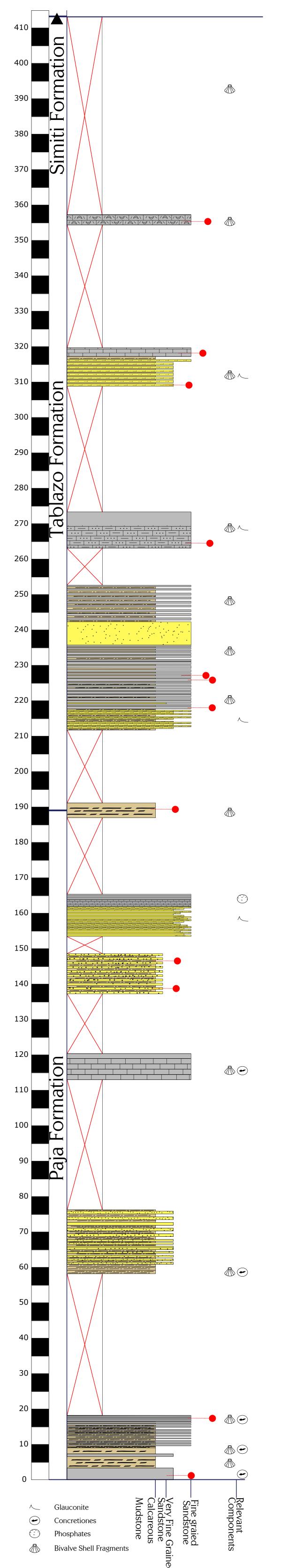




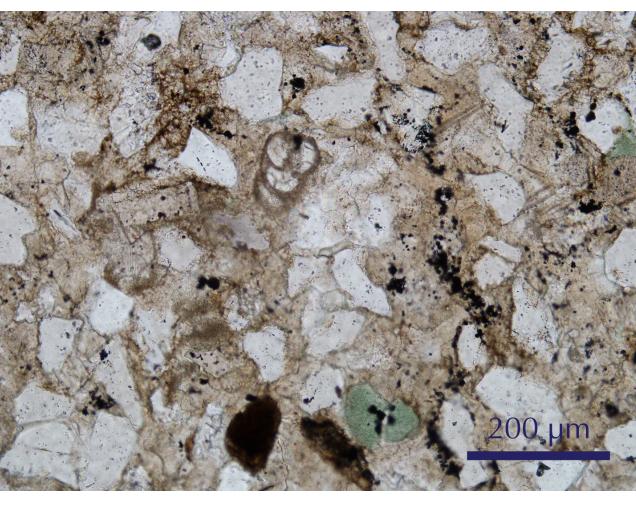
# STRATIGRAPHY OF THE TABLAZO FORMATION IN THE TABLAZO AREA, MUNICIPALITY OF BETULIA, SANTANDER, COLOMBIA



