	4.7936	5.6498	5.3982	4.9484	4.9326	29.38565756	74.39629507	2.613298048	22.99040688
8	4.3077	5.4097	5.0936	4.5063	4.4862	28.68421053	74.72960937	2.5575773	22.71281334
9	4.9242	6.1738	5.8302	5.1306	5.1121	27.49679898	77.21854305	2.041942605	20.73951435
10	4.7593	5.573	5.3267	4.9107	4.897	30.26914096	73.31688403	2.414522383	24.26859358
11	4.8994	5.9947	5.7091	5.1115	5.0949	26.07504793	73.805113	2.050142028	24.14474497
12	4.733	5.5518	5.3053	4.9266	4.9139	30.10503175	66.17158833	2.219115848	31.60929582
13	5.1622	6.1197	5.8462	5.3784	5.3656	28.56396867	68.39181287	1.871345029	29.73684211
14	4.785	5.6196	5.3255	4.9157	4.9054	35.23843757	75.8186864	1.905642923	22.27567068
15	4.964	5.9382	5.6382	5.1315	5.1202	30.79449805	75.15574014	1.676060516	23.16819935
16	4.6889	5.5734	5.3226	4.8823	4.8716	28.35500283	69.48082689	1.688496134	28.83067698
17	4.4649	5.4803	5.2029	4.6173	4.6063	27.31928304	79.3495935	1.490514905	19.1598916
18	4.6695	5.6004	5.3659	4.7948	4.7856	25.19067569	82.00746697	1.321079839	16.67145319
19	5.4967	6.3512	6.1327	5.6329	5.6228	25.57050907	78.58490566	1.588050314	19.82704403
20	4.4299	5.5854	5.2814	4.6336	4.62	26.30895716	76.07751028	1.597181445	22.32530828
21	4.3445	5.5803	5.2991	4.5337	4.5211	22.75449102	80.18018018	1.319924576	18.49989524
22	5.0352	5.9394	5.6438	5.1573	5.1477	32.69188233	79.93756162	1.577390733	18.48504765
23	4.7458	5.6779	5.3821	4.8606	4.8517	31.7347924	81.95819582	1.3987113	16.64309288
24	5.2195	6.3602	6.0311	5.4058	5.394	28.85070571	77.04534253	1.453918186	21.50073928
25	4.6879	5.4168	5.1476	4.7731	4.7649	36.93236384	81.46617359	1.783772025	16.75005438
26	4.9009	6.0365	5.7189	5.0468	5.0356	27.96759422	82.16381418	1.369193154	16.46699267
27	4.8296	6.0023	5.7173	5.0219	5.0089	24.30289076	78.33727611	1.464458714	20.19826518
28	4.5089	5.3676	5.1117	4.6677	4.6573	29.80086177	73.65627074	1.725282017	24.61844725
29	4.5807	6.1062	5.7376	4.9225	4.9052	24.16256965	70.4555277	1.495375573	28.04909672
30	4.7714	6.1399	5.7192	5.1439	5.1257	30.74168798	60.69845959	1.920236337	37.38130407
31	4.8207	6.1071	5.7587	5.1549	5.1397	27.08333333	64.37100213	1.620469083	34.00852878
32	5.0181	6.1247	5.8449	5.3209	5.3054	25.2846557	63.3768747	1.874697629	34.74842767
33	4.5617	5.7558	5.4359	4.9007	4.8839	26.79005108	61.2216884	1.921757035	36.85655456
34	5.1311	6.3829	6.0854	5.4321	5.4142	23.76577728	68.45855601	1.875720423	29.66572357
35	4.7787	6.1339	5.8113	5.104	5.0838	23.80460449	68.49699787	1.956227	29.54677513
36	4.4612	5.4577	5.1722	4.6948	4.6794	28.65027597	67.14486639	2.165963432	30.68917018
37	4.9995	6.1357	5.8441	5.312	5.2952	25.66449569	63.0002368	1.98910727	35.01065593
38	4.9863	6.1965	5.8943	5.2699	5.2527	24.97107916	68.76651982	1.894273128	29.33920705
39	5.3208	6.5342	6.2441	5.688	5.6695	23.90802703	60.22961118	2.003682443	37.76670638
40	4.5383	5.4263	5.1602	4.7908	4.7775	29.96621622	59.39861714	2.138607493	38.46277537
41	4.609	5.9856	5.6646	5.0142	4.9948	23.3183205	61.61424782	1.837817355	36.54793482
42	5.1088	6.4824	6.1518	5.4223	5.4048	24.06814211	69.94247363	1.677852349	28.37967402

43	4.4212	5.5627	5.2424	4.6625	4.6477	28.05957074	70.61617146	1.802240623	27.58158792
44	5.2454	6.7702	6.3878	5.6313	5.6126	25.07869885	66.2202381	1.636904762	32.14285714
45	5.0961	6.7011	6.3052	5.4961	5.4762	24.66666667	66.91754197	1.645852287	31.43660574
46	4.8267	6.1623	5.8789	5.1051	5.0882	21.21892782	73.54115187	1.606158525	24.8526896
47	4.8193	6.1271	5.8429	5.1868	5.1638	21.73115155	64.09730363	2.246971473	33.65572489
48	4.9087	5.9913	5.6921	5.1593	5.1422	27.63716978	68.01123309	2.182792954	29.80597396
49	4.5384	5.4751	5.2248	4.7726	4.7595	26.72146899	65.87995338	1.908508159	32.21153846
50	5.0465	6.0044	5.5949	5.2817	5.2679	42.74976511	57.11159737	2.516411379	40.37199125

WB 06 - 17B

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	% Carbonate	Residual
1	4.4963	5.7681	5.0058	4.9515	4.9314	59.9386696	10.65750736	3.945044161	85.39744848
2	4.7508	5.9789	5.2366	5.1855	5.1666	60.44296067	10.51873199	3.890489914	85.5907781
3	4.2727	5.5129	4.7467	4.6936	4.6747	61.78035801	11.20253165	3.987341772	84.81012658
4	4.2549	6.1635	4.9443	4.8604	4.8335	63.87928324	12.1700029	3.901943719	83.92805338
5	4.5888	5.7831	5.0054	4.9541	4.9144	65.11764213	12.31397024	9.529524724	78.15650504
6	5.2718	6.4714	5.6914	5.6404	5.6225	65.02167389	12.15443279	4.265967588	83.57959962
7	4.2444	5.1298	4.546	4.5087	4.4967	65.93629998	12.36737401	3.978779841	83.65384615
8	4.4339	6.1614	5.047	4.9773	4.9525	64.50940666	11.36845539	4.045017126	84.58652748
9	4.4403	5.7797	4.9191	4.8191	4.8016	64.25265044	20.8855472	3.65497076	75.45948204
10	4.5702	5.8668	4.9874	4.9339	4.9165	67.82353849	12.82358581	4.170661553	83.00575264
11	4.5602	5.7064	4.9868	4.9411	4.9239	62.78136451	10.71261135	4.031879981	85.25550867
12	4.691	6.5522	5.3701	5.2984	5.2733	63.51278745	10.55809159	3.696068326	85.74584008
13	4.8486	6.1962	5.3393	5.2859	5.2692	63.58711784	10.88241288	3.403301406	85.71428571
14	4.6289	5.7197	5.0357	4.9922	4.9782	62.70627063	10.69321534	3.441494592	85.86529007
15	4.827	6.1006	5.3044	5.2514	5.2331	62.51570352	11.10180142	3.833263511	85.06493506
16	4.8991	5.9478	5.3074	5.2643	5.2488	61.06608182	10.55596375	3.796228264	85.64780798
17	4.7547	6.0178	5.2506	5.199	5.1818	60.73945056	10.40532365	3.468441218	86.12623513
18	5.4109	6.7349	5.9464	5.8913	5.8734	59.55438066	10.28944911	3.342670401	86.36788049
19	5.0771	6.4848	5.6391	5.5779	5.559	60.07672089	10.88967972	3.362989324	85.74733096
20	5.14	6.2538	5.5838	5.5361	5.5198	60.15442629	10.74808472	3.672825597	85.57908968
21	5.1999	6.4926	5.7094	5.655	5.6357	60.58636961	10.67713445	3.788027478	85.53483808
22	5.1579	6.9823	5.8512	5.7769	5.7522	61.99846525	10.71686139	3.562671282	85.72046733
23	4.8116	6.2011	5.3415	5.2824	5.2621	61.86397985	11.15304774	3.830911493	85.01604076
24	5.0215	6.4309	5.5747	5.5147	5.4948	60.749255	10.84598698	3.59725235	85.55676067
25	5.069	6.5055	5.6408	5.5805	5.56	60.1949182	10.54564533	3.58516964	85.86918503
26	4.8263	6.3364	5.4198	5.3542	5.3318	60.69796702	11.05307498	3.774220725	85.1727043
27	4.7511	5.6837	5.1238	5.0818	5.0672	60.03645722	11.26911725	3.917359807	84.81352294
28	4.5443	5.6572	4.989	4.9362	4.9212	60.04133345	11.87317293	3.37306049	84.75376658
29	4.8396	5.9305	5.2774	5.2263	5.2108	59.8679989	11.67199635	3.54042942	84.78757423
30	4.5808	6.0672	5.1579	5.0896	5.0697	61.17465016	11.83503726	3.448275862	84.71668688
31	5.2908	6.8662	5.9127	5.8425	5.8195	60.52431129	11.28798842	3.698343785	85.01366779
32	4.9813	6.1367	5.4337	5.3823	5.3657	60.8447291	11.36162688	3.669319187	84.96905393

33	5.042	6.5191	5.6515	5.5861	5.5657	58.73671383	10.73010664	3.347005742	85.92288761
34	5.2849	6.3298	5.6707	5.6203	5.6062	63.07780649	13.06376361	3.65474339	83.281493
35	4.801	6.1952	5.3788	5.3196	5.301	58.5568785	10.24575978	3.219106957	86.53513326
36	5.1302	6.2157	5.6116	5.5646	5.5462	55.65177338	9.763190694	3.822185293	86.41462401
37	4.6159	5.8996	5.1781	5.1222	5.1034	56.20472073	9.943080754	3.344005692	86.71291355
38	5.2671	6.8989	5.9076	5.8339	5.8129	60.74886628	11.50663544	3.278688525	85.21467603
39	4.7276	6.1503	5.3299	5.2664	5.2451	57.66500316	10.54291881	3.536443633	85.92063756
40	4.4947	5.9232	5.1193	5.0582	5.0371	56.27581379	9.782260647	3.378162024	86.83957733
41	4.4058	5.7625	4.9896	4.9308	4.9092	56.96911624	10.07194245	3.699897225	86.22816033
42	4.7936	6.2038	5.3841	5.3207	5.298	58.12650688	10.73666384	3.844199831	85.41913633
43	5.0004	6.2272	5.5565	5.5029	5.4827	54.67068797	9.638554217	3.632440209	86.72900557
44	4.9455	6.0709	5.4617	5.4136	5.3947	54.13186423	9.318093762	3.661371561	87.02053468
45	4.5635	5.9844	5.2552	5.1996	5.1772	51.31958618	8.038166835	3.238398149	88.72343502
46	4.3868	5.928	5.2042	5.1456	5.1209	46.96340514	7.169072669	3.021776364	89.80915097
47	4.3963	5.4133	4.964	4.923	4.9064	44.17895772	7.222124361	2.92407962	89.85379602
48	4.6631	5.5395	5.1324	5.0953	5.0807	46.45139206	7.905391008	3.111016407	88.98359258
49	4.8059	6.2597	5.5498	5.4902	5.4664	48.83065071	8.011829547	3.199354752	88.7888157
50	4.8285	6.4294	5.6274	5.561	5.5353	50.09682054	8.311428214	3.216923269	88.47164852

WB 06_24

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	%Carbonate	Residual
1	4.868	5.7468	5.3122	5.261	5.2573	49.45380064	11.52633949	0.832958127	87.64070239
2	5.1336	6.5723	5.5931	5.4808	5.4739	68.06144436	24.43960827	1.501632209	74.05875952
3	4.8115	5.7647	5.0315	4.9648	4.9601	76.91984893	30.31818182	2.136363636	67.54545455
4	4.3396	5.6703	4.6476	4.5648	4.5575	76.85428722	26.88311688	2.37012987	70.74675325
5	4.6837	5.4665	4.8929	4.8343	4.8291	73.27542156	28.01147228	2.485659656	69.50286807
6	5.0977	6.3376	5.4162	5.3352	5.3279	74.31244455	25.43171115	2.291993721	72.27629513
7	4.3622	5.2526	4.5527	4.501	4.4961	78.60512129	27.13910761	2.572178478	70.28871391
8	4.9668	6.1986	5.2263	5.1547	5.1475	78.93326839	27.59152216	2.774566474	69.63391137
9	5.034	5.8371	5.1943	5.1469	5.1427	80.0398456	29.56955708	2.620087336	67.81035558
10	5.1205	5.8577	5.2759	5.2195	5.2158	78.92023874	36.29343629	2.380952381	61.32561133
11	4.81	6.0423	5.044	4.9608	4.9551	81.01111742	35.55555556	2.435897436	62.00854701
12	4.9416	5.5308	5.0691	5.0333	5.0301	78.3604888	28.07843137	2.509803922	69.41176471

WB 06_26

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	%Carbonate	Residual
1	4.9616	5.1776	5.1239	5.1218	5.1179	24.86111111	1.293900185	2.402957486	96.30314233
2	5.0223	5.3785	5.3056	5.3008	5.2998	20.46603032	1.694316978	0.352982704	97.95270032
3	4.8397	5.3794	5.2843	5.2789	5.2779	17.6209005	1.214574899	0.224921278	98.56050382
4	5.0438	5.5187	5.4189	5.4123	5.4112	21.01495052	1.759530792	0.293255132	97.94721408
5	4.785	5.2316	5.1355	5.1291	5.1279	21.51813704	1.82596291	0.342368046	97.83166904
6	4.8986	5.547	5.4095	5.4012	5.4008	21.20604565	1.624584067	0.078293208	98.29712272
7	4.7308	5.2255	5.1291	5.1229	5.1222	19.48655751	1.556615616	0.175746924	98.26763746
8	4.7912	5.3347	5.2338	5.2275	5.2268	18.56485741	1.42340714	0.158156349	98.41843651
9	4.3057	5.2867	5.0493	5.0335	5.0301	24.19979613	2.124798279	0.457235073	97.41796665

10	4.9201	5.6516	5.41	5.3863	5.383	33.02802461	4.837721984	0.673606859	94.48867116
11	4.7558	5.6857	5.3717	5.3375	5.3333	33.76707173	5.552849489	0.681928885	93.76522163
12	5.4937	6.2427	5.9811	5.9517	5.9479	34.92656876	6.032006565	0.779647107	93.18834633
13	4.8952	5.8046	5.4554	5.4171	5.4126	38.39894436	6.836843984	0.803284541	92.35987147
14	5.1594	6.0145	5.6357	5.5948	5.5896	44.29891241	8.587024984	1.091748898	90.32122612
15	4.7824	5.9295	5.308	5.2416	5.2357	54.18010636	12.63318113	1.122526636	86.24429224
16	4.6867	5.4582	5.0766	5.0345	5.0313	49.46208684	10.79764042	0.820723262	88.38163632
17	4.462	5.0108	4.6499	4.6099	4.6064	65.76166181	21.28791911	1.862692922	76.84938797
18	4.961	6.0822	5.2996	5.2229	5.2149	69.80021406	22.65209687	2.362669817	74.98523331
19	4.7692	5.5367	5.0021	4.956	4.9493	69.65472313	19.79390296	2.876771146	77.32932589
20	4.4276	5.0477	4.6007	4.5623	4.556	72.08514756	22.18370884	3.639514731	74.17677643
21	5.0336	5.4989	5.145	5.1138	5.1087	76.05845691	28.00718133	4.578096948	67.41472172
22	4.6693	5.357	4.8259	4.7828	4.7759	77.22844263	27.52234994	4.406130268	68.0715198
23	4.5081	5.0386	4.6568	4.6231	4.6164	71.96983977	22.66308003	4.505716207	72.83120377
24	4.3419	4.9971	4.5239	4.4794	4.4714	72.22222222	24.45054945	4.395604396	71.15384615
25	4.6867	5.8518	4.9697	4.8831	4.87	75.71023946	30.60070671	4.628975265	64.77031802
26	4.7446	5.5076	4.9334	4.8725	4.8637	75.25557012	32.25635593	4.661016949	63.08262712
27	4.829	5.359	4.9782	4.9353	4.9286	71.8490566	28.75335121	4.490616622	66.75603217
28	5.0173	6.0079	5.2743	5.1999	5.1871	74.0561276	28.94941634	4.980544747	66.07003891
29	4.5795	5.7836	4.9074	4.8151	4.8008	72.76804252	28.14882586	4.361085697	67.49008844
30	4.8995	5.8902	5.2177	5.1402	5.1258	67.88129605	24.3557511	4.525455688	71.11879321
31	4.8195	5.5055	4.9946	4.9427	4.9337	74.47521866	29.6402056	5.139920046	65.21987436
32	5.0175	5.4991	5.1453	5.1104	5.1045	73.46345515	27.30829421	4.616588419	68.07511737
33	4.5609	5.1949	4.7087	4.6589	4.6524	76.68769716	33.69418133	4.397834912	61.90798376
34	5.1299	6.0124	5.3236	5.26	5.2515	78.0509915	32.83427981	4.38822922	62.77749097
35	4.7782	5.8142	5.0632	4.9937	4.9816	72.49034749	24.38596491	4.245614035	71.36842105
36	4.4616	5.3454	4.7106	4.6516	4.6424	71.82620502	23.69477912	3.694779116	72.61044177
37	4.9987	6.2116	5.2797	5.1995	5.1891	76.83238519	28.54092527	3.701067616	67.75800712
38	4.9855	6.1068	5.2504	5.176	5.1664	76.37563542	28.08607022	3.62400906	68.28992072
39	5.3201	6.2708	5.5792	5.5225	5.5141	72.74639739	21.88344269	3.241991509	74.8745658
40	4.5372	5.6734	4.8663	4.8031	4.7933	71.03502904	19.2038894	2.977818292	77.81829231
41	4.6088	6.0425	4.9399	4.8559	4.8452	76.90590779	25.36997886	3.231652069	71.39836907
42	5.108	6.3291	5.363	5.2899	5.2812	79.11718942	28.66666667	3.411764706	67.92156863
43	4.4208	5.2826	4.6181	4.5634	4.5559	77.10605709	27.72427775	3.80131779	68.47440446
44	5.2457	6.1349	5.4696	5.4118	5.4042	74.82006298	25.81509603	3.394372488	70.79053149
45	5.0963	5.8499	5.3344	5.2858	5.2783	68.40498938	20.41159177	3.149937001	76.43847123
46	4.8271	5.7423	5.0827	5.0277	5.0203	72.07167832	21.51799687	2.89514867	75.58685446
47	4.8198	6.0291	5.2247	5.1488	5.1378	66.51782023	18.74536923	2.716720178	78.5379106
48	4.9077	5.7994	5.1586	5.1038	5.0956	71.8627341	21.84137106	3.268234356	74.89039458
49	4.5375	5.3369	4.8164	4.7698	4.761	65.1113335	16.70849767	3.155252779	80.13624955
50	5.0453	6.1403	5.3112	5.2387	5.2296	75.71689498	27.26588943	3.422339225	69.31177134

