



166-186 - Core #1

- 166-177.8 - Shale, dark gray to 171, light gray from 172-177.8  
177.8-186 - Sandstone, dark brown, medium grain, micaceous "brown sugar"; 4" interbedded shale and sandstone seam at 184.5; also at this horizon gas bubbling, minor; at 178'+ = 3" unit with shaly partings, minor gas bubbling; oil throughout sandstone core; no water visible

186-206 - Core #2

Sandstone, medium brown, generally fine grained and micaceous; at 3', 2" with shale partings; water on barrel; numerous shale partings until 5½'; at 9' core is obviously wet, 14'2"-14'8" light gray limestone with black shale partings, at 15.5 high oil; 16.5' to 17'2" shale gray; gas seeping (minor) 1st 9', also 10.8', 12', 13', looks like good oil first 8 to 10', low oil below this point.

- 206-210 - Sandstone, medium brown, gray brown, fine grained, micaceous, 85%; shale, black 15%
- 210-225 - Sandstone as above
- 225-230 - Sandstone as above; trace shale, black, sandy; trace coal
- 230-235 - Sandstone as above, 95%; shale, medium gray, silty, 5%; trace siltstone, tan; trace shale, black, sandy
- 235-240 - Sandstone, dark gray-brown, fine grained, micaceous, argillaceous; trace siltstone, brown (Driller: Coal @ 235-235½')
- 240-245 - Sandstone as above, 75%; shale, medium gray, silty, 20%; siltstone, tan, 5%
- 245-250 - Shale, medium gray, sandy; trace siltstone, tan; weak trace sandstone, as above; trace pyrite
- 250-260 - Shale, as above; trace pyrite
- 260-265 - Shale as above, 65%; shale, black 35%; trace shale, brown, calcitic
- CFS-265 - Shale, black, 80%; shale, light gray, silty, 17%; coal, black, 3%; minor light gray selvage; trace shale, brown, calcitic; weak trace coal
- 265-270 - Shale, light gray, silty, 80%; shale, black, 20%; abundant light gray selvage; trace siltstone, brown, calcitic
- 270-275 - Shale, light and medium green gray, some is silty, 90%; shale, black, 10%; light gray selvage
- 275-280 - Shale, medium and dark green-gray and gray, silty, 80%; shale, gray-black, 20%; trace siltstone, brown, calcitic
- 280-285 - Shale, medium gray to gray black, 60%; black 20%, light gray and silty, 20%; minor light gray selvage; trace sandstone, gray, medium grain
- 285-290 - Shale, light green-gray, sandy, 70%; sandstone, light green-gray, very fine, argillaceous, 30%; trace shale, black and dark brown; trace sandstone, gray-brown, medium grain
- 290-295 - Shale as above, 60%; sandstone as above, 40%; trace black shale
- 295-300 - Shale, light-medium green-gray, 85%; shale, medium green-gray, sandy (coarser than above), 5%; sandstone, brown, fine to medium grain, 10%
- 300-305 - Shale, dark gray to gray-black, 85%; shale, light green-gray, 5%; sandstone, gray-brown, fine to medium grain, 10%
- 305-310 - Shale, gray-black, some silty, 95%; sandstone as above, 5%; trace shale, light green-gray
- 310-315 - Shale, dark gray, 85%; coal, black, 15%; medium and light gray selvage (minor) (Driller: Coal @ 312-313')
- 315-320 - Shale, gray-black, 95%; siltstone, medium-dark brown, 5%; trace light gray sandstone and sandy shale; trace pyrite