Lippe Doundar         On the other size of the road this joes from Size Barananagine excitor is envents. Behind a store after the road, we lide of the Tables Jornalion is the overhist Sinal Jornalion. The contact is Bridge of B Tables.           Tablazo 12         Beneficial finances were controlled by store of the posterior. The contact is Bridge of B Tables.           Tablazo 12         Beneficial finances were controlled. Bark to store values of the posterior is module and store after the posterior is an analysis with set contact.           Tablazo 13         Beneficial finances were completer, with tablefin generary is medium species with undulatory of finances.           Tablazo 14         Beneficial finances, bark, in tablefin layers with undulatory of finances.           Tablazo 15         Covered           Tablazo 16         Covered           Tablazo 17         Dissection, store poster, in medium-bodded tablar layers with undulatory of finances.           Tablazo 9         Covered           Tablazo 9         Covered           Tablazo 10         Encode standardine, and concretions, and with some possible some of the finances. and column bodded with intercolations of the layers of laster of alconome metal and standardine. Bark to alconome. The same additional tables of alconome. The same additional tables of an intervent columnous metalsone. The same additional tables of an intervent additional tables of alconome. The same additional contact between the Paja Formation and the Tablazo Formation. Co	Sample	Description
Image: Decements of the sector is converse. Induct a star where next we have a been before Tables Promotion where were plain Formation. The contract of bridge of PT Tables.           Tables:012         Elements is instantion where were plain formation. The contract of bridge of PT Tables.           Tables:012         Elements is instantion where were plained maintenance. Not simple of PT Tables.           Tables:013         Elements is instantion where were plained maintenance. The contract of bridge of PT Tables.           Tables:014         Elements is instantion.         Elements is instantion.           Tables:015         Elements is instantion.         Elements is instantion.           Tables:016         Elements is instantion.         Elements is instantion.           Tables:017         Elements is instantion.         Elements is instantion.           Tables:018         Elements is instantion.         Elements is instantion.           Tables:019         Elements is instantion.         Elements is instantion.           Tables:010         Elements is instantion.         Elements instantion.         Elements instantion.           Tables:011         Elements is instantion.         Elements instantion.         Elements instantion.           Tables:011         Elements instantion.         Elements instantion.         Elements instantion.           Tables:010         Elements instantinste instantion.         Elements instantion.	Sample	Description
Tablazo 12     Biomicric linescore, very competent, black to gay colored, with accumu secontry is tablat in medium layers with net contact.       Tablazo 11     Covered       Tablazo 11     Biomicric linescore, very competent, with lutular geometry in medium 5 contacts.       Tablazo 11     Tablazo 11       Tablazo 11     Covered       Tablazo 12     Energianed sandscores, black in tabular layers with undulatory configuretis, glaconice and calcaceous centers. Interlayered with break with light colored laminations.       Tablazo 13     Covered       Unrestone, way connecent, in medium-bedded tabular layers with music mice, after gray, way competent, and with score possible spin o shell fragments.       Tablazo 13     Covered       Unrestone, data gray, way competent, medium bedded bees with score acadome and collar-cos matchares. Dedset compile bott linescore bods. Very anadomes and calcarcos matchares. Dedset compile bott linescore bods. Very anadomes and calcarcos matchares. Dedset compile bott linescore bods. Very anadomes and calcarcos matchares. Dedset compile bott linescore cover calcarcos matchares. Detset compile bott linescore bods. Very anadomes and calcarcos matchares. The and glacomite provide sandscore. The and glacomite provide sandscore.       Tablazo 5     Calcarcos sandscore methodes with colored, medium bedded with wave o Sandscore, wery timegrained, quarts filt. Secondary redder eddset with wave o Sandscore, wery timegrained, quarts filt. Secondary redder eddset with anadomes and the patient sit. Secondary redder eddset with biokes and time quart sit. Secondary redder eddset with wave o Calcarcos matchares with additis colored, medium bedded with wave o Calcarcos matchares in the b		Upper Boundary: On the other side of the road that goes from Sar Bucaramanga the section is covered. Behind a store after the road, we iden of the Tablazo Formation to the overlying Simiti Formation. This boundary between brown calcareous mudstone and reddish claystone. No sample co Formation since it is currently inaccessible at this location. The contact ca Bridge of El Tablazo.
Tablezo 12     geometry is tabiliter in medium layers with net contact.       Covered     Bomentic Linestone, very competent, with tabular geometry an medium secondary.       Tablezo 10     Tregments, glauconite and calcureous comment. Interlayered with brew with light colored laminations.       Tablezo 10     Covered       Tablezo 11     Covered       Tablezo 12     Covered       Tablezo 13     Covered       Tablezo 14     Covered       Tablezo 15     Covered       Tablezo 16     Covered       Tablezo 17     Covered       Tablezo 18     Covered       Tablezo 19     Covered       Tablezo 10     Envertice, very competent, in medium-bedded ubduit layers with must mixe, altered glauconite, and concretions, and with some possible space o soft Impanets. Tarafel Lineatone for finance to every Therganice calcureous modutore.       Tablezo 5     Covered       Tablezo 6     Calcureous sandscone linethedided with calcureous mustane. The sond glauconite, to a dominated by calcureous componetis. Therefore, we sandschne, who wave calcureous mudatore.       Tablezo 5     Covered       Tablezo 5     Covered       Tablezo 5     Covered       Tablezo 5     Covered       Covered     Covered       Covered     Covered       Covered     Covered       Covered     Covered       Covered </td <td></td> <td>Covered</td>		Covered
Tablazo 11     Biomicritic lineatone, very competent, with tabular geometry in medium scatacas.       Tablazo 10     Fine-grained sandstones, black, in tabular layers with undulatory contragments, glauconite and calcareous cement. Interfayered with brow with light-colored laminations.       Tablazo 10     Covered       Lineatone, very compotent, in medium-badded utbulker layers with medium is a itteral filtucentie, and concretions, and with some possible space of shell forgments.     Covered       Tablazo 11     Covered     Lineatone, medium badded with intercalations of thin layers of finalis of calcareous accent line for very composed.       Tablazo 12     Covered     Lineatone, find coverse on protein. In the intercal back. Very sandstone. Nucleic final, signal of calcareous mudstone.       Tablazo 6     Calcareous sandstone interbedded with calcareous mudstone. The sand salaconte low by calcareous components. Therefore, we say definite unit of the Tablazo formation.       Tablazo 5     Covered       Tablazo 6     Calcareous mudstone with trashes and fine guarza sit. Secondary redsh salacon to into mineals. Statification, if any, in this interval is obscared to each room since there the Pip formation and the Tablazo Form calcareous mudstone, well fine-grained quarz, in untitaling contacts, bancrite, gray to blash colored, mediam bedded with wavy or Sandatone, brance probably biometrie, in mediam-bedded tablar layers with a biddeneous mudstone with sile/classic material, mediam bedded. One lens graned quarts, probably biometrie, in mediam-bedded tablar layers with a untitaling contacts, interbedded with the graneet and near spatial tablar layers.       Tablazo 3     Covered <tr< td=""><td>Tablazo 12</td><td>Biomicritc limestone, very competent, black to gray colored, with accumul geometry is tabular in medium layers with net contact.</td></tr<>	Tablazo 12	Biomicritc limestone, very competent, black to gray colored, with accumul geometry is tabular in medium layers with net contact.