WB 06_35

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	% Carbonate	Residual
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1	5.0005	5.7266	5.2346	5.1894	5.1826	67.75926181	19.30798804	2.904741563	77.7872704
2	5.1225	5.8553	5.2954	5.2373	5.2321	76.40556769	33.60323887	3.007518797	63.38924234
3	4.7246	5.2453	4.8331	4.792	4.7889	79.16266564	37.88018433	2.857142857	59.26267281
4	4.9907	6.4608	5.2582	5.1465	5.1391	81.80395891	41.75700935	2.76635514	55.47663551
5	4.3936	5.2854	4.5577	4.4922	4.4882	81.59901323	39.91468617	2.437538087	57.64777575
6	4.8327	5.9919	5.0459	4.9616	4.956	81.60800552	39.54033771	2.626641651	57.83302064
7	4.4339	5.0534	4.5564	4.5114	4.5084	80.2259887	36.73469388	2.448979592	60.81632653
8	5.1443	6.8722	5.4847	5.3626	5.3526	80.29978587	35.86956522	2.937720329	61.19271445
9	4.7772	5.6266	4.9167	4.8591	4.855	83.57664234	41.29032258	2.9390681	55.77060932
10	4.7614	6.38	5.0402	4.9147	4.9076	82.77523786	45.0143472	2.546628407	52.43902439
11	4.6872	6.2001	5.0968	4.9959	4.9873	72.92616829	24.63378906	2.099609375	73.26660156
12	4.5052	5.846	4.9955	4.9136	4.9047	63.43227924	16.70405874	1.815215174	81.48072609
13	5.247	6.8446	5.9033	5.8152	5.8056	58.91962944	13.42373914	1.462745696	85.11351516
14	4.8604	5.7965	5.5219	5.4998	5.4946	29.33447281	3.340891912	0.786092215	95.87301587
15	5.1277	7.5786	6.8574	6.7854	6.7722	29.42592517	4.162571544	0.763138116	95.07429034
16	4.8185	7.2879	6.545	6.4908	6.4767	30.08423099	3.13929916	0.816681147	96.04401969
17	4.3411	5.8556	5.3054	5.2676	5.2573	36.32882139	3.919941927	1.068132324	95.01192575
18	4.89	6.2849	5.8454	5.8154	5.808	31.50763496	3.140046054	0.774544693	96.08540925

WB 06 - 9B

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	%Carbonate	Residual
1	4.9622	6.2332	5.1577	4.9929	4.989	84.6184107	84.29667519	1.99488491	13.7084399
2	5.0233	6.2629	5.212	5.0641	5.0592	84.77734753	78.37837838	2.596714361	19.02490726
3	4.8405	6.1439	5.0324	4.8917	4.8872	85.27696793	73.31943721	2.344971339	24.33559145
4	5.0447	6.3114	5.2482	5.1064	5.1015	83.9346333	69.68058968	2.407862408	27.91154791
5	4.7863	6.1375	5.011	4.8596	4.8538	83.37033748	67.37872719	2.581219404	30.0400534
6	4.8264	5.6262	4.9575	4.8657	4.8623	83.6084021	70.0228833	2.593440122	27.38367658
7	4.7327	5.8643	4.9476	4.8121	4.8076	81.00919053	63.0525826	2.093997208	34.8534202
8	4.7926	6.227	5.1281	4.9443	4.9374	76.61042945	54.78390462	2.056631893	43.15946349
9	4.3076	5.4928	4.5649	4.4195	4.4145	78.29058387	56.50991061	1.943256899	41.54683249
10	4.9242	6.5494	5.2021	5.0329	5.0273	82.90056608	60.88521051	2.01511335	37.09967614
11	4.7588	6.2137	5.0768	4.9083	4.9028	78.14282769	52.98742138	1.729559748	45.28301887
12	5.4956	7.1081	5.8535	5.673	5.666	77.80465116	50.43308187	1.95585359	47.61106454
13	4.8978	6.1472	5.1716	5.0353	5.0296	78.08548103	49.78086194	2.081811541	48.13732652
14	5.1612	6.7154	5.5173	5.3513	5.3443	77.08789088	46.61611907	1.965739961	51.41814097
15	4.7854	6.6251	5.1536	4.9726	4.9648	79.98586726	49.15806627	2.118413905	48.72351983
16	4.688	6.2444	4.9664	4.8168	4.8154	82.11256746	53.73563218	0.502873563	45.76149425
17	4.4646	5.5738	4.6918	4.5704	4.5671	79.51676884	53.43309859	1.452464789	45.11443662
18	4.9638	5.8219	5.1205	5.032	5.0297	81.73872509	56.47734525	1.467772814	42.05488194
19	4.7717	6.1984	5.0214	4.889	4.8853	82.49807247	53.02362835	1.481778134	45.49459351
20	4.4288	5.6845	4.6422	4.5333	4.5304	83.00549494	51.03092784	1.358950328	47.61012184
21	5.0374	6.6594	5.3671	5.2405	5.2347	79.67324291	38.39854413	1.759175008	59.84228086
22	4.6719	6.2691	5.0515	4.92	4.9136	76.23340846	34.64172813	1.685985248	63.67228662

23	4.5115	5.9568	4.8625	4.7486	4.7428	75.71438456	32.45014245	1.652421652	65.8974359
24	4.3465	5.5202	4.6805	4.5862	4.5814	71.54298373	28.23353293	1.437125749	70.32934132
25	4.6895	5.9641	4.9827	4.8831	4.8788	76.99670485	33.96998636	1.466575716	64.56343793
26	4.7486	6.0128	5.0077	4.9082	4.9034	79.50482519	38.40216133	1.852566577	59.7452721
27	4.8308	5.8976	5.1296	5.0412	5.034	71.99100112	29.58500669	2.409638554	68.00535475
28	5.2195	6.2299	5.5162	5.4308	5.4269	70.63539192	28.78328278	1.31445905	69.90225817
29	4.5819	5.8147	4.9386	4.8333	4.8295	71.06586632	29.52060555	1.065320998	69.41407345
30	4.9003	6.2212	5.2503	5.139	5.1354	73.50291468	31.8	1.028571429	67.17142857
31	4.8203	6.1191	5.1085	4.9928	4.9903	77.81028642	40.14573213	0.867453158	58.98681471
32	5.0185	6.3294	5.2616	5.1515	5.1488	81.4554886	45.29000411	1.110654052	53.59934183
33	4.5626	5.7733	4.761	4.6586	4.6567	83.61278599	51.61290323	0.95766129	47.42943548
34	5.132	6.2707	5.312	5.2158	5.2154	84.19250022	53.44444444	0.222222222	46.33333333
35	4.7801	5.9668	4.9819	4.892	4.8899	82.99485969	44.54905847	1.040634291	54.41030723
36	4.4627	5.4728	4.62	4.5414	4.5406	84.42728443	49.9682136	0.508582327	49.52320407
37	5.0002	6.3102	5.1823	5.0843	5.0823	86.09923664	53.81658429	1.098297639	45.08511807
38	4.9888	6.264	5.1405	5.0436	5.0418	88.10382685	63.87607119	1.186552406	34.9373764
39	5.322	6.6158	5.4826	5.382	5.3802	87.58695316	62.64009963	1.120797011	36.23910336
40	4.5401	5.9686	4.6947	4.5846	4.5816	89.17745887	71.2160414	1.940491591	26.84346701
41	4.6128	5.6175	4.7167	4.6313	4.631	89.65860456	82.19441771	0.288739172	17.51684312
42	5.1109	6.178	5.2358	5.1371	5.1356	88.29538	79.02321857	1.200960769	19.77582066
43	4.4225	6.0172	4.6433	4.4922	4.4871	86.15413557	68.43297101	2.309782609	29.25724638
44	5.2479	6.4091	5.419	5.3046	5.3	85.26524285	66.86148451	2.688486265	30.45002922
45	5.0983	6.1025	5.2462	5.1447	5.1408	85.2718582	68.62745098	2.636916836	28.73563218
46	4.8312	5.7278	4.9615	4.8666	4.8637	85.46732099	72.83192632	2.225633154	24.94244052
47	4.8222	6.1011	4.9977	4.8716	4.8678	86.27726953	71.85185185	2.165242165	25.98290598
48	4.9104	5.928	5.0359	4.9362	4.9337	87.66705975	79.44223108	1.992031873	18.56573705
49	4.5393	5.2978	4.6207	4.5497	4.5496	89.26829268	87.22358722	0.122850123	12.65356265
50	5.0485	6.0393	5.1626	5.0689	5.0678	88.48405329	82.12094654	0.964066608	16.91498685

WB 3-1A

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	%Carbonate	Residual
1	4.973	5.9072	5.3049	5.2486	5.2406	64.47227574	16.96294064	2.410364568	80.62669479
2	4.6839	5.8841	5.1392	5.0852	5.0741	62.06465589	11.86031188	2.437952998	85.70173512
3	4.8514	6.2699	5.3592	5.2908	5.2786	64.20162143	13.46987003	2.402520677	84.12760929
4	4.4534	5.9074	4.9887	4.9005	4.8898	63.18431912	16.47674201	1.998879133	81.52437885
5	4.7971	6.4995	5.4563	5.3817	5.37	61.27819549	11.31674757	1.774878641	86.90837379
6	4.8346	5.9789	5.1896	5.1091	5.0992	68.97666696	22.67605634	2.788732394	74.53521127
7	4.7412	6.2117	5.1352	5.057	5.0447	73.20639238	19.84771574	3.121827411	77.03045685
8	4.8012	5.9242	5.1044	5.0509	5.0425	73.00089047	17.64511873	2.770448549	79.58443272
9	4.3184	5.1296	4.495	4.4567	4.4495	78.22978304	21.68742922	4.077010193	74.23556059
10	4.9322	6.185	5.2101	5.157	5.1465	77.81768838	19.10759266	3.778337531	77.11406981
11	4.77	6.1568	5.1605	5.0904	5.0817	71.84164984	17.95134443	2.227912932	79.82074264
12	5.5071	6.7328	5.8615	5.8002	5.7926	71.08591009	17.29683973	2.144469526	80.55869074
13	4.9078	6.334	5.3236	5.2443	5.2361	70.8456037	19.07166907	1.972101972	78.95622896
14	5.1711	7.0221	5.7567	5.6675	5.652	68.363047	15.23224044	2.646857923	82.12090164
15	4.7984	6.9712	5.4944	5.3901	5.3706	67.96759941	14.98563218	2.801724138	82.21264368
16	4.7005	5.7611	5.0431	4.9873	4.9793	67.6975297	16.28721541	2.335084647	81.37769994
17	4.4772	6.3934	5.144	5.0503	5.0352	65.20196222	14.05218956	2.264547091	83.68326335
18	4.695	6.5214	5.3748	5.2853	5.2726	62.77923784	13.16563695	1.868196528	84.96616652
19	4.7824	6.3973	5.3687	5.2878	5.2767	63.6943464	13.79839673	1.893228722	84.30837455

20	4.4394	6.0564	5.0109	4.9312	4.9198	64.6567718	13.94575678	1.994750656	84.05949256
21	5.0458	6.4777	5.5048	5.4363	5.4266	67.94468887	14.92374728	2.11328976	82.96296296
22	4.6801	6.5555	5.2905	5.1989	5.1856	67.45227685	15.00655308	2.178899083	82.81454784
23	4.5197	6.7013	5.1711	5.0665	5.0521	70.14118078	16.05772183	2.210623273	81.7316549
24	4.3596	6.3319	4.9874	4.8915	4.8785	68.16914263	15.27556547	2.07072316	82.65371137
25	4.7034	6.1076	5.1677	5.0995	5.0895	66.93490956	14.68877881	2.153779884	83.15744131
26	4.7539	6.3015	5.2413	5.1647	5.1535	68.50607392	15.71604432	2.297907263	81.98604842
27	4.8431	6.365	5.2891	5.2139	5.204	70.69452658	16.86098655	2.219730942	80.91928251
28	5.2338	6.4333	5.5689	5.512	5.5047	72.06335973	16.98000597	2.178454193	80.84153984
29	4.5961	5.941	4.9589	4.8954	4.8861	73.02401666	17.50275634	2.56339581	79.93384785
30	4.9143	6.7906	5.4373	5.3495	5.3364	72.12599265	16.78776291	2.504780115	80.70745698
31	4.8331	6.6444	5.3744	5.2854	5.2719	70.11538674	16.44189913	2.493995936	81.06410493
32	5.0313	6.4499	5.4754	5.4055	5.3959	68.69448752	15.73969827	2.161675298	82.09862644
33	4.5778	6.3773	5.1145	5.026	5.0147	70.17504862	16.48965903	2.105459288	81.40488168
34	5.1464	6.5263	5.5624	5.494	5.4854	69.85288789	16.44230769	2.067307692	81.49038462
35	4.794	6.4115	5.2653	5.1868	5.1772	70.86244204	16.65605771	2.03691916	81.30702313
36	4.4754	6.4038	5.1438	5.0471	5.0344	65.33914126	14.4673848	1.900059844	83.63255536
37	5.0161	6.5287	5.5813	5.5044	5.4929	62.63387545	13.60580326	2.03467799	84.35951875
38	5.0071	6.7142	5.6568	5.5728	5.5612	61.94130397	12.92904417	1.785439434	85.28551639
39	5.3393	7.1729	6.1207	6.0244	6.014	57.38438045	12.32403379	1.330944459	86.34502176
40	4.5528	5.7216	4.9939	4.9293	4.9223	62.26043806	14.64520517	1.586941737	83.76785309
41	4.6232	6.2914	5.228	5.1449	5.1356	63.74535427	13.74007937	1.537698413	84.72222222
42	5.1232	6.52	5.6352	5.5689	5.5619	63.34478809	12.94921875	1.3671875	85.68359375
43	4.4356	6.3197	5.1543	5.0453	5.0349	61.85446632	15.16627244	1.447057187	83.38667038
44	5.2547	6.5088	5.756	5.692	5.6857	60.02711108	12.7668063	1.256732496	85.9764612
45	5.106	6.6736	5.8093	5.7333	5.7245	55.13523858	10.80619935	1.251244135	87.94255652
46	4.8401	6.2162	5.4378	5.3693	5.3607	56.56565657	11.46059896	1.438848921	87.10055212
47	4.8284	6.5299	5.5532	5.4739	5.4605	57.4022921	10.94094923	1.848785872	87.2102649
48	4.9202	6.4081	5.6659	5.6022	5.5912	49.88238457	8.54230924	1.475124045	89.98256672
49	4.5547	6.2492	5.3676	5.2904	5.2779	52.02714665	9.496863083	1.537704515	88.9654324
50	5.0595	7.4102	6.1122	6.001	5.9826	55.21759476	10.56331338	1.747886387	87.68880023
51	5.1326	7.2467	5.9905	5.889	5.8711	59.4200842	11.83121576	2.086490267	86.08229397
52	5.133	6.4162	5.7371	5.6834	5.6729	52.92238155	8.889256746	1.738122827	89.37262043
53	4.824	6.5422	5.6547	5.5928	5.5828	51.65289256	7.451546888	1.203804021	91.34464909
54	5.5272	7.7723	6.5582	6.4815	6.4683	54.07776936	7.439379243	1.280310378	91.28031038
55	5.5361	7.3678	6.3661	6.2973	6.2872	54.68690288	8.289156627	1.21686747	90.4939759
56	4.8466	6.4275	5.8244	5.7877	5.7822	38.14915554	3.753323788	0.562487216	95.684189
57	4.4422	6.9586	5.89	5.8125	5.7988	42.4654268	5.352949302	0.946263296	93.7007874
58	5.1579	6.876	6.0173	5.9459	5.934	49.97962866	8.308121946	1.384686991	90.30719106
59	4.7924	6.6009	5.6573	5.5746	5.5614	52.17583633	9.561799052	1.526187999	88.91201295
60	4.7764	6.8238	5.7403	5.6478	5.6332	52.92077757	9.596431165	1.514679946	88.88888889
61	4.7032	6.2894	5.5331	5.4654	5.4575	47.67998991	8.157609351	0.951921918	90.89046873
62	4.5183	6.2476	5.3352	5.2583	5.2489	52.76123287	9.41363692	1.150691639	89.43567144
63	5.2617	7.4295	6.3285	6.2311	6.2169	50.78881816	9.130108736	1.331083615	89.53880765
64	4.8676	6.6395	5.778	5.6987	5.6872	48.62012529	8.710456942	1.263181019	90.02636204
65	5.1382	6.8907	6.017	5.9356	5.9242	49.85449358	9.26263086	1.297223487	89.44014565
66	4.8268	6.7964	5.8825	5.7973	5.7856	46.40028432	8.070474567	1.108269395	90.82125604
67	4.346	6.6569	5.6741	5.5922	5.578	42.52888485	6.166704314	1.069196597	92.76409909
68	4.8895	7.3057	6.27	6.1885	6.1739	42.86482907	5.903658095	1.05758783	93.03875407
69	4.8767	6.4712	5.7219	5.6563	5.6457	46.99278771	7.761476574	1.254141032	90.98438239
70	5.1424	7.0209	6.2431	6.1767	6.164	41.40537663	6.032524757	1.153811211	92.81366403
71	4.8213	6.9477	5.9448	5.855	5.8428	47.16422122	7.992879395	1.085892301	90.9212283
72	4.3481	5.8169	5.1284	5.0721	5.0629	46.875	7.215173651	1.179033705	91.60579264
73	4.6925	6.5272	5.6781	5.6096	5.5972	46.28004578	6.950081169	1.258116883	91.79180195
74	5.1028	6.5897	5.8406	5.7708	5.7613	50.3799852	9.460558417	1.287611819	89.25182976
75	4.3715	5.7124	5.0735	5.0117	5.003	47.64710269	8.803418803	1.239316239	89.95726496
76	4.9765	6.0202	5.5357	5.4937	5.4852	46.42138546	7.510729614	1.520028612	90.96924177
77	5.0468	6.607	5.8506	5.7892	5.7792	48.48096398	7.638716099	1.24409057	91.11719333
78	5.1315	6.9609	6.1189	6.0548	6.0423	46.02601946	6.491796638	1.265950982	92.24225238
79	4.823	6.9958	6.2282	6.1677	6.1557	35.32768778	4.305436948	0.853970965	94.84059209
80	4.9578	6.9908	6.1659	6.0956	6.0834	40.57550418	5.819054714	1.009850178	93.17109511
81	4.5553	5.8628	5.2431	5.1904	5.1816	47.3957935	7.662111079	1.279441698	91.05844722
82	4.5966	6.8518	5.8862	5.8105	5.794	42.81660163	5.870037221	1.279466501	92.85049628
83	4.0665	5.4471	4.8775	4.8295	4.8171	41.25742431	5.918618989	1.528976572	92.55240444
84	4.9579	7.3937	6.3109	6.2218	6.2011	44.45356762	6.585365854	1.529933481	91.88470067
85	5.2097	7.1306	6.2623	6.1924	6.1734	45.20276954	6.640699221	1.805054152	91.55424663

86	5.559	7.2253	6.4832	6.4209	6.4048	44.53579788	6.740965159	1.742047176	91.51698767
87	4.3089	5.8014	5.1349	5.0798	5.0652	44.65661642	6.670702179	1.767554479	91.56174334
88	4.9251	6.7288	5.9505	5.8866	5.8698	43.15019127	6.231714453	1.63838502	92.12990053
89	4.9485	6.8271	5.9485	5.8792	5.8592	46.76887044	6.93	2	91.07
90	5.0434	6.9524	6.0317	5.9588	5.9385	48.2294395	7.376302742	2.054032176	90.56966508
91	4.9555	6.4987	5.7598	5.7003	5.683	47.88102644	7.397737163	2.150938704	90.45132413
92	4.6837	6.3972	5.5851	5.5213	5.5044	47.39422235	7.077878855	1.874861327	91.04725982
93	4.3262	6.1039	5.289	5.2239	5.2066	45.84013051	6.761528874	1.796842543	91.44162858
94	5.0927	7.5379	6.4537	6.3658	6.3406	44.33993129	6.458486407	1.851579721	91.68993387
95	4.1664	5.748	5.0511	4.9904	4.972	44.0629742	6.861082853	2.079801063	91.05911608
96	4.8665	7.0403	6.066	5.9801	5.957	44.82013065	7.161317216	1.925802418	90.91288037
97	4.6016	7.0597	5.9167	5.8201	5.7931	46.49932875	7.345449015	2.053075812	90.60147517
98	5.2854	7.7329	6.5832	6.4885	6.4604	46.97446374	7.296964093	2.165202651	90.53783326
99	4.404	6.3583	5.4031	5.3252	5.3025	48.8768357	7.797017316	2.27204484	89.93093784
100	4.8347	6.5398	5.7422	5.6752	5.6554	46.77731511	7.38292011	2.181818182	90.43526171
101	4.7109	6.2626	5.5037	5.4363	5.4175	48.90764967	8.501513623	2.371342079	89.1271443
102	4.3435	5.6648	4.6015	4.4982	4.4893	80.47377583	40.03875969	3.449612403	56.51162791
103	4.5868	6.1684	4.9269	4.7962	4.7841	78.49645928	38.42987357	3.557777124	58.01234931
104	4.8653	5.9487	5.1048	5.0161	5.0076	77.89366808	37.03549061	3.549060543	59.41544885
105	4.0559	5.5633	4.3452	4.2313	4.2202	80.8080138	39.37089526	3.836847563	56.79225717

