

MEASURED SECTION NO. 039-1997
 LOCALITY W. HARDY #14, Kanawha Co
 SETTING _____

DATE 4/25/91
 STRATIGRAPHIC UNIT Big Tugue
 MEASURED BY: RM #AV

Note: Apparent recovery on this core is only ~ 9" for 1" drilled

Interval	SEDIMENTARY TEXTURES & STRUCTURES			ROCK TYPE, CONTACTS & ACCESSORIES	TEXTURAL MATURITY	DESCRIPTIONS
	GRAV	SAND	SILT CLAY			
1385	64 4	VCCM F VF			SUP MAT SUB IM	dk. grey, quartzose fossil packstone w/ interbeds of poorly sorted, calcite-cemented dk. qtz ss: retexturized
1390						lt. grey, oolite grainstone grading downward to medium grey ooid-fossil wackestone - increasing retexturization lt. brownish grey, fossiliferous micrite w/ rare horizontal stylolites: poss. bio pisoids → low diameter at 1387.5 100% retexturized
1395						H. tan quartzose micrite w/ dark (1-3mm) horizontal laminae (breached by vertical burrows): 1391- nice stromatolite head (2cm high - 4cm wide): qtz sand & ? ooids & coated qtz grains, increase down hole: size of qtz grains increased from v. fine → coarse down hole: at bottom sandy layer → low thick
1400						H. tan quartzose micrite w/ ooids & coated grains: qtz sand in v. fine - medium: Plover xbeds at top giving way to indistinct horizontal laminae & then massive: reaction to dilute HCl decreases down hole - dolomite?
1405						H. brownish grey, ? dolomitic, burrow mottled, w/ faint, irregular, dark laminae - Planolites or Chondrites abundant in lower 1' - horizontal tubes → .5cm diameter dk. green, v. fine, chloritic, qtz ss. with scoured surface & qtz pebble lag: white qtz pebbles → 2cm diameter
1410						dk. green, v. fine, chloritic qtz ss w/ maroon specks & mottles to .5cm diameter: faint horizontal & low angle laminae maroon - dk reddish grey, v. fine qtz ss w/ occasional hematitic mottles → 1cm diameter (?) burrows: rare isolated qtz pebbles: no bedding
1415						greenish grey, f. v. fine qtz ss w/ rare horizontal laminae maroon, hematite-cemented f. v. f. qtz ss: massive w/ rare, isolated qtz pebbles: hematite streaks & mottling increases in the bottom 1'
1420						dk green → maroon f. v. f. qtz ss w/ rare qtz & chert pebbles as single grains or single grain layers: green ss appears chloritic: maroon ss is hematitic w/ white micc visible on partings - faint horizontal laminae at 1420'



black shale partings

Planolites or Chondrites

note density kick to right →

note gamma ray kick to left, and density kick to left →

☉ stromatolite
 ~~~~ stylolite

○ ooid  
 ⊙ pisoid  
 S burrows

Ⓜ hematite cement

~ ~ ~ ~ ~ unconformity

core = log

MEASURED SECTION NO. 039-1997  
 LOCALITY W. C. Hardy #14, Kaula  
 SETTING \_\_\_\_\_

DATE 4/25/91  
 STRATIGRAPHIC UNIT Big Tujua  
 MEASURED BY RM & AV

Note: Apparent recovery on this core is only ~9' for 1' drilled

| Interval | SEDIMENTARY TEXTURES & STRUCTURES |           |       | INTERVAL | ROCK TYPE, CONTACTS & ACCESSORIES | TEXTURAL MATURITY |     | DESCRIPTIONS                                                                                                                                                                                                                                                               |
|----------|-----------------------------------|-----------|-------|----------|-----------------------------------|-------------------|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          | GRAV                              | SAND      | SILT  |          |                                   | SUP               | MAT |                                                                                                                                                                                                                                                                            |
|          | 64 4                              | VCCM F VF | -CLAY |          |                                   | IM                | IM  |                                                                                                                                                                                                                                                                            |
| 1420     |                                   |           | (H)   |          |                                   |                   |     |                                                                                                                                                                                                                                                                            |
| 1425     |                                   | ?         | (H)   |          |                                   |                   |     | 1425-1427': faint horizontal laminae & ? burrow mottling                                                                                                                                                                                                                   |
| 1430     |                                   |           | (H)   |          |                                   |                   |     |                                                                                                                                                                                                                                                                            |
| 1435     |                                   |           | (H)   |          |                                   |                   |     | dk. green maroon, f-vf. qtz ss interbedded w/ maroon & black, silty shale                                                                                                                                                                                                  |
| 1440     |                                   |           | (H)   |          |                                   |                   |     | interbedded maroon, f-vf. qtz ss & maroon/black silty shale & siltstone; shale drapes & silty lenses breach by horizontal & vertical burrows; shale layers typically hematite stained                                                                                      |
| 1445     |                                   | SS        |       |          |                                   |                   |     | Black shale & shaly siltstone <sup>lenticular, flexar, &amp; horizontal bedding</sup> w/ well preserved horizontal & vertical burrows cutting across laminae: ?Planolites, ?Chondrites, ?Skolithos                                                                         |
| 1450     |                                   | SS        |       |          |                                   |                   |     | Teichichnus: horizontal, back filled burrows on the bottoms of siltstone layers cut into or through underlying clay; vertical burrows, filled with "clean" silt cut silt & clay layers; mica & carbonaceous fragments on parting surfaces - <b>LOOKS LIKE MARINE SHELF</b> |
| 1455     |                                   |           |       |          |                                   |                   |     |                                                                                                                                                                                                                                                                            |

- flexure bedding & lenticular

S - burrows  
 SS - abundant