- 20-325 - Sandstone, light gray, fine grained, argillaceous, 40%; shale, black, 40%; shale, light green-gray, silty, 20%; trace pyrite
- 325-330 - Sandstone as above, 60%; shale, light green-gray, 35%; shale, black, 5%
- 330-335 - Sandstone, as above, 60%; shale, light and medium sandy green-gray, 40%; trace black shale, brown siltstone
- 335-340 - Shale, medium gray, silty; trace sandstone as above; trace limestone, brown, fine-grain
- 340-345 - Shale, medium & dark gray, some is silty; trace limestone as above; trace sandy shale, green-gray
- 345-350 - Shale, dark gray, 75%; shale, gray, sandy, 25%
- 350-355 - Shale, dark gray, sandy; trace sandstone, light gray (Driller: Coal @ 350-351)
- 355-360 - Shale, medium & dark gray, 40% is sandy; minor light gray selvage
- 360-365 - Shale, medium gray, 10% is sandy
- 365-370 - Shale, medium gray, 5% is sandy; sandstone, medium brown, fine grained, 5%; trace brown siltstone
- 370-375 - Shale, medium green-gray, 5% is sandy; sandstone, medium brown, fine grain, 5%
- 375-380 - Shale, medium green-gray and gray; trace sandstone as above
- 380-385 - Shale, black, fissile, 90%; shale, medium gray, 5%; shale, gray-brown, sandy, 5%
- 385-390 - Shale, medium green-gray, silty, disseminated pyrite, some is sandy, 90%; shale, black, 10%
- 390-395 - Shale, as above, 90%; shale, black, 10%; trace limestone, brown, very fossiliferous
- 395-400 - Shale, black, 80%; shale, medium gray, silty, 20%; trace sandy shale and sandstone, light gray; trace pyrite
- 400-405 - Shale, black, 65%; shale, light gray, sandy, 35%; trace brown siltstone
- 405-410 - Shale, light green, sandy, 60%; shale, black, 40%; trace brown siltstone
- 410-415 - Shale, gray-black, some is silty, pyritic, 70%; sandstone, gray-black, fine, 15%; shale, light gray, some is sandy, 15%
- 415-420 - Shale, gray-black, most is sandy, 60%; sandstone, gray-black, fine grain, micaceous (white quartz and mica with black interstitial matter); trace sandstone and light gray sandy shale
- 420-425 - Shale, gray-black, 50% is very sandy; trace shale light gray; trace sandstone, light gray and light brown; trace siltstone, brown (Driller: Coal @ 423-424')
- 425-430 - Shale, gray-black, most is sandy; trace light brown siltstone; trace coal
- 430-435 - Shale-gray-black, silty, pyritic, some is sandy, 60%; shale, medium-gray, 30%; coal, 10% (Driller: coal @ 429-430')
- 435-440 - Shale, medium-gray, sandy, 60%; shale, gray-black, as above, 40% is coal
- 440-445 - Shale, black, silty, 60%; shale, medium-light gray, less sandy than above, 40%
- 445-455 - Shale, black, silty, 95%; shale, light gray, sandy, 5%
- 455-460 - Shale, black, silty, 50%; shale light gray, some with brown spheres, 50%; trace pyrite
- 460-465 - Shale, light gray, sandy, pyritic, some also with brown spheres, 70%; shale, black 30%
- 465-470 - Shale, black, silty, 90%; shale, medium gray, with brown spheres, 7%; sandstone, light gray, fine, clean 3%
- 470-475 - Shale, black, silty; sandstone, light gray and brown, fine and medium grain, 2%; trace light gray shale
- 475-480 - Shale, black, silty; trace light gray sandstone and light gray silty shale

80-485 - Shale, black, silty; trace light gray sandstone and light gray shale  
 485-490 - Shale, black, silty, 10% is sandy, 97%; sandstone, light gray, fine, 3%  
 490-495 - Shale, as above, 94%; sandstone, light gray, fine, 6%; trace pyrite  
 495-500 - Shale, as above, 85%; sandstone, as above, 5%; shale, medium gray-brown, 10%; trace pyrite  
 500-502 - Shale, black, silty, 97%; chert, white, flat, 3% (Top of Miss. 501')  
 CFS 502 - Chert, white, flat, "corroded texture", 75%; black shale as above, 25%; petroleum odor, slight oil float when submerged; chert  
 - has occasional yellow-brown stain  
 502 - Total depth

Remarks:

1. The drill hole was standard rotaried with water, no additives. The interval 166' to 206' was cored and sent for analysis to Oil Field Research, Chanute.
2. Circulation time at 300' averaged about 3 minutes (a 3-ft. time lag).
3. The oil-bearing sand, including shale and siltstone lenses, is 63.3 ft. thick (177.7' to 241')
4. A strip log is attached which compares five types of logs of Hiller #2 with each other:
  - a. JJE/ZHT composite (5' interval) sample log.
  - b. JJE/ZHT spot sample log
  - c. Driller's log
  - d. Geolograph log
  - e. Gamma ray-neutron log
5. The well has been perforated at 178' to 183' and fractured.