WB 3-1B

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	%Carbonate	Residual
1	4.914	5.9807	5.2696	5.1927	5.185	66.66354176	21.62542182	2.165354331	76.20922385
2	5.0598	6.2604	5.5759	5.5282	5.5196	57.01316009	9.242394885	1.666343732	89.09126138
3	4.9192	6.5543	5.6267	5.5543	5.5424	56.7304752	10.23321555	1.681978799	88.08480565
4	4.3452	5.0481	4.7405	4.7166	4.7124	43.76155925	6.046040982	1.062484189	92.89147483
5	4.2163	5.7144	5.023	4.9731	4.9655	46.15179227	6.185694806	0.94210983	92.87219536
6	4.3701	5.3423	4.8055	4.7455	4.7404	55.21497634	13.78043179	1.171336702	85.04823151
7	4.7974	5.5613	5.0905	5.0447	5.039	61.63110355	15.62606619	1.944728762	82.42920505
8	4.561	5.9611	5.0025	4.8921	4.8822	68.4665381	25.00566251	2.242355606	72.75198188
9	4.4515	5.9337	5.2614	5.2059	5.1936	45.35825125	6.852697864	1.518706013	91.62859612
10	4.5841	6.007	5.3808	5.3265	5.3145	44.0087146	6.815614409	1.506213129	91.67817246
11	4.5748	6.2378	5.3119	5.2301	5.2148	55.67648827	11.09754443	2.075702076	86.82675349
12	4.876	6.8125	5.4925	5.3743	5.3588	68.16421379	19.17274939	2.514193025	78.31305758
13	4.6511	7.4498	5.3827	5.1928	5.173	73.85929181	25.956807	2.706396938	71.33679606
14	4.5172	5.8816	4.905	4.8163	4.8061	71.57725007	22.87261475	2.630221764	74.49716349
15	4.3665	6.0508	4.8124	4.6936	4.6818	73.52609393	26.64274501	2.646333259	70.71092173
16	5.0566	6.4471	5.3999	5.3036	5.2956	75.31103919	28.05126711	2.330323332	69.61840955
17	4.4127	5.7951	4.6215	4.5085	4.5034	84.89583333	54.11877395	2.442528736	43.43869732
18	4.469	5.8213	4.6436	4.5372	4.5331	87.08866376	60.93928981	2.348224513	36.71248568
19	4.5575	6.0711	4.765	4.6509	4.6472	86.29096195	54.98795181	1.78313253	43.22891566
20	4.5099	5.8671	4.672	4.571	4.5679	88.05629237	62.30721777	1.912399753	35.78038248
21	5.4242	6.5854	5.5631	5.4855	5.4834	88.03823631	55.8675306	1.51187905	42.62059035
22	4.6397	6.0022	4.8849	4.791	4.7863	82.00366972	38.29526917	1.91680261	59.78792822
23	4.549	6.0511	4.8423	4.7474	4.7428	80.47400306	32.35594954	1.568360041	66.07569042
24	4.5136	6.1086	4.7671	4.658	4.6542	84.10658307	43.03747535	1.499013807	55.46351085
25	5.0871	6.4804	5.3513	5.2592	5.2548	81.03782387	34.85995458	1.665404996	63.47464042
26	4.835	6.0727	5.0922	5.0199	5.0137	79.21952008	28.11041991	2.410575428	69.47900467
27	4.7713	5.9426	5.0042	4.935	4.9317	80.1161103	29.71232289	1.416917132	68.87075998
28	4.5685	6.3981	4.869	4.7602	4.7562	83.57564495	36.2063228	1.331114809	62.4625624
29	4.8575	6.2531	5.09	5.0102	5.0069	83.34049871	34.32258065	1.419354839	64.25806452

30	4.605	6.2086	4.8493	4.7498	4.7469	84.76552756	40.72861236	1.187065084	58.08432255
31	5.3267	6.8146	5.5546	5.4302	5.4261	84.68311042	54.58534445	1.799034664	43.61562089
32	5.0045	6.2821	5.2131	5.0902	5.0871	83.67251096	58.91658677	1.486097795	39.59731544
33	5.0674	6.6869	5.2922	5.1585	5.1556	86.11917258	59.47508897	1.290035587	39.23487544
34	5.3155	6.9393	5.625	5.5165	5.5122	80.93977091	35.05654281	1.389337641	63.55411955
35	4.833	6.4188	5.1024	5.0035	5.0002	83.0117291	36.7112101	1.224944321	62.06384558
36	5.1518	6.5246	5.3431	5.2608	5.259	86.06497669	43.02143231	0.940930476	56.03763722
37	4.6297	6.3445	4.8764	4.7781	4.7731	85.61348262	39.84596676	2.026753141	58.1272801
38	5.2884	6.9543	5.5051	5.4052	5.4023	86.99201633	46.10059991	1.338255653	52.56114444
39	4.7601	6.5041	4.9555	4.8466	4.8441	88.79587156	55.73183214	1.279426817	42.98874104
40	4.5302	5.523	4.6402	4.5719	4.5707	88.92022562	62.09090909	1.090909091	36.81818182
41	5.1171	6.3545	5.2838	5.1987	5.1962	86.5282043	51.04979004	1.49970006	47.4505099
42	4.7792	5.7475	4.9036	4.8371	4.8357	87.15274192	53.45659164	1.125401929	45.41800643
43	4.8125	6.1981	4.9633	4.8634	4.862	89.11662818	66.24668435	0.928381963	32.82493369
44	5.0102	6.6406	5.1591	5.0523	5.051	90.86727184	71.7259906	0.873069174	27.40094023
45	4.9625	6.8689	5.1322	5.0085	5.006	91.09840537	72.89334119	1.473187979	25.63347083
46	4.5754	5.7386	4.678	4.6038	4.6036	91.17950481	72.31968811	0.194931774	27.48538012
47	4.3982	5.8171	4.5468	4.4588	4.4576	89.52709846	59.21938089	0.807537012	39.9730821
48	4.4153	6.3924	4.6354	4.5162	4.5131	88.86753326	54.15720127	1.408450704	44.43434802
49	4.4688	6.1383	4.6497	4.5498	4.5473	89.16442049	55.2238806	1.381978994	43.39414041
50	4.8345	7.1015	5.0887	4.948	4.9443	88.7869431	55.35011802	1.455546814	43.19433517
51	4.7751	5.8773	4.9011	4.8354	4.833	88.56831791	52.14285714	1.904761905	45.95238095
52	5.6821	7.1786	5.8333	5.7447	5.7429	89.89642499	58.5978836	1.19047619	40.21164021
53	4.8196	6.6056	4.9941	4.903	4.9001	90.22956327	52.20630372	1.661891117	46.13180516
54	5.0909	6.9508	5.291	5.1975	5.1952	89.24135706	46.72663668	1.149425287	52.12393803
55	5.852	8.021	6.0685	5.9504	5.9478	90.01844168	54.54965358	1.200923788	44.24942263
56	5.1693	6.7591	5.3324	5.2441	5.2415	89.74084791	54.1385653	1.59411404	44.26732066
57	4.6081	5.984	4.7425	4.6661	4.6636	90.23184824	56.8452381	1.860119048	41.29464286
58	5.4179	7.2832	5.6154	5.5193	5.5162	89.41189085	48.65822785	1.569620253	49.7721519
59	5.4908	6.9432	5.6448	5.5675	5.5655	89.39686037	50.19480519	1.298701299	48.50649351
60	4.5982	6.0962	4.7733	4.6923	4.6893	88.31108144	46.25928041	1.713306682	52.02741291
61	4.8932	6.507	5.0942	5.0163	5.0134	87.54492502	38.75621891	1.44278607	59.80099502
62	5.1196	7.472	5.3665	5.2536	5.2494	89.504336	45.72701499	1.70109356	52.57189145
63	5.2088	7.5305	5.4591	5.3479	5.3445	89.21910669	44.42668797	1.358369956	54.21494207
64	5.3064	7.0447	5.4835	5.3944	5.3926	89.81188518	50.31055901	1.016374929	48.67306606
65	5.5194	7.4217	5.6949	5.5849	5.583	90.77432582	62.67806268	1.082621083	36.23931624
66	5.0557	6.3463	5.2108	5.1277	5.1235	87.9823338	53.57833656	2.707930368	43.71373308
67	5.1121	6.1544	5.2517	5.1856	5.183	86.60654322	47.3495702	1.862464183	50.78796562
68	5.6197	7.4663	5.8113	5.6931	5.6902	89.62417416	61.69102296	1.513569937	36.7954071
69	4.57	5.9866	4.6882	4.6055	4.6041	91.65607793	69.96615905	1.184433164	28.84940778
70	4.9749	6.4427	5.0947	5.0111	5.0095	91.83812509	69.78297162	1.335559265	28.88146912
71	5.1509	7.0099	5.3031	5.2029	5.2008	91.81280258	65.83442838	1.379763469	32.78580815
72	4.7773	6.1151	4.9208	4.8516	4.8487	89.273434	48.22299652	2.020905923	49.75609756
73	5.0343	6.2661	5.1441	5.0833	5.0803	91.08621529	55.37340619	2.732240437	41.89435337
74	5.3915	6.9749	5.5558	5.47	5.4643	89.6235948	52.22154595	3.469263542	44.30919051

75	5.1953	6.8436	5.3707	5.2719	5.2682	89.35873324	56.32839225	2.109464082	41.56214367
76	5.0599	6.854	5.269	5.1637	5.1607	88.34513126	50.35868006	1.43472023	48.20659971
77	5.1267	6.7939	5.3032	5.2078	5.2041	89.41338772	54.0509915	2.09631728	43.85269122
78	4.8986	6.3866	5.0766	5.0007	4.9976	88.03763441	42.64044944	1.741573034	55.61797753
79	5.3841	7.3002	5.6209	5.5266	5.522	87.64156359	39.82263514	1.942567568	58.2347973
80	4.5976	5.8696	4.7566	4.689	4.6846	87.5	42.51572327	2.767295597	54.71698113
81	4.8417	6.303	5.0144	4.9274	4.9234	88.18175597	50.37637522	2.316155182	47.3074696
82	5.4734	6.7264	5.616	5.5361	5.5331	88.61931365	56.03085554	2.103786816	41.86535764
83	5.6565	7.5023	5.8871	5.7634	5.759	87.50677213	53.64267129	1.908065915	44.44926279
84	5.7028	7.0567	5.8618	5.7664	5.7624	88.2561489	60	2.51572327	37.48427673
85	5.0495	6.8283	5.2375	5.1058	5.1021	89.43107713	70.05319149	1.968085106	27.9787234
86	5.2627	6.1193	5.3418	5.2793	5.2777	90.76581835	79.01390645	2.022756005	18.96333755
87	5.0176	6.2872	5.148	5.0597	5.0569	89.72904852	67.71472393	2.147239264	30.13803681
88	5.1522	6.4206	5.2854	5.2073	5.2041	89.49858089	58.63363363	2.402402402	38.96396396
89	5.0182	6.6204	5.1931	5.1025	5.0979	89.08375983	51.80102916	2.630074328	45.56889651
90	5.0752	6.9658	5.2914	5.1828	5.1777	88.56447689	50.23126735	2.35892692	47.40980574
91	5.4947	6.5632	5.6117	5.5473	5.5444	89.05007019	55.04273504	2.478632479	42.47863248
92	5.2185	6.7593	5.3899	5.2936	5.2901	88.87590862	56.18436406	2.042007001	41.77362894
93	4.935	6.5802	5.1096	5.0094	5.0052	89.38730853	57.38831615	2.405498282	40.20618557
94	4.8647	5.9919	5.003	4.9366	4.9335	87.73066004	48.01156905	2.241503977	49.74692697
95	5.4265	6.7859	5.6221	5.5441	5.5398	85.6112991	39.87730061	2.198364008	57.92433538
96	5.0121	6.6365	5.227	5.1358	5.1305	86.77049988	42.43834342	2.466263378	55.09539321
97	4.3631	5.9873	4.5613	4.4685	4.466	87.79706933	46.82139253	1.26135217	51.9172553
98	4.9421	6.4531	5.1666	5.0794	5.0752	85.14228987	38.84187082	1.870824053	59.28730512
99	4.5201	6.0437	4.7382	4.642	4.6377	85.68521922	44.10820724	1.971572673	53.92022008
100	4.8204	6.3016	5.0249	4.9321	4.9276	86.19362679	45.37897311	2.200488998	52.4205379
101	4.8972	6.4834	5.0809	4.9863	4.9827	88.41886269	51.49700599	1.95971693	46.54327708
102	5.126	6.8757	5.3262	5.2078	5.204	88.55803852	59.14085914	1.898101898	38.96103896
103	4.9244	5.7362	5.0205	4.9652	4.9628	88.16210889	57.54422477	2.497398543	39.95837669
104	4.878	6.6452	5.1497	5.0261	5.0184	84.62539611	45.49135075	2.834008097	51.67464115
105	4.2548	5.9434	4.5143	4.4084	4.401	84.63223973	40.80924855	2.851637765	56.33911368
106	4.5357	5.2824	4.6688	4.6251	4.6216	82.17490291	32.8324568	2.629601803	64.5379414
107	4.606	5.843	4.8513	4.7787	4.7723	80.16976556	29.59641256	2.609050143	67.7945373
108	4.6683	5.9574	4.8967	4.8208	4.8156	82.2822124	33.23117338	2.276707531	64.49211909
109	4.811	6.4419	5.051	4.9541	4.9478	85.28419891	40.375	2.625	57
110	4.8393	6.4432	5.0821	4.9875	4.9821	84.86189912	38.96210873	2.224052718	58.81383855
111	4.4235	6.1674	4.6931	4.5852	4.5795	84.54039796	40.02225519	2.114243323	57.86350148
112	4.6184	6.4489	4.9054	4.7855	4.779	84.32122371	41.77700348	2.264808362	55.95818815
113	5.2244	6.7855	5.3933	5.2937	5.2883	89.18070591	58.96980462	3.197158082	37.8330373
114	4.8077	5.722	4.9165	4.8559	4.8523	88.10018593	55.69852941	3.308823529	40.99264706
115	4.7745	5.9552	4.8973	4.816	4.8127	89.59939019	66.20521173	2.687296417	31.10749186
116	4.3932	5.4987	4.5166	4.4397	4.4367	88.83763003	62.31766613	2.431118314	35.25121556
117	4.6029	6.1206	4.7678	4.6618	4.6574	89.13487514	64.28138266	2.668283808	33.05033354
118	5.1781	5.9205	5.2509	5.1979	5.1947	90.19396552	72.8021978	4.395604396	22.8021978
119	4.9499	6.5574	5.1314	5.0176	5.0122	88.70917574	62.69972452	2.975206612	34.32506887

120	4.5993	5.8136	4.733	4.6473	4.643	88.9895413	64.0987285	3.216155572	32.68511593
121	4.5695	5.7096	4.69	4.6103	4.606	89.43075169	66.14107884	3.56846473	30.29045643
122	5.1288	6.6516	5.3238	5.2067	5.2002	87.19464145	60.05128205	3.333333333	36.61538462
123	5.0516	6.1332	5.1934	5.1048	5.1009	86.8897929	62.48236953	2.750352609	34.76727786

WB 3-1C

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	%Carbonate	Residual
1	4.9741	6.257	5.4756	5.4094	5.3918	60.90887832	13.2003988	3.509471585	83.29012961
2	4.6854	6.0658	5.0913	4.9906	4.9738	70.59547957	24.80906627	4.13895048	71.05198325
3	4.853	5.8879	5.1677	5.1049	5.0922	69.59126486	19.95551319	4.03558945	76.00889736
4	4.4647	6.1244	5.0896	4.994	4.9801	62.34861722	15.29844775	2.224355897	82.47719635
5	4.8064	6.7204	5.5658	5.3181	5.3062	60.32392894	32.6178562	1.5670266	65.8151172
6	4.8375	6.0079	5.4267	5.3672	5.3566	49.6582365	10.09843856	1.799049559	88.10251188
7	4.7443	6.6875	5.7016	5.6112	5.5919	50.73589955	9.443225739	2.016086911	88.54068735
8	4.8034	6.6873	5.8383	5.7527	5.7366	45.06608631	8.271330563	1.555705865	90.17296357
9	4.3187	7.2221	5.9408	5.8401	5.8158	44.13101881	6.208001973	1.498058073	92.29393995
10	4.937	7.1227	6.1649	6.0954	6.0716	43.82120145	5.660070038	1.938268589	92.40166137
11	4.7733	6.4581	5.6349	5.5748	5.553	48.86039886	6.975394615	2.530176416	90.49442897
12	5.5088	7.0381	6.2767	6.2221	6.1998	49.78748447	7.11030082	2.904023961	89.98567522
13	4.9097	7.3176	6.1357	6.0512	6.0158	49.0842643	6.89233279	2.887438825	90.22022838
14	5.1793	6.6158	5.8203	5.7629	5.7415	55.37765402	8.95475819	3.338533541	87.70670827
15	4.8013	6.1068	5.2005	5.1243	5.1102	69.42167752	19.08817635	3.532064128	77.37975952
16	4.7014	6.3551	5.0216	4.9065	4.895	80.63735865	35.94628357	3.591505309	60.46221112
17	4.4778	6.3794	4.7802	4.6574	4.6467	84.09760202	40.60846561	3.538359788	55.8531746
18	4.6951	6.4205	5.0104	4.8976	4.8884	81.72597659	35.77545195	2.91785601	61.30669204
19	4.7834	7.391	5.2984	5.1064	5.0909	80.25003835	37.2815534	3.009708738	59.70873786
20	4.4412	6.0808	4.6643	4.5493	4.5434	86.39302269	51.54639175	2.644554012	45.80905424
21	5.0492	6.6441	5.2711	5.1595	5.1521	86.086902	50.29292474	3.334835511	46.37223975
22	4.6836	6.1601	4.8994	4.7942	4.7854	85.38435489	48.74884152	4.077849861	47.17330862
23	4.523	6.3913	4.8412	4.7234	4.7102	82.96847401	37.02074167	4.148334381	58.83092395
24	4.3605	6.6078	4.7231	4.5794	4.5653	83.86508254	39.63044677	3.88858246	56.48097077
25	4.7042	6.2126	4.9596	4.8631	4.8525	83.06815168	37.78386844	4.150352388	58.06577917
26	4.7548	6.7701	5.0784	4.9498	4.9378	83.94283729	39.74042027	3.708281829	56.5512979
27	4.8407	6.7982	5.1159	4.994	4.9834	85.9412516	44.29505814	3.851744186	51.85319767
28	5.2331	6.6991	5.4242	5.3264	5.32	86.96452933	51.17739403	3.34903192	45.47357405
29	4.5971	6.6125	4.8345	4.6985	4.6901	88.22070061	57.28727885	3.538331929	39.17438922
30	4.9171	7.351	5.2028	5.0446	5.0348	88.2616377	55.37276864	3.430171509	41.19705985
31	4.8374	6.4473	5.0301	4.9312	4.9245	88.03031244	51.32330047	3.476907109	45.19979242
32	5.0345	6.975	5.2563	5.1295	5.1228	88.5699562	57.16862038	3.020739405	39.81064022
33	4.5814	6.6878	4.8367	4.6956	4.6872	87.87979491	55.26831179	3.290246769	41.44144144
34	5.1477	6.2445	5.2965	5.2223	5.2164	86.43326039	49.8655914	3.965053763	46.16935484
35	4.7964	6.2618	4.9468	4.8561	4.8503	89.73659069	60.30585106	3.856382979	35.83776596
36	4.4814	5.8311	4.5969	4.5116	4.508	91.44254279	73.85281385	3.116883117	23.03030303
37	5.0183	6.5412	5.1691	5.0665	5.0613	90.09783965	68.03713528	3.448275862	28.51458886
38	5.0031	6.845	5.1746	5.0431	5.038	90.68896248	76.67638484	2.973760933	20.34985423
39	5.3406	7.2903	5.523	5.3839	5.378	90.64471457	76.26096491	3.234649123	20.50438596
40	4.5541	6.3608	4.7338	4.6085	4.6027	90.05368905	69.72732332	3.227601558	27.04507513
41	4.625	6.2163	4.7965	4.6855	4.679	89.22264815	64.72303207	3.790087464	31.48688047
42	5.1236	6.7569	5.3042	5.1904	5.1837	88.94263148	63.01218162	3.709856035	33.27796235
43	4.4364	5.939	4.6093	4.5001	4.494	88.49327832	63.15789474	3.528050896	33.31405437