Tablazo 11       contacts.         Tablazo 10       Fine-grained sandstones, black, in tabular layers with undulatory configaments glauconite and calcareous cement. Interlayered with brow with light-colored laminations.         Tablazo 10       Covered         Tablazo 9       Covered         Tablazo 10       Encode and the sandstones, and concretions, and with some possible spar or shell fragments.         Covered       Encode and the sandstone in the lineation bedded tabular layers with muddiment, altered glanconite, and concretions, and with some possible spar or shell fragments.         Tablazo 12       Covered         Lineatore, medium bedded with intercalations of thin layers of fissile of alterations is present in the lineatore beds. We sandstone in the classerous compares both lineator thrown calcareous mudstones. Bedgets complete both lineator thrown calcareous mudstones. Dedgets complete both lineator thrown calcareous mudstone.         Tablazo 5       Calcareous sandstone interbedded with calcareous mudstone. The sand glauconite, but is dominered to calcareous mudstone. The sand glauconite, is us dominered to calcareous mudstone.         Tablazo 5       Covered         Tablazo 6       Calcareous sandstone interbedded with probably calcareous cement, identified in both altered and fresh picers and mice is probably muscovie, identified in both altered and fresh picers and mice is probably muscovie.         Tablazo 4       Covered         Tablazo 3       Covered         Linestone, probably biomicrite, in medium-bedded tablate layers wit		Covered
Tablazo 9Limestone, very competent, in medium bedded tabular layers with mode mica, allered glaucome, and concretions, and with some possible spar or shell fragments.Tablazo 9Covered Limestone, medium bedded with intercalations of thin layers of fissile of lagents. Also, there are beds of the grained to very the grained calcareous central that are very competent. Limestone, and sprey competent, medium bedded beds with bivave sandstones and calcareous mudstones. Bedsets comprise both limestor brown calcareous mudstone. Tablazo 6Tablazo 6Calcareous sandstone interbedded with calcareous mudstone. The sand spaceonite, but is dominated by calcareous components. Therefore, we say definite unit of the Tablazo formation. CoveredTablazo 5Covered Limestone, wery fine-grained, quart_srint, in this interval is obscured to calcareous mudstone, very fine-grained, quart_srint, in the interval is obscured to calcareous mudstone, very fine-grained quarts, in 		Fine-grained sandstones, black, in tabular layers with undulatory configuration fragments, glauconite and calcareous cement. Interlayered with brow
Linestone, medium bedded with intercalations of thin layers of fissile of shell fragments. Parallel lamination is present in the limestone beds. Ve sandstone. Also, there are beds of fine-grained to very fine-grained calcareous cement that are very competent Umestone, dark grey, very competent, medium bedded beds with bivalve sandstones and calcareous mudstones. Bedsets comprise both limestor brown calcareous mudstones. Bedsets comprise both limestor brown calcareous mudstones. Therefore, we sug definite unit of the Tablazo Formation. Covered Transitional contact between the Paja Formation and the Tablazo Form calcareous mudstone with bivalves and fine quarz sill. Secondary reddshi oxidation of iron minerals. Stratification, if any, in this interval is obscured by calcareous contactore, very fine-grained, quartz, sill, Secondary reddshi oxidation of iron minerals. Stratification, if any, in this interval is obscured by Covered Limestone, biomicrite, gray to bluish colored, medium bedded with wavy or Sandstone, very fine-grained, quartz-rich with probably calcareous cement, identified in both altered and fresh pieces, and mica is probably muscovite, Covered Limestone, probably biomicrite, in medium bedded tabular layers with undulating contacts, interbedded with fine-grained sandstones containing in the layers.Tablazo 3Covered Limestone, probably biomicrite, in medium bedded tabular layers with undulating contacts, interbedded with fine-grained sandstone in the layers.Covered Limestone with concretions, with bids of mudstone in the upper pro- concretions have a diameter of approximately 15 cm (6 inches). Interbedded biomicrite and mudstone in thin beds with undulatory of predominant towards the base of the interval. Mudstone with bivalves or other shell fragments. Fine grained rock possibly mud size calcareous material, this competence is <td>Tablazo 9</td> <td>Limestone, very competent, in medium-bedded tabular layers with muds mica, altered glauconite, and concretions, and with some possible spar ce</td>	Tablazo 9	Limestone, very competent, in medium-bedded tabular layers with muds mica, altered glauconite, and concretions, and with some possible spar ce
Tablazo 6       Calcareous sandstone interbedded with calcareous mudstone. The sand glauconite, but is dominated by calcareous components. Therefore, we sug definite unit of the Tablazo Formation.         Tablazo 5       Transitional contact between the Paja Formation and the Tablazo Form calcareous mudstone with bivalves and fine quartz silt. Secondary reddish oxidation of iron minerals. Stratification, if any, in this interval is obscured by oxidation of iron minerals. Stratification, if any, in this interval is obscured by Covered         Tablazo 4       Covered         Tablazo 3       Covered         Tablazo 4       Covered         Calcareous mudstone, very fissile, containing fine-grained quartz, in undulating contacts, interbedded with fine grained sandstones containing in undulating contacts, interbedded with fine grained sandstones containing in the layers with u bivalve shell fragments are present, and recrystallization has possibly taken in the layers.         Covered       Calcareous mudstone with siliciclastic material, medium bedded. One lens grained quartz possibly with calcareous cement. Calcareous mudstone, gray brown, high fissile, with concretions that may concorterions have a diameter of approximately 15 cm (6 inches). Interbedded biomicrite and mudstone in thin beds with undulatory or predominant towards the base of the interval. Mudstone with terrigenous material, dark brown, fissile, thin bedded with visible. Contains concretions with a diameter of up to 50 cm (20 inches). Interbedded biomicrite and mudstone in thin beds with undulatory or predominant towards the base of the interval. The grained calcareous material. Is comptence is for mice is lower too, red oxidation is present possibly by the oxidition of in fine grained rock possibly mud size calcar	Tablazo 9	Limestone, medium bedded with intercalations of thin layers of fissile clashell fragments. Parallel lamination is present in the limestone beds. Ver sandstone. Also, there are beds of fine-grained to very fine-grained calcareous cement that are very competent. Limestone, dark grey, very competent, medium-bedded beds with bivalves sandstones and calcareous mudstones. Bedsets comprise both limestone
