

CORE ANALYSIS REPORT
FOR
SOUTHERN NATURAL GAS COMPANY
DR. D. B. MC RAE NO. 1 WELL
WILDCAT
WHEELER COUNTY, GEORGIA



Core #5 1880'-1900'

Type Barrel: Christensen Rubber Sleeve
Recovery: 20'
Description:

20' Shale, grey, hard, non-swelling, micaceous, calcareous
w/thin lime stks, sandy & becoming sandier in bottom 6-8.

Core #6 2000'-2020'

Type Barrel: Christensen Rubber Sleeve
Recovery: 0
Description:

Broken Core Catcher. Cut like shale.

Core #7 2020'-2040'

Type Barrel: Christensen Rubber Sleeve
Recovery: 12½'
Description:

5½' NR
12½' Shale, grey, hard, sandy, calcareous
2' NR

Core #8 2054'-2076'

Type Barrel: Christensen Conventional
Recovery: 21½'
Description:

19' Shale, grey, hard, sandy, micaceous, calcareous
w/lime stks.
2½' Sand, grey, soft, fg/vfg, v. shly, vlmly, micaceous, occ.
pyrite particle.

Core #9 2074'-2083'

Type Barrel: Christensen Conventional
Recovery: 2'
Description:

2' Sand, grey, hard, f/mgr, v. shly, vlmly, glauconitic.

Core #10 2083'-2125'

Type Barrel: Christensen Conventional
Recovery: 36'
Description:

36' Sand, grey, f/mgr., hard to mod. soft, v. shly, v. silty,
vlmly, w/sh. & lime stks.

Core #11 2125'-2182'

Type Barrel: Christensen Conventional

Recovery: 57'

Description:

- 2½' Sand, grey, soft but consolidated, f gr, v. shly, v. slty, vlmy.
- 3' Shale, grey, hd., silty, calcareous
- 13' Sand, grey, hd, vlmy, w/sh, stks
- 10' Sand, grey, soft but consolidated, f/mgr., v. shly, silty, limey w/icc, tgub (up to 6") lignitic lime stk, foss.
- 8' Shale, grey, hard, some ringtail, foss., calcareous w/occ. lime stk.
- 4' Sand, hard, vlmy, shly w/occ. thin shale stk.
- 6' alt. sand, grey, soft, f gr., v. shly, calc., and shale grey, hard, silty, calcareous
- 2' Shale, grey, soft, sandy, calcareous
- 2½' Sand, grey, hard, v. calc., shly
- 6' alt. sd, grey, soft, fgr, v. shly, calc., and shale, grey, soft, sdy, calc.

Core #12 2182'-2240'

Type Barrel: Christensen Conventional

Recovery: 8'

Description:

- 1' Sand, grey, fgr, v. shly, v. slty, calc.
- 7' Lime, quartzitic, foss., w/lignite inclusions

Barrel malfunction

Core #13 2240'-2245'

Type Barrel: Christensen Conventional

Recovery: 0. Barrel malfunction

Core #14 2245'-2278'

Type Barrel: Christensen Conventional

Recovery: 12'

Description:

- 9' Lime, quartzitic, foss., w/lignite inclusions
- 2' Shale, grey, firm, sandy, calcareous
- 1' Sand, grey, fgr, soft, v shly, calcareous

Core #15 2720'-2740'

Type Barrel: Christensen Rubber Sleeve

Recovery: 18'

Description:

- 15' Shale, green, soft to firm, micaceous, non calcareous, non swelling, fissle.
- 3' Shale, grey, soft to firm, micaceous, non calcareous, sandy.

Core #16 2740'-2760'

Type Barrel: Christensen Rubber Sleeve

Recovery: 15'

Description:

- 1' 2" Sand, grey, fgr., soft, sl shly w/sh inclusions, non calc., micaceous
 - 1' Sand, as above but shaley
 - 1' 2" Shale, grey, hard, non calc.
 - 1' 4" Shale, grey, hard, non calc, sandy.
 - 1' 4" Alt. sand, grey, fgr., soft, v. shly, non calc, micaceous, and shale, grey, hard, sandy, non calc.
 - 3' 6" Sand, grey, fgr, soft v. shly, non calc., micaceous
 - 2' 3" Alt. Sand, as above, and shale, grey, hd, sandy, non calc.
 - 4' 3" Shale, grey, firm to soft, non calc., but w/occ. thin lime stk.
- Sleeve parted, Core in inner barrel uncovered.