44	5.2561	6.5017	5.3957	5.3059	5.3005	88.79254978	64.32664756	3.868194842	31.80515759
45	5.1089	6.9601	5.3161	5.1794	5.1729	88.80726016	65.97490347	3.137065637	30.88803089
46	4.8417	6.3078	4.9857	4.879	4.8738	90.17802333	74.09722222	3.611111111	22.29166667
47	4.8298	6.4678	5.0004	4.8675	4.8632	89.58485958	77.90152403	2.520515826	19.57796014
48	4.9207	6.2344	5.04	4.9425	4.9393	90.91877902	81.72673931	2.682313495	15.59094719
49	4.5552	6.3078	4.7367	4.613	4.6076	89.64395755	68.15426997	2.975206612	28.87052342
50	5.0623	6.7381	5.2082	5.0981	5.0941	91.29371047	75.46264565	2.741603838	21.79575051
51	5.1345	6.5338	5.2467	5.1595	5.1566	91.98170514	77.71836007	2.584670232	19.6969697
52	5.1342	6.4128	5.2555	5.169	5.1657	90.51306116	71.31079967	2.720527617	25.96867271
53	4.8263	6.6765	5.0122	4.8924	4.8874	89.95243757	64.44324906	2.689618074	32.86713287
54	5.5319	7.5533	5.7543	5.6184	5.6128	88.99772435	61.10611511	2.517985612	36.37589928
55	5.5388	7.0188	5.7007	5.5893	5.5843	89.06081081	68.80790611	3.088326127	28.10376776
56	4.8495	6.4404	5.0125	4.904	4.9	89.75422717	66.56441718	2.45398773	30.98159509
57	4.4444	6.2055	4.6311	4.5126	4.5078	89.39867128	63.47080878	2.57096947	33.95822175
58	5.16	6.4644	5.2813	5.1964	5.193	90.70070531	69.99175598	2.802967848	27.20527617
59	4.7938	6.5676	4.9447	4.8288	4.8254	91.49284023	76.80583168	2.25314778	20.94102054
60	4.7773	6.8829	4.9618	4.8243	4.8199	91.23765198	74.52574526	2.384823848	23.08943089
61	4.7036	5.9196	4.8008	4.7243	4.7217	92.00657895	78.7037037	2.674897119	18.62139918
62	4.5181	5.7531	4.6168	4.5373	4.5343	92.00809717	80.54711246	3.039513678	16.41337386
63	5.2626	6.5647	5.3672	5.2866	5.2834	91.96682282	77.05544933	3.059273423	19.88527725
64	4.8695	6.5187	5.0296	4.913	4.909	90.29226292	72.82948157	2.498438476	24.67207995
65	5.1387	6.3223	5.2651	5.1783	5.1746	89.32071646	68.67088608	2.92721519	28.40189873
66	4.8267	5.9368	4.9405	4.8678	4.864	89.74867129	63.88400703	3.339191564	32.77680141
67	4.3463	6.0195	4.4898	4.3863	4.3822	91.42361941	72.12543554	2.857142857	25.0174216
68	4.8889	6.3565	5.073	4.9763	4.9699	87.45571	52.5258012	3.476371537	43.99782727
69	4.8762	6.5201	5.27	5.1739	5.1613	76.04477158	24.40325038	3.199593702	72.39715592
70	5.1436	6.6061	5.334	5.2248	5.2205	86.98119658	57.35294118	2.258403361	40.38865546
71	4.8248	5.9403	4.9339	4.8579	4.8554	90.21963245	69.66086159	2.29147571	28.04766269
72	4.3526	5.1662	4.4272	4.3672	4.3659	90.83087512	80.42895442	1.742627346	17.82841823
73	4.6923	5.9115	4.8165	4.7212	4.7179	89.81299213	76.7310789	2.657004831	20.61191626
74	5.1049	6.6003	5.2541	5.1451	5.142	90.02273639	73.05630027	2.077747989	24.86595174
75	4.3752	5.8849	4.5662	4.4474	4.4433	87.34847983	62.19895288	2.146596859	35.65445026
76	4.9766	7.2054	5.2591	5.0712	5.0645	87.32501795	66.51327434	2.371681416	31.11504425
77	5.0463	6.3758	5.2455	5.1128	5.1083	85.01692366	66.61646586	2.259036145	31.12449799
78	5.1372	6.1567	5.2778	5.1832	5.18	86.20892594	67.28307255	2.275960171	30.44096728
79	4.8247	6.1632	5.0006	4.8791	4.8746	86.85842361	69.07333712	2.558271745	28.36839113
80	4.9563	6.0847	5.1055	4.9997	4.9964	86.77773839	70.91152815	2.211796247	26.8766756
81	4.5613	5.9464	4.743	4.611	4.6071	86.88181359	72.64722069	2.146395157	25.20638415
82	4.5989	6.3389	4.8244	4.6609	4.6558	87.04022989	72.50554324	2.261640798	25.23281596
83	4.0731	5.2597	4.213	4.107	4.1029	88.2100118	75.768406	2.930664761	21.30092924
84	4.9605	6.2868	5.121	4.9958	4.9917	87.89866546	78.00623053	2.554517134	19.43925234
85	5.2102	6.7818	5.4433	5.2495	5.2446	85.16798167	83.14028314	2.102102102	14.75761476
86	5.5569	7.0129	5.729	5.6032	5.5994	88.17994505	73.09703661	2.208018594	24.6949448
87	4.3088	5.6226	4.4704	4.3502	4.3464	87.6998021	74.38118812	2.351485149	23.26732673
88	4.9297	6.6019	5.1292	4.979	4.9751	88.0696089	75.28822055	1.954887218	22.75689223
89	4.9466	6.2626	5.0913	4.9843	4.9798	89.00455927	73.94609537	3.109882516	22.94402211
90	5.0434	6.7697	5.2197	5.0868	5.0822	89.78740659	75.38287011	2.609188883	22.00794101
91	4.9567	7.0719	5.1926	5.0277	5.0231	88.84739032	69.90250106	1.949978805	28.14752014
92	4.6813	6.152	4.8509	4.7383	4.7353	88.46807643	66.39150943	1.768867925	31.83962264
93	4.3265	6.4108	4.5844	4.4236	4.4196	87.62654128	62.34974796	1.550988755	36.09926328

94	5.0888	6.4887	5.2575	5.1531	5.1508	87.94913922	61.88500296	1.363366924	36.75163011
95	4.167	5.4449	4.3213	4.223	4.2207	87.92550278	63.70706416	1.490602722	34.80233312
96	4.8682	6.2686	5.0133	4.9045	4.9026	89.63867466	74.9827705	1.309441764	23.70778773
97	4.6041	6.2893	4.783	4.6579	4.6554	89.38404937	69.92733371	1.397428731	28.67523756
98	5.2852	6.5903	5.4249	5.3291	5.3273	89.2958394	68.57551897	1.288475304	30.13600573
99	4.4069	6.0556	4.5737	4.4541	4.4517	89.88293807	71.70263789	1.438848921	26.85851319
100	4.8358	6.2641	4.9852	4.8789	4.8769	89.5400126	71.15127175	1.338688086	27.51004016
101	4.7108	6.2263	4.8618	4.7532	4.7512	90.03629165	71.9205298	1.324503311	26.75496689
102	4.3418	6.467	4.5676	4.4003	4.3973	89.37511764	74.09211692	1.328609389	24.57927369
103	4.586	6.194	4.7624	4.64	4.6366	89.02985075	69.3877551	1.927437642	28.68480726
104	4.8645	6.2739	5.0266	4.9123	4.9099	88.49865191	70.51202961	1.480567551	28.00740284
105	4.0553	5.802	4.2463	4.111	4.108	89.06509418	70.83769634	1.570680628	27.59162304
106	4.4964	5.6094	4.6109	4.5264	4.5253	89.71248877	73.79912664	0.96069869	25.24017467
107	4.7517	6.0156	4.8778	4.7844	4.7828	90.02294485	74.06819984	1.268834259	24.6629659
108	4.2706	5.8052	4.4204	4.3096	4.3071	90.23849863	73.96528705	1.668891856	24.36582109
109	4.2533	5.3458	4.3775	4.2932	4.2912	88.63157895	67.87439614	1.610305958	30.51529791
110	4.653	6.2006	4.8317	4.7124	4.7095	88.45308865	66.75993285	1.622831561	31.61723559
111	5.2772	6.5957	5.4137	5.3229	5.3195	89.64732651	66.52014652	2.490842491	30.98901099
112	4.2441	5.4939	4.3939	4.2994	4.2964	88.01408225	63.08411215	2.002670227	34.91321762
113	4.4328	5.3514	4.5379	4.4678	4.4647	88.55867625	66.69838249	2.949571836	30.35204567
114	4.9618	6.9038	5.2177	5.0675	5.0616	86.82286303	58.69480266	2.30558812	38.99960922
115	4.8129	6.2984	5.0134	4.9015	4.8967	86.50286099	55.81047382	2.394014963	41.79551122
116	4.96	6.7162	5.2482	5.1052	5.0984	83.58956839	49.61832061	2.359472588	48.0222068
117	4.6879	6.4224	4.9803	4.8446	4.8379	83.14211588	46.40902873	2.291381669	51.2995896
118	4.855	6.4749	5.1494	5.017	5.0112	81.82603864	44.97282609	1.970108696	53.05706522
119	4.6346	6.1001	4.9021	4.7857	4.7798	81.74684408	43.51401869	2.205607477	54.28037383
120	4.8322	6.7176	5.1948	5.0372	5.029	80.76800679	43.46387204	2.261445119	54.27468285
121	4.2582	5.9094	4.5472	4.405	4.3979	82.49757752	49.20415225	2.456747405	48.33910035
122	4.7578	6.1189	4.9874	4.8784	4.8728	83.13129087	47.4738676	2.43902439	50.08710801
123	5.4343	6.8701	5.681	5.5643	5.5585	82.81794122	47.30441832	2.351033644	50.34454803
124	5.0848	6.2974	5.2648	5.1654	5.1611	85.15586343	55.22222222	2.388888889	42.38888889
125	4.9048	6.1302	5.1074	5.0014	4.9957	83.46662314	52.31984205	2.813425469	44.86673248
126	5.2045	6.6075	5.4424	5.3286	5.3217	83.04347826	47.83522488	2.90037831	49.26439681
127	5.1614	6.5493	5.3472	5.2501	5.2449	86.61286836	52.26049516	2.798708288	44.94079656
128	4.8114	6.1418	5.0038	4.9079	4.9031	85.538184	49.84407484	2.494802495	47.66112266

WB 3-2

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	%Carbonate	Residual
1									
2									
3									
4									
5	4.9089	6.3632	5.4881	5.3924	5.38	60.17327924	16.52279006	2.140883978	81.33632597
6	5.0492	6.2515	5.6318	5.5674	5.558	51.54287615	11.05389633	1.613456917	87.33264676
7	4.9064	5.9963	5.602	5.5665	5.562	36.17763098	5.103507763	0.646923519	94.24956872
8	4.3332	5.6577	5.1515	5.101	5.0941	38.21819555	6.171330808	0.843211536	92.98545766
9	4.209	5.3341	4.968	4.932	4.9258	32.53932984	4.743083004	0.816864295	94.4400527
10	4.3483	5.5929	5.1875	5.147	5.1389	32.57271413	4.826024786	0.965204957	94.20877026

11	4.7874	6.2744	5.7594	5.7139	5.7029	34.63349025	4.681069959	1.131687243	94.1872428
12	4.5498	6.1086	5.6182	5.5774	5.5635	31.46009751	3.818794459	1.301010857	94.88019468
13	4.4337	5.8725	5.4192	5.3775	5.3658	31.50542118	4.231354642	1.187214612	94.58143075
14	4.5682	6.0813	5.5895	5.5457	5.5317	32.5028088	4.288651718	1.370801919	94.34054636
15	4.5527	6.3562	5.7076	5.6464	5.63	35.96340449	5.2991601	1.420036367	93.28080353
16	4.8541	6.3877	5.7964	5.7351	5.7195	38.55633803	6.505359227	1.655523719	91.83911705
17	4.6354	6.0503	5.5063	5.4461	5.4307	38.44794685	6.912389482	1.768285681	91.31932484
18	4.4977	6.6409	5.9075	5.8351	5.8164	34.21985816	5.13548021	1.326429281	93.53809051
19	4.3448	5.8603	5.112	5.0114	4.9938	49.37644342	13.11261731	2.294056309	84.59332638
20	5.0276	6.6168	5.956	5.8872	5.8701	41.58066952	7.41059888	1.841878501	90.74752262
21	4.3894	5.9168	5.3551	5.3023	5.2875	36.77491161	5.467536502	1.53256705	92.99989645
22	4.439	6.0823	5.3654	5.3008	5.2844	43.62563135	6.973229706	1.77029361	91.25647668
23	4.5384	5.7273	5.2048	5.1624	5.1506	43.9481874	6.362545018	1.770708283	91.8667467
24	4.4899	6.1265	5.5681	5.5248	5.5138	34.11951607	4.015952513	1.020218883	94.9638286
25	5.4061	7.1754	6.4258	6.3648	6.3519	42.36703781	5.982151613	1.265077964	92.75277042
26	4.6182	6.0041	5.3622	5.306	5.2921	46.31647305	7.553763441	1.86827957	90.57795699
27	4.5358	5.6859	5.0411	4.9763	4.9632	56.06469003	12.82406491	2.592519295	84.58341579
28	4.4888	6.0317	5.0797	4.9765	4.9561	61.70198976	17.46488408	3.452360806	79.08275512
29	5.0716	6.5806	5.6421	5.5397	5.5217	62.19350563	17.9491674	3.155127082	78.89570552
30	4.803	6.1666	5.1519	5.0387	5.0181	74.41331769	32.4448266	5.904270565	61.65090284
31	4.7526	6.2275	5.1889	5.0755	5.0541	70.41833345	25.9912904	4.904881962	69.10382764
32	4.5452	6.5166	5.243	5.1091	5.087	64.60383484	19.18887934	3.167096589	77.64402408
33	4.8413	6.7815	5.6353	5.5322	5.5141	59.07638388	12.98488665	2.279596977	84.73551637
34	4.5829	6.7576	5.6691	5.5774	5.5601	50.05288086	8.442275824	1.592708525	89.96501565
35	5.2901	7.5137	6.5533	6.4738	6.4587	43.19122144	6.293540215	1.195376821	92.51108296
36	4.9827	7.2302	6.4803	6.4226	6.4117	33.36596218	3.852831197	0.727831197	95.41933761
37	5.0447	7.7751	6.4782	6.3755	6.352	47.49853501	7.164283223	1.639344262	91.19637251
38	5.29	7.2036	6.0365	5.9353	5.9163	60.98975753	13.55659745	2.545210985	83.89819156
39	4.8095	6.671	5.5372	5.4053	5.3848	60.90787	18.12560121	2.817094957	79.05730383
40	5.1335	7.0075	5.942	5.8376	5.8164	56.85699039	12.91280148	2.622139765	84.46505875
41	4.6147	6.1747	5.335	5.2512	5.2327	53.82692308	11.63404137	2.568374288	85.79758434
42	5.2718	7.9028	6.4226	6.2852	6.2609	56.25997719	11.93952033	2.111574557	85.94890511
43	4.7274	6.7737	5.6539	5.5484	5.5293	54.72315887	11.3869401	2.061521856	86.55153805
44	4.4958	6.0322	5.1428	5.0564	5.0418	57.88857068	13.35394127	2.256568779	84.38948995
45	5.0992	6.8707	5.8298	5.7218	5.7043	58.75811459	14.78237065	2.395291541	82.8223378
46	4.7631	6.7293	5.6615	5.5464	5.5263	54.30780185	12.81166518	2.237310775	84.95102404
47	4.784	6.3726	5.4842	5.3959	5.391	55.92345461	12.61068266	0.699800057	86.68951728
48	4.9895	6.5561	5.6747	5.5902	5.5739	56.26196859	12.33216579	2.378867484	85.28896673
49	4.9398	6.9728	5.8514	5.7468	5.7249	55.15986227	11.47433085	2.40236946	86.12329969
50	4.5634	6.7434	5.5062	5.3915	5.3682	56.75229358	12.16588884	2.471361901	85.36274926
51	4.3836	6.095	5.1152	5.0206	5.0013	57.25137314	12.93056315	2.638053581	84.43138327
52	4.3989	6.7701	5.4844	5.3623	5.3367	54.22149123	11.24827269	2.358360203	86.39336711
53	4.4604	6.4479	5.3966	5.2955	5.2728	52.89559748	10.79897458	2.424695578	86.77632984

WB 3-3

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	%Carbonate	Residual
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1	4.9135	5.9205	5.4552	5.4079	5.4023	46.20655412	8.731770353	1.033782536	90.23444711
2	5.0556	7.0196	6.046	5.9484	5.9378	49.57230143	9.8546042	1.070274637	89.07512116
3	4.9252	6.3251	5.5806	5.5076	5.5004	53.18237017	11.13823619	1.098565761	87.76319805
4	4.3538	5.3443	4.7712	4.7141	4.7089	57.85966683	13.67992333	1.245807379	85.07426929
5	4.2111	6.104	5.3946	5.3335	5.3047	37.47688732	5.162653147	2.433460076	92.40388678
6	4.3682	5.5257	5.1162	5.0723	5.0685	35.37796976	5.868983957	0.50802139	93.62299465
7	4.7897	5.7719	5.393	5.3512	5.3477	38.57666463	6.928559589	0.580142549	92.49129786
8	4.5573	5.4839	5.0447	4.9876	4.9836	47.39909346	11.71522364	0.820681165	87.4640952
9	4.4403	5.6788	5.2142	5.1693	5.1633	37.51312071	5.801783176	0.775293966	93.42292286
10	4.5783	5.7148	5.2486	5.1915	5.1859	41.02067752	8.518573773	0.835446815	90.64597941
11	4.5631	5.7086	5.4094	5.3697	5.3663	26.11959843	4.691007917	0.401748789	94.90724329
12	4.8673	6.5277	6.0355	5.9798	5.9716	29.64345941	4.768019175	0.7019346	94.53004622
13	4.6419	5.9069	5.4938	5.4485	5.4415	32.65612648	5.317525531	0.821692687	93.86078178
14	4.5053	5.9175	5.5368	5.497	5.4906	26.95793797	3.858458556	0.620455647	95.5210858
15	4.3536	5.8885	5.4416	5.393	5.3856	29.11590332	4.466911765	0.680147059	94.85294118
16	5.0414	6.2758	5.9667	5.9366	5.9342	25.04050551	3.252999027	0.259375338	96.48762563
17	4.4079	6.3135	5.6951	5.6333	5.6221	32.45172124	4.801118707	0.870105656	94.32877564
18	4.4472	5.8875	5.4471	5.4046	5.3991	30.57696313	4.250425043	0.550055006	95.19951995
19	4.5472	6.0877	5.5816	5.5373	5.5284	32.85296981	4.282675947	0.860402166	94.85692189
20	4.5025	6.5167	5.7679	5.6999	5.6849	37.17605004	5.373794847	1.185395922	93.44080923
21	5.4124	7.8019	6.8822	6.7989	6.7831	38.48922369	5.667437747	1.074976187	93.25758607
22	4.6271	7.1486	6.4467	6.3965	6.3837	27.8366052	2.758848098	0.703451308	96.53770059
23	4.5423	7.3773	6.5829	6.524	6.5093	28.02116402	2.886405959	0.72037636	96.39321768
24	4.5026	7.1029	6.1603	6.0847	6.0624	36.2496635	4.560535682	1.345237377	94.09422694
25	5.0792	7.0994	6.5249	6.4784	6.4654	28.43777844	3.216434945	0.899218372	95.88434668
26	4.8243	7.879	6.9217	6.8494	6.8236	31.33859299	3.447125012	1.230094403	95.32278059
27	4.7705	8.0597	6.8605	6.7627	6.7397	36.45871336	4.679425837	1.100478469	94.22009569
28	4.5622	7.3042	6.0936	5.987	5.9633	44.15025529	6.960950764	1.5476035	91.49144574
29	4.8493	7.3191	6.1692	6.0661	6.043	46.55842578	7.811197818	1.750132586	90.4386696
30	4.5906	7.6105	5.9718	5.8312	5.7958	54.2633862	10.17955401	2.562988705	87.25745728
31	5.3028	7.9185	6.3557	6.199	6.1591	59.74691287	14.88270491	3.789533669	81.32776142
32	4.9965	7.927	6.313	6.1538	6.1091	55.07592561	12.09266996	3.395366502	84.51196354
33	5.0556	7.1217	5.9945	5.874	5.848	54.55689463	12.83416764	2.769197998	84.39663436
34	5.3009	7.9025	6.4663	6.3202	6.2869	55.20448954	12.53646817	2.857388021	84.60614381