Tablazo 5calcareous mudstone with bivalves and fine quartz silt. Secondary reddish oxidation of iron minerals. Stratification, if any, in this interval is obscured to Sandstone, very fine-grained, quartz rich with probably calcareous cement, identified in both altered and fresh pieces; and mica is probably muscovite, Covered Calcareous mudstone, very fissile, containing fine-grained quartz, in undulating contacts, interbedded with fine-grained sandstones containing in the layers.Tablazo 3Covered Calcareous mudstone, very fissile, containing fine-grained quartz, in undulating contacts, interbedded with fine-grained sandstones containing in 		Calcareous sandstone interbedded with calcareous mudstone. The sands glauconite, but is dominated by calcareous components. Therefore, we sug definite unit of the Tablazo Formation.
Limestone, biomicrite, gray to bluish colored, medium bedded with wavy or Sandstone, very fine-grained, quartz-rich with probably calcareous cement, identified in both altered and fresh pieces; and mica is probably muscovite,Tablazo 4Covered Calcareous mudstone, very fissile, containing fine-grained quartz, in undulating contacts, interbedded with fine-grained sandstones containing mTablazo 3Covered Limestone, probably biomicrite, in medium-bedded tabular layers with u bivalve shell fragments are present, and recrystallization has possibly taken 	Tablazo 5	Transitional contact between the Paja Formation and the Tablazo Form calcareous mudstone with bivalves and fine quartz silt. Secondary reddish oxidation of iron minerals. Stratification, if any, in this interval is obscured by
Identified in both altered and fresh pieces; and mica is probably muscovite, Covered Calcareous mudstone, very fissile, containing fine-grained quartz, in undulating contacts, interbedded with fine-grained sandstones containing in undulating contacts, interbedded with fine-grained sandstones containing in Undulating contacts, interbedded with fine-grained sandstones containing in tundulating contacts, interbedded with fine-grained sandstones containing in undulating contacts, interbedded with fine-grained sandstones containing in undulating contacts, interbedded with fine-grained sandstones containing in tundulating contacts, interbedded with fine-grained sandstones containing in 		Covered Limestone, biomicrite, gray to bluish colored, medium bedded with wavy co
Tablazo 4Calcareous mudstone, very fissile, containing fine-grained quartz, in undulating contacts, interbedded with fine-grained sandstones containing in undulating contacts, interbedded with fine-grained sandstones containing in to undulating contacts, interbedded with fine-grained sandstones containing in 		Sandstone, very fine-grained, quartz-rich with probably calcareous cement, identified in both altered and fresh pieces; and mica is probably muscovite,
Limestone, probably biomicrite, in medium-bedded tabular layers with u bivalve shell fragments are present, and recrystallization has possibly taken in the layers.CoveredCalcareous mudstone with siliciclastic material, medium bedded. One lens grained quartz possibly with calcareous cement. Calcareous mudstone, gray brown, high fissile, with concretions that may co CoveredCoveredLimestone with concretions, with beds of mudstone in the upper pa concretions have a diameter of approximately 15 cm (6 inches). Interbedded biomicrite and mudstone in thin beds with undulatory c predominant towards the base of the interval. Mudstone with terrigenous material, dark brown, fissile, thin bedded with a visible. Contains concretions with a diameter of up to 50 cm (20 inches) interval with bivalves or other shell fragments. Fine grained rock possibly mud size calcareous material. Its competence is of mica is lower too, red oxidation is present possibly by the oxidation of in Limestone with fine-grained calcarenite, black, very competent, with con-		
Calcareous mudstone with siliciclastic material, medium bedded. One lens grained quartz possibly with calcareous cement. Calcareous mudstone, gray brown, high fissile, with concretions that may coCoveredLimestone with concretions, with beds of mudstone in the upper par concretions have a diameter of approximately 15 cm (6 inches). Interbedded biomicrite and mudstone in thin beds with undulatory co predominant towards the base of the interval. Mudstone with terrigenous material, dark brown, fissile, thin bedded with u visible. Contains concretions with a diameter of up to 50 cm (20 inches) interval with bivalves or other shell fragments. Fine grained rock possibly mud size calcareous material. Its competence is of mica is lower too, red oxidation is present possibly by the oxidation of in Limestone with fine-grained calcarenite, black, very competent, with comp		Limestone, probably biomicrite, in medium-bedded tabular layers with un bivalve shell fragments are present, and recrystallization has possibly taken
grained quartz possibly with calcareous cement. Calcareous mudstone, gray brown, high fissile, with concretions that may concretions mudstone, gray brown, high fissile, with concretions that may concrete the second secon		Covered
<ul> <li>Limestone with concretions, with beds of mudstone in the upper para concretions have a diameter of approximately 15 cm (6 inches). Interbedded biomicrite and mudstone in thin beds with undulatory or predominant towards the base of the interval. Mudstone with terrigenous material, dark brown, fissile, thin bedded with undulatory or visible. Contains concretions with a diameter of up to 50 cm (20 inches) interval with bivalves or other shell fragments. Fine grained rock possibly mud size calcareous material. Its competence is of mica is lower too, red oxidation is present possibly by the oxidation of interval with fine-grained calcarenite, black, very competent, with conditional states.</li> </ul>		Calcareous mudstone with siliciclastic material, medium bedded. One lens grained quartz possibly with calcareous cement. Calcareous mudstone, gray brown, high fissile, with concretions that may co
Tablazo 2visible. Contains concretions with a diameter of up to 50 cm (20 inches) interval with bivalves or other shell fragments. Fine grained rock possibly mud size calcareous material. Its competence is of mica is lower too, red oxidation is present possibly by the oxidation of in Limestone with fine-grained calcarenite, black, very competent, with cond		Limestone with concretions, with beds of mudstone in the upper participation of approximately 15 cm (6 inches). Interbedded biomicrite and mudstone in thin beds with undulatory compredominant towards the base of the interval.
Limestone with fine-grained calcarenite, black, very competent, with cond	Tablazo 2	Mudstone with terrigenous material, dark brown, fissile, thin bedded with u visible. Contains concretions with a diameter of up to 50 cm (20 inches) interval with bivalves or other shell fragments. Fine grained rock possibly mud size calcareous material. Its competence is of mica is lower too, red oxidation is present possibly by the oxidation of ire
	Tablazo 1	Limestone with fine-grained calcarenite, black, very competent, with conc crystals and micas. Some concretions contain shell fragments.

