

SAMPLE LOG

DRILL HOLE: Long # 11
 PROP. OWNER: A. Long
 DRILL CONTRACTOR: Lamampco
 DRILL OPERATOR: Jim Miller
 DATE STARTED: 3/21/80
 CASING LEFT IN HOLE:

LOC:

LOGGED BY: MRG
 ELEV: 854.08
 DATE COMPLETED: 3/24/80
 TOTAL DEPTH: 301'

30 - 40 Limestone tan, crystalline and silty, fossiliferous, favosities fossils present 100%; poor show
 40 - 50 Limestone tan and grey crystalline and silty locally fossiliferous 80%; shale, black, silty, trace of pyrite 20%
 50 - 60 Limestone tan and grey silty locally fossiliferous 45%; shale, black silty 30%; shale, grey 25%
 60 - 70 Limestone brown and grey, locally fossiliferous and silty 100%; U. V. - poor show
 70 - 80 Shale, black, trace of pyrite 90%; limestone grey, silty 10%
 80 - 90 Siltstone, light grey, locally carbonaceous 100%
 90 - 100 Siltstone to very fine grained sandstone, locally micaceous and carbonaceous 100%
 100 - 110 Shale, grey, 85%; limestone grey and brown silty and fossiliferous 15%
 110 - 120 Shale, grey, silty trace of pyrite 100%
 120 - 150 Shale, grey silty 100%
 150 - 160 Limestone, black, crystalline trace of pyrite locally fossiliferous 80%; shale, grey 15%; shale, brown well indurated 5%
 160 - 170 Limestone brown and black, crystalline locally fossiliferous 50%; shale, grey, silty, trace of pyrite 40%; coal fragments 10%
 170 - 180 Shale, black, silty, calcareous 70%; shale, grey, silty trace of pyrite 20%; coal 10%
 180 - 190 Siltstone, grey local concentrations of well rounded dark brown metal oxides calcareous 40%; shale, black silty, trace of pyrite 30%; shale, grey 20%; limestone tan crystalline 10%
 190 - 195 Shale, grey, silty, carbonaceous 94%; sandstone, brown, fine grained, micaceous and locally carbonaceous 5%; U. V. - good show; shale black 1%
 195 - 195 ~~194~~ Sandstone, brown, fine grained micaceous locally carbonaceous 75%; U. V. - good show; shale grading to siltstone, grey, carbonaceous 25%

CORE # 1 195.5-209.6 approximately 2 1/2" core loss at bottom

195.5 -204.1 Sandstone, fine grained, brown, micaceous, interlaminated sand mica and carbonaceous material 198.1-198.6 approximately horizontal here; 200.9-201.2 approximately 70° from core axis here; and 201.5-201.6 approximately 80° from core axis; micaceous parting 202.0 approximately 80° from core axis; sand appears water wet and oozes no free oil
 204.1 -206.7 Limestone light grey; sandy lime 204.5-204.8 top and bottom contacts horizontal sand inclusion 205.1-205.7 1/2" thick interlaminated sand & lime approximately 70° from core axis 205.5-206; slight oil ooze here

206.7 - 209.6 Sandstone, fine grained, brown, micaceous, approximately
 205.0 - 208.6 8" core loss between 208 and 209; vertical frac (209.6-
 208 ?); sand laminated with mica and carbonaceous material
 208?-209.6; interval appears water saturated; pit show
slight rainbow

CORE #2 212-232.6

212 - 214.2 Limestone light grey, sandy lime (212.5-212.9) and 213.1-
 214.2; slight oil ooze (212.5-213.3)
 214.2-232 Sandstone, fine grained brown and dark grey; sand becomes
 212.2-230 asphaltic below 219.3; shaley sand 213.9-224.2, 228.8-229.3
 large limestone inclusion 226.8-227.0; shale pebbles 228.6-
 228.8; possible vertical frac 232.0-232.6; interval oozes
no free oil and appears to be water saturated; pit show
unchanged; some oil over weekend noticeable

CORE #3 232.6-253.4

232.6-245.6 Sandstone, fine grained, grey and black; sand is calcareous
 232.6 approximately 240.4; shaley sand 234.5-235.2; dark
 asphaltic sand 240.4-245.5; coal seams $\frac{1}{4}$ " thick 244.9
 approximately 80° from core axis; $\frac{3}{8}$ " 245.1 approximately
 65° from core axis; 1" 245.2-245.3 approximately horizontal;
 shale pebbles 245.3-245.5 1" by $\frac{1}{2}$ "; shale pebble 235.1 $\frac{1}{2}$ " by
 $\frac{1}{2}$ "; interval oozes no free oil and appears water saturated
throughout
 245.6-253.4 Shale grey and dark grey; sandy shale 247.3-247.5, 249.5-
 250.2, 251.7-252.9; interlaminated grey and dark grey
 shale (247.5-248), and 248.3-249.5, and 250.7-251.7;
 bedding planes range from 80° from core axis to nearly
 horizontal
 252 - 260 Sandstone, fine grained, grey, very carbonaceous 95%; shale
 grey 5%; U. V. - poor show without fluid good with
 260 - 270 Sandstone, grey and tan, micaceous and carbonaceous 100%;
U. V. - poor show
 * 270 - 280 Sandstone, fine-medium grained micaceous and carbonaceous
carbonate cementing 85%; shale, grey, silty 15%; U. V. -
good show
 280 - 290 Shale, dark grey, very calcareous 40%; coal fragments local
 replacement by pyrite 30%; shale, grey 30%
 290 - 300 Shale, grey green 55%; shale, dark grey, calcareous 40%;
 shale, light grey 5%