WB 3-4

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	% Carbonate	Residual
1	4.8183	6.2788	5.7788	5.7438	5.7363	34.23485108	3.64393545	0.780843311	95.57522124
2	4.7555	5.9496	5.5453	5.5104	5.5051	33.85813583	4.418840213	0.671055964	94.91010382
3	5.6604	6.5411	6.1081	6.0462	6.0408	49.16543658	13.82622292	1.206164843	84.96761224
4	4.7955	6.3564	5.7655	5.6971	5.6899	37.85636492	7.051546392	0.742268041	92.20618557
5	5.0739	6.3607	5.943	5.9173	5.9126	32.4603668	2.957082039	0.540789322	96.50212864
6	5.8332	6.9435	6.5596	6.534	6.5313	34.57624066	3.524229075	0.371696035	96.10407489
7	5.1559	6.4965	5.9782	5.9176	5.914	38.66179323	7.369573148	0.437796425	92.19263043

8	4.5758	6.4406	5.6911	5.6318	5.6235	40.19197769	5.316955079	0.744194387	93.93885053
9	5.3988	6.7591	6.1191	6.0746	6.0697	47.0484452	6.177981397	0.680272109	93.14174649
10	5.4576	7.2764	6.5652	6.5171	6.5109	39.10270508	4.342723005	0.55976887	95.09750813
11	4.5658	5.8095	5.2739	5.2346	5.2281	43.06504784	5.55006355	0.917949442	93.53198701
12	4.8728	6.2299	5.5037	5.4502	5.441	53.51116351	8.479949279	1.458234269	90.06181645
13	5.0966	6.7111	5.9594	5.8975	5.8873	46.55930629	7.17431618	1.182197497	91.64348632
14	5.1896	6.4421	5.8112	5.7518	5.7431	50.37125749	9.555984556	1.3996139	89.04440154
15	5.292	7.0722	6.5236	6.4863	6.4771	30.81676216	3.028580708	0.746995778	96.22442351
16	5.5041	6.9716	6.5626	6.5346	6.5269	27.87052811	2.645252716	0.727444497	96.62730279
17	5.0346	6.6032	6.1311	6.0935	6.082	30.0969017	3.429092567	1.04879161	95.52211582
18	5.09	6.7582	6.2561	6.2202	6.2107	30.09830956	3.078638196	0.814681417	96.10668039
19	5.6011	7.2057	6.6531	6.6046	6.5947	34.43848934	4.61026616	0.941064639	94.4486692
20	4.5449	6.548	5.651	5.5641	5.5487	44.78059009	7.856432511	1.392279179	90.75128831
21	4.9479	6.326	5.8021	5.7532	5.7447	38.01610914	5.724654648	0.995083119	93.28026223
22	5.1346	7.8825	6.7775	6.6861	6.6676	40.21252593	5.56333313	1.126057581	93.31060929
23	4.7564	6.4202	5.4735	5.3903	5.3725	56.89986777	11.60228699	2.482220053	85.91549296
24	5.0226	7.0794	5.8351	5.7144	5.6972	60.49688837	14.85538462	2.116923077	83.02769231
25	5.3827	7.396	6.419	6.3189	6.3065	48.5272935	9.659365049	1.196564701	89.14407025
26	5.1838	7.5426	6.2915	6.1788	6.1625	53.03968119	10.1742349	1.471517559	88.35424754
27	5.0473	6.6651	5.7441	5.6627	5.6496	56.92916306	11.68197474	1.880022962	86.4380023
28	5.1168	7.0724	5.9559	5.86	5.8451	57.09245244	11.42891193	1.775712072	86.795376
29	4.8865	6.3749	5.5561	5.4838	5.4734	55.01209352	10.79749104	1.553166069	87.64934289
30	5.3713	7.35	6.1587	6.0505	6.0366	60.20619599	13.74142748	1.765303531	84.49326899
31	4.579	5.8513	5.101	5.0284	5.0193	58.97194058	13.90804598	1.743295019	84.348659
32	4.8267	7.201	5.7911	5.6576	5.6414	59.3817125	13.84280382	1.679800912	84.47739527
33	5.4608	8.5147	6.7691	6.601	6.5798	57.15969744	12.848735	1.62042345	85.53084155
34	5.6474	7.5008	6.3891	6.2661	6.2541	59.98165534	16.58352434	1.617904813	81.79857085
35	5.693	8.1569	6.7785	6.6347	6.6173	55.94382889	13.24735145	1.60294795	85.1497006
36	5.0442	7.1406	5.8762	5.736	5.7197	60.31291738	16.85096154	1.959134615	81.18990385
37	5.2549	7.5743	6.2685	6.1164	6.0943	56.29904286	15.00591949	2.180347277	82.81373323
38	5.0135	7.3719	6.1312	5.9766	5.956	52.60770014	13.83197638	1.843070591	84.32495303
39	5.1461	7.109	6.1002	5.9786	5.9611	51.39334658	12.74499528	1.834189288	85.42081543
40	5.0127	7.7272	6.3226	6.1622	6.1356	51.74433597	12.24520956	2.030689366	85.72410108
41	5.0701	7.1031	5.9776	5.8579	5.8382	55.36153468	13.19008264	2.170798898	84.63911846
42	5.4908	7.9858	6.5922	6.4458	6.4206	55.85571142	13.2921736	2.287997095	84.41982931
43	5.2115	7.4117	6.2528	6.1396	6.1187	52.67248432	10.8710266	2.007106501	87.1218669
44	4.9264	7.0996	5.9555	5.8469	5.8258	52.64586784	10.55291031	2.050335244	87.39675445
45	4.8553	7.2361	6.0124	5.9062	5.8818	51.39868952	9.178117708	2.108720076	88.71316222
46	5.4203	8.1529	6.7266	6.6016	6.5748	52.19571104	9.569011712	2.051596111	88.37939218
47	5.0073	7.2873	6.0973	5.9873	5.9651	52.19298246	10.09174312	2.036697248	87.87155963

WB 3-5

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	%Carbonate	Residual
1	4.9117	6.0196	5.6409	5.5946	5.5876	34.18178536	6.349424026	0.959956116	92.69061986

2	5.0528	5.8031	5.5137	5.4799	5.4744	38.57123817	7.333477978	1.193317422	91.4732046
3	4.9093	6.0341	5.5027	5.4472	5.4382	47.24395448	9.352881699	1.516683519	89.13043478
4	4.3366	6.2492	5.5997	5.5378	5.5253	33.95900868	4.900641279	0.989628691	94.10973003
5	4.2114	6.3276	5.7628	5.6997	5.6869	26.68934883	4.067294057	0.825061235	95.10764471
6	4.3497	6.5844	5.8723	5.8051	5.789	31.8655748	4.413503218	1.057401813	94.52909497
7	4.7884	6.2572	5.8695	5.8385	5.832	26.39569717	2.86744982	0.601239478	96.5313107
8	4.553	6.3311	5.8753	5.8342	5.8247	25.63410382	3.108220525	0.718445133	96.17333434
9	4.436	5.8663	5.5167	5.4905	5.4841	24.44242467	2.424354585	0.592208754	96.98343666
10	4.57	5.8175	5.3422	5.2943	5.284	38.1002004	6.203056203	1.333851334	92.46309246
11	4.5582	6.0443	5.4798	5.4206	5.408	37.98533073	6.423611111	1.3671875	92.20920139
12	4.8588	6.0813	5.5715	5.5153	5.4996	41.70143149	7.885505823	2.202890417	89.91160376
13	4.6372	5.8168	5.3429	5.2927	5.2807	40.17463547	7.113504322	1.70043928	91.1860564
14	4.5061	5.6845	5.0118	4.9333	4.9184	57.08587916	15.52303737	2.946410916	81.53055171
15	4.3512	5.844	5.0607	4.9696	4.953	52.47186495	12.84002819	2.339675828	84.82029598
16	5.0347	6.1912	5.5767	5.5065	5.4943	53.13445741	12.95202952	2.250922509	84.79704797
17	4.3953	5.8421	5.1746	5.099	5.0851	46.1363008	9.70101373	1.783651995	88.51533427
18	4.442	6.3031	5.2639	5.1517	5.1333	55.8379453	13.65129578	2.238715172	84.10998905
19	4.5391	6.2238	5.2873	5.1839	5.1694	55.58853208	13.81983427	1.937984496	84.24218123
20	4.4923	6.4998	5.3747	5.2526	5.2365	56.04483188	13.83726201	1.824569356	84.33816863
21	5.4079	7.3666	6.1689	6.0395	6.0253	61.14770001	17.00394218	1.865965834	81.13009198
22	4.6228	6.8218	5.4578	5.304	5.286	62.02819463	18.41916168	2.155688623	79.4251497
23	4.5366	6.3668	5.308	5.2024	5.187	57.85160092	13.6893959	1.996370236	84.31423386
24	4.4958	6.7672	5.4397	5.312	5.2915	58.44413137	13.52897553	2.171840237	84.29918424
25	5.0756	6.9656	5.7873	5.6677	5.6508	62.34391534	16.8048335	2.374596038	80.82057047
26	4.8083	6.4724	5.5435	5.4487	5.4323	55.81996274	12.89445049	2.230685528	84.87486398
27	4.7551	6.5127	5.4264	5.3206	5.304	61.80587164	15.76046477	2.472813943	81.76672129
28	4.5531	6.7912	5.4315	5.2958	5.2728	60.75242393	15.44854281	2.618397086	81.93306011
29	4.8426	7.863	6.1681	5.9871	5.952	56.11508409	13.65522444	2.648057337	83.69671822
30	4.5844	6.0949	5.2184	5.1151	5.0975	58.02714333	16.29337539	2.776025237	80.93059937
31	5.2955	6.5656	5.8497	5.7685	5.7527	56.3656405	14.65175027	2.850956333	82.4972934
32	4.9869	6.9363	5.8309	5.6991	5.6778	56.70462706	15.61611374	2.523696682	81.86018957
33	5.0556	7.0086	5.9563	5.8453	5.8237	53.8812084	12.3237482	2.398134784	85.27811702
34	5.2961	7.3223	6.1099	5.9904	5.9674	59.83614648	14.68419759	2.826247235	82.48955517
35	4.8108	6.3813	5.5225	5.4298	5.4122	54.6832219	13.02515105	2.472952087	84.50189687
36	5.1369	8.1058	6.305	6.1317	6.1002	60.65546162	14.83605856	2.696686927	82.46725452
37	4.6175	6.0952	5.2055	5.1164	5.0985	60.20843202	15.15306122	3.044217687	81.80272109
38	5.2779	7.4769	6.1926	6.0747	6.0497	58.40381992	12.88947196	2.733136548	84.37739149
39	4.7309	6.6533	5.5714	5.4718	5.4507	56.27861007	11.85008923	2.51041047	85.6395003
40	4.4987	6.4356	5.3868	5.2933	5.2733	54.14838143	10.52809368	2.251998649	87.21990767
41	5.1031	7.2661	6.0525	5.9454	5.9222	56.10725844	11.28080893	2.44364862	86.27554245
42	4.7648	6.6594	5.558	5.4638	5.4464	58.13364299	11.87594554	2.193645991	85.93040847
43	4.7935	7.6561	6.0557	5.918	5.8893	55.90721722	10.90952305	2.273807637	86.81666931

WB 3-6

Sample	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	%Carbonate	Residual
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1	4.8152	6.7954	5.6382	5.5317	5.5204	58.43854156	12.94046173	1.373025516	85.68651276
2	5.1465	7.6546	6.3242	6.2028	6.1903	53.044137	10.3082279	1.061390847	88.63038125
3	4.6258	7.5635	5.9818	5.8327	5.8159	53.84144058	10.99557522	1.238938053	87.76548673
4	5.2797	7.3413	6.1568	6.051	6.0391	57.45537447	12.06247862	1.356743815	86.58077756
5	4.7341	6.8389	5.5942	5.4839	5.4706	59.13625998	12.82409022	1.546331822	85.62957796
6	4.5035	6.7451	5.379	5.2597	5.2456	60.94307637	13.62649914	1.610508281	84.76299258
7	5.1065	6.946	5.8326	5.7351	5.7231	60.52731721	13.42790249	1.652664922	84.91943259
8	4.7706	6.4276	5.4043	5.3149	5.3033	61.75618588	14.1076219	1.830519173	84.06185892
9	4.7983	6.5285	5.4273	5.3201	5.3082	63.64582129	17.04292528	1.891891892	81.06518283
10	4.9938	6.6827	5.5973	5.5013	5.4907	64.26668246	15.90720795	1.756420878	82.33637117
11	4.9483	6.9964	5.6417	5.5156	5.5001	66.14423124	18.18575137	2.235361984	79.57888665
12	4.5706	6.2039	5.1722	5.0756	5.0629	63.16659524	16.05718085	2.111037234	81.83178191
13	4.3967	6.2492	5.0925	4.9738	4.9606	62.43994602	17.05949986	1.897096867	81.04340328
14	4.4061	6.0812	5.0102	4.9108	4.8984	63.9364814	16.45422943	2.052640291	81.49313028
15	4.4665	5.9433	4.9907	4.9071	4.8958	64.50433369	15.94811141	2.155665776	81.89622282
16	4.8311	6.0651	5.2592	5.1909	5.1823	65.30794165	15.9542163	2.008876431	82.03690726
17	4.7744	6.6039	5.3985	5.294	5.2799	65.88685433	16.74411152	2.259253325	80.99663515
18	5.6685	7.3981	6.1465	6.0415	6.0284	72.36355227	21.9665272	2.740585774	75.29288703
19	4.8	7.4761	5.576	5.4317	5.4121	71.00257838	18.59536082	2.525773196	78.87886598
20	5.0857	6.1696	5.386	5.3236	5.3138	72.29449211	20.77922078	3.263403263	75.95737596
21	5.8427	6.9493	6.1294	6.0814	6.0683	74.09181276	16.74223927	4.569236135	78.68852459
22	5.1607	6.5666	5.5308	5.444	5.4301	73.67522583	23.45312078	3.755741691	72.79113753
23	4.5836	6.3685	4.9738	4.8504	4.8319	78.13883131	31.62480779	4.74115838	63.63403383
24	5.409	6.9758	5.837	5.7373	5.7221	72.6831759	23.29439252	3.551401869	73.15420561
25	5.4679	7.4581	6.0212	5.8927	5.873	72.19877399	23.22429062	3.560455449	73.21525393
26	4.5781	6.1947	5.0006	4.8909	4.8744	73.86490165	25.96449704	3.905325444	70.13017751
27	4.8799	6.0735	5.275	5.1804	5.1663	66.89845845	23.94330549	3.568716781	72.48797773
28	5.1076	7.4131	5.9946	5.8199	5.7916	61.52678378	19.69560316	3.190529876	77.11386697
29	5.1997	6.9491	5.8827	5.7495	5.7301	60.95804276	19.50219619	2.840409956	77.65739385
30	5.3017	7.3055	6.0441	5.8851	5.8649	62.95039425	21.41702586	2.720905172	75.86206897
31	5.5169	7.3389	6.2615	6.1364	6.1213	59.13282108	16.80096696	2.027934461	81.17109858
32	5.0487	7.2763	5.858	5.7084	5.6876	63.66942	18.48511059	2.570122328	78.94476708
33	5.1001	7.4677	5.9521	5.7943	5.7755	64.01419159	18.52112676	2.20657277	79.27230047
34	5.6113	7.7462	6.4112	6.2756	6.2593	62.53220291	16.95211901	2.037754719	81.01012627
35	4.5539	6.1446	5.1851	5.082	5.0701	60.31935626	16.33396705	1.885297845	81.78073511
36	4.9595	6.9709	5.7937	5.671	5.6568	58.52639952	14.70870295	1.702229681	83.58906737
37	5.1478	7.8613	6.4468	6.2967	6.2794	52.12824765	11.55504234	1.331793687	87.11316397
38	4.7638	7.6776	6.0501	5.8852	5.8635	55.85489738	12.81971546	1.687009251	85.49327529

WB 3-7

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	%Carbonate	Residual
1	4.9906	6.0072	5.5483	5.507	5.4994	45.14066496	7.405415098	1.362739824	91.23184508
2	4.9409	6.3859	5.6094	5.54	5.5297	53.73702422	10.38145101	1.540762902	88.07778609