# Stratigrapic Column of the Tablazo Formation and Description





Transect

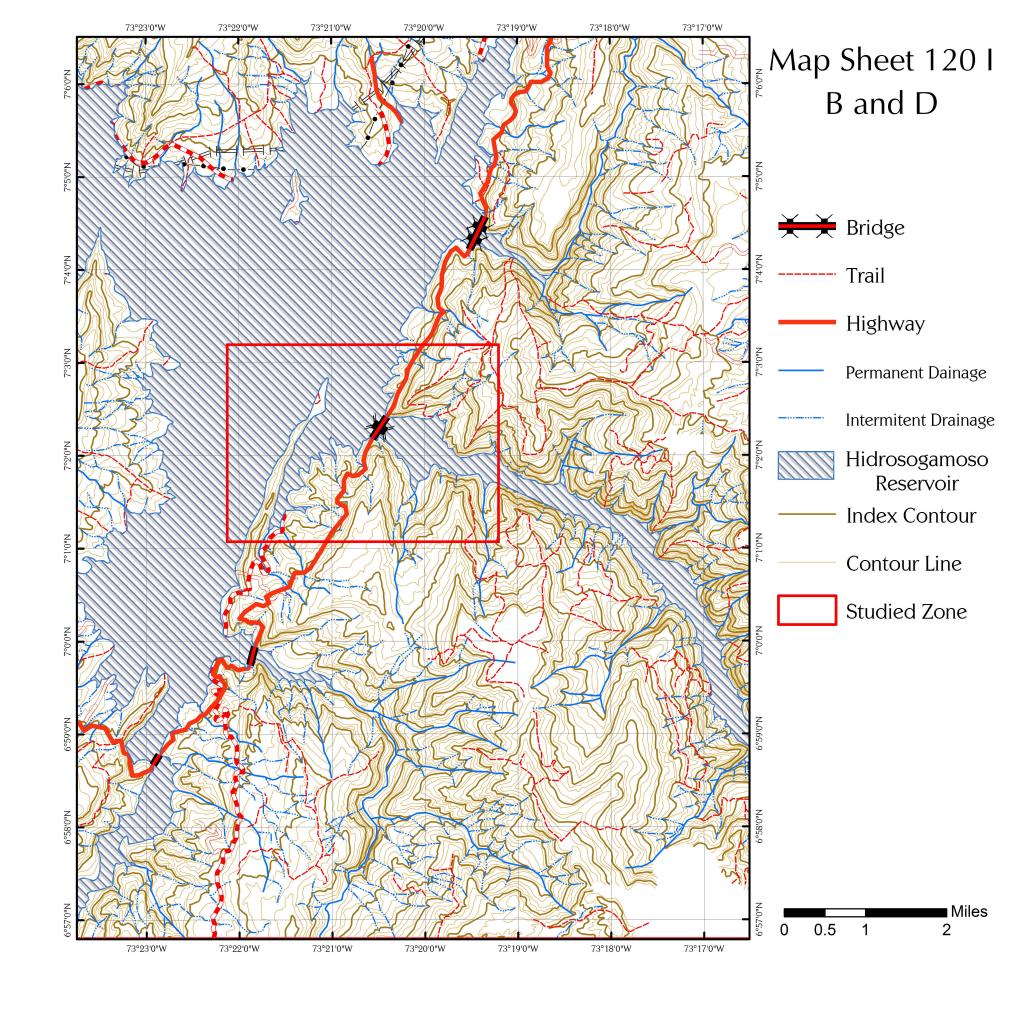
0 0.25 0.5 1 Map based on cartography of IGAC 1975 Digitalized by Julian Santiago Otero Moreno