Core #17 2760'-2780'

Type Barrel: Christensen Rubber Sleeve

Recovery: 5'

Description:

- 3' NR
- 1' Sand, grey, fgr, soft, sl. shly w/shale inclusions, micaceous, non calc.
- 3' NR
- 2' Shale, grey, hard, fissle wv thin sd laminae, non calc.
- 1½' NR
- 2' Shale, as above, w'stks of sand, grey fgr, soft, sl. shly, micaceous, non calc.
- 7½' NR

Core #18 2780'-2800'

Type Barrel: Christensen Rubber Sleeve

Recovery: 8½'

Description:

- 2½' NR (Few broken pieces of shale, grey, hard, w/sd stks.)
- 2½' Shale, grey, non calc., sdy in top, fissle in bottom.
- 1' NR
- 6' Shale, grey, hard, v. foss., sli calc. in top 2', sdy in bottom ft.
- 8' NR. (Soft, shale cut mud in bottom foot.)

Core #19 2800'-2820'

Type Barrel: Christensen Rubber Sleeve

Recovery: 15'

Description:

- 2½' NR (Two small pieces shale, grey, hard, few dark pors. carbonaceous stks, non calc.)
- 9' Shale, grey, hard, non foss., limey in top foot, sandy, and non calc. in the other 7½', becoming sandier in the bottom foot. (One 8" section NR)

8" NR
2' Shale, grey, soft, sli. sdy, non calc.
5' 10" Shale, grey, firm, calc. w/occ. lime stk. (Three NR sections of 8", 3", 3" on bottom)

Core #20 2820'-2840'

Type Barrel: Christensen Rubber Sleeve

Recovery: 18' 4"

Description:

5' Shale, grey, v. slty w/thin sd laminae, sli calc., micaceous, non foss.
2' Shale, grey, soft, fissle, foss., non calc. (8" NR)
4' Shale, grey hard, slty, non foss., calc. sli, micaceous
6 $\frac{1}{2}$ ' Shale, grey, hard, sandy, limey w/occ. lime streak, foss.
1' NR
1 $\frac{1}{2}$ ' Shale, grey, hard, v slty, v limey

Core #21 2840'-2860'

Type Barrel: Christensen Rubber Sleeve

Recovery: 19'

Description:

16' Shale, grey, hard v. slty, sli. calc. w/occ. lime pebble, sli. micaceous.
1' Shale, grey laminated, slty, non calc, sli micaceous.
2' Shale, grey, hard, v. slty, calc., foss., sandier than previous 17'
1' NR

Core #22 2860'-2880'

Type Barrel: Christensen Rubber Sleeve

Recovery: 8'

Description:

2' 10" Shale, grey, hard, micaceous, sli. calc.
4' 4" Shale, grey, hard, sdy, calc.
10" Sand, grey, f/vfg, unconsol., shly.
12' NR

Core #23 2880'-2900'

Type Barrel: Christensen Rubber Sleeve

Recovery: 4 $\frac{1}{2}$ '

Description:

12 $\frac{1}{2}$ ' NR
4' Alt Sand, grey, f/mgr, unconsol., v. shly, micaceous, and shale, grey, hard, laminated, brittle.
3' NR

(Cuttings 2850-2880 Shale, some sd. No cuttings 2880-2900)

Core #24 2900'-2920'

Type Barrel: Christensen Rubber Sleeve

Recovery: 15 $\frac{1}{2}$ '

Description:

4 $\frac{1}{2}$ ' NR
15 $\frac{1}{2}$ ' Shale, green, brittle, non calc, becoming sandy in bottom 3'

Core #25 3435'-3455'

Type Barrel: Christensen Rubber Sleeve

Recovery: 14½'

Description:

2-¾' RN
3' Sand, f/vfg, shly, soft, unconsol, grey in top grading into reddish in bottom, non calc, micaceous.
1' Sand f/vfg, soft, unconsol. reddish, shly, non calc, micaceous
2½' Shale, red, soft, v sdy, micaceous, pyritic, grading into sand, red, v shly, non calc.
7½' Shale, v. sdy to sand, v. shly, red, firm, non calc.
1½' Shale, red, sdy, gummy
2-¾' NR

Core #26 3455'-3469'

Type Barrel: Christensen Rubber Sleeve

Recovery: 8½'

Description:

2½' NR (8" sand, grey, f/vfg, shly)
3' Sand, grey and red, f/vfg, shly, non calc, w/vertically interbedded shale, red, non calc.
2' NR (6" Sand, grey, fgr, micaceous, unconsol. non calc.)
4½' Sand, f/mgr, grey & red, v. shly, unconsol., non calc.
2' NR



G. A. Mistrot

GAM/ms

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