3	4.5646	5.9195	5.2217	5.1564	5.1476	51.50195586	9.937604626	1.339217775	88.7231776
4	4.3844	6.3658	5.4572	5.3806	5.3686	45.85646513	7.140193885	1.118568233	91.74123788
5	4.401	6.7362	5.7651	5.6826	5.6709	41.58530319	6.047943699	0.857708379	93.09434792
6	4.464	6.2728	5.6399	5.5881	5.5818	34.99004865	4.405136491	0.535759844	95.05910367
7	4.8228	6.3484	5.8751	5.8233	5.8178	31.02385947	4.922550603	0.522664639	94.55478476
8	4.76	6.5251	6.0249	5.9908	5.9858	28.33833777	2.695865286	0.395288165	96.90884655
9	5.6659	7.1522	6.7516	6.7277	6.7242	26.9528359	2.201344755	0.322372663	97.47628258
10	4.7955	6.7133	6.1686	6.1335	6.1289	28.40233601	2.556259559	0.335008375	97.10873207
11	5.079	6.4878	6.0556	6.0182	6.0167	30.67859171	3.829612943	0.153594102	96.01679296
12	5.8401	7.5133	6.8037	6.7222	6.7182	42.40975377	8.457866335	0.415110004	91.12702366
13	5.1619	7.4354	6.544	6.4563	6.4458	39.20826919	6.345416395	0.759713479	92.89487013
14	4.5817	5.7656	5.3162	5.2629	5.2563	37.9592871	7.256637168	0.898570456	91.84479238
15	5.4036	7.2731	6.4444	6.3444	6.3321	44.32736026	9.607993851	1.181783244	89.21022291
16	5.4659	7.4095	6.4836	6.3716	6.3576	47.63840296	11.00520782	1.375650978	87.6191412
17	4.5695	6.8187	5.789	5.667	5.6508	45.78072203	10.00410004	1.328413284	88.66748667
18	4.8769	6.8741	5.9926	5.8926	5.8785	44.13679151	8.962982881	1.263780586	89.77323653
19	5.1031	7.3917	6.3718	6.2703	6.2557	44.56436249	8.000315283	1.150784267	90.84890045
20	5.1924	7.5284	6.5492	6.4534	6.4387	41.91780822	7.060731132	1.083431604	91.85583726
21	5.2943	7.5826	6.5273	6.4088	6.3937	46.11720491	9.610705596	1.224655312	89.16463909
22	5.5072	7.9016	6.8157	6.7	6.683	45.35165386	8.842185709	1.299197554	89.85861674
23	5.0408	7.4512	6.3637	6.2414	6.2238	45.11699303	9.24484088	1.330410462	89.42474866
24	5.0937	7.1319	6.0958	5.9641	5.9495	50.83406928	13.14240096	1.456940425	85.40065862
25	5.6051	7.5751	6.5139	6.3931	6.3749	53.8680203	13.29225352	2.002640845	84.70510563
26	4.5487	6.3568	5.3666	5.2689	5.2497	54.7646701	11.94522558	2.347475241	85.70729918
27	4.9485	6.5412	5.7592	5.6809	5.6667	49.09901425	9.65831997	1.751572715	88.59010731
28	5.1368	7.3408	6.4858	6.4076	6.3926	38.79310345	5.796886583	1.111934766	93.09117865
29	4.7585	6.8878	6.1028	6.0337	6.0203	36.86657587	5.140221677	0.996801309	93.86297701
30	5.0284	7.2664	6.5364	6.474	6.461	32.61840929	4.137931034	0.862068966	95
31	5.2518	7.1506	6.6411	6.5979	6.5921	26.83273647	3.109479594	0.417476427	96.47304398
32	5.1887	7.0123	6.4545	6.4088	6.4011	30.58784821	3.610364987	0.60831095	95.78132406
33	5.0492	6.8816	6.2664	6.2117	6.2039	33.57345558	4.493920473	0.640814985	94.86526454
34	5.1199	7.1241	6.4833	6.4204	6.4125	31.972857	4.613466334	0.579433769	94.8070999
35	4.8876	7.7797	6.7674	6.673	6.6611	35.0022475	5.021810831	0.633046069	94.3451431
36	5.3771	7.4654	6.7975	6.7303	6.7224	31.98295264	4.731061673	0.556181357	94.71275697
37	4.5827	7.4389	6.5735	6.4793	6.4684	30.29899867	4.731766124	0.547518585	94.72071529
38	4.8303	8.6921	7.4793	7.3744	7.3575	31.40504428	3.9599849	0.637976595	95.40203851
39	5.4662	7.7745	7.0616	6.9857	6.9768	30.88420049	4.757427604	0.55785383	94.68471857
40	5.6493	8.9809	7.7527	7.6234	7.6054	36.86516989	6.147190263	0.855757345	92.99705239

WB 3-8

Sample #	Tare	Tare+Weight	Tare+Dry	Tare+550	Tare+1000	%Carbonate Residual			
						% Water	% Organic		
1	4.9112	7.3369	6.61	6.5566	6.5456	29.96660758	3.143395338	0.647515894	96.20908877
2	5.0518	6.5713	6.201	6.1799	6.1754	24.36985851	1.836059868	0.391576749	97.77236338

3	4.907 9	6.3636	5.9218	5.8929	5.8878	30.3496599 6	2.85037972 2	0.50300818 6	96.6466120 9
4	4.335 4	6.2345	5.6889	5.6475	5.6393	28.7293981 4	3.05873660 9	0.60583672	96.3354266 7
5	4.211 2	5.8783	5.431	5.396	5.3878	26.8310239 3	2.86932284	0.67224135 1	96.4584358 1
6	4.358 4	6.3795	5.9051	5.863	5.8542	23.4723665 3	2.72192409 6	0.56895325 5	96.7091226 5
7	4.788 2	6.4369	6.0577	6.0325	6.0273	22.9999393 5	1.98503347 8	0.40961008 3	97.6053564 4
8	4.553 6	6.5831	6.1218	6.0932	6.087	22.7297363 9	1.82374697 1	0.39535773 5	97.7808952 9
9	4.453 4	6.7766	6.1435	6.0992	6.0894	27.2512052 3	2.62114667 8	0.57984734 6	96.7990059 8
10	4.570 3	6.6257	5.6198	5.5277	5.5149	48.9393792	8.77560743 2	1.21962839 4	90.0047641 7
11	4.559 7	6.3982	5.2503	5.1506	5.1372	62.4367691 1	14.4367216 9	1.94034173 2	83.6229365 8
12	4.857 7	6.3364	5.5118	5.4381	5.4277	55.7651991 6	11.2673903 1	1.58997095 2	87.1426387 4
13	4.638 1	6.2906	5.2797	5.1834	5.1712	61.1739788 2	15.0093516 2	1.90149625 9	83.0891521 2
14	4.502 3	5.7936	4.9459	4.8711	4.8602	65.6470223 8	16.8620378 7	2.45716862	80.6807935 1
15	4.349 1	6.2878	4.9405	4.8294	4.8132	69.4950224 4	18.7859316 9	2.73926276 6	78.4748055 5
16	5.031 2	6.9687	5.626	5.5105	5.4905	69.3006451 6	19.4182918 6	3.36247478 1	77.2192333 6
17	4.393 7	6.2661	5.0211	4.8979	4.8765	66.4922025 2	19.6365954 7	3.41090213 6	76.9525023 9
18	4.440 5	6.2399	4.9797	4.8414	4.82	70.0344559 3	25.6491097 9	3.96884273	70.3820474 8
19	4.540 4	6.4462	5.0693	4.9542	4.9323	72.2478749 1	21.7621478 5	4.14066931 4	74.0971828 3
20	4.492 9	6.7501	5.1657	5.04	5.016	70.1931596 7	18.6831153 4	3.56718192 3	77.7497027 3
21	5.409 2	6.9586	5.8747	5.7911	5.7771	69.9561120 4	17.9591836 7	3.00751879 7	79.0332975 3
22	4.623 6	6.083	5.0467	4.9707	4.9551	71.0086336 9	17.9626565 8	3.68707161 4	78.3502718
23	4.536 6	6.2978	5.022	4.9345	4.9175	72.4392459 7	18.02637	3.50226617 2	78.4713638 2
24	4.496 9	6.1332	4.9178	4.834	4.8151	74.2773330 1	19.9097172 7	4.49037776 2	75.5999049 7
25	5.075	6.807	5.4921	5.409	5.3926	75.9180138 6	19.9232797 9	3.93191081	76.1448094
26	4.808 6	6.8318	5.3072	5.2048	5.185	75.3558718 9	20.5375050 1	3.97111913 4	75.4913758 5
27	4.757 5	6.4158	5.1441	5.0565	5.039	76.6869685 8	22.6590791 5	4.52664252 5	72.8142783 2
28	4.550 4	6.1827	4.922	4.8215	4.8054	77.2345769 8	27.0452099	4.33261571 6	68.6221743 8
29	4.843 8	6.1975	5.1647	5.0676	5.0529	76.2945999 9	30.2586475 5	4.58086631 3	65.1604861 3
30	4.584 8	6.1916	5.0167	4.9333	4.9154	73.1204879 3	19.3100254 7	4.14447788 8	76.5454966 4
31	5.294 6	6.7085	5.6879	5.6157	5.5985	72.1833227 2	18.3574879 2	4.37325197 1	77.2692601 1
32	4.986 4	7.2185	5.648	5.5426	5.5061	70.3597509 1	15.9310761 8	5.51692865 8	78.5519951 6
33	5.050 8	7.0864	5.6814	5.5776	5.5472	69.0214187 5	16.4605138	4.82080558 2	78.7186806 2
34	5.292 8	7.261	5.8696	5.7735	5.7423	70.6940351 6	16.6608876 6	5.40915395 3	77.9299583 9
35	4.809 3	6.6272	5.3265	5.2326	5.2061	71.5495901 9	18.1554524 4	5.12374323 3	76.7208043 3
36	5.136 7	6.9762	5.7464	5.6517	5.6233	66.8551236 7	15.5322289 7	4.65802853 9	79.8097425

WB 3-9

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	%Carbonate	Residual
1	4.6181	6.7741	6.1196	6.0625	6.0532	30.35714286	3.802863803	0.619380619	95.57775558
2	5.2776	7.2196	6.7568	6.7315	6.7264	23.83110196	1.710383991	0.344780963	97.94483505
3	4.7319	6.9708	6.0982	6.0274	6.0151	38.9744964	5.181878065	0.900241528	93.91788041
4	4.5014	6.138	5.6128	5.5713	5.5648	32.0909202	3.734029152	0.58484794	95.68112291
5	5.1049	8.12	7.3941	7.3441	7.334	24.07548672	2.184169142	0.441202167	97.37462869
6	4.7688	6.5393	6.1637	6.1418	6.1369	21.21434623	1.570005018	0.351279662	98.07871532
7	4.7978	6.2669	6.0044	5.994	5.9911	17.8680825	0.861926073	0.24034477	98.89772916
8	4.9916	7.1002	6.6907	6.6722	6.6662	19.42046856	1.088811724	0.353128127	98.55806015
9	4.9445	6.2045	5.5894	5.5271	5.5183	48.81746032	9.660412467	1.364552644	88.97503489
10	4.565	5.913	5.1219	5.0376	5.0274	58.68694362	15.13736757	1.831567606	83.03106482
11	4.3867	5.9771	5.0168	4.9139	4.901	60.38103622	16.33074115	2.04729408	81.62196477
12	4.4011	5.5428	4.7759	4.6982	4.6841	67.17176141	20.73105656	3.762006403	75.50693703
13	4.4637	6.0273	4.9973	4.8966	4.8801	65.87362497	18.87181409	3.092203898	78.03598201
14	4.8239	6.1702	5.335	5.2565	5.2454	62.03669316	15.35902954	2.171786343	82.46918411
15	4.7824	5.9818	5.1724	5.1005	5.092	67.48374187	18.43589744	2.179487179	79.38461538
16	5.6688	6.9134	6.0797	6.0026	5.9929	66.98537683	18.76368946	2.360671696	78.87563884
17	4.8035	5.7564	5.1006	5.0385	5.0313	68.82149229	20.90205318	2.423426456	76.67452036
18	5.0913	6.4417	5.4558	5.3491	5.3383	73.00799763	29.27297668	2.962962963	67.76406036
19	5.843	7.1613	6.1917	6.0958	6.0849	73.549268	27.50215085	3.125896186	69.37195297
20	5.158	6.6428	5.6003	5.5046	5.4919	70.21147629	21.63689803	2.871354284	75.49174768
21	4.5788	6.715	5.2248	5.0983	5.0805	69.75938583	19.58204334	2.755417957	77.6625387
22	5.4011	7.4589	6.0622	5.9487	5.9311	67.87345709	17.16835577	2.662229617	80.16941461
23	5.4614	7.7751	6.118	5.9912	5.9724	71.62121278	19.31160524	2.863234846	77.82515991
24	4.5703	6.803	5.2445	5.1268	5.1059	69.80337708	17.45772768	3.099970335	79.44230199
25	4.8756	6.7861	5.4867	5.3901	5.3715	68.013609	15.80756014	3.043691703	81.14874816
26	5.1026	6.852	5.6502	5.5604	5.5432	68.69783926	16.39883126	3.140978817	80.46018992
27	5.192	7.2255	5.7626	5.6528	5.6345	71.94000492	19.24290221	3.207150368	77.54994742
28	5.2957	7.2019	5.8162	5.7114	5.6916	72.69436575	20.13448607	3.804034582	76.06147935
29	5.5076	7.7294	6.1223	5.9972	5.9723	72.33324332	20.35139092	4.050756467	75.59785261
30	5.0387	7.299	5.6953	5.5751	5.5432	70.95075875	18.30642705	4.858361255	76.8352117
31	5.0954	7.7616	6.0313	5.8837	5.8412	64.89760708	15.7709157	4.541083449	79.68800085
32	5.6056	7.2596	6.1386	6.0373	6.0125	67.77509069	19.00562852	4.652908068	76.34146341
33	4.553	6.0445	5.0412	4.9526	4.9335	67.26785116	18.14829988	3.912331012	77.93936911
34	4.9537	6.4952	5.5029	5.4181	5.399	64.37236458	15.44064093	3.47778587	81.0815732
35	5.1382	7.0816	5.8719	5.7748	5.7513	62.24657816	13.23429194	3.202943983	83.56276407

WB 3-10

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	%Carbonate	Residual
1	4.9131	6.6444	6.143	6.1072	6.1012	28.96089644	2.910805757	0.48784454	96.6013497
2	5.0537	6.9128	6.3629	6.3318	6.3251	29.57882847	2.375496486	0.511762909	97.1127406
3	4.918	6.4887	5.7267	5.6701	5.6603	48.51340167	6.998887103	1.211821442	91.78929146
4	4.3376	5.753	5.4226	5.4044	5.3993	23.34322453	1.677419355	0.470046083	97.85253456
5	4.2095	6.1172	5.7514	5.7408	5.737	19.17492268	0.687463519	0.246449186	99.06608729
6	4.3683	6.9678	6.4594	6.3988	6.3944	19.55760723	2.89799627	0.210415571	96.89158816

7	4.789	6.9214	6.4743	6.4573	6.4536	20.96698556	1.008722483	0.219545482	98.77173204
8	4.5567	6.658	6.0472	5.999	5.9933	29.06771998	3.233814156	0.382422006	96.38376384
9	4.4382	6.0921	5.3872	5.329	5.3217	42.62047282	6.132771338	0.769230769	93.09799789
10	4.5764	5.907	5.2068	5.1492	5.1368	52.6228769	9.137055838	1.967005076	88.89593909
11	4.5607	5.8601	5.1726	5.1104	5.103	52.90903494	10.16505965	1.209347933	88.62559242
12	4.862	6.3523	5.4197	5.3114	5.3018	62.57800443	19.4190425	1.721355568	78.85960194
13	4.6417	6.2175	5.5188	5.4552	5.4469	44.33938317	7.251168624	0.946300308	91.80253107
14	4.5031	5.9141	5.2876	5.2262	5.2194	44.40113395	7.826641173	0.866794136	91.30656469
15	4.3559	6.3257	5.356	5.2674	5.2562	49.22834806	8.859114089	1.119888011	90.0209979
16	5.0373	7.4478	6.1902	6.0738	6.0601	52.1717486	10.09627895	1.188307746	88.71541331
17	4.4009	5.8394	5.1791	5.1164	5.1066	45.90198123	8.057054742	1.259316371	90.68362889
18	4.4444	6.8038	5.7081	5.6025	5.5874	46.43977282	8.356413706	1.194903854	90.44868244
19	4.5439	6.6134	5.548	5.4543	5.4405	51.48103407	9.331739867	1.374365103	89.29389503
20	4.5005	6.3499	5.4567	5.3752	5.3626	48.29674489	8.523321481	1.317715959	90.15896256
21	5.4125	7.2825	6.3953	6.3146	6.3032	47.44385027	8.211233211	1.15995116	90.62881563
22	4.6274	7.0456	5.9336	5.8396	5.8204	45.98461666	7.196447711	1.469912724	91.33363957
23	4.5431	6.2759	5.3414	5.2625	5.2489	53.9300554	9.883502443	1.703620193	88.41287736
24	4.5018	6.402	5.2095	5.1048	5.0844	62.75655194	14.79440441	2.882577363	82.32301823
25	5.0804	6.8125	5.7875	5.7028	5.6871	59.1767219	11.97850375	2.220336586	85.80115967
26	4.8233	6.3442	5.4107	5.3306	5.3144	61.37813137	13.63636364	2.757916241	83.60572012
27	4.7622	6.9317	5.8078	5.7149	5.6987	51.80456326	8.884850803	1.549349656	89.56579954
28	4.5594	6.7821	5.6498	5.5551	5.54	50.94254735	8.68488628	1.384812913	89.93030081
29	4.8478	6.8922	5.9657	5.8923	5.8812	45.31891998	6.565882458	0.992933178	92.44118436
30	4.5916	6.6077	5.8043	5.7353	5.7233	39.84921383	5.689783129	0.989527501	93.32068937
31	5.2997	7.4351	6.5716	6.4933	6.4791	40.43738878	6.156144351	1.116439972	92.72741568
32	4.9922	7.2707	6.3365	6.2535	6.2404	41.00065833	6.174217065	0.974484862	92.85129807
33	5.0543	6.9458	6.1885	6.1229	6.1126	40.03700767	5.783812379	0.908129078	93.30805854
34	5.2992	7.2936	6.5919	6.5308	6.5212	35.18351384	4.726541348	0.742631701	94.53082695
35	4.8146	6.3169	5.8489	5.8123	5.8063	31.15223324	3.538625157	0.580102485	95.88127236
36	5.1437	7.8154	7.0794	7.0275	7.0195	27.54800314	2.681200599	0.413287183	96.90551222
37	4.6275	7.4512	6.6886	6.6364	6.6245	27.00711832	2.532628208	0.577361603	96.89001019
38	5.2789	8.2063	7.224	7.1571	7.1462	33.55537337	3.439411855	0.5603825	96.00020564
39	4.7328	8.8328	7.7465	7.6681	7.6557	26.49512195	2.601453363	0.411454358	96.98709228
40	4.5082	7.4774	6.5201	6.4442	6.4345	32.24100768	3.772553308	0.482131319	95.74531537
41	5.1086	7.547	6.7262	6.659	6.6501	33.66141732	4.154302671	0.550197824	95.29549951
42	4.7706	7.7001	6.8346	6.7647	6.7542	29.54429083	3.386627907	0.50872093	96.10465116
43	4.7994	7.849	7.0537	6.9961	6.9865	26.07883001	2.555116888	0.425852815	97.0190303
44	4.9946	8.1037	7.287	7.2329	7.2241	26.26805185	2.359972082	0.383877159	97.25615076
45	4.9686	7.3681	6.6874	6.6411	6.6329	28.36841009	2.693739818	0.47707703	96.82918315
46	4.5769	7.765	7.0712	7.0356	7.0266	21.7621781	1.427254139	0.360822676	98.21192318
47	4.3997	7.074	6.5269	6.5044	6.4977	20.45768986	1.057728469	0.314968033	98.6273035
48	4.4063	8.1132	7.3697	7.3417	7.329	20.05719064	0.944860633	0.428561787	98.62657758
49	4.4669	7.5815	6.9716	6.9477	6.9393	19.58196879	0.954206093	0.335369505	98.7104244
50	4.828	8.3704	7.6527	7.6292	7.6201	20.26027552	0.831946755	0.322158105	98.84589514
51	4.7727	7.9758	7.3058	7.2863	7.2777	20.91723643	0.769807745	0.339504954	98.8906873
52	5.6679	9.0327	8.3455	8.3248	8.3178	20.42320495	0.77308037	0.261428145	98.96549148