Scholle, P.A., Ulmer-Scholle, D.S., 2003. A Color Guide to the Petrography of Oklahoma, USA. the Petrography of Sandstones, Siltstones, Shales and Associated Rocks. AAPG Memoir 109. Tulsa, Oklahoma, USA. Tandon, S.K., 1989. Near-surface shrinkage and carbonate replacement

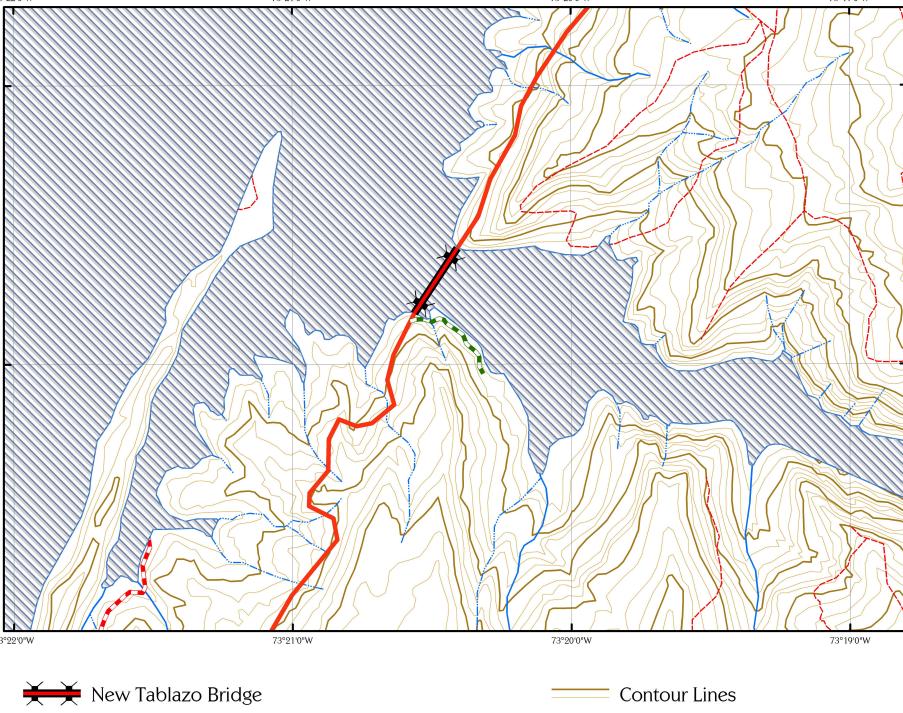
1113-1126. Moreno, G., Sarmiento, G., 2002. Estratigrafía Cuantitativa de las Formaciones Villamizar C., J.L., 2012. Caracterización Geoquímica en la Formación Tablazo, Tablazo y Simití en las localidades de Sáchica (Boyacá) y Barichara - San Gil Sección Barichara-Villanueva Departamento de Santander. Universidad Industrial de Santander.

as a Source of Authigenic Silica in Sedimentary Rocks. Bulletin of the Montoya, D., 2006. Sección Estratigráfica de la Formación Tablazo. Ingeominas Ward, D.E., 1973. Geologia de los Cuadrangulos H12 Bucaramanga y H13 Pamplona Departamento de Santander. Boletin Geologico No. 1-3. Vol XXI, 67-72.

Political Map of Colombia Miles 0 2550 100 150 200 250



# Hidrosogamoso Transect Field Trip IV 2015 I



Hidrosogamoso Reservoir Highway

----- Drainage

## References

Blanco, J.P., Medina, P.A., Patarroyo, P., 2004. La Formación La Frontera, Sección Scholle, P.A., Bebout, D.G., Moore, C.H., 1983. Carbonate Depositional Vereda Tóriba: Una propuesta para la designación del Lectoestratotipo. Geología Environments. AAPG Memoir 33. Tulsa Oklahoma, USA. Colombiana No. 29. Boggs, Jr., S., 2009. Petrology of Sedymentary Rocks 2 Ed. Cambridge University Carbonate Rocks: Grains, textures, porosity, diagenesis. AAPG Memoir 77. Tulsa Folk, R.L. 1980. Petrology of Sedimentary Rocks. Hempille Publishing Company. Ulmer-Scholle, D.S., Scholle, P.A., Schieber, J., Raine, R.J., 2014. A Color Guide to Austin, Texas. Chilingar, G.V., Bissell, H.J., Fairbridge, R.W., 1967. Carbonate Rocks Origin,

Occurrence and Classification. Elsevier Publishing Company. Morales, L.G., 1958. General Geology and Oil Ocurrences of Middle Magdalena process, Arran Cornstones Formation, Scotland. Sedimentology No. 36, Valley, Colombia. Pg 642-695

(Santander), Colombia. Geología Colombiana No. 27, 51-74 Mount, J., 1985 Mixed siliciclastic and carbonate sediments: a proposed first-order Walker, T.R., 1960. Carbonate Replacement of Detrital Crystalline Silicate Minerals textural and compositional classification. Nichols, G., 2009. Sedimentology and Stratigraphy Ed 2. Wiley-Blackwell. Reyes, G., Geological Society of America Vol. 71, 144-152.

an Vicente de Chucuri t entified the upper bounda ry is an undulatory contac could be taken of the Simit can be seen from the New

ulations of shell fragments

size layers with undulatory

contacts. Contains fossil wn calcareous mudstones

idstone between. Contains cement. Some layers have

claystone and with bivalve Very fined grained quarzition quartz sandstones with

ves, with some interbedded tone and fine-grained fissile

dstone contains micas and uggest this is the lowermost

rmation consists of brown n coloration, probably from by the fissility of the facies.

contacts.

t, very dense. Glauconite is e, because of its color.

n thin tabular layers with micas possibly biotite.

undulatory contact. Large n place. Concretions occur

ns has silt-sized to very-fine

contain bivalve fragments.

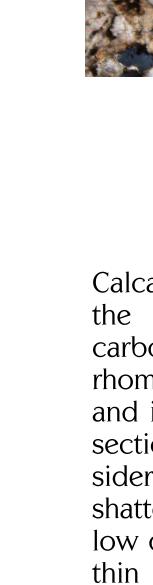
part of the interval. The

contacts. Mudstones ar

undulatory contact slightly es) in the upper part of the

is lower and the abundance

ncretions. Contains calcite



Calcareous Sandstone. In general, the matrix calcareous with quartz crystals. The quartz ragment in the central part of the photograph isplays a progressive recrystallization alcite from the outer part of the owards the central part. In the lower left side f the picture is a quartz crystal with embayment of pseudomorph calcite combined with corrosion of the grain. Apparently the arains show micritization because they are surrounded by very fine-grained calcareous undergoing Micrite is recrystallization to pseudosparite. In the lower right is a highly altered glauconite crystal.

Macrofossil fauna is scarce relative to the underlying and overlying formations and is limited to bivalve shells and fragments. In thin section, some echinoderm fragments, benthic foraminifera and calcispheres are also identified. The lack of planktonic fauna, the fragmentation of the bivalve shells and the high abundance of quartz grains indicates that this was a high-energy depositional setting, probably near the shore and not deeper than ca. 30 meters (100 ft) in depth. The presence of glauconite and siderite (now oxidized) also suggests the majority of the facies was deposited in a lower foreshore to shallow shef setting.

Throughout the section occurs micritization, recrystallization of micrite to pseudosparite and dissolution seams. The corrosion of quartz grains and the replacement of silica by carbonate implies post-burial influence by high pH water solutions.

Director: Dr. rer. nat. Pedro Patarroyo Gama Universidad Nacional de Colombia email: pcpatarroyog@unal.edu.co

Author: Julian Santiago Otero Moreno Universidad Nacional de Colombia email: jsoterom@unal.edu.co





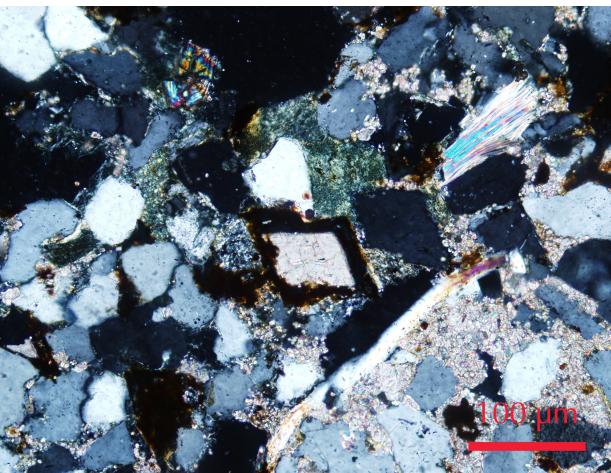
### Tablazo 11 XPL - PPL

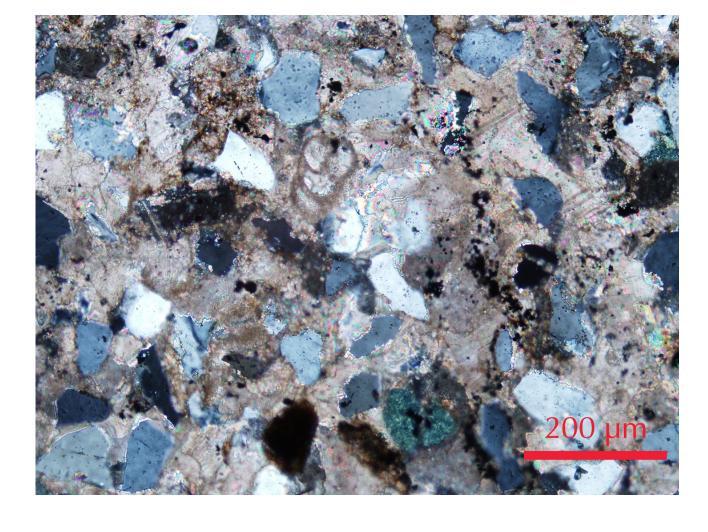
surrounded by slit sized quartz grains. Notice the black-colored sinuous dissolution eams along the border of the shell. dissolution during burial caused by the compressive stress. In some zones, the micrite contains grains of glauconite

#### Tablazo 6 PPL - XPL

Calcareous Sandstone. In the central part c the photo is a siderite crystal, iron carbonate. which shows the characterist rhombohedral habit with high relief in PPL and is surrounded by iron oxides. The thin section contains other abundant crystals siderite, and on the left of the image is shattered zircon. Glauconite grains with  $\epsilon$ low degree of alteration are identified in the thin section and the microphotograph. Quartz grains are being replaced pseudomorph carbonate; and apparently everything is bound by calcareous cement.