53	4.8022	8.4508	7.7362	7.7105	7.7042	19.58559447	0.875937287	0.214723926	98.90933879
54	5.0912	8.3159	7.6481	7.613	7.6055	20.70890315	1.372756072	0.293323947	98.33391998
55	5.8458	8.8747	8.2666	8.2358	8.2284	20.07659546	1.272306675	0.305684071	98.42200925
56	5.1595	8.3211	7.6592	7.6211	7.6148	20.93560223	1.524182902	0.252030244	98.22378685
57	4.5873	8.8421	7.8958	7.8277	7.8147	22.24076337	2.058334593	0.392927308	97.5487381
58	5.408	8.5029	7.7047	7.6391	7.6257	25.79081715	2.856272042	0.583445814	96.56028214
59	5.4657	7.8327	6.8877	6.8046	6.7843	39.92395437	5.843881857	1.427566807	92.72855134
60	4.5733	7.181	6.0356	5.93	5.9051	43.92376424	7.221500376	1.702796964	91.07570266
61	4.8771	7.9876	6.4971	6.3705	6.3325	47.9183411	7.814814815	2.345679012	89.83950617
62	5.106	7.7	6.3851	6.2739	6.2376	50.69005397	8.693612696	2.837932922	88.46845438
63	5.1966	7.9706	6.5142	6.392	6.3533	52.50180245	9.274438373	2.93715847	87.78840316
64	5.2997	8.0348	6.6183	6.5018	6.4675	51.7896969	8.835128166	2.601243743	88.56362809
65	5.5325	8.0004	6.7843	6.6667	6.6412	49.27671299	9.39447196	2.037066624	88.56846142
66	5.0549	7.8058	6.3256	6.1346	6.1018	53.80784471	15.03108523	2.581254427	82.38766034
67	5.0997	6.7905	5.8616	5.7612	5.7413	54.93849066	13.17758236	2.611891324	84.21052632
68	5.6094	7.6186	6.5565	6.4592	6.4361	52.86183556	10.27346637	2.43902439	87.28750924
69	4.5527	6.6696	5.445	5.3452	5.3156	57.84874108	11.18457918	3.317269976	85.49815085
70	4.9618	7.3331	5.9088	5.7801	5.7508	60.06409986	13.59028511	3.093980993	83.3157339
71	5.1415	7.043	5.913	5.8263	5.8015	59.42676834	11.23784835	3.214517174	85.54763448
72	4.7585	6.9779	5.7208	5.6313	5.6017	56.64143462	9.300633898	3.075963837	87.62340227
73	5.0264	6.8996	5.8222	5.7429	5.7125	57.51654922	9.96481528	3.82005529	86.21512943
74	5.3836	7.6813	6.3489	6.2539	6.2179	57.98842321	9.841500052	3.729410546	86.4290894
75	5.187	7.2796	6.1133	6.0279	5.9988	55.73449298	9.219475332	3.141530822	87.63899385
76	5.0505	7.0987	5.879	5.7966	5.7632	59.54984865	9.945684973	4.031382016	86.02293301
77	5.1219	7.5694	6.1875	6.0857	6.0549	56.46169561	9.553303303	2.89039039	87.55630631
78	4.8901	6.8568	5.7141	5.6312	5.6055	58.10240504	10.06067961	3.118932039	86.82038835
79	5.3737	7.0294	6.1047	6.0303	6.0103	55.84948964	10.17783858	2.735978112	87.08618331
80	4.5829	7.1588	5.8679	5.7611	5.7338	50.11452308	8.311284047	2.124513619	89.56420233
81	4.8295	6.6072	5.6186	5.5404	5.518	55.61118299	9.910024078	2.838676974	87.25129895
82	5.464	7.4566	6.3541	6.2595	6.2386	55.32971996	10.62801932	2.348050781	87.0239299
83	5.6561	7.4666	6.4547	6.3617	6.3428	55.89063795	11.64537941	2.366641623	85.98797896
84	5.6955	8.0458	6.5972	6.4276	6.3983	61.63468493	18.80891649	3.249417766	77.94166574
85	5.0491	6.8131	5.7281	5.6182	5.5965	61.50793651	16.18556701	3.195876289	80.6185567
86	5.2577	7.5709	6.1158	5.9741	5.9458	62.90420197	16.5132269	3.297983918	80.18878919
87	5.0167	6.5732	5.5693	5.4674	5.4479	64.49726951	18.44010134	3.528773073	78.03112559
88	5.1482	7.2641	5.9977	5.8417	5.8181	59.85159979	18.36374338	2.778104768	78.85815185

WB 3-11

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	%Carbonate	Residual
1	4.9123	5.8625	5.6064	5.585	5.5814	26.95222059	3.083129232	0.518657254	96.39821351
2	5.0594	6.3497	5.8952	5.8582	5.85	35.22436643	4.426896387	0.981095956	94.59200766
3	4.9128	6.8786	6.1135	6.0452	6.0326	38.92054126	5.688348463	1.049387857	93.26226368
4	4.3407	5.5406	4.932	4.8731	4.8641	50.72089341	9.961102655	1.522070015	88.51682733
5	4.2122	6.0844	5.4311	5.3757	5.3663	34.8947762	4.545081631	0.771187136	94.68373123
6	4.3544	6.0267	5.6787	5.6653	5.6621	20.80966334	1.01185532	0.241637091	98.74650759
7	4.7904	6.8915	6.482	6.4699	6.4665	19.48979106	0.715299125	0.200993143	99.08370773

8	4.5572	7.0149	6.5367	6.5235	6.5186	19.4572161	0.666835059	0.247537257	99.08562768
9	4.439	7.2512	6.6701	6.6526	6.6435	20.66353744	0.784366456	0.407870557	98.80776299
10	4.5786	7.3135	6.463	6.4026	6.3909	31.09802918	3.205264275	0.620887285	96.17384844
11	4.5629	6.1207	5.0943	4.988	4.9743	65.88779047	20.00376364	2.578095597	77.41814076
12	4.869	6.2507	5.2815	5.1841	5.1716	70.14547297	23.61212121	3.03030303	73.35757576
13	4.642	5.3655	4.8473	4.7919	4.7855	71.62404976	26.98490015	3.117389187	69.89771067
14	4.5077	6.7341	5.0841	4.9112	4.8928	74.11067194	29.99653019	3.19222762	66.81124219
15	4.3551	5.8069	4.8886	4.8036	4.7924	63.25251412	15.93252109	2.099343955	81.96813496
16	5.0413	6.0338	5.3545	5.2933	5.2851	68.44332494	19.54022989	2.618135377	77.84163474
17	4.4027	5.4575	4.7173	4.6381	4.6266	70.17444065	25.17482517	3.655435474	71.16973935
18	4.4475	5.9728	4.8847	4.7688	4.752	71.33678621	26.50960659	3.84263495	69.64775846
19	4.5481	5.5039	4.8352	4.7677	4.7562	69.96233522	23.51097179	4.005572971	72.48345524
20	4.5031	5.7713	4.7788	4.6787	4.6673	78.26052673	36.3075807	4.134929271	59.55749003
21	5.4262	6.69	5.7551	5.6709	5.6588	73.97531255	25.60048647	3.678929766	70.72058376
22	4.6297	5.7267	4.911	4.8372	4.8257	74.3573382	26.23533594	4.088162105	69.67650196
23	4.545	6.2857	5.009	4.8955	4.8755	73.34405699	24.4612069	4.310344828	71.22844828
24	4.5059	6.9447	5.1729	5.0157	4.9868	72.65048384	23.56821589	4.332833583	72.09895052
25	5.0799	6.7829	5.5019	5.3919	5.3736	75.22019965	26.06635071	4.336492891	69.5971564
26	4.8271	6.3792	5.2889	5.1912	5.1731	70.24676245	21.15634474	3.919445647	74.92420961
27	4.7696	6.9054	5.3807	5.2528	5.2311	71.38777039	20.92947144	3.550973654	75.5195549
28	4.5664	6.3664	5.1144	5.0179	4.9999	69.55555556	17.60948905	3.284671533	79.10583942
29	4.8572	7.0903	5.5809	5.4604	5.4396	67.59213649	16.65054581	2.87411911	80.47533508
30	4.6056	6.5285	5.1933	5.0878	5.07	69.43678818	17.95133572	3.028756168	79.01990812
31	5.3173	7.2901	5.9207	5.8142	5.7934	69.41403082	17.64998343	3.447132913	78.90288366
32	5.0088	6.5568	5.5343	5.4514	5.4337	66.05297158	15.77545195	3.368220742	80.85632731
33	5.0594	6.9131	5.7032	5.6021	5.5746	65.26946108	15.70363467	4.271512892	80.02485244
34	5.3037	6.8405	5.8384	5.7548	5.732	65.20692348	15.63493548	4.264073312	80.10099121
35	4.8158	6.6618	5.4585	5.3591	5.3342	65.18418202	15.4660028	3.87428038	80.65971682
36	5.144	6.7295	5.7155	5.6298	5.609	63.95458846	14.99562555	3.639545057	81.3648294
37	4.6242	6.2261	5.1686	5.079	5.057	66.01535676	16.45848641	4.041146216	79.50036738
38	5.2801	7.0193	5.8858	5.793	5.7703	65.17364305	15.32111606	3.747729899	80.93115404
39	4.7337	7.1886	5.5949	5.4709	5.4342	64.91914131	14.3985137	4.261495588	81.33999071
40	4.5043	6.5577	5.1783	5.0551	5.0292	67.17639038	18.27893175	3.84272997	77.87833828
41	5.1072	6.9083	5.7457	5.6424	5.6219	64.54944201	16.17854346	3.210649961	80.61080658
42	4.7718	6.8569	5.5354	5.4194	5.3954	63.37825524	15.19119958	3.14300681	81.66579361
43	4.7986	7.0515	5.6101	5.4825	5.449	63.97975942	15.72396796	4.128157733	80.14787431
44	4.9957	6.7958	5.6788	5.5788	5.5526	62.05210822	14.63914507	3.835456009	81.52539892
45	4.9512	7.0677	5.7807	5.6723	5.6375	60.80793763	13.06811332	4.195298373	82.73658831

WB 3-12

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	% Carbonate	Residual
1	5.0372	6.3312	5.7372	5.6436	5.6415	45.90417311	13.37142857	0.3	86.32857143
2	5.3897	6.3161	5.6886	5.5867	5.5843	67.73531952	34.09166945	0.802944128	65.10538642

3	5.195	5.8609	5.3698	5.2944	5.2932	73.74981228	43.13501144	0.686498856	56.1784897
4	5.0519	6.3123	5.3763	5.1849	5.1831	74.262139	59.00123305	0.55487053	40.44389642
5	5.1243	6.3011	5.3918	5.2462	5.2439	77.26886472	54.42990654	0.859813084	44.71028037
6	4.8905	5.6794	5.175	5.0906	5.0895	63.93712765	29.66608084	0.386643234	69.94727592
7	5.3752	6.4987	6.0281	5.9655	5.9654	41.88696039	9.587992036	0.015316281	90.39669168
8	4.5935	7.2118	6.3937	6.296	6.2927	31.24546461	5.427174758	0.183312965	94.38951228
9	4.8355	7.0319	6.0854	5.9639	5.961	43.09324349	9.720777662	0.232018561	90.04720378
10	5.4685	7.3656	6.7948	6.7375	6.736	30.0880291	4.320289527	0.113096584	95.56661389
11	5.6537	8.4452	7.8293	7.7785	7.775	22.06340677	2.334988049	0.160875161	97.50413679
12	5.702	9.1627	8.2535	8.162	8.1564	26.27214147	3.586125808	0.219478738	96.19439545
13	5.0477	7.6281	6.9156	6.8471	6.8421	27.61199814	3.667219873	0.267680283	96.06509984
14	5.2599	7.7427	7.0755	7.0115	7.0081	26.87288545	3.525005508	0.187265918	96.28772857
15	5.0161	7.5501	6.8466	6.7774	6.774	27.76243094	3.780387872	0.185741601	96.03387053
16	5.1479	7.4433	6.8014	6.7401	6.7361	27.9646249	3.707287572	0.241911098	96.05080133
17	5.013	7.4373	6.7369	6.6665	6.6628	28.89081384	4.083763559	0.214629619	95.70160682
18	5.0718	7.6928	6.9042	6.819	6.8144	30.08775277	4.649639817	0.251036892	95.09932329
19	5.492	7.706	6.9624	6.875	6.8712	33.5862692	5.943960827	0.258433079	93.79760609
20	5.2125	7.6602	6.9132	6.8327	6.8294	30.51844589	4.733345093	0.194037749	95.07261716
21	4.9349	7.5176	6.7234	6.6441	6.6401	30.7507647	4.433883142	0.223651104	95.34246575
22	5.4241	8.1036	7.2456	7.1551	7.1499	32.02089942	4.96843261	0.285479001	94.74608839
23	4.8582	7.0893	6.116	6.0036	5.9999	43.62422124	8.936237876	0.294164414	90.76959771
24	5.0085	7.4625	6.4724	6.3551	6.3508	40.34637327	8.012842407	0.293735911	91.69342168
25	4.4962	7.8417	6.8063	6.6944	6.6883	30.94903602	4.84394615	0.264057833	94.89199602
26	4.7463	8.1297	7.1786	7.0834	7.0622	28.11077614	3.913990873	0.871603009	95.21440612
27	4.2675	6.7092	6.0204	5.9503	5.9456	28.20985379	3.999087227	0.268127104	95.73278567
28	4.2505	7.4009	6.459	6.373	6.3662	29.89779076	3.894045732	0.30790129	95.79805298
29	4.6448	7.6336	6.9218	6.8396	6.8349	23.81557816	3.610013175	0.206411946	96.18357488
30	5.2747	9.2034	8.3484	8.2579	8.2513	21.76292412	2.94433419	0.214724924	96.84094089
31	4.2409	8.0894	7.236	7.1613	7.1543	22.17487333	2.494073654	0.233715068	97.27221128
32	4.4299	7.4241	6.7768	6.7124	6.7061	21.61846236	2.744045336	0.268439218	96.98751545
33	4.8494	8.4233	7.5469	7.4611	7.4541	24.52223062	3.180722892	0.259499537	96.55977757
34	4.6327	7.6167	6.7403	6.6415	6.6351	29.36997319	4.687796546	0.303662934	95.00854052
35	4.8356	7.5254	6.5007	6.3908	6.3847	38.0957692	6.600204192	0.366344364	93.03345144
36	4.6834	7.0023	6.1933	6.1121	6.107	34.88723101	5.377839592	0.337770713	94.28438969
37	4.7569	8.4649	7.414	7.3167	7.3094	28.34142395	3.66188702	0.274735614	96.06337737
38	5.427	9.4851	8.5737	8.4449	8.4357	22.45878613	4.093176979	0.292369784	95.61445324
39	5.0864	8.3806	7.6546	7.5828	7.5767	22.03873475	2.79573242	0.237520442	96.96674714
40	4.9009	8.2233	7.574	7.5086	7.5015	19.54310137	2.446597583	0.265609218	97.2877932
41	5.1584	8.6488	8.0033	7.9403	7.9327	18.4935824	2.214489086	0.267144715	97.5183662
42	5.2031	8.6981	8.0034	7.9379	7.9297	19.8769671	2.339035103	0.292825769	97.36813913

WB 3-13

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	% Carbonate	Residual
1	4.5697	5.7208	4.9762	4.8769	4.8728	64.68595257	24.42804428	1.008610086	74.56334563

2	4.3962	5.089	4.6563	4.5954	4.5927	62.45669746	23.41407151	1.038062284	75.54786621
3	4.4066	6.3655	5.3254	5.185	5.1797	53.09612538	15.28080104	0.576839356	84.1423596
4	4.4673	5.831	5.2351	5.1562	5.1534	43.69729413	10.27611357	0.364678302	89.35920813
5	4.8251	6.506	5.9679	5.9007	5.8992	32.01261229	5.880294015	0.131256563	93.98844942
6	4.7747	7.1163	6.2499	6.1373	6.134	37.00034165	7.632863341	0.223698482	92.14343818
7	5.675	7.2978	6.7484	6.6811	6.6795	33.85506532	6.269796907	0.149059065	93.58114403
8	4.8109	6.9157	6.2514	6.1718	6.1685	31.56119346	5.525859077	0.229087123	94.2450538
9	5.0925	7.2358	6.4501	6.3527	6.3503	36.65842393	7.174425457	0.176782557	92.64879199
10	5.8449	7.4087	6.7622	6.6814	6.677	41.34160379	8.80845961	0.479668593	90.7118718
11	5.1658	7.201	6.2603	6.1412	6.1354	46.22150157	10.88168113	0.529922339	88.58839653
12	4.595	5.784	5.2404	5.1742	5.1702	45.71909167	10.25720483	0.619770685	89.12302448
13	5.413	6.8195	6.1472	6.059	6.0551	47.79950231	12.01307546	0.531190411	87.45573413
14	5.4726	6.9121	6.357	6.2874	6.2852	38.56200069	7.869742198	0.248756219	91.88150158
15	4.5797	5.926	5.4698	5.4175	5.4154	33.88546386	5.875744298	0.235928547	93.88832715
16	4.8805	7.4926	6.7254	6.5828	6.5789	29.37100417	7.729416229	0.211393571	92.0591902
17	5.1063	7.2855	6.6578	6.5634	6.5619	28.80414831	6.084434418	0.096680632	93.81888495
18	5.1997	7.6724	6.9994	6.9018	6.8976	27.21721195	5.423126077	0.233372229	94.34350169
19	5.3	6.6412	6.1662	6.0986	6.0961	35.41604533	7.804202263	0.288616948	91.90718079
20	5.5171	8.0327	7.215	7.1159	7.112	32.50516775	5.836621709	0.229695506	93.93368278
21	5.0502	6.5251	6.0679	6.0082	6.0053	30.99871178	5.866168812	0.284956274	93.84887491
22	5.1053	7.5283	6.8195	6.736	6.7318	29.25299216	4.871076887	0.245012251	94.88391086
23	5.6109	7.1746	6.6533	6.5926	6.59	33.33759673	5.823100537	0.249424405	93.92747506
24	4.5711	6.8844	6.1043	6.014	6.0095	33.72238793	5.889642578	0.293503783	93.81685364
25	4.9739	7.8781	7.1922	7.1337	7.1305	23.61751945	2.637154578	0.144254609	97.21859081
26	5.1464	7.3247	6.617	6.5163	6.5121	32.48863793	6.84754522	0.285597715	92.86685707
27	4.7718	6.3659	5.8717	5.8122	5.8076	31.00181921	5.409582689	0.418219838	94.17219747
28	5.0328	7.4269	6.5207	6.4153	6.4093	37.85138465	7.083809396	0.403252907	92.5129377
29	5.3869	7.8558	7.2425	7.16	7.1537	24.84102232	4.446001293	0.339512826	95.21448588
30	5.1904	7.8954	7.068	6.97	6.9646	30.58780037	5.219429058	0.287601193	94.49296975
31	5.0523	7.3076	6.6106	6.5275	6.523	30.90497938	5.33273439	0.288776231	94.37848938
32	5.1226	6.9944	6.4152	6.3427	6.3392	30.94347687	5.608850379	0.270772087	94.12037753
33	4.8926	7.0382	6.4555	6.3929	6.3891	27.15790455	4.005374624	0.243137757	95.75148762
34	5.3826	7.3535	6.8181	6.7582	6.7537	27.16525445	4.172762104	0.313479624	95.51375827
35	4.6139	6.5474	6.1056	6.0536	6.05	22.84975433	3.485955621	0.241335389	96.27270899
36	4.8401	6.6465	6.2227	6.1788	6.1764	23.46102746	3.175177202	0.173585997	96.6512368
37	5.4849	7.5606	7.041	6.9863	6.9823	25.03251915	3.515198252	0.257052889	96.22774886
38	5.6554	7.5242	7.043	6.9927	6.9891	25.74914384	3.624963967	0.259440761	96.11559527
39	5.7022	7.5902	7.1555	7.1091	7.1047	23.02436441	3.192733778	0.302759238	96.50450698
40	5.0489	6.1543	5.8817	5.8499	5.8483	24.66075629	3.818443804	0.192122959	95.98943324
41	5.2603	7.4922	7.0033	6.9594	6.9555	21.90510328	2.518646013	0.223752151	97.25760184
42	5.0169	6.915	6.5237	6.4846	6.4807	20.61535219	2.594903106	0.258826653	97.14627024
43	5.1488	7.0425	6.6001	6.5511	6.5471	23.36167292	3.376283332	0.275614966	96.3481017
44	5.0144	7.9513	7.211	7.1248	7.1193	25.20685076	3.924246563	0.250386962	95.82536648