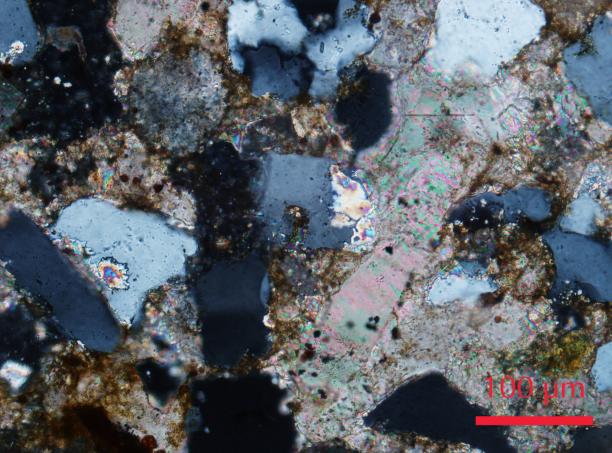




#### Tablazo 2 PPL - XPL

othic with micritization and its chambe ed with pseudosparite. Large amour opaque minerals are disseminated throughout alteration. On the left are pelloids. In t eing replaced by carbonate with corrosio along their borders. This suggests that an important diagenetic process in this rock is the influence of very high pH fluids which promote the dissolution of silica and the precipitation of calcium carbonate.

#### Tablazo 1 PPL - XPL



#### Conclusions

The studied section is a 416 meter (1364 ft) thick stratigraphic column along a unpaved road from the San Vicente de Cucuri Bucaramanga Highway to the Paja stream. Of the sections found in the Area of El Tablazo, this is the most complete, even though more than 50% is covered. We can identify contacts to both the underlying Paja Formation and the overlying Simiti Formation.

In general, the El Tablazo formation is dominated by calcareous mudstone interlayered with fine- to very fine-grained sandstones, but has several intervals of very competent and dense biomicric limestone. Thin sections from the lower part of the section are dominated by very fine-grained sandstones with high amounts of micrite. The upper part of the section is dominated by packed biomicrites interlayered with calcareous mudstone.

#### Acknowledgements

To my parents and my family that support me each day to continue working in what I enjoy. To professor Pedro Patarroyo, who trusted me and was always there to give me support in the moments I needed and all the knowledge shared. To professor Carlos Sanchez from whom I have learned too many things and I consider him a splendid person in every aspect of life. To professor James Ogg, which gave me an opportunity to show my work here at GSA and I hope many projects to come. To Armando Sanchez who thought me how to do a thin section and all the work it takes. To my fellow colleagues of Field Trip IV whom helped me in the section and many life experiences. To Paula Sarmiento, very good friend whom I will value all my life. To Melissa Lasso, whom I love very much. To Dayra Saenz coordinator (e) of the Paleontological Research Group and a very pretty girl. To Maria Alejandra Rodriguez Mustafa, who is very intelligent and disciplined. To Nestor Gaviria, to whom I consider one of the most intelligent persons and a good geologist. To Camila Niño whom helped my poster with her critics. To the founder members of the Paleontological Research Group, AAPG Student Chapter and everyone else who I may forget.

## Abstract

The former type section of The Tablazo Formation of Upper to Middle Albian was located in the Middle Magdalena Valley Area, Colombia. The type section has been covered by the reservoir of the Hidrosogamoso Dam, therefore our project was to evaluate and document a replacement type section in the area of El Tablazo. The mixed carbonate and clastic sediments were deposited in the shoreface of a shallow marine ocean that once flooded most of central Colombia and was later uplifted to form the Eastern Cordillera. Our study also examined sedimentary petrography to classify the sedimentary facies, to detect microfossils, and to interpret digenetic alteration. The lower part of the section is mainly calcareous sandstone, and the upper part is dominated by biomicritic packstone limestone. Microfossils are predominantly calcispheres and benthic foraminifera. Diagenetic fabrics include the replacement of silica by calcite, dissolution seams and micrite recrystallization.



Limestone bedset of the upper part of the Tablazo Formation, Jacob's Staff is 1-meter-long (~3.3 ft) beds are dipping eastward with and angle of 34°. Photo taken by Miguel Andres Rodriguez Torres.



Contact between the Paja Formation and the Tablazo Formation, original contact was described as conformable and gradational. Jacob's Staff is 1.5 meters long (~5ft). Fine material is weathered easily in the tropics. Photo taken by Julian Santiago Otero Moreno.



Macrofossil fauna of the section consisted mainly in bivalve shells and shell fragments, sparse along the formation. Recrystallization was common in hand sample and thin section. Scale is in cms. Photo taken by Miguel Andres Rodriguez Torres.