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	%Carbonate	Residual
1	4.9112	6.6126	5.5304	5.4692	5.4538	63.60644175	9.88372093	2.487080103	87.62919897
2	5.0552	7.4239	5.8948	5.8161	5.7931	64.55439693	9.373511196	2.739399714	87.88708909
3	4.9175	7.9371	6.0502	5.9481	5.919	62.48840906	9.013860687	2.569082723	88.41705659
4	4.3413	5.5996	4.8106	4.7651	4.7513	62.70364778	9.695290859	2.940549755	87.36415939
5	4.213	6.5262	5.0657	4.9887	4.963	63.13764482	9.030139557	3.01395567	87.95590477
6	4.3767	6.7385	5.2385	5.1594	5.1347	63.51088153	9.178463681	2.866094221	87.9554421
7	4.7939	6.5383	5.4757	5.4167	5.4001	60.91492777	8.653564095	2.434731593	88.91170431
8	4.5596	6.3734	5.2317	5.1684	5.1517	62.94519793	9.418241333	2.484749293	88.09700937
9	4.4496	5.7071	4.8847	4.8417	4.83	65.39960239	9.882785567	2.689037003	87.42817743
10	4.5846	5.8657	5.05	5.0044	4.9918	63.67184451	9.798023206	2.707348517	87.49462828
11	4.5714	6.5925	5.2357	5.1754	5.1593	67.13175993	9.077224146	2.423603793	88.49917206
12	4.874	6.6545	5.3814	5.3328	5.3182	71.50238697	9.578242018	2.877414269	87.54434371
13	4.6457	6.375	5.1401	5.092	5.0779	71.41039727	9.728964401	2.851941748	87.41909385
14	4.5182	6.9872	5.2575	5.1892	5.1686	70.05670312	9.238468822	2.786419586	87.97511159
15	4.3587	6.6482	5.0657	5.0016	4.9828	69.11989517	9.066478076	2.659123055	88.27439887
16	5.0417	6.8535	5.6206	5.567	5.554	68.04834971	9.258939368	2.245638279	88.49542235
17	4.4055	6.9417	5.2305	5.1603	5.1405	67.47101964	8.509090909	2.4	89.09090909
18	4.462	6.3766	5.171	5.115	5.1	62.96876632	7.898448519	2.115655853	89.98589563
19	4.5515	7.2155	5.615	5.5333	5.5079	60.07882883	7.682181476	2.388340386	89.92947814
20	4.5094	5.9904	5.1371	5.0835	5.068	57.61647535	8.53911104	2.469332484	88.99155648
21	5.4243	7.4389	6.0432	5.9856	5.969	69.27926139	9.306834707	2.682178058	88.01098724
22	4.6335	6.6221	5.3147	5.2504	5.2327	65.74474505	9.439224897	2.598355843	87.96241926
23	4.5512	6.4496	5.2008	5.1425	5.1267	65.78171091	8.974753695	2.43226601	88.5929803
24	4.5158	6.1402	5.076	5.0236	5.0071	65.51342034	9.353802213	2.945376651	87.70082114
25	5.0852	6.6323	5.6619	5.6145	5.5997	62.72380583	8.219178082	2.566325646	89.21449627
26	4.8322	6.2739	5.4075	5.3618	5.3447	60.09572033	7.943681557	2.972362246	89.0839562
27	4.7696	6.3627	5.3416	5.2926	5.2788	64.09516038	8.566433566	2.412587413	89.02097902
28	4.5702	6.4249	5.3705	5.3059	5.2883	56.85016445	8.07197301	2.199175309	89.72885168
29	4.8645	6.1589	5.4505	5.4054	5.392	54.72805933	7.696245734	2.28668942	90.01706485
30	4.6086	6.5913	5.4641	5.3966	5.3787	56.85176779	7.890122735	2.092343659	90.01753361
31	5.327	7.5487	6.2699	6.195	6.1742	57.55952649	7.943578322	2.205960335	89.85046134
32	5.0118	6.8535	5.7946	5.7328	5.7163	57.49579193	7.894736842	2.107818089	89.99744507
33	5.0646	6.8086	5.7657	5.7093	5.6945	59.79931193	8.044501498	2.110968478	89.84453002
34	5.3141	7.0698	5.8316	5.7845	5.7709	70.52457709	9.101449275	2.628019324	88.2705314
35	4.8261	5.9898	5.2604	5.2242	5.2143	62.67938472	8.33525213	2.279530279	89.38521759
36	5.1564	6.9706	5.8092	5.7552	5.7391	64.01719766	8.272058824	2.46629902	89.26164216
37	4.6327	5.7381	5.0564	5.0195	5.0075	61.66998372	8.708992211	2.832192589	88.4588152
38	5.2848	6.874	5.8467	5.7996	5.7864	64.64258747	8.382274426	2.349172451	89.26855312
39	4.7438	5.9584	5.1636	5.127	5.1164	65.43718096	8.718437351	2.52501191	88.75655074
40	4.5174	6.1789	5.0294	4.982	4.9679	69.18447186	9.2578125	2.75390625	87.98828125
41	5.1142	6.1353	5.4509	5.4149	5.4038	67.02575654	10.69201069	3.296703297	86.01128601
42	4.7793	6.2172	5.1999	5.1569	5.1445	70.74900897	10.22349025	2.948169282	86.82834047
43	4.8105	5.9366	5.2285	5.1934	5.1839	62.88073883	8.397129187	2.272727273	89.33014354
44	5.0048	6.3717	5.462	5.4195	5.4062	66.55205209	9.295713036	2.909011374	87.79527559
45	4.9562	6.7264	5.5505	5.4977	5.4811	66.42752231	8.884401817	2.793202086	88.3223961
46	4.574	6.0933	5.1903	5.1445	5.1319	59.43526624	7.431445724	2.044458867	90.52409541

47	4.3982	6.0987	5.0765	5.0211	5.0051	60.11173184	8.167477517	2.358838272	89.47368421
48	4.4116	6.1101	5.0894	5.0336	5.0175	60.09420077	8.232516967	2.375331956	89.39215108
49	4.4705	5.955	5.0855	5.0421	5.0273	58.57190973	7.056910569	2.406504065	90.53658537
50	4.8373	7.0582	5.7615	5.6938	5.6717	58.38623981	7.325254274	2.391257304	90.28348842
51	4.791	6.937	5.976	5.9193	5.9013	44.78098788	4.784810127	1.518987342	93.69620253
52	5.6971	7.9932	7.2475	7.2014	7.1873	32.4768085	2.973426213	0.909442724	96.11713106
53	4.843	6.6852	5.9822	5.9375	5.9247	38.16089458	3.92380618	1.123595506	94.95259831
54	5.1015	6.9433	6.0982	6.0456	6.0312	45.88446085	5.277415471	1.444767734	93.2778168
55	5.8548	7.7849	6.7485	6.6847	6.6676	53.69669965	7.138860915	1.913393756	90.94774533
56	5.1734	7.2798	6.3624	6.3033	6.2844	43.55298139	4.970563499	1.589571068	93.43986543
57	4.6028	6.1222	5.4571	5.4109	5.3984	43.7738581	5.407936322	1.463186234	93.12887744
58	5.4205	7.896	6.6338	6.5606	6.5415	50.98767926	6.033132778	1.574219072	92.39264815
59	5.4963	7.17	6.1162	6.0691	6.0564	62.9622991	7.597999677	2.048717535	90.35328279
60	4.5982	7.5555	5.7014	5.6241	5.6	62.69570216	7.00688905	2.184554025	90.80855693
61	4.8881	6.9953	5.721	5.6576	5.6379	60.47361427	7.611958218	2.36522992	90.02281186
62	5.1243	6.2564	5.6161	5.5782	5.567	56.5586079	7.706384709	2.277348516	90.01626678
63	5.2052	7.2301	6.1872	6.121	6.1003	51.50377796	6.741344196	2.107942974	91.15071283
64	5.3094	6.488	5.9043	5.8635	5.852	49.52486	6.858295512	1.933098	91.20860649
65	5.5206	6.4062	5.9804	5.9476	5.9385	48.08039747	7.13353632	1.979121357	90.88734232
66	5.0578	6.908	5.9696	5.9066	5.8866	50.71884121	6.909409958	2.193463479	90.89712656
67	5.1129	6.7608	5.9179	5.8562	5.8394	51.14994842	7.664596273	2.086956522	90.2484472
68	5.6139	7.1899	6.3121	6.2591	6.2449	55.69796954	7.590948152	2.033801203	90.37525064
69	4.561	6.4333	5.1859	5.1383	5.1268	66.62393847	7.617218755	1.840294447	90.5424868
70	4.967	7.0438	5.7532	5.6992	5.6855	62.14368259	6.868481302	1.742559145	91.38895955
71	5.1509	6.0608	5.5048	5.4788	5.4724	61.105616	7.34670811	1.808420458	90.84487143
72	4.7669	6.4744	5.5294	5.4817	5.4688	55.34407028	6.255737705	1.691803279	92.05245902
73	5.3894	6.7853	5.9208	5.8642	5.8465	61.93137044	10.65111027	3.330824238	86.01806549
74	5.0306	7.0275	6.1997	6.1456	6.1299	41.45425409	4.627491233	1.342913352	94.02959542
75	5.1904	6.7389	5.9578	5.9055	5.8897	50.44236358	6.815220224	2.058900182	91.12587959
76	5.0567	6.8997	6.0753	6.012	5.9944	44.73141617	6.214411938	1.727861771	92.05772629
77	5.1248	6.3076	5.7563	5.7122	5.7003	46.6097396	6.983372922	1.884402217	91.13222486
78	4.8942	8.0378	6.5871	6.4772	6.4379	46.14772872	6.491818773	2.321460216	91.18672101
79	5.38	7.425	6.4678	6.3961	6.3749	46.80684597	6.591285163	1.948887663	91.45982717
80	4.5894	7.5566	6.1939	6.0938	6.0634	45.9254516	6.238703646	1.894671237	91.86662512
81	4.8354	7.046	6.0194	5.9428	5.9213	46.43988058	6.469594595	1.815878378	91.71452703
82	5.4722	8.0762	6.8586	6.7737	6.7452	46.75883257	6.123773803	2.055683785	91.82054241
83	5.6551	7.8385	6.8094	6.7362	6.7125	47.13291197	6.341505674	2.053192411	91.60530191
84	5.7008	7.104	6.4597	6.4094	6.3949	45.91647662	6.628014231	1.910660166	91.4613256
85	5.0478	7.072	6.1413	6.0668	6.046	45.97865824	6.812985825	1.902149063	91.28486511
86	5.2606	6.6162	5.9887	5.9392	5.9244	46.28946592	6.798516687	2.032687818	91.1687955
87	5.0175	6.4059	5.749	5.7006	5.6854	47.31345434	6.616541353	2.077922078	91.30553657
88	5.1493	7.5677	6.4194	6.3396	6.3144	47.48180615	6.282969845	1.98409574	91.73293441
89	5.0151	6.702	5.9333	5.8764	5.8601	45.56879483	6.196906992	1.775212372	92.02788064
90	5.0732	7.078	6.1301	6.0663	6.0484	47.28152434	6.036521904	1.693632321	92.26984578
91	5.4927	7.037	6.3093	6.2596	6.2449	47.12167325	6.086211119	1.800146951	92.11364193
92	5.2152	6.858	6.0657	6.0102	5.994	48.22863404	6.525573192	1.904761905	91.5696649
93	4.9339	6.5517	5.7351	5.6693	5.6551	50.475955	8.212680979	1.772341488	90.01497753

94	4.8594	7.623	6.2515	6.1607	6.1334	49.62729773	6.522519934	1.961066015	91.51641405
95	5.4274	7.3461	6.3309	6.2572	6.237	52.91082504	8.157166574	2.235749862	89.60708356
96	5.0093	6.7941	5.7524	5.677	5.6571	58.36508292	10.14668282	2.677970663	87.17534652
97	4.3624	5.6932	4.9311	4.8822	4.8673	57.26630598	8.598558115	2.62001055	88.78143133
98	4.9398	6.1794	5.4513	5.4049	5.39	58.73668925	9.071358749	2.913000978	88.01564027
99	4.5155	6.913	5.5519	5.4698	5.4426	56.77163712	7.921651872	2.624469317	89.45387881
100	4.827	6.6238	5.6965	5.6376	5.6204	51.60841496	6.774008051	1.978148361	91.24784359
101	4.8978	6.5291	5.7074	5.6548	5.6378	50.37086986	6.497035573	2.099802372	91.40316206
102	5.1292	6.0637	5.6428	5.6131	5.6035	45.04012841	5.78271028	1.869158879	92.34813084
103	4.9175	7.7883	6.9921	6.9415	6.924	27.73442943	2.43902439	0.843536103	96.71743951
104	4.8737	7.0008	6.351	6.3003	6.2859	30.54863429	3.431936641	0.974751235	95.59331212
105	4.2429	8.099	6.4002	6.2751	6.2368	44.0548741	5.798915311	1.775367357	92.42571733
106	4.5308	5.996	5.3193	5.2666	5.2504	46.18482118	6.683576411	2.054533925	91.26188966
107	4.6052	5.7817	5.2202	5.174	5.159	47.72630684	7.512195122	2.43902439	90.04878049
108	4.6675	5.9821	5.3615	5.31	5.2933	47.20827628	7.42074928	2.406340058	90.17291066
109	4.8097	6.8748	5.8972	5.8226	5.7975	47.33911191	6.859770115	2.308045977	90.83218391
110	4.8381	7.2659	6.1573	6.0694	6.0431	45.66273993	6.663129169	1.993632505	91.34323833
111	4.4169	5.7042	5.1111	5.0661	5.0492	46.07317642	6.482281763	2.434456929	91.08326131
112	4.614	6.753	5.7279	5.6552	5.6286	47.92426367	6.526618188	2.388006105	91.08537571
113	5.2269	6.7262	6.0139	5.9608	5.9425	47.50883746	6.747141042	2.325285896	90.92757306
114	4.8061	6.0439	5.4421	5.3965	5.3811	48.61851672	7.169811321	2.421383648	90.40880503
115	4.7741	6.7173	5.7458	5.6767	5.6544	49.99485385	7.111248328	2.294947	90.59380467
116	4.3921	6.2007	5.3271	5.2657	5.2466	48.30255446	6.56684492	2.042780749	91.39037433
117	4.6025	6.6036	5.607	5.529	5.5056	49.80260857	7.765057242	2.329517173	89.90542558
118	5.1755	7.0726	6.2008	6.1318	6.1098	45.95435138	6.729737638	2.14571345	91.12454891
119	4.9349	7.7134	6.529	6.4287	6.4053	42.6273169	6.291951571	1.467912929	92.2401355
120	4.5959	7.7002	6.3663	6.2595	6.2331	42.9694295	6.03253502	1.491188432	92.47627655
121	4.5686	5.7902	5.2212	5.1733	5.1611	46.57825802	7.339871284	1.869445296	90.79068342
122	5.1251	8.6361	6.9944	6.8665	6.8301	46.75875819	6.842133419	1.947252982	91.2106136
123	5.0495	7.9737	6.5958	6.4897	6.4556	47.12057999	6.861540451	2.205264179	90.93319537

WB 3-15

Sample #	Tare	Tare+Wet	Tare+Dry	Tare+550	Tare+1000	% Water	% Organic	%Carbonate	Residual
1	4.9711	6.4044	5.5103	5.4131	5.4029	62.38052048	18.02670623	1.891691395	80.08160237
2	4.6822	5.6605	5.0675	4.9974	4.9906	60.61535316	18.19361536	1.764858552	80.04152608
3	4.8489	6.0821	5.3076	5.2192	5.2114	62.80408693	19.27185524	1.700457816	79.02768694
4	4.4485	6.0158	4.9487	4.8119	4.8023	68.08524214	27.34906038	1.919232307	70.73170732
5	4.7948	6.3527	5.2723	5.148	5.1373	69.34976571	26.03141361	2.240837696	71.72774869
6	4.8315	5.7407	5.1173	5.0311	5.0248	68.56577211	30.16095171	2.204338698	67.63470959
7	4.7361	6.0645	5.1494	5.0469	5.0372	68.88738332	24.80038713	2.346963465	72.85264941
8	4.798	5.8107	5.1012	5.0228	5.0147	70.06023502	25.85751979	2.671503958	71.47097625
9	4.3152	5.4333	4.6767	4.6031	4.5949	67.66836598	20.35961272	2.268326418	77.37206086
10	4.928	6.0992	5.2567	5.1436	5.1344	71.93476776	34.40827502	2.798904776	62.7928202
11	4.764	5.5504	4.9966	4.9335	4.9278	70.42217701	27.12811694	2.450558899	70.42132416
12	5.5025	6.6619	5.7586	5.6594	5.651	77.91098844	38.73486919	3.279968762	57.98516205
13	4.9025	5.5745	5.0576	5.0071	5.0015	76.91964286	32.55963894	3.610573823	63.82978723

14	5.1667	6.0344	5.3567	5.2944	5.2881	78.103031	32.78947368	3.315789474	63.89473684
15	4.791	6.0044	5.0309	4.9392	4.9305	80.22910829	38.22426011	3.626511046	58.14922885
16	4.698	5.7263	4.9174	4.8362	4.8287	78.66381406	37.01002735	3.418413856	59.5715588
17	4.4723	5.6788	4.7263	4.6211	4.6115	78.94736842	41.41732283	3.779527559	54.80314961
18	4.692	5.408	4.8542	4.774	4.7676	77.34636872	49.44512947	3.945745993	46.60912454
19	4.7817	5.5294	4.926	4.8523	4.8464	80.70081584	51.07415107	4.088704089	44.83714484
20	4.436	5.4062	4.6183	4.5392	4.5327	81.21005978	43.39001646	3.565551289	53.04443225
21	5.0432	6.1253	5.2992	5.2261	5.2176	76.34229738	28.5546875	3.3203125	68.125
22	4.6761	5.9532	4.9799	4.8888	4.8798	76.2117297	29.98683344	2.962475313	67.05069124
23	4.515	6.1851	4.8645	4.7407	4.7286	79.07310939	35.42203147	3.462088698	61.11587983
24	4.3535	6.0932	4.739	4.6176	4.6041	77.84100707	31.49156939	3.501945525	65.00648508
25	4.6974	6.2253	5.0294	4.9163	4.9052	78.27082924	34.06626506	3.343373494	62.59036145
26	4.7492	6.4598	5.1382	5.0006	4.9856	77.25944113	35.37275064	3.856041131	60.77120823
27	4.8339	6.0844	5.1622	5.0705	5.0583	73.7465014	27.93176972	3.716113311	68.35211697
28	5.2289	6.4796	5.5528	5.4627	5.4497	74.1025026	27.81722754	4.01358444	68.16918802
29	4.5897	6.2027	5.0048	4.8926	4.8767	74.26534408	27.02963141	3.830402313	69.13996627
30	4.9094	6.5078	5.2998	5.1831	5.1683	75.57557558	29.89241803	3.790983607	66.31659836
31	4.828	6.3776	5.22	5.1029	5.0894	74.7031492	29.87244898	3.443877551	66.68367347
32	5.0263	6.5546	5.3926	5.2747	5.2611	76.03219263	32.18673219	3.712803713	64.1004641
33	4.5727	6.5599	5.0195	4.8517	4.8343	77.51610306	37.55595345	3.894359893	58.54968666
34	5.1401	7.3711	5.6909	5.5323	5.5131	75.3115195	28.79448076	3.48583878	67.71968046
35	4.7892	6.4095	5.1972	5.0746	5.0586	74.81947787	30.04901961	3.921568627	66.02941176
36	4.4706	6.2714	4.9264	4.798	4.7809	74.6890271	28.17025011	3.751645459	68.07810443
37	5.0104	6.6434	5.3921	5.2692	5.2563	76.62584201	32.1980613	3.379617501	64.42232119
38	4.9985	7.0562	5.4604	5.3022	5.2878	77.55260728	34.24983763	3.117557913	62.63260446
39	5.3326	7.5313	5.7878	5.6245	5.6097	79.29685723	35.87434095	3.251318102	60.87434095
40	4.5474	6.6417	4.9987	4.8407	4.8264	78.45103376	35.00997119	3.168623975	61.82140483
41	4.6187	6.0844	4.9654	4.8504	4.8393	76.34577335	33.16988751	3.201615229	63.62849726

VITA

Yun Huang was born in 1983 at a small village in Hunan province in the middle part of southern China. He spent fifteen years in the rurality with his loving family until the end of his middle school year in 1998. As a simple rural child, Yun enjoyed living with the traditional Chinese and the beautiful natural world, including forests, mountains, rivers, and wild animals. In 1998, because of his excellent academic achievement in middle school, he was admitted to study in the famous No.1 High School of Hengyang City which is more than 100 km away from home. During those three years of senior high school in Hengyang City, he devoted most of his time to study. With an outstanding performance in the China National College Entrance Exam, Yun Huang was admitted to Nanjing University, one of the top universities in China, to study resource and environmental science in 2001. He began to love doing scientific research after he noticed the scientific field of global climate change. After graduating from Nanjing University in 2005, Yun Huang came to Louisiana State University to study paleotempestology with a focus on reconstructing historical hurricane records in Weeks Bay, Alabama. Yun is expected to finish the Master of Science degree in geography in May